



**South Coast
Air Quality Management District**

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SALTON SEA CONFIRMED AS SOURCE OF WIDESPREAD SULFUR ODORS

Air quality officials have further confirmed the Salton Sea as the likely source of strong sulfur odors smelled by thousands of residents across more than 150 miles of the Southland yesterday.

“We now have solid evidence that clearly points to the Salton Sea as the source of a very large and unusual odor event,” said Barry Wallerstein, executive officer of the South Coast Air Quality Management District.

AQMD technicians took numerous air samples in Riverside and San Bernardino counties yesterday while AQMD field inspectors, trained to gauge the severity of odors, conducted odor surveillance in the Coachella Valley and across the agency’s four-county jurisdiction.

Today’s analysis of the air samples showed a clear progression of hydrogen sulfide levels, with the highest concentrations found at the Salton Sea and decreasing concentrations found as the distance increased from the sea. (See table below) This progression, or gradient, points to the Salton Sea as the source of the odor, Wallerstein said.

In addition, AQMD inspectors visited facilities such as landfills and oil refineries and ruled them out as potential sources of the widespread odors. AQMD officials also performed air quality modeling showing that strong odors could have traveled across the region given recent weather conditions.

Hydrogen sulfide, a product of organic decay such as that occurring in the Salton Sea, has an unmistakable rotten-egg odor. Scientists have theorized that strong winds pushed surface waters aside and allowed water from the bottom of the shallow sea -- rich with decaying and odorous bacteria -- to rise to the surface.

While hydrogen sulfide concentrations at the Salton Sea yesterday were higher than normal, they were not high enough to cause irreversible harm to human health, AQMD officials

said. This is the case even taking into account that concentrations in the early hours Monday may have been considerably higher than when AQMD technicians sampled for the gas on Monday evening.

Since midnight Sunday (12:10 a.m. Monday) AQMD has received about 235 complaints of sulfur- and rotten-egg type odors. Almost all calls were received by 5:30 p.m. on Monday, with only a dozen or so received overnight and Tuesday morning.

On Sunday evening, a strong thunderstorm developed over the Salton Sea and winds from the southeast of at least 50 mph pushed odors from the Salton Sea to the northwest – across the Coachella Valley, through the Banning Pass and across the Los Angeles Basin, air quality officials said. Since yesterday, an onshore breeze from the west appears to have kept any remaining odors from spreading far into the Los Angeles Basin.

Results of AQMD Air Quality Sampling*

Location	Hydrogen sulfide concentration (parts per billion)
Northwest of Salton Sea	149
Mecca	99
Indio	38
Western shore of Salton Sea	35
Thermal	30
Riverside	11
West of Salton Sea	10
Redlands	9
Cherry Valley	8
Beaumont	Less than 2

* Preliminary numbers subject to quality assurance review

The state air quality standard for hydrogen sulfide is 30 parts per billion (ppb), averaged over one hour. (Note that these samples were taken over just a few seconds and not averaged over any period of time.) At this level individuals may experience headaches and nausea. The odor threshold for hydrogen sulfide is generally about 8 ppb.

AQMD is the air pollution control agency for Orange County and major portions of Los Angeles, San Bernardino and Riverside counties.