CAMP DISCUSSION

EASTERN COACHELLA VALLEY (ECV) CSC MEETING #11
JANUARY 21ST, 2021




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AIR MONITORING INFORMATIONAL HANDOUTS AND QUESTIONNAIRES

Community Air Monitoring Workshop: Air Quality Priority: Salton Sea

Purpose of This Document

- Summarize the Eastern Coachella Valley (ECV) Community Steering Committee (CSC) air quality concerns;
- Provide information on parts of the Community Air Monitoring Plan (CAMP) describing air monitoring strategies aimed at addressing air quality concerns at/near the Salton Sea;
- Gather feedback from the CSC

Community Concerns (CC)

The ECV CSC has expressed the following concerns regarding issues at and near the Salton Sea that may negatively impact air quality and the life of local community members:

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.

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Proposed Air Monitoring Strategies to Address Salton Sea

Below are proposed air monitoring strategies to address CSC concerns about emissions from the Salton Sea.

Goals	Proposed Air Monitoring Strategies	Current Air Monitoring Activities	Seeking CSC Input

Supplement monitoring networks and improve notification systems	• Supplement the existing South Coast AQMD's hydrogen sulfide (H2S) monitoring network in ECV up to two or three years to:
	  ○ 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
	  ○ Provide information for the evaluation of long-term H2S monitoring strategy
	
	Community Concern(s) addressed: CC-3, CC-5, CC-6
		• South Coast AQMD currently operates two H2S monitors in ECV, at the Mecca (Saul-Martinez Elementary School) and Salton Sea Near Shore monitoring stations.
		• Data is available in near real-time at:
		  ○ AB 617 Data Display Tool: http://www.aqmd.gov/ab617-data-display-tool/ecv
		  ○ Dedicated website with subscription-based notification system: https://saltonseaodor.org/
			• Are there any other monitoring purposes and objectives?
			• Input on locations
			• Input on the current notification and advisory systems
			• Input on the timeline

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Assembly Bill 617 (AB 617) Eastern Coachella Valley Community
South Coast Air Quality Management District

Input Gathering Worksheet for Air Monitoring at/near the Salton Sea

Please provide information and suggestions on potential monitoring locations for supplemental PM10 and H2S measurements for addressing potential emissions from the Salton Sea.

_____
_____
_____
_____
_____
_____

Please provide information and suggestions on potential locations for sensor deployment. Feel free to include a list of community members or organization who may be willing to host a sensor at their private residence (NOTE: each sensor will measure PM, NO2 and O3).

_____
_____
_____
_____
_____
_____

Please provide any input you may have regarding other monitoring purposes and objectives for the Salton Sea

_____
_____
_____
_____
_____
_____

Note: Information provided by you on this worksheet (including contact or other personal information) is a public record and may be released in response to a California Public Records Act request.

AIR MONITORING INFORMATIONAL HANDOUTS AND QUESTIONNAIRES

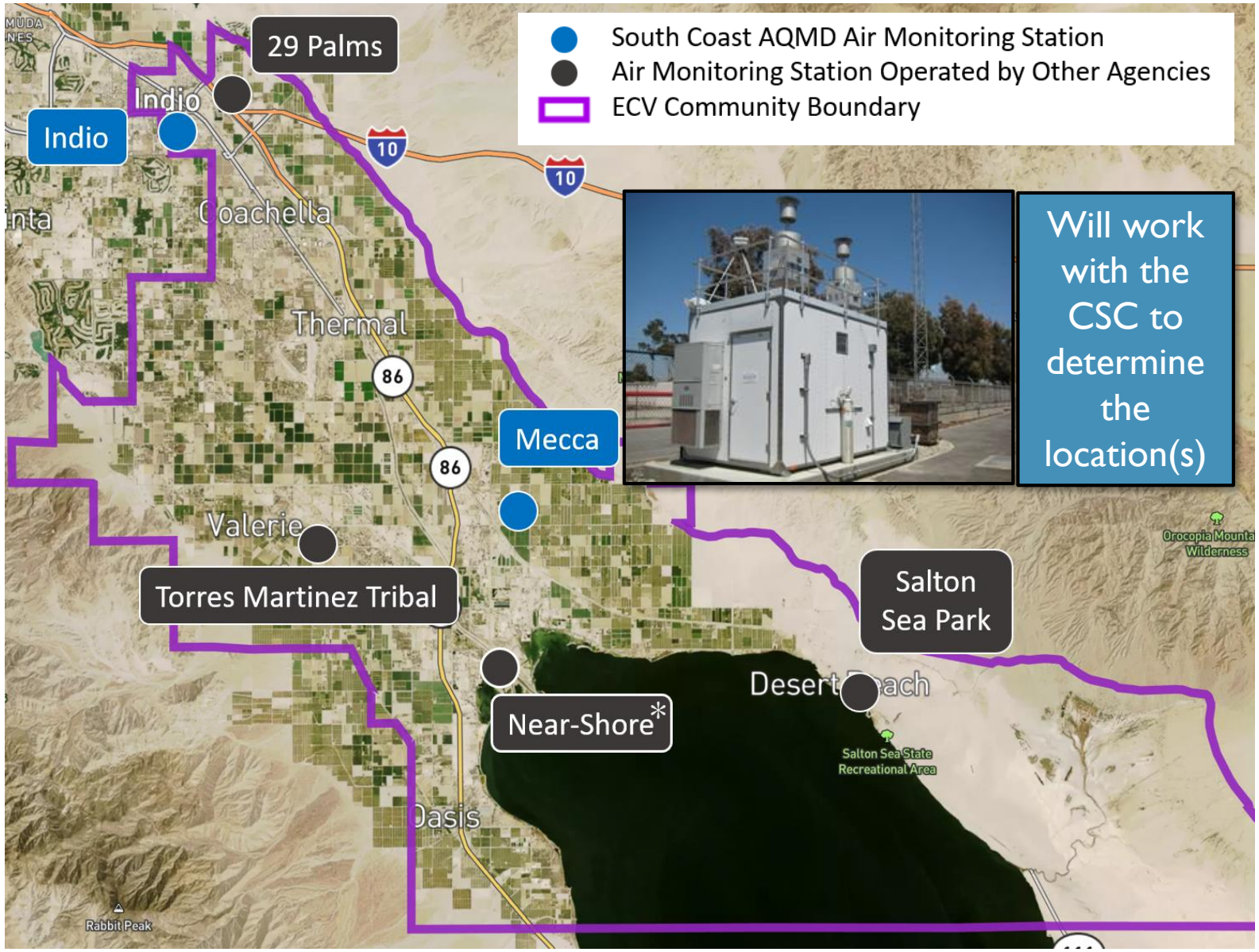
CAMP Subchapter on the Salton Sea

The Salton Sea is the largest lake in California and, as its shorelines continue to recede and expose the sediments deposited at the bottom of the Sea (also referred to as the "playa"), emissions from the Salton Sea contribute to poor air quality for ECV residents. The CSC has expressed their concerns about the Salton Sea, mainly with respect to odors caused by emissions of hydrogen sulfide (H_2S) and inhalable dust / particulate matter (PM10; particles with diameters of 10 microns or smaller). Elevated levels of H_2S result from natural processes in the Salton Sea; these can lead to strong foul odors that negatively affects the quality of life of local residents and at high levels can cause acute health effects (e.g., headaches and nosebleeds). Dust emissions from the Salton Sea occur when the playa sediments get blown off by strong gusty winds and contribute to PM10 emissions in the area, further deteriorating air quality. The CSC is also concerned that the soil from the playa may contain residuals of pesticides and other pollutants from agricultural runoff (toxic elements and metals, such as selenium (Se), cadmium (Cd), and nickel (Ni)), which can pose a risk to human health. Moreover, the CSC has conveyed that additional monitoring and improvements to notification systems are needed to better understand emissions and reduce exposure from the Salton Sea.

The main monitoring strategy to address CSC concerns regarding H_2S emissions from the Salton Sea includes supplementing the existing H_2S monitoring network in ECV to provide limited expansion to its geographical coverage and real-time H_2S data at more locations, 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. Currently, H_2S monitoring is being conducted at two fixed-site monitoring stations within the ECV community boundary; at the Mecca and Salton Sea Near-Shore air monitoring stations. A notification system for H_2S exceedances at these sites is available through "The Salton Sea Hydrogen Sulfide Monitoring" website[1]. As part of this monitoring strategy, South Coast AQMD will work with the CSC to identify opportunities to expand its air monitoring network. Continuous wind speed and wind direction data will also be collected to help better identify the location(s) for the odors. The expansion of the H_2S monitoring network will lead to covering a larger part of the ECV community and will help assess community impact and the extent to which the odors may be transported in the community and beyond.

Currently, PM10 monitoring is being conducted at six fixed monitoring stations within the ECV community boundary. Two of these sites (Mecca and Indio) are operated by the South Coast AQMD. One of these stations, Twenty-Nine Palms, has been established by a partnership between Twenty-Nine Palms Band of Mission Indians and the Cabazon Band of Mission Indians in the ECV community through an AB 617 Community Air Grant awarded by CARB to the tribes.[2] One monitoring station has been stablished by Torres-Martinez Desert Cahuilla Indians. The Salton Sea Park and Salton Sea Near-Shore monitoring stations are operated by the Imperial Irrigation District. The location of these stations is shown in Figure 7.1 and the pollutants monitored at each site is presented in Table 7.1.

[1] https://saltonseaodor.org/
[2] Twenty-Nine Palms Tribal EPA, Air Quality: https://www.29palmstribe.org/epa-air-quality



ACTION: ESTABLISH BASELINE MONITORING AND SUPPLEMENT THE EXISTING MONITORING NETWORK

H_2S
PM10
BLACK CARBON
CHEMICAL SPECIATION OF PM10

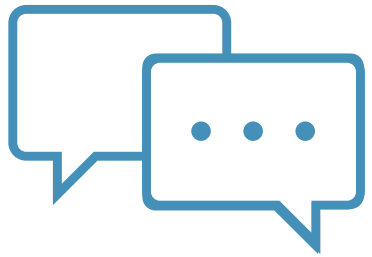
To address:
Salton Sea; Open Burning; Fugitive Road and Off-Road Dust; and Diesel Mobile Sources

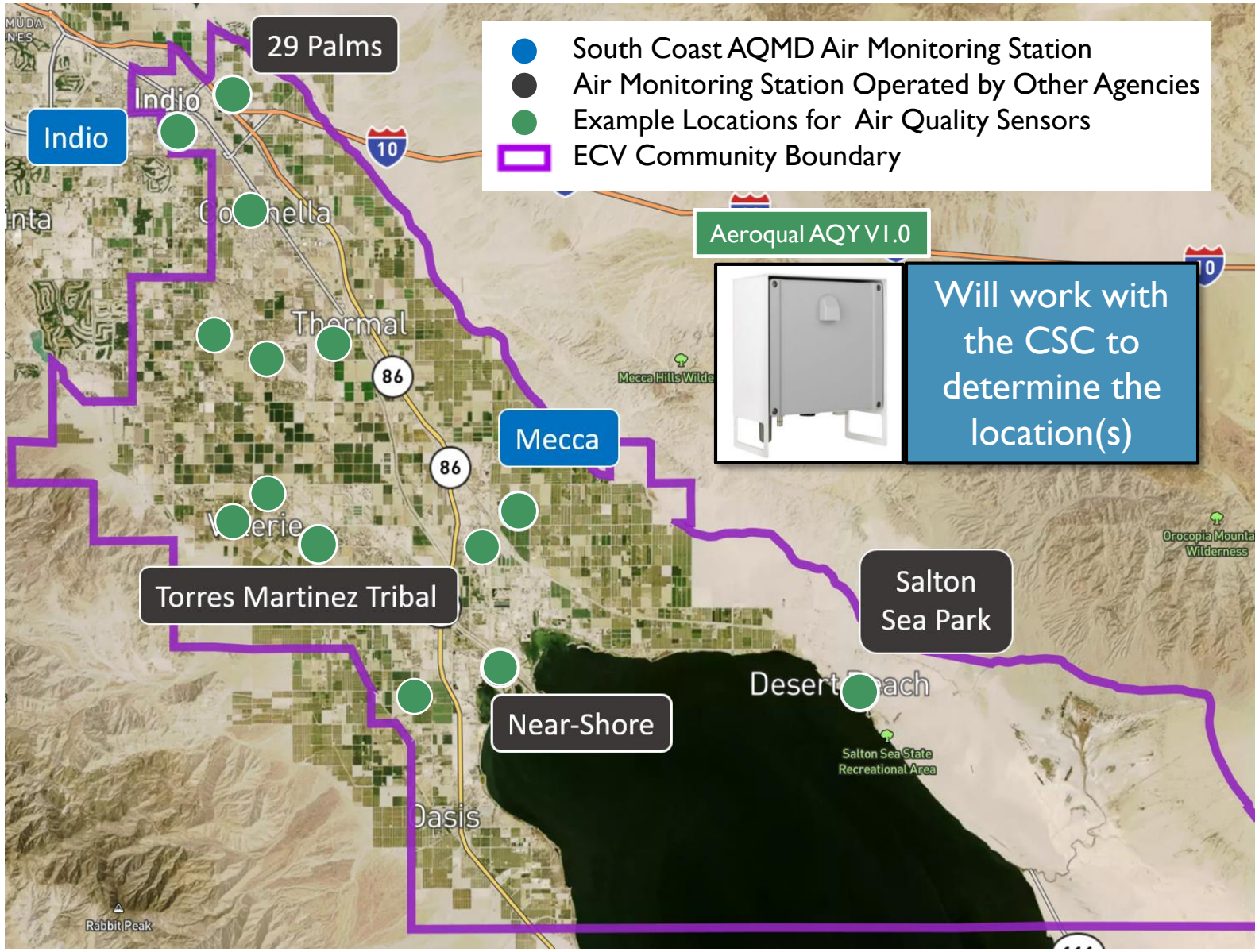
*The H_2S monitor is operated by South Coast AQMD

DISCUSSION OF THE EXISTING MONITORING NETWORK

Potential Topics for Discussion

- Baseline monitoring
  - location, pollutants of interest
- Locations for supplemental H_2S and PM10 monitoring
- Location of black carbon monitor
- Input on the current notification and advisory systems





ACTION: CREATE AN AIR QUALITY SENSOR NETWORK AND DATA DISPLAY PLATFORM

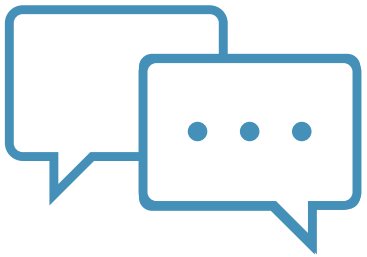
PM2.5
PM10
NO_2

To address:
Salton Sea; Open Burning; Fugitive Road and Off-Road Dust; Diesel Mobile Sources; and Greenleaf Desert View Power Plant

DISCUSSION OF SENSOR NETWORK DEPLOYMENT

Potential Topics for Discussion

- Locations for sensors
- Size of the network
- Volunteers for hosting
- Timeline
- Data dashboard



AIR MONITORING WORKING GROUP MEETINGS

Purpose

- Discuss CAMP implementation
- Gather CSC input
- Staff available to answer technical questions on monitoring

Potential Topics

- Monitoring approach for each priority
- Deployment
- Research Collaborations
- Data Sharing

DISCUSSION

COMMENTS AND QUESTIONS?

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South Coast AQMD