

AIR QUALITY MANAGEMENT FOR CONSTRUCTION AND OPERATIONS

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PURPOSE

The Salton Sea Ecosystem Restoration Study and Programmatic Environmental Impact Report will evaluate the environmental impacts of alternatives for management of the Salton Sea ecosystem, including air quality impacts.

Significant air quality impacts may occur during both construction and operation of the project alternatives. Construction activities may result in dust from soil disturbance and increased emissions from vehicle and equipment exhaust. Exposure of lands currently submerged by the Salton Sea may result in increased dust emissions from disturbance and wind erosion. Operation of facilities, such as those used to treat or pump water, may also result in air contaminant emissions.

The types of emissions associated with each alternative are being evaluated, and emission control measures are being identified. The goal of these emission control measures is to provide “the maximum feasible attainment” of the objective stated in the enabling legislation: “elimination of air quality impacts from the restoration projects” (Senate Bill 277, Chapter 611).

The Federal Clean Air Act does not allow for a wait and see approach to air quality mitigation. Projects must be planned so that they comply with local, state, and federal regulations, and do not cause or contribute to violations of air standards. For example, General Conformity regulations require evaluation of emissions from construction and operations to insure that projects involving federal actions do not interfere with state plans to attain air quality standards.

EXISTING REGIONAL AIR QUALITY

Ambient air quality standards for several pollutants are currently not being achieved in some portions of the Salton Sea watershed.

Portions of the Salton Sea Watershed With Air Concentrations that Exceed National and California Ambient Air Quality Standards

County (or Portion of)	Carbon Monoxide	Fine Particulate Matter (PM ₁₀)	Fine Particulate Matter (PM _{2.5})	Ozone
Imperial	C	N and C		N and C
Riverside (Coachella Valley)		N and C	N	N and C
San Bernardino		N and C	N and C	N and C
San Diego		C	C	N and C

N = Ambient air concentrations exceed the National Ambient Air Quality Standards
C = Ambient air concentrations exceed the California Ambient Air Quality Standards
Source: California Air Resources Board, Area Designations, www.arb.ca.gov

The pollutants of greatest concern in the region are ozone (O₃) and the ozone precursors, nitrogen oxides (NO_x) and volatile organic compounds (VOCs), primarily from vehicle and equipment exhaust, and fine particulate matter (PM₁₀) from soil disturbance and wind erosion (fugitive dust). Agricultural operations and transport of pollutants from Mexico also affect air quality in the area.

For areas not meeting standards, the responsible air districts must prepare plans with control measures sufficient to attain national standards. The schedule for development and achievement of these plans is established by the Federal Clean Air Act.

RANGE OF ACTIONS

Based on control measures used at other sites, the following measures are being considered to control emissions from construction and operation of project elements:

- Best available control measures to mitigate emissions from construction
- Use of electricity and alternative or “clean” fuels to power equipment, where feasible
- Air quality management for exposed sea bed, or playa (see Air Quality Management for Exposed Playa Summary Sheet)

BEST MANAGEMENT PRACTICES TO MITIGATE EMISSIONS FROM CONSTRUCTION

All dust generating projects, such as construction projects, in the South Coast Air Quality Management District (SCAQMD) are subject to best available control measures (BACMs), pursuant to SCAQMD Rule 403 – Fugitive Dust. Imperial County has also recently adopted new regulations for control of particulate matter (Rule 800, et seq). In addition, best management practices such as optimal construction phasing may be required to keep emissions below significance levels.

USE OF ELECTRICITY, ALTERNATIVE FUELS, AND CLEAN EQUIPMENT

Construction equipment, such as the trucks and barges that may be needed to transport rock and other construction materials, have the potential to result in significant emissions of NO_x and PM₁₀. Lower-emitting fuels and equipment will be used to the extent feasible to reduce these emissions.

AIR QUALITY MANAGEMENT DURING CONSTRUCTION AND OPERATION

- Focus is on Oxides of Nitrogen (NO_x), as an Ozone precursor, and Particulate Matter (PM₁₀) emissions - the area is not attaining these National Ambient Air Quality Standards
- Must compare projected emissions to General Conformity *de minimis* thresholds and other applicable significance criteria established by the air districts. An example is presented below.

Significance Criteria for the Portion of the Salton Sea Watershed within the South Coast Air Quality Management District (Riverside County)

Pollutant	Emissions Threshold of Significance (lb/day) for Operation ^a	Emissions Threshold of Significance (lb/day) for Construction ^a	General Conformity (tons/yr) ^b
NO _x	55	100	50 ^c
PM ₁₀	150	150	70 ^c

^a SCAQMD Air Quality Significance Thresholds (<http://www.aqmd.gov/ceqa/hdbk.html>)

^b SCAQMD Rule 1901; 40 CFR 51, General Conformity

^c In Imperial County, the General Conformity *de minimis* threshold is 100 tons/year for NO_x, and 70 tons/year for PM₁₀

- Construction and operations impacts that would exceed significance thresholds would require mitigation and best management practices
- If General Conformity *de minimis* thresholds are exceeded, conformity with the applicable Air Quality Management Plans and State Implementation Plan MUST be demonstrated. Emissions and air quality impacts associated with the proposed alternatives would need to be reflected in these plans, or the project CANNOT proceed.
- If the goal is to stay below applicable General Conformity *de minimis* thresholds, estimated emissions from truck transport of rock material for barriers would require extension of the construction period over 15 to 25 years.
- Additional construction emissions from rock quarrying and transfer, earthwork, concrete transport and placement, equipment transfer and placement, finish work, dewatering pumps, and many other construction activities would extend construction over longer period, unless these emissions are reflected in air quality management plans.