

Air Quality Priority: Salton Sea

Purpose of Document

The purpose of this document is to summarize the Eastern Coachella Valley (ECV) Community Steering Committee (CSC) air quality concerns, and provide potential strategies and actions to address these concerns in the Community Emissions Reduction Plan (CERP). The CSC will determine the final strategies and actions proposed in the CERP. The ECV CERP will be considered for adoption by the South Coast AQMD Governing Board.

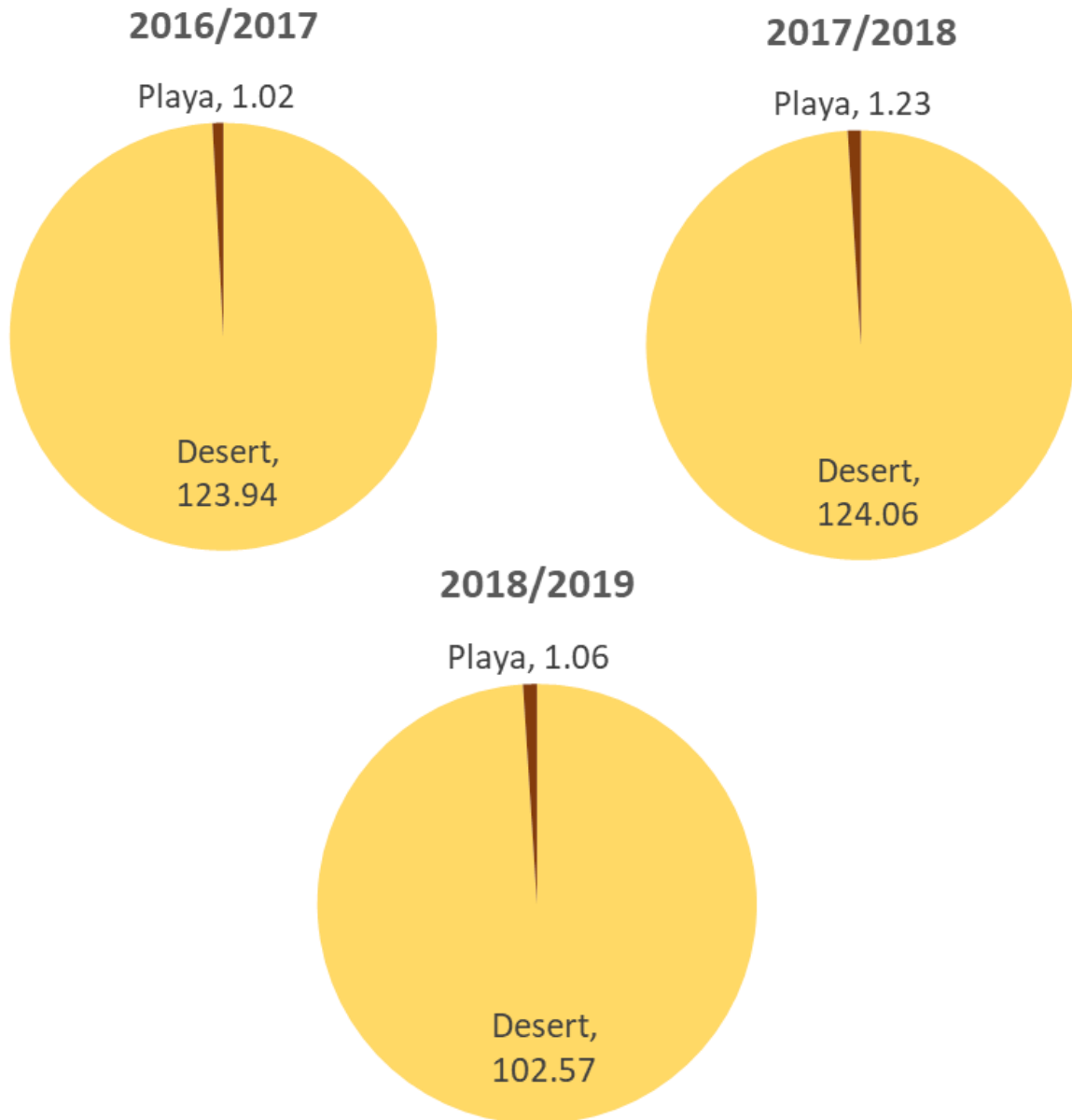
Community Concerns (CC)

The ECV CSC has expressed air quality concerns about the Salton Sea. The CSC concerns about emissions from the Salton Sea are provided below:

- CC-1 The Salton Sea is drying up due to decreased inflow of water. As the Salton Sea evaporates, its receding shoreline exposes sediments that are deposited at the bottom of the Sea, also referred to as the “playa”. The loose soil is blown off by strong gusty winds, contributing to PM10 (inhalable particulate matter) emissions that could impact air quality.
- CC-2 The soil from the playa may contain components from agricultural runoff, which could pose a risk to human health. Previous tests have detected selenium, cadmium and nickle in the playa.
- CC-3 Elevated levels of hydrogen sulfide (H₂S) occur from natural processes in the Salton Sea and cause a strong odor that causes health effects and negatively affects the quality of life in ECV.
- CC-4 CSC members would like Imperial Irrigation District (IID) and the State of California to move more quickly to develop and implement dust suppression projects around the Salton Sea.
- CC-5 CSC members experience acute health effects (e.g., headaches and nosebleeds) during windblown dust and Salton Sea H₂S odor events.
- CC-6 Additional monitoring and improvements to notification systems are needed to better understand emissions from the Salton Sea.

Salton Sea Playa Emissions Estimates

PM10 Emissions Estimates (tons/day)^{1,2,3}



¹ Data from IID's Salton Sea Air Quality Mitigation Program Annual Report and Emissions Estimates: https://saltonseaprogram.com/aqm/docs/2018_2019_Annual_Report_and_Emissions_Estimates_w_attachments.pdf

² PM emissions from the Salton Sea are expected to increase as more playa becomes exposed in future years

³ Additional information on the Salton Sea was provided at CSC meetings and workshops. Presentations on the Salton Sea, factsheets, and other handouts are posted on the ECV community website:

<http://www.aqmd.gov/nav/about/initiatives/community-efforts/environmental-justice/ab617-134/eastern-coachella-valley>

Potential Strategies and Actions to Address Salton Sea

Below are potential strategies and actions to address CSC concerns about emissions from the Salton Sea. The final strategies and actions in the proposed CERP will be determined by the CSC. The proposed CERP will be considered for adoption by the South Coast AQMD Governing Board.

Goals	Potential Strategies and Actions
Reduce emissions from the Salton Sea	<ul style="list-style-type: none"> Provide additional air quality expertise to the State for the implementation of the Salton Sea Management Program <p>Community Concern(s) addressed: CC-1, CC-2, CC-3, CC-4, CC-5, CC-6</p>
	<ul style="list-style-type: none"> Work with other agencies (e.g., IID and the State of California) to collect emissivity and dust emissions data to improve South Coast AQMD’s emissions inventory <p>Community Concern(s) addressed: CC-1, CC-5, CC-6</p>
	<ul style="list-style-type: none"> Pursue a collaborative partnership and support IID and the State of California with implementing dust suppression projects around the Salton Sea by: <ul style="list-style-type: none"> Helping to identify locations for future dust suppression projects in the ECV community; and Providing letters of support for additional funding to help expedite dust suppression projects near population centers (e.g., North Shore) in the Riverside County portion of the Salton Sea. <p>Community Concern(s) addressed: CC-1, CC-2, CC-4, CC-5, CC-6</p>
	<ul style="list-style-type: none"> Pursue a collaborative partnership with Imperial County Air Pollution Control District to address cross-jurisdictional air pollution emissions from the Sea and dust suppression projects around the Salton Sea <p>Community Concern(s) addressed: CC-1, CC-2, CC-5, CC-6</p>
	<ul style="list-style-type: none"> Conduct outreach on South Coast AQMD’s Rule 403, Rule 403.1 and conservation practices to project implementation contractors to reduce dust while dust suppression projects are being implemented <p>Community Concern(s) addressed: CC-1, CC-4, CC-5</p>
	<ul style="list-style-type: none"> Conduct outreach to community members on how to file dust complaints <p>Community Concern(s) addressed: CC-1, CC-4, CC-5</p>
Expand monitoring networks and improve notification systems	<ul style="list-style-type: none"> Expand the existing South Coast AQMD’s hydrogen sulfide (H₂S) monitoring network in ECV to: <ul style="list-style-type: none"> Provide real-time H₂S data and inform the community members about the odors they smell and where they come from, including a notification system for when ambient levels exceed the State standard Determine community impact and extent to which the odors may transport in the community and beyond <p>Community Concern(s) addressed: CC-3, CC-5, CC-6</p>
	<ul style="list-style-type: none"> Identify opportunities to expand the current South Coast AQMD’s PM₁₀ monitoring network in the ECV to: <ul style="list-style-type: none"> Provide real-time PM₁₀ and wind data and inform community members of PM₁₀ levels in ECV, where they come from, and if they exceed Federal and/or State standards

	<ul style="list-style-type: none"> ○ Gain a better understanding of dust emissions and distinguish between windblown dust from desert areas and playa dust emissions from the Salton Sea ○ Track the emission reduction progress and success of dust suppression projects <p>Community Concern(s) addressed: CC-1, CC-6</p>
	<ul style="list-style-type: none"> ● Establish baseline air monitoring to: <ul style="list-style-type: none"> ○ Characterize the chemical composition of fugitive dust emissions from different sources to help distinguish between windblown dust from desert areas and playa dust emissions from the Salton Sea ○ Track the progress of emission reduction strategies <p>Community Concern(s) addressed: CC-1, CC-6</p>
	<ul style="list-style-type: none"> ● Seek new opportunities and work with the CSC to expand low-cost sensor deployments in ECV to: <ul style="list-style-type: none"> ○ Provide real-time PM10 data ○ Supplement the PM10 monitoring network in the ECV and cover a larger area in the community ○ Co-locate low-cost sensors at monitoring stations with reference PM10 monitors and develop a systematic data calibration and correction protocol to enhance low-cost sensor PM10 data quality <p>Community Concern(s) addressed: CC-1, CC-2, CC-6</p>
	<ul style="list-style-type: none"> ● Pursue a collaborative partnership with other entities (e.g., University of California – Riverside) to support the ongoing study on soil chemical and microbiome composition of the Salton Sea playa dust samples <p>Community Concern(s) addressed: CC-1, CC-2, CC-6</p>
<p>Reduce exposure from the Salton Sea</p>	<ul style="list-style-type: none"> ● Install air filtration systems at schools and homes located near the Salton Sea to reduce odors and exposure to dust emissions <p>Community Concern(s) addressed: CC-3, CC-5</p>
	<ul style="list-style-type: none"> ● Identify funding to implement home weatherization projects near the Salton Sea <p>Community Concern(s) addressed: CC-3, CC-5</p>
	<ul style="list-style-type: none"> ● Conduct outreach in the community to inform community members on how to subscribe for alerts and how to use the South Coast AQMD app to obtain air quality information <p>Community Concern(s) addressed: CC-3, CC-5, CC-6</p>
	<ul style="list-style-type: none"> ● Pursue a collaborative partnership with community organizations to conduct outreach in the community to inform community members what to do when H2S levels surpass the California Ambient Air Quality Standard (0.3 ppm) <p>Community Concern(s) addressed: CC-1, CC-5, CC-2</p>