Appendix AQ-1
Air Quality Regulatory Framework

AIR QUALITY
Regulatory Framework

Regulatory programs have been established at the national, state, and local levels to address air quality. These programs are intended to protect air quality in areas of attainment and to improve air quality in areas where pollutant concentrations exceed health-based criteria. Air quality regulatory programs characterize the concentration of pollutants within their area of jurisdiction, and implement emissions limitations for stationary sources and other mitigation measures necessary to achieve or maintain healthy air quality.

Federal

Clean Air Act

National Ambient Air Quality Standards

The federal Clea Air Act (CAA) was enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990.[1] The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare.[2] The United States Environmental Protection Agency (USEPA) is responsible for the implementation and enforcement of the CAA, which establishes federal National Ambient Air Quality Standards (NAAQS), specifies future dates for achieving compliance, and requires USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).[3,4]

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. The NAAQS were amended in July 1997 to include an 8-hour standard for ozone and

1 42 United States Code §7401 et seq. (1970).

2 USEPA, Summary of the Clean Air Act, last updated September 6, 2023. https://www.epa.gov/laws-regulations/summary-clean-air-act. Accessed October 2023.

3 USEPA, Clean Air Act Overview, Clean Air Act Table of Contents by Title, last updated May 2, 2023. https://www.epa.gov/clean-air-act-overview/clean-air-act-text. Accessed October 2023. As shown therein, Title I addresses nonattainment areas and Title II addresses mobile sources.

4 Mobile sources include on-road vehicles (e.g. cars, buses, motorcycles) and non-road vehicles e.g. aircraft, trains, construction equipment). Stationary sources are comprised of both point and area sources. Point sources are stationary facilities that emit large amount of pollutants (e.g. municipal waste incinerators, power plants). Area sources are smaller stationary sources that alone are not large emitters, but combined can account for large amounts of pollutants (e.g. consumer products, residential heating, dry cleaners).

to adopt a NAAQS for PM2.5. The NAAQS were also amended in September 2006 to include an established methodology for calculating PM2.5, as well as to revoke the annual PM10 threshold. **Table 1**, *Ambient Air Quality Standards*, shows the NAAQS currently in effect for each criteria pollutant. The NAAQS and the California Ambient Air Quality Standards (CAAQS) for the California criteria air pollutants (discussed below) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including against decreased visibility and damage to animals, crops, vegetation, and buildings.[5]

The six criteria pollutants are ground-level ozone (O_3); particulate matter, including coarse particulate matter (PM10) and fine particulate matter (PM2.5); nitrogen dioxide (NO_2); carbon monoxide (CO); sulfur dioxide (SO_2); and lead (Pb). O_3 is not directly emitted into the air but rather forms in the atmosphere through chemical and photochemical reactions of reactive organic gases (ROG) and nitrogen oxides (NOx). Therefore, O_3 is indirectly controlled through limits on emissions of ROG and NOx.

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. The six criteria pollutants are ground-level ozone (O_3); particulate matter, including coarse particulate matter (PM10) and fine particulate matter (PM2.5); nitrogen dioxide (NO_2); carbon monoxide (CO); sulfur dioxide (SO_2); and lead (Pb). O_3 is not directly emitted into the air but rather forms in the atmosphere through chemical and photochemical reactions of reactive organic gases (ROG), also known as volatile organic compounds (VOCs), and nitrogen oxides (NOx). Therefore, O_3 is indirectly controlled through limits on emissions of ROG/VOCs and NOx. A brief description of the health effects of these criteria air pollutants are provided below.

Ozone (O_3): Ozone is a secondary pollutant formed by the chemical reaction of VOCs and nitrogen oxides (NO_X) in the presence of sunlight under favorable meteorological conditions, such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. According to the USEPA, ozone can cause the muscles in the airways to constrict potentially leading to wheezing and shortness of breath.[6] Ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when

5 USEPA, NAAQS Table, https://www.epa.gov/criteria-air-pollutants/naaqs-table, last updated March 15, 2023. Accessed September 2023.

6 United States Environmental Protection Agency (USEPA), Health Effects of Ozone Pollution, https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution, last updated May 24, 2023. Accessed September 2023.

TABLE 1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	California Standard
Ozone (O_3)	8-hour	0.070 ppm[(1)]	0.070 ppm
	1-hour	--	0.09 ppm
Nitrogen Dioxide (NO_2)	1-hour	100 ppb (0.100 ppm)	0.18 ppm
	Annual Mean	53 ppb[(2)] (0.053 ppm)	0.030 ppm
Carbon Monoxide (CO)	8-hour	9 ppm	9 ppm
	1-hour	35 ppm	20 ppm
Sulfur Dioxide (SO_2)	3-hour (secondary)	0.5 ppm	
	1-hour (primary)	75 ppb[(3)] (0.75 ppm)	0.25 ppm
	Annual Mean	30 ppb (0.030 ppm)	--
PM10	24-hour	150 µg/m^3	50 µg/m^3
	Annual Mean	--	20 µg/m^3
PM2.5	24-hour	35 µg/m^3	--
	Annual Mean	12 µg/m^3	12 µg/m^3
Lead	30-day average	==	1.5 µg/m^3
	3-month average	0.15 µg/m^3 [(4)]	--
Visibility Reducing Particles	8-hour	No Federal Standards	Extinction coefficient of 0.23 per kilometer — visibility of 10 miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent.
Sulfates (SO_4)	24-hour		25 µg/m^3
Hydrogen Sulfide (H_2S)	1-hour		0.03 ppm
Vinyl Chloride	24-hour		0.01 ppm

NOTES:

-- No Standard

[(1)] Final rule was signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O_3 standards.

[(2)] The level of the annual NO_2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

[(3)] The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO_2 standards or is not meeting the requirements of a SIP call under the previous SO_2 standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

[(4)] In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.

SOURCE: USEPA, NAAQS Table, last updated March 15, 2023. https://www.epa.gov/criteria-air-pollutants/naaqs-table#1. Accessed October 2023. CARB, California Ambient Air Quality Standards. https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed October 2023.

the symptoms have disappeared; and cause chronic obstructive pulmonary disease.[7] Long-term exposure to ozone is linked to aggravation of asthma, and is likely to be one of many causes of asthma development and long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children.[8] According to the California Air Resource Board (CARB), inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath.[9] The USEPA states that people most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers.[10] Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure.[11] According to CARB, studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engaged in vigorous activities compared to adults.[12] Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults and are less likely than adults to notice their own symptoms and avoid harmful exposures.[13] Further research may be able to better distinguish between health effects in children and adults.[14]

Volatile Organic Compounds (VOCs): VOCs are organic chemical compounds of carbon and are not "criteria" pollutants themselves; however, they contribute with NO_X to form ozone, and are regulated to prevent the formation of ozone.[15] According to CARB, some VOCs are highly reactive and play a critical role in the formation of ozone, other VOCs have adverse health effects, and in some cases, VOCs can be both highly reactive and have adverse health effects.[16] VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids, internal combustion associated with motor vehicle usage, and consumer products (e.g., architectural coatings, etc.).[17]

Nitrogen Dioxide (NO_2) and Nitrogen Oxides (NO_X): NO_X is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include NO_2 and nitric oxide (NO). Ambient air quality standards have been promulgated for

7 USEPA, Health Effects of Ozone Pollution.

8 USEPA, Health Effects of Ozone Pollution.

9 California Air Resources Board (CARB), Ozone & Health, Health Effects of Ozone, https://ww2.arb.ca.gov/resources/ozone-and-health. Accessed September 2023.

10 USEPA, Health Effects of Ozone Pollution.

11 USEPA, Health Effects of Ozone Pollution.

12 CARB, Ozone & Health, Health Effects of Ozone.

13 CARB, Ozone & Health, Health Effects of Ozone.

14 CARB, Ozone & Health, Health Effects of Ozone.

15 USEPA, Technical Overview of Volatile Organic Compounds, https://www.epa.gov/indoor-air-quality-iaq/technical-overview-volatile-organic-compounds, last updated March 14, 2023. Accessed September 2023.

16 CARB, Review of the California Ambient Air Quality Standard for Ozone Volume II of IV Chapters 3-8, Staff Report Initial Statement of Reasons for Proposed Rulemaking, March 11. 2005. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ww2.arb.ca.gov/sites/default/files/barcu/regact/ozone05/isorv2.pdf. Accessed September 2023.

17 USEPA, What are volatile organic compounds (VOCs)?, last updated March 15, 2023. https://www.epa.gov/indoor-air-quality-iaq/what-are-volatile-organic-compounds-vocs. Accessed September 2023.

NO_2, which is a reddish-brown, reactive gas.[18] The principle form of NO_X produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO_2, creating the mixture of NO and NO_2 referred to as NO_X.[19] Major sources of NO_X include emissions from cars, trucks and buses, power plants, and off-road equipment.[20] The terms NO_X and NO_2 are sometimes used interchangeably. However, the term NO_X is typically used when discussing emissions, usually from combustion-related activities, and the term NO_2 is typically used when discussing ambient air quality standards. Where NO_X emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all NO_X emissions would oxidize in the atmosphere to form NO_2. According to the USEPA, short-term exposures to NO_2 can potentially aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), hospital admissions and visits to emergency rooms while longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections.[21] According to CARB, controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics.[22] In addition, a number of epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses.[23] Infants and children are particularly at risk from exposure to NO_2 because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.[24] CARB states that much of the information on distribution in air, human exposure and dose, and health effects is specifically for NO_2 and there is only limited information for NO and NO_X, as well as large uncertainty in relating health effects to NO or NO_X exposure.[25]

Carbon Monoxide (CO): CO is primarily emitted from combustion processes and motor vehicles due to the incomplete combustion of fuel, such as natural gas, gasoline, or wood, with the majority of outdoor CO emissions from mobile sources.[26] According to the USEPA, breathing air with a high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain and at very high levels, which are possible indoors or in other enclosed environments, CO can cause dizziness, confusion, unconsciousness and death.[27] Very high levels of CO are not likely to occur outdoors; however,

18 CARB, Nitrogen Dioxide & Health, https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health. Accessed September 2023.

19 CARB, Nitrogen Dioxide & Health.

20 USEPA, Nitrogen Dioxide (NO_2) Pollution, https://www.epa.gov/no2-pollution/basic-information-about-no2, last updated July 25, 2023. Accessed September 2023.

21 USEPA, Nitrogen Dioxide (NO_2) Pollution.

22 CARB, Nitrogen Dioxide & Health.

23 CARB, Nitrogen Dioxide & Health.

24 CARB, Nitrogen Dioxide & Health.

25 CARB, Nitrogen Dioxide & Health.

26 CARB, Carbon Monoxide & Health, https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health. Accessed September 2023.

27 USEPA, Carbon Monoxide (CO) Pollution in Outdoor Air, https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution, last updated July 13, 2023. Accessed September 2023.

when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease since these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress.[28] In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina.[29] According to CARB, the most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain.[30] For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress; inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance.[31] Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO.[32]

Sulfur Dioxide (SO_2): According to the USEPA, the largest source of SO_2 emissions in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities while smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content.[33] In 2006, California phased-in the ultra-low-sulfur diesel regulation limiting vehicle diesel fuel to a sulfur content not exceeding 15 parts per million, down from the previous requirement of 500 parts per million, substantially reducing emissions of sulfur from diesel combustion.[34] According to the USEPA, short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult.[35] According to CARB, health effects at levels near the State one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity and exposure at elevated levels of SO_2 (above 1 part per million (ppm)) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.[36] Children, the elderly, and those with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of SO_2.[37,38]

28 USEPA, Carbon Monoxide (CO) Pollution in Outdoor Air.

29 USEPA, Carbon Monoxide (CO) Pollution in Outdoor Air.

30 CARB, Carbon Monoxide & Health.

31 CARB, Carbon Monoxide & Health.

32 CARB, Carbon Monoxide & Health.

33 USEPA, Sulfur Dioxide (SO_2) Pollution, https://www.epa.gov/so2-pollution/sulfur-dioxide-basics, last updated February 16, 2023. Accessed September 2023.

34 CARB, Final Regulation Order, Amendments to the California Diesel Fuel Regulations, Amend Section 2281, Title 13, California Code of Regulations, https://www.arb.ca.gov/regact/ulsd2003/fro2.pdf, approved July 15, 2004. Accessed September 2023.

35 USEPA, Sulfur Dioxide (SO_2) Pollution.

36 CARB, Sulfur Dioxide & Health, https://ww2.arb.ca.gov/resources/sulfur-dioxide-and-health. Accessed September 2023

37 CARB, Sulfur Dioxide & Health.

38 USEPA, Sulfur Dioxide (SO_2) Pollution.

Particulate Matter (PM10 and PM2.5): Particulate matter air pollution is a mixture of solid particles and liquid droplets found in the air.[39] Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye while other particles are so small they can only be detected using an electron microscope.[40] Particles are defined by their diameter for air quality regulatory purposes: inhalable particles with diameters that are generally 10 micrometers and smaller (PM10); and fine inhalable particles with diameters that are generally 2.5 micrometers and smaller (PM2.5).[41] Thus, PM2.5 comprises a portion or a subset of PM10. Sources of PM10 emissions include dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, and wind-blown dust from open lands.[42] Sources of PM2.5 emissions include combustion of gasoline, oil, diesel fuel, or wood.[43] PM10 and PM2.5 may be either directly emitted from sources (primary particles) or formed in the atmosphere through chemical reactions of gases (secondary particles) such as SO_2, NO_X, and certain organic compounds.[44] According to CARB, both PM10 and PM2.5 can be inhaled, with some depositing throughout the airways; PM10 is more likely to deposit on the surfaces of the larger airways of the upper region of the lung while PM2.5 is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation.[45] Short-term (up to 24 hours duration) exposure to PM10 has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits.[46] The effects of long-term (months or years) exposure to PM10 are less clear, although studies suggest a link between long-term PM10 exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer.[47] Short-term exposure to PM2.5 has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days and long-term exposure to PM2.5 has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.[48] According to CARB, populations most likely to experience adverse health effects with exposure to PM10 and PM2.5 include older adults with chronic heart or lung disease, children, and asthmatics and children and infants are more susceptible to harm from inhaling pollutants such as PM10 and PM2.5 compared to healthy adults because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems.[49]

39 USEPA, Particulate Matter (PM) Pollution, https://www.epa.gov/pm-pollution/particulate-matter-pm-basics, last updated July 11, 2023. Accessed September 2023.

40 USEPA, Particulate Matter (PM) Pollution.

41 USEPA, Particulate Matter (PM) Pollution.

42 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10), https://www.arb.ca.gov/research/aaqs/common-pollutants/pm/pm.htm. Accessed September 2023.

43 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10).

44 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10).

45 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10).

46 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10).

47 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10).

48 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10).

49 CARB, Inhalable Particulate Matter and Health (PM2.5 and PM10).

Lead (Pb): Major sources of lead emissions include ore and metals processing, piston-engine aircraft operating on leaded aviation fuel, waste incinerators, utilities, and lead-acid battery manufacturers.[50] In the past, leaded gasoline was a major source of lead emissions; however, the removal of lead from gasoline has resulted in a decrease of lead in the air by 98 percent between 1980 and 2014.[51] Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system, and affects the oxygen carrying capacity of blood.[52] The lead effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage.[53] Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain.[54]

Air Quality Designations

The Salton Sea Air Basin (SSAB) includes all of Imperial County and a portion of central Riverside County. Air quality conditions in the Imperial County portion of the SSAB are under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). The remainder of the SSAB is managed by the South Coast Air Quality Management District (SCAQMD). The ICAPCD and SCAQMD are required to monitor air pollutant levels to ensure that air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the local air basin is classified as being in "attainment" or "non-attainment." **Table 2**, *Attainment Status – Imperial Valley Portion of the Salton Sea Air Basin*, shows the attainment status of the Imperial Valley portion of the SSAB for each criteria pollutant. The Imperial Valley portion of the SSAB is currently a marginal nonattainment area for ozone, and a moderate nonattainment area for PM2.5. **Table 3**, *Attainment Status – Riverside County/Coachella Valley Portion of the Salton Sea Air Basin*, shows the attainment status of the Riverside County/Coachella Valley portion of the SSAB for each criteria pollutant. The Riverside County/Coachella Valley portion is currently a severe-15 nonattainment area for ozone and serious nonattainment area for PM10.

USEPA Exceptional Event Rule

Because of its extremely dry climate and vast areas of undeveloped desert land, PM10 concentrations in Imperial County and the Coachella Valley are dominated by fugitive dust emissions. The primary sources of high PM10 concentrations in Imperial County are: (1) soil disturbance caused by wind and human activity, (2) transport of high PM10 concentrations from Mexicali, Mexico, and (3) occasionally, wildfires. High PM10 concentrations caused by uncontrollable natural events such as high winds and wildfires may qualify as "Exceptional Events"

50 USEPA, Lead Air Pollution, https://www.epa.gov/lead-air-pollution/basic-information-about-lead-air-pollution, last updated July 5, 2023. Accessed September 2023.
51 USEPA, Lead Air Pollution.
52 USEPA, Lead Air Pollution.
53 CARB, Lead & Health, https://ww2.arb.ca.gov/resources/lead-and-health. Accessed September 2023.
54 CARB, Lead & Health.

TABLE 2
ATTAINMENT STATUS – IMPERIAL VALLEY PORTON OF THE SALTON SEA AIR BASIN

Pollutant	National Standards (NAAQS)	California Standards (CAAQS)
O_3 (1-hour standard)	N/A [a]	Nonattainment
O_3 (8-hour standard)	Nonattainment – Marginal	Nonattainment
CO	Unclassified/Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
PM10	Attainment	Nonattainment
PM2.5	Non-attainment – Moderate	Attainment
Lead (Pb)	Unclassified/Attainment	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride [b]	N/A	N/A

NOTES:
N/A = not applicable

[a] The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

[b] In 1990, the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

SOURCE: USEPA, The Green Book Non-Attainment Areas for Criteria Pollutants, https://www.epa.gov/green-book; CARB, Area Designations Maps/State and National, https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed October 2023.

TABLE 3
ATTAINMENT STATUS – RIVERSIDE COUNTY/COACHELLA VALLEY PORTON OF THE SALTON SEA AIR BASIN

Pollutant	National Standards (NAAQS)	California Standards (CAAQS)
O_3 (1-hour standard)	N/A [a]	Nonattainment
O_3 (8-hour standard)	Nonattainment – Severe-15	Nonattainment
CO	Unclassified/Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Unclassified/Attainment	Attainment
PM10	Nonattainment – Serious	Nonattainment
PM2.5	Unclassified/Attainment	Nonattainment
Lead (Pb)	Unclassified/Attainment	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride [b]	N/A	N/A

NOTES:
N/A = not applicable

[a] The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas. Coachella Valley achieved attainment on 12/31/2013.

[b] In 1990, the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

SOURCE: USEPA, The Green Book Non-Attainment Areas for Criteria Pollutants, https://www.epa.gov/green-book; CARB, Area Designations Maps/State and National, https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations. Accessed October 2023.

under current EPA rules and therefore may be excluded from compliance calculations. These events must be properly documented according to the USEPA's Exceptional Event Rule guidelines. The ICAPCD and local agencies commit resources and work together to 1) identify and document potential exceptional events that may have been influenced by Salton Sea exposed playa and/or open areas in the surrounding area and 2) apply to USEPA for concurrence on the documentation in order to exclude these data in future attainment determinations.

Hazardous Air Pollutants/Toxic Air Contaminants

In addition to criteria pollutants, Title I also includes air toxics provisions which require USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112, USEPA establishes National Emission Standards for Hazardous Air Pollutants. Hazardous Air Pollutants (HAPs), also referred to as Toxic Air Contaminants (TACs) or air toxics, are air pollutants which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Due to the large number of different HAP/TAC pollutants and their generally low concentrations, it has not been possible to set air quality standards for these pollutants or to monitor their presence as a group.

Class I Federal Lands

Class 1 federal lands include areas such as national parks, national wilderness areas, and national monuments. These areas are granted special air quality protection under Section 162(a) of the CAA. The project area is not within a Class 1 area. Joshua National Park is the closest Class I Area to the Salton Sea. Agua Tibia Wilderness Area, is another Class 1 Area, located in the Cleveland National Forest about 50 miles west of the north end of the Salton Sea. Both sites are located outside of the Salton Sea Air Basin, although the Joshua Tree site is close to the Basin's northern boundary.

Title II

Title II requirements pertain to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially, and the specification requirements for cleaner burning gasoline are more stringent.

Federal General Conformity Requirements

Section 176(c)(1) of the CAA (42 USC section 7506(c)) is known as the General Conformity Rule. It prohibits the federal government from engaging in, supporting, providing financial assistance, licensing, permitting, or SIP which has been approved by the USEPA. The Conformity Rule is designed to ensure that federal actions do not impede local efforts to control air pollution and requires federal agencies to demonstrate that their actions do not undermine the approved SIP for the subject geographic area. The first step in determining whether conformity

review is required is to assess whether the activity would take place in a federal nonattainment or maintenance area, i.e., an area that does not meet the NAAQS. If the action was to occur in such an area, then it is necessary to determine whether the action would result in the emission of an air pollutant that is regulated due to the nonattainment or maintenance status of the region. In certain circumstances, the activity may be exempt.[55] If the action is not exempt, a determination must be made as to whether the emissions from the activity would exceed the *de minimis* threshold levels. If the *de minimis* threshold levels were to be met or exceeded, then a conformity review is required (40 CFR section 93.153(b)).

Prevention of Significant Deterioration/New Source Performance Standards

The CAA and amendments also include regulations intended to "prevent significant deterioration" (PSD) of air quality and to establish emissions performance standards for new stationary sources or New Source Performance Standards (NSPSs). Federal PSD and NSPS regulations generally apply to major (very large) stationary sources of emissions and would not apply to the Proposed Project or alternatives.

State

California Clean Air Act

California Ambient Air Quality Standards

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of California to achieve and maintain the CAAQS by the earliest possible date. CARB is responsible for the coordination and administration of both federal and state air pollution control programs within California including setting the CAAQS. CARB has primary responsibility for the development of California's SIP, for which it works closely with the federal government and the local air districts. The SIP is required for the state to take over implementation of the CAA from USEPA.

The CAAQS are established to protect the health of the most sensitive groups and apply to the same criteria pollutants as the CAA and also includes State-identified criteria pollutants, which are sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride.[56] CARB has primary responsibility for ensuring the implementation of the CCAA,[57] responding to the CAA planning requirements applicable to the state, and regulating emissions from motor vehicles and consumer products within the state.

Other Criteria Pollutants (California Only)

The CAAQS regulate the same criteria pollutants as the NAAQS but in addition, regulate State-identified criteria pollutants, including sulfates, hydrogen sulfide, visibility-reducing particles,

[55] The exemptions are set out in 40 CFR Section 93.153, subdivisions (c) and (d) and include activities that would result in no emissions increase or an increase in emissions that is clearly de minimis.

[56] CARB, California Ambient Air Quality Standards (CAAQS). https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed October 2023.

[57] Chapter 1568 of the Statutes of 1988 (California Clean Air Act).

and vinyl chloride.[58] According to CARB, California law continues to mandate CAAQS, although attainment of the NAAQS has precedence over attainment of the CAAQS due to federal penalties for failure to meet federal attainment deadlines.[59] California law does not require that CAAQS be met by specified dates as is the case with NAAQS. Rather, it requires incremental progress toward attainment.[60]

With respect to the State-identified criteria pollutants (i.e., sulfates, hydrogen sulfide, visibility reducing particles, and vinyl chloride), the proposed project would either not emit them (i.e., hydrogen sulfide and vinyl chloride), or they would be accounted for as part of the pollutants estimated in this analysis (i.e., sulfates and visibility reducing particles). For example, visibility reducing particles are associated with particulate matter emissions and sulfates are associated with SO_X emissions. Both particulate matter and SO_X are included in the emissions estimates for the proposed project. A description of the health effects of the State-identified criteria air pollutants is provided below.

Sulfates (SO_4^{2-}): Sulfates in the environment occur as a result of SO_2 (sulfur dioxide) being converted to SO_4^{2-} compounds in the atmosphere where sulfur is first oxidized to SO_2 during the combustion process of sulfur containing, petroleum-derived fuels (e.g., gasoline and diesel fuel).[61] Exposure to SO_4^{2-}, which are part of PM2.5, results in health effects similar to those from exposure to PM2.5 including reduced lung function, aggravated asthmatic symptoms, and increased risk of emergency department visits, hospitalizations, and death in people who have chronic heart or lung diseases.[62] Population groups with higher risks of experiencing adverse health effects with exposure to SO_4^{2-} include children, asthmatics, and older adults who have chronic heart or lung diseases.[63]

Hydrogen Sulfide (H_2S): H_2S is a colorless gas with a strong odor of rotten eggs. The most common sources of H_2S emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. Industrial sources of H_2S include petrochemical plants and kraft paper mills. H_2S is also formed during bacterial decomposition of human and animal wastes, and is present in emissions from sewage treatment facilities and landfills.[64] Exposure to H_2S can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 ppm, which is considerably higher than the odor threshold.[65] H_2S is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level.[66] According to CARB,

58 CARB, California Ambient Air Quality Standards, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards. Accessed September 2023.

59 CARB, California Ambient Air Quality Standards.

60 CARB, California Ambient Air Quality Standards.

61 CARB, Sulfate & Health, https://ww2.arb.ca.gov/resources/sulfate-and-health. Accessed September 2023.

62 CARB, Sulfate & Health.

63 CARB, Sulfate & Health.

64 CARB, Hydrogen Sulfide & Health, https://ww2.arb.ca.gov/resources/hydrogen-sulfide-and-health. Accessed September 2023.

65 CARB, Hydrogen Sulfide & Health.

66 CARB, Hydrogen Sulfide & Health.

there are insufficient data available to determine whether or not some groups are at greater risk than others.[67]

Visibility-Reducing Particles: Visibility-reducing particles come from a variety of natural and manmade sources and can vary greatly in shape, size and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. Certain visibility-reducing particles are directly emitted to the air such as windblown dust and soot, while others are formed in the atmosphere through chemical transformations of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of particulate matter. As the number of visibility reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range.[68] Exposure to some haze-causing pollutants have been linked to adverse health impacts similar to PM10 and PM2.5 as discussed above.[69]

Vinyl Chloride: Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products and are generally emitted from industrial processes and other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.[70] Short-term health of effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans.[71] Most health data on vinyl chloride relate to carcinogenicity; thus, the people most at risk are those who have long-term exposure to elevated levels, which is more likely to occur in occupational or industrial settings; however, control methodologies applied to industrial facilities generally prevent emissions to the ambient air.[72]

Attainment Status

Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. **Tables 2 and 3**, above, provide a summary of the attainment status of the Salton Sea Air Basin Imperial Valley and Riverside County/Coachella Valley portions with respect to the state standards, respectively. The SSAB is designated as attainment for the California standards for sulfates and unclassified for hydrogen sulfide and visibility-reducing particles. The SSAB is currently in nonattainment for ozone, PM10, and PM2.5 under the CAAQS. Since vinyl chloride is a carcinogenic toxic air contaminant, CARB does not classify attainment status for this pollutant.

67 CARB, Hydrogen Sulfide & Health.

68 CARB, Visibility-Reducing Particles and Health. https://www.arb.ca.gov/research/aaqs/common-pollutants/vrp/vrp.htm. Accessed September 2023.

69 CARB, Visibility-Reducing Particles and Health.

70 CARB, Vinyl Chloride & Health, https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. Accessed September 2023.

71 CARB, Vinyl Chloride & Health.

72 CARB, Vinyl Chloride & Health.

California Air Toxics Program

The California Air Toxics Program was established in 1983, when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan. In 1993, the California Legislature amended the program to identify the 189 federal HAPs as TACs.

Local

South Coast Air Quality Management District

Air Quality Management Plans

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs), which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the Air Basin into attainment with the standards in a timely manner. The Coachella Valley is a nonattainment area for both the ozone and the PM10 NAAQS. The most current AQMP is the *2022 Air Quality Management Plan*[73], which was adopted on December 2, 2022. The goal of the 2022 AQMP is to provide a regional roadmap to help the South Coast Air Basin and Coachella Valley achieve the USEPA's NAAQS 2015 8-hour ozone standard (70 parts per billion). The SIP also requests that the Coachella Valley be classified as extreme nonattainment for the 70 ppb 8-hour ozone standard as modelling shows that it will not meet the standard by its 2032 deadline. The extreme designation will give it a deadline of 2038 and modeling demonstrates attainment in 2037.[74]

On January 26, 2023, CARB adopted Resolution 23-4, which directs the CARB Executive Officer to submit the 2022 AQMP to the USEPA for inclusion in the California SIP to be effective, for purposes of federal law, after notice and public hearing as required by Section 110(l) of the Clean Air Act and 40 Code of Federal Regulations Section 51.102 and approval by the USEPA. USEPA approval has not yet occurred.

The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP incorporates the transportation strategy and transportation control measures from the Southern California Association of Governments

[73] SCAQMD, 2022 Air Quality Management Plan, December 2, 2022. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16. Accessed October 2023.

[74] SCAQMD, 2022 Air Quality Management Plan, December 2, 2022.

(SCAG) Connect SoCal 2020 (2020-2045 *Regional Transportation Plan/Sustainable Communities Strategy* [2020-2045 RTP/SCS]).[75] SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. The RTP/SCS includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The 2022 AQMP forecasts future emissions inventories with growth based on SCAG's 2020-2045 RTP/SCS. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, state and federal levels.[76]

The SCAQMD submitted the Final PM10 Redesignation Request and Maintenance Plan for the Coachella Valley in December 2009[77]. The Coachella Valley had not violated the federal 24-hour PM10 standard (150 µg/m^3) during the period including 1998 through 2007 and was eligible for redesignation as attainment due to the annual average PM10 concentrations meeting the revoked federal standard. On February 25, 2010, CARB approved the Coachella Valley PM10 Redesignation Request and Maintenance Plan from serious non-attainment to attainment for the PM10 NAAQS under CAA Section 107. However, the Coachella Valley began exceeding threshold for PM10 shortly after the redesignation request and continues to exceed threshold today. As of October 3, 2023, the USEPA has not redesignated the PM10 classification for Coachella Valley. However, PM10 concentrations in the Coachella Valley are continually evaluated and the influence of high-wind exceptional events are routinely assessed; a redesignation to attainment of the PM10 NAAQS could be possible in the near future.[78]

Rules and Regulations

The SCAQMD has adopted many rules and regulations to regulate sources of air pollution in the SSAB and to help achieve air quality standards. The proposed project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-

75 SCAG, Final 2020-2045 RTP/SCS, Connect SoCal, adopted on September 3, 2020. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176. Accessed September 2023.

76 SCAQMD, 2022 Air Quality Management Plan, Table 3-3, 2022.

77 SCAQMD, Final PM10 Redesignation Request and Maintenance Plan for the Coachella Valley, December 2009. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ww2.arb.ca.gov/sites/default/files/classic/planning/sip/planarea/scabsip/cvmaintplan2009.pdf. Accessed October 2023.

78 SCAQMD, 2022 Air Quality Management Plan, December 2, 2022.

up/shutdown exemptions and breakdown events. The following is a list of rules which apply to the proposed project:

Rule 401 – Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringlemann Chart or of such opacity as to obscure an observer's view.

Rule 402 – Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which 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 persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403 – Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM10 emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering or using non-toxic chemical stabilizers to prevent the generation of visible dust plumes, limiting vehicle speeds to 15 miles per hour on unpaved surfaces, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by USEPA.

Rule 403.1 **– Coachella Valley Fugitive Dust Control Plans:** This rule is a supplemental rule to Rule 403 and is applicable to man-made sources of fugitive dust in Coachella Valley. The purpose of this rule is to reduce fugitive dust and resulting PM10 emissions from man-made sources in the Coachella Valley. Rule 403.1 requires a Fugitive Dust Control Plan approved by SC AQMD or an authorized local government agency prior to initiating any construction/earth-moving activity. These requirements are only applicable to construction projects with 5,000 or more square feet of surface area disturbance.

Imperial County Air Pollution Control District

Air Quality Plans

To meet NAAQS and CAAQS, the ICAPCD has adopted a series of air quality Plans which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the Air Basin into attainment with the standards in a timely manner. The Imperial Valley is a nonattainment area for ozone and PM2.5.

The USEPA approved[79], effective October 19, 2020, the 2018 Imperial County PM10 Maintenance Plan and Redesignation Request State Implementation Plan[80] which demonstrates implementation of best available control measures and a maintenance plan that includes an emissions inventory consistent with attainment, a maintenance demonstration, contingency provisions, and motor vehicle emissions budgets for use in transportation conformity determinations. The Imperial Valley Planning Area was redesignated attainment from serious nonattainment.

The 2018 State Implementation Plan for the 12 µg/m3 PM2.5 Annual Standard[81] address the annual 12.0 micrograms per cubic meter (µg/m^3) annual PM2.5 standard for the Imperial County PM2.5 nonattainment area. The nonattainment area represents a portion of Imperial County that includes the most populated area of the county, including the cities of Brawley, El Centro, and Calexico. In establishing the PM2.5 nonattainment area for Imperial County, the USEPA recognized the unique features and characteristics of the area and determined the boundaries based on multiple factors including air quality, emissions data, population, local meteorology, and geography/topography. The Calexico monitor, located next to the border with Mexico is impacted with PM2.5 emissions daily, primarily from Mexico. The 2018 PM2.5 Plan relies on a special provision in the CAA that enables states to prepare a SIP when transport of international pollution inhibits the ability to demonstrate attainment of the PM2.5 standard. The 2018 PM2.5 Plan includes a comprehensive technical analysis of these cross-border impacts, and a demonstration that the Calexico monitor would have attained the 12.0 µg/m^3 annual PM2.5 standard in 2021, absent these international emissions from Mexicali. The 2018 PM2.5 Plan also addresses Act requirements to demonstrate that appropriate local actions have been taken to reduce emissions and provide ongoing public health protection.

The 2017 State Implementation Plan for the 75 ppb 8-hour Ozone Standard[82] was adopted by CARB on October 26, 2017. In response to court decisions, some elements included in the Imperial County 2017 State Implementation Plan for the 2008 8-hour Ozone Standard required updates by CARB staff. The Updated 2018 SIP[83] was adopted on October 25, 2018. The Updated 2018 SIP demonstrates how ICAPCD will attain the 75 ppb 8-hour ozone standard absent the impact of emissions from Mexico. The 2018 SIP Update includes an updated

79 Federal Register, 85 FR 58294, PM10 Maintenance Plan and Redesignation Request; Imperial Valley Planning Area; California, September 18, 2020. https://www.federalregister.gov/documents/2020/09/18/2020-18427/pm10-maintenance-plan-and-redesignation-request-imperial-valley-planning-area-california. Accessed October 2023.

80 Imperial County Air Pollution Control District (ICAPCD), 2018 PM10 Redesignation Request and Maintenance Plan, October 23, 2018. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://apcd.imperialcounty.org/wp-content/uploads/2020/01/2018PM10PlanBoardPacket.pdf. Accessed October 2023.

81 CARB, Staff Report 2018 State Implementation Plan for the Imperial County 12 µg/m3 PM2.5 Annual Standard, May 25, 2018. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ww2.arb.ca.gov/sites/default/files/classic/planning/sip/planarea/imperial/staffreport.pdf. Accessed October 2023.

82 ICAPCD, Imperial County 2017 State Implementation Plan for the 2008 8-hour Ozone Standard, September 2017. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://apcd.imperialcounty.org/wp-content/uploads/2020/01/OzoneSIP.pdf. Accessed October 2023.

83 CARB, 2018 Updates to the California State Implementation Plan, adopted October 25, 2018. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://ww2.arb.ca.gov/sites/default/files/classic/planning/sip/2018sipupdate/2018update.pdf?_ga=2.240075459.1366959660.1696286403-1819775784.1695756119. Accessed October 2023.

reasonable further progress demonstration for Imperial County that uses a 2011 baseline year and demonstrates that Imperial County will make regional further progress attainment in 2017.

Rules and Regulations

The ICAPCD has adopted many rules and regulations to regulate sources of air pollution in the SSAB and to help achieve air quality standards. The proposed project may be subject to the following ICAPCD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which apply to the proposed project:

Rule 401 – Opacity of Emissions: This rule states that no person shall release or discharge into the atmosphere from any single source of emissions whatsoever, any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three (3) minutes in any hour which is: (B.1) as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, (B.2) of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke, and (B.3) the shade or equivalent opacity shall not exceed Ringelmann No. 2.

Rule 407 – Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which 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 persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Regulation VIII – Fugitive Dust Rules: This regulation sets forth the restrictions for fugitive dust emissions. The Rules contained within this Regulation have been developed pursuant to USEPA guidance for Serious PM2.5 nonattainment areas. The following is a list of rules which apply to the proposed project:

Rule 800 – General Requirements for Control of Fine Particulate Matter: Rule 800 contains the definitions, exemptions, general requirements, administrative requirements and test methods that are applicable to all Regulation VIII rules. Section C of Rule 800 contains the definitions that are essential to understanding each specific rule. Section F contains the general requirements that establish basic guidelines for dust control material(s), specifies requirements that the dust control material(s) must meet ICAPCD, SWRCB, CARB and EPA regulations, and contains guidelines for development of Bureau of Land Management (BLM) and Border Patrol dust control plans. Section G contains administrative requirements for test methods. Appendices A and B contain the test methods for visual determination of opacity and determination of surface stabilization, respectively. The latter contains methods for determining; visible crust strength (ball drop test), threshold friction velocity (sieve measurements to assign soil texture), surface protection from flat and standing vegetation and surface stabilization from rock armoring using the rock test method. Rule 800 requires recreational off-highway vehicle (OHV) areas to apply BACM to mitigate fugitive dust emissions. On each day of an off-road event and/or competition during which 50 average vehicle daily trips per day will occur on an unpaved road segment, the owner or operator shall limit Visible Dust Emissions (VDE) to 20 percent opacity and comply with the requirements of a stabilized unpaved road by application, reapplication, or maintenance of at least one

of the following control measures: watering; applying uniform layer of washed gravel; paving; restricting access; restricting speed below 15 mph; applying chemical or organic dust suppressants; applying "road mix;" or using any other method that can be demonstrated to effectively limit VDE to 20 percent opacity and meets the conditions of a stabilized unpaved road surface.

Rule 804 – Open Areas: Rule 804 applies within rural areas to any open area of 3 acres or more that contains at least 1000 square feet of disturbed surface area. This rule pertains to the Salton Sea because exposed playa around the Sea qualifies as open areas under this rule. Section D of the rule contains exemptions for agricultural operation sites subject to Rule 806 and recreational OHV Use Areas on public lands subject to Rule 800. Section E contains requirements to apply BACM to limit VDE to 20 percent opacity and meet conditions for stabilized surface, and to install barriers to prevent unauthorized vehicle access to stabilized areas. Section F sets forth the permissible BACM for open areas. BACM for open areas includes: (1) applying water or chemical dust suppressants to all unvegetated areas, (2) establishing vegetation on previously disturbed areas, (3) paving, applying and maintaining gravel, or applying and maintaining chemical dust suppressants and (4) implementing alternative BACM that has gone through the approval process set forth in section G.

Rule 806 – Conservation Management Practices: Rule 806 applies to all agricultural operation sites of 40 or more acres in size. This rule pertains to the Salton Sea because some exposed playa could be reclaimed for agricultural use (this occurred during previous dry periods). Section C of the rule contains definitions that are essential to understand the main terms and Conservation Management Practices (CMPs) in this rule. Section D contains requirements for agricultural operation sites to implement at least one CMP for land preparation and cultivation, harvest activities, unpaved roads and unpaved traffic areas. This section also contains guidelines for operators to develop alternative CMPs. In addition, this section requires the owner/operator to prepare a CMP plan and make it available upon request. Section E contains CMPs for land preparation and cultivation, harvesting, unpaved roads and unpaved traffic areas. Section F contains guidelines to develop a CMP plan.