

A photograph of a Salton Sea landscape with a clear blue sky and a rocky, sandy foreground. The text is overlaid on the image.

Salton Sea Baseline Monitoring Network Design Update

Salton Sea Air Quality Technical
Working Group

Ontario, CA

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Richard V. Daniels

Update Items

- Review of Monitoring Objectives and Regional Transport Characteristics
- Proposed Monitoring Site Locations and Equipment Assignments
- Proposed Monitoring Priorities
- Review of Initial Monitoring Site Investigations

Monitoring Objectives

- Development of an air quality database sufficient to support regional air quality modeling
- Assessment of baseline source impacts near the Sea
- Identification of appropriate monitoring sites during construction and operational phases of the Project

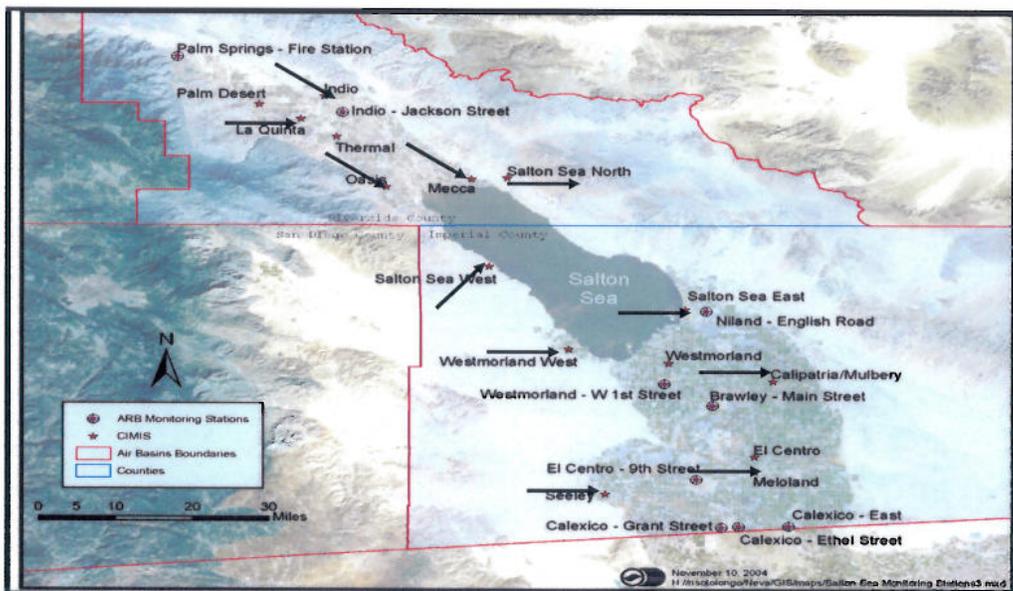
Parameters to be Monitored

- PM₁₀ – continuous and filter-based
- PM_{2.5} – continuous and filter-based
- PM Toxic Constituents
- Particulate Deposition
- Ozone
- Oxides of Nitrogen
- Carbon Monoxide
- Sulfur Dioxide
- Hydrogen Sulfide
- Ammonia
- Surface Meteorology
- Upper Air Meteorology

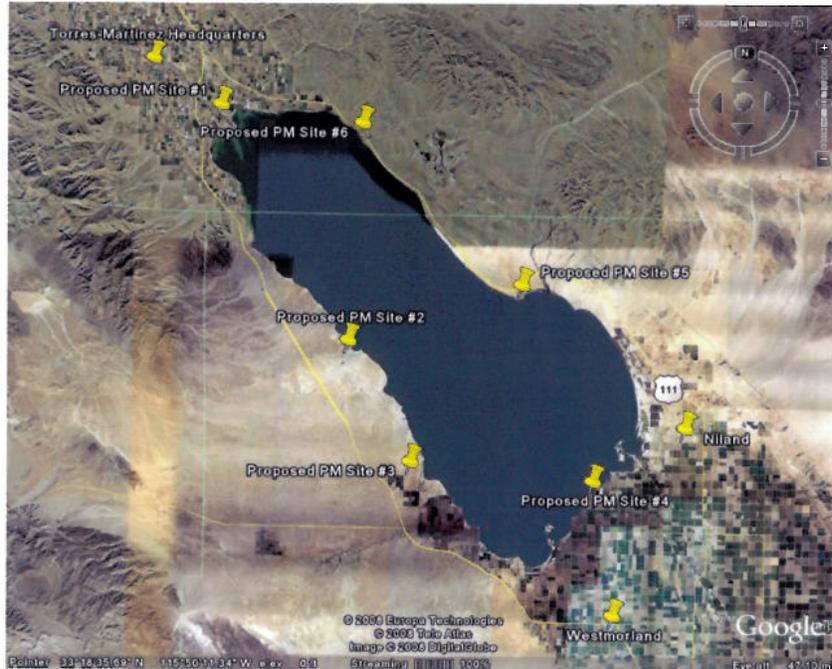
Particulate Matter Monitoring Philosophy

- Record continuous PM and meteorological data on short (sub-hourly) intervals to develop regional emission inventory and air quality model
- Operate sufficient monitors to characterize baseline air quality at populated areas forecast to be impacted by the Project
- Ensure quality control and establish instrument comparability by co-locating research and regulatory PM monitors

High Wind Prevailing Directions Most Frequent Winds > 11 mph



Proposed Monitoring Locations



Proposed Monitor Assignment

Baseline Period Monitor Assignments										
Site #	General Location	PM _{coarse} /PM _{fine}		BAM		PM Deposition	O ₃ /NO _x ¹	SO ₂ /CO ¹	H ₂ S/NH ₄	Surface Met.
		TEOM	Filter	PM ₁₀	PM _{2.5}					
1	Whitewater River Outlet	X	X	X	X		X	X	X	X
2	Salton City	X	X							X
3	Salton Sea Test Site	X	X							X
4	South Shore	XX ²	XX ²	X	X	X			X	X
5	Bombay Beach	X	X			X	X	X		X
6	Salton Sea Recreation Area	X	X							X

¹One set of gaseous monitors would be rotated annually among stations, one set would be permanently located at a southern site

²Duplicate instruments would be co-located with primary units for precision quality control

Proposed Monitoring Priorities

1st Tier: PM_{2.5} – continuous and filter-based
 PM₁₀ – continuous and filter-based
 PM Toxic Constituents
 Surface Meteorology
 Upper Air Meteorology

2nd Tier: Hydrogen Sulfide
 Ammonia

3rd Tier: Ozone
 Oxides of Nitrogen
 Carbon Monoxide
 Sulfur Dioxide
 Particulate Deposition

Whitewater River Outlet Map



Proposed Whitewater River Site Location



Salton City Map



Potential Salton City Monitoring Site



South Shore Map



Potential South Shore Monitoring Site



Bombay Beach Map



Rejected Bombay Beach Monitoring Site



Salton Sea Recreation Area Map



Potential Salton Sea Recreation Area Monitoring Site



Site Selection Next Steps

- Further Investigate Alternative Monitoring Sites
 - Determine ownership of potential sites
 - Evaluate exposure, power, access, and security of potential sites
- Select Preferred Sites
- Negotiate Use Agreements with Owners
- Complete CEQA Review of Monitoring Network

Site Construction Steps

- Grade Site, if Necessary
- Install Power Dropline
- Pour Concrete Pad and Meteorological Tower Anchor
- Install Security Fencing

Instrument Acquisition Next Steps

- Draft Request for Qualifications
- Select Installation Contractor
- Negotiate Instrument Acquisition and Installation Costs with Contractor

Equipment Installation Steps (By Contractor)

- Purchase Designated Instruments
- Install within Custom Containers
- Performance Test Assembled Systems:
 - Measurement Accuracy
 - Data Storage
 - Data Formatting
 - Data Telemetry
- Install Assembled Stations at Constructed Monitoring Sites

Questions?