



January 27, 2025  
Moss Landing, Calif.



Supervisor Glenn Church  
7h · 🌐

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#### MOSS LANDING BATTERY FIRE - TESTING UPDATE

Researchers from San José State University's Moss Landing Marine Laboratories (MLML) have conducted testing for heavy metals and released the following statement:

#### FOR IMMEDIATE RELEASE

MOSS LANDING, Calif. — Research scientists at San José State University's Moss Landing Marine Laboratories (MLML) have detected unusually high concentrations of heavy-metal nanoparticles in marsh soils at Elkhorn Slough Reserve following the recent fire at the nearby Vistra Power Plant's lithium-ion battery storage facility.

As part of a decade-long monitoring program of the Elkhorn Slough estuary, Dr. Ivano Aiello's research team analyzed the marsh soil properties, including the composition of major and trace elements, in the days immediately following the Vistra battery fire that began on Thursday, January 16. The fire burned for several days, causing road closures, evacuation of the area and air quality concerns.

The field surveys, conducted within a radius of approximately two miles from the power plant, measured a dramatic increase in marsh soil surface concentration (hundreds to thousand-fold) of the three heavy metals Nickel, Manganese and Cobalt. This dramatic increase relates to both the shallow subsurface and the baseline measurements conducted in the area before the fire. Samples of the heavy-metal layer were examined at high magnification and reveal that these metals are contained in nanoparticles that range in diameter between about 1 and 20 microns.

These nanoparticles are used in cathode materials for lithium-ion batteries, commonly referred to as "NMC" (Nickel Manganese Cobalt), clearly connecting the occurrence of the heavy metals to airborne cathode material from the Vistra battery fire. These heavy metals will chemically transform as they move through the environments and potentially through the food web, affecting local aquatic and terrestrial ecosystems.

Monterey County officials have been made aware of the team's findings.

"These findings and the research that follows are crucial not only to the impacted community but to the national and international community because of the need to store more power and thus build more and larger battery storage facilities," said Dr. Aiello, marine geology professor and department chair at MLML. "This is a new and fast-growing technology, and we must understand the ecological impacts in the event that accidents like this happen again."

Dr. Aiello's team and colleagues at SJSU and the Elkhorn Slough Reserve will continue monitoring the soils and waterways on a short—and long-term basis.

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## FOR IMMEDIATE RELEASE

January 27, 2025

### County of Monterey Health Department Responds to Research Findings at Elkhorn Slough

The County of Monterey Health Department has been made aware of the findings presented by San José State University's Moss Landing Marine Laboratories (MLML) regarding levels of heavy-metal nanoparticles in marsh soils at Elkhorn Slough Reserve.

We are grateful for and recognize the importance of the environmental sampling and testing conducted by Dr. Ivano Aiello's team and commend their diligence in reporting their results. Public health and environmental safety remain our top priorities, and we are committed to providing transparent, science-based updates to the community as we assess the findings in collaboration with our state and federal partners.

The County of Monterey Environmental Health is currently analyzing soil and water samples and working closely with experts from the California Department of Public Health, the California Environmental Protection Agency, and state epidemiologists. Together, we will evaluate the research, assess any potential health concerns, and determine the appropriate steps moving forward. We hope to provide preliminary results sometime later this week.

We understand that such findings may raise concerns among residents, particularly those living in proximity to the affected areas. Our goal is to provide clear, timely, and accurate information while avoiding unnecessary anxiety. As part of this effort, we will:

- Continue to monitor environmental data and collaborate with state and federal partners to analyze the available datasets.
- Provide regular updates to the public as new information becomes available.
- Provide public informational updates to the Board of Supervisors and make that information available on-line for greater public awareness.

The County of Monterey Health Department remains dedicated to safeguarding the health of our residents and protecting the environment. We appreciate the community's patience and engagement as we continue this important work.

For more information, please contact the Monterey County Health Department at: (831) 755-4505 or by visiting <https://www.readymontereycounty.org/emergency/2025-moss-landing-vistra-power-plant-fire>





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