

Moss Landing Vistra Power Plant Battery Fire

1/21/2025





Incident Overview

16 January 2025 – On Going

A battery fire at the 300-MegaWatt Phase I energy storage facility at the Moss Landing Power Plant site (Moss 300) began on Thursday, January 16, 2025.

The site is an alternative energy storage facility operated by Vistra Energy Corporation.

The facility contains Lithium-Ion Batteries and is one of the world's largest battery energy storage system sites.



Lithium-Ion Battery Threats and Hazard

While Lithium-Ion Battery Energy Storage Systems are an added value to critical infrastructure and key resources, generally they also pose a new and emerging threat to public health and safety. Generally, lithium-ion batteries can:

- Overheat creating thermal runaway
- Fire and explosions
- Hazardous materials releases in the form of toxic plumes and toxic runoff due to fire suppression tactics.

Thermal Runaway: Thermal runaway is one of the primary risks related to lithium-ion batteries. It is a phenomenon in which the lithium-ion cell enters an uncontrollable, self-heating state. In ideal conditions, the heat is able to dissipate from the cell. However, in thermal runaway, the lithium-ion cell generates heat at a rate several times higher than the rate at which heat dissipates from the cell. A short circuit, physical damage, improper design, or assembly can cause heat and pressure to build up in the battery.

A thermal runaway often results in one or more of the following events: heat generation, gas and smoke formation, cell breach/cell explosion, fire or gas explosion. Gas releases can typically occur at lower temperatures and without the occurrence of a thermal runaway.

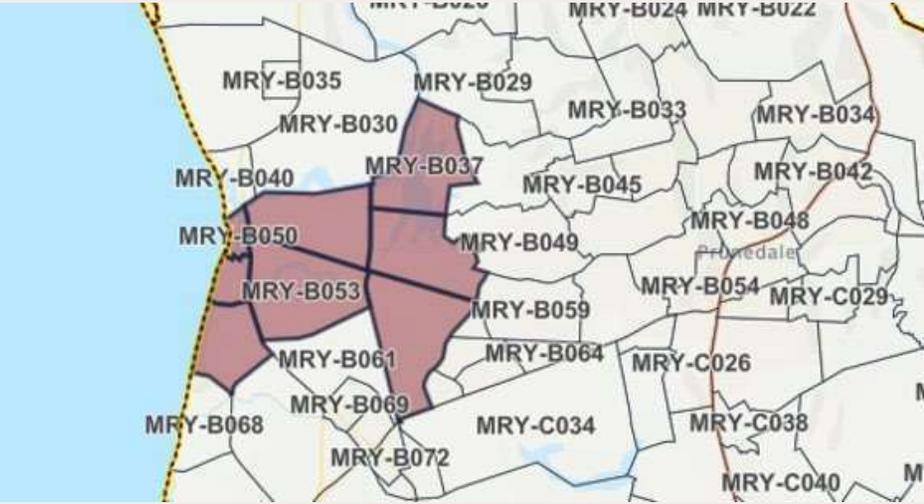
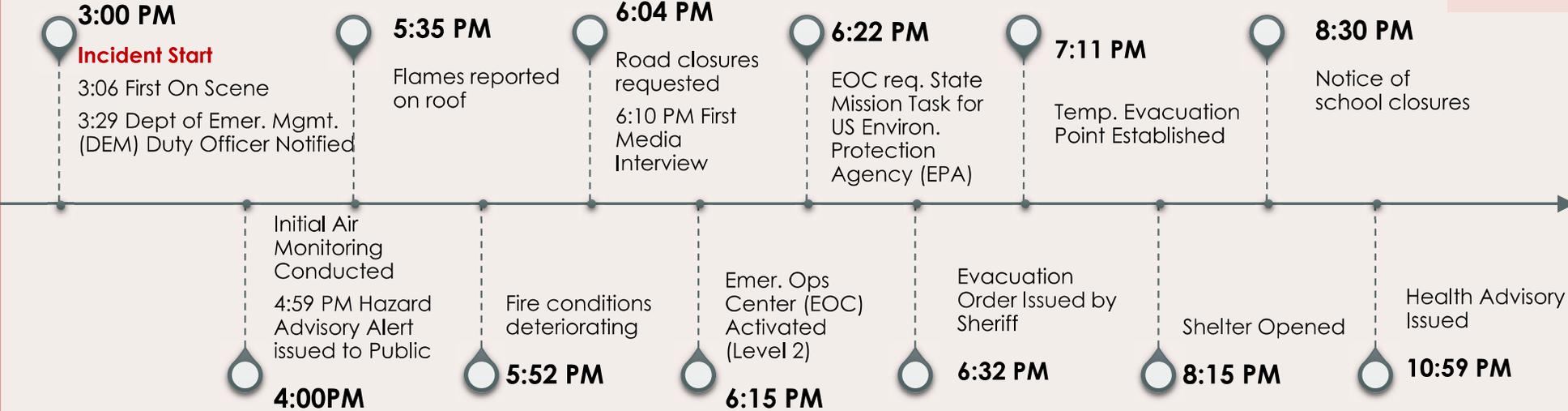
Cell Ignition / Fires: When thermal runaway occurs, the cell is undergoing an unstable chemical. When oxygen mixes with the toxic flammable gases the battery cell may ignite, causing surrounding cells to do the same.

Cell Breach / Explosions: If the pressure within the cell reaches a critical point, the cell can rupture, releasing flammable gases and in some examples; projectiles at high speeds. These gases have the potential to combine with oxygen in the air and form an explosive mixture.

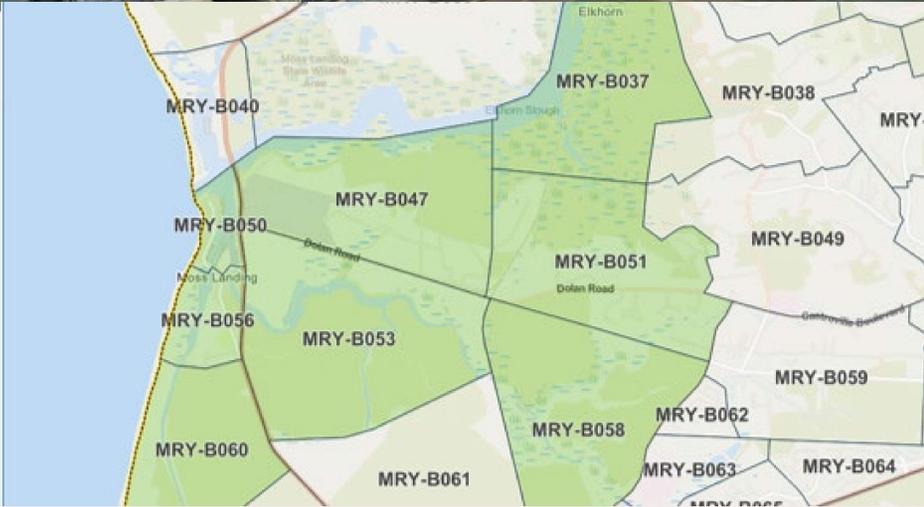
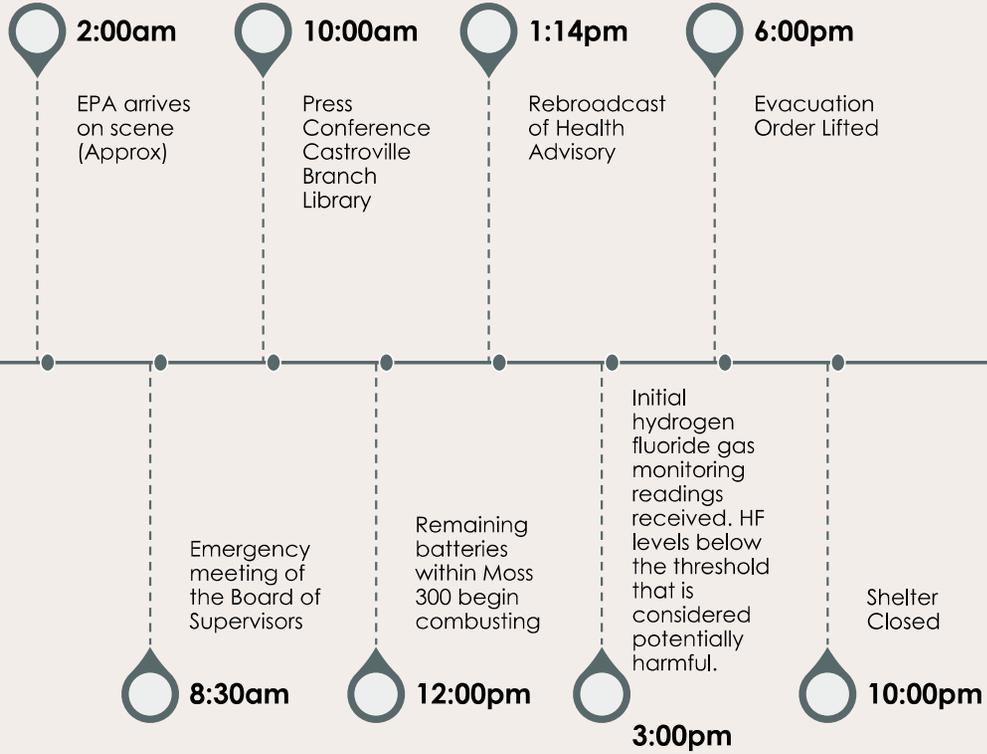
Hazardous Materials - Toxic Gas/Smoke/Plumes: Lithium-ion battery fires generate intense heat and considerable amounts of gas and smoke. The gases that are released from battery energy storage systems are highly flammable and toxic. The type of gas released depends on the battery chemistry involved but typically includes gases such as: carbon monoxide, carbon dioxide, hydrogen, methane, ethane, and other hydrocarbons.

Hazardous Materials - Toxic Runoff: Massive quantities of water over an extended period is the only established means of preventing continuous thermal runaway in a lithium-ion battery. This can result in hazardous runoff.

Incident Start – 1/16/2025



Day 2 – 1/17/2025



Air Quality Monitoring

100 9 7

Mobile Air
Monitoring
Locations

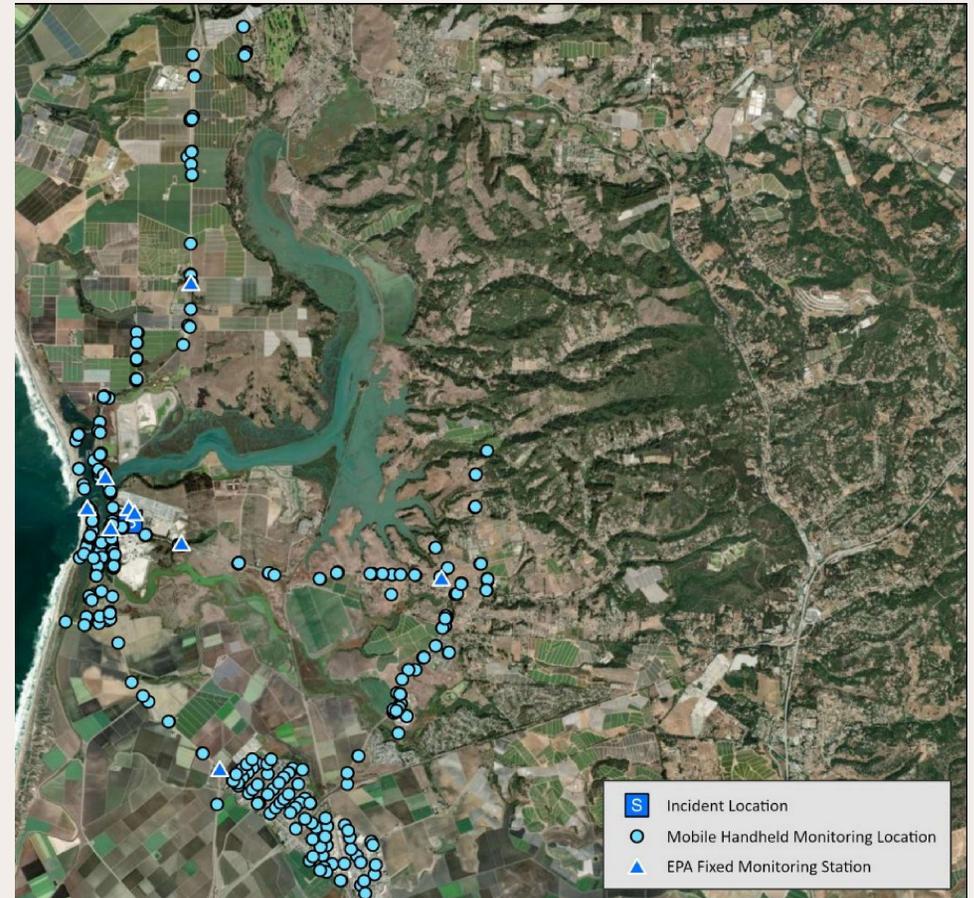
(CTEH)

Stationary
Monitoring Units

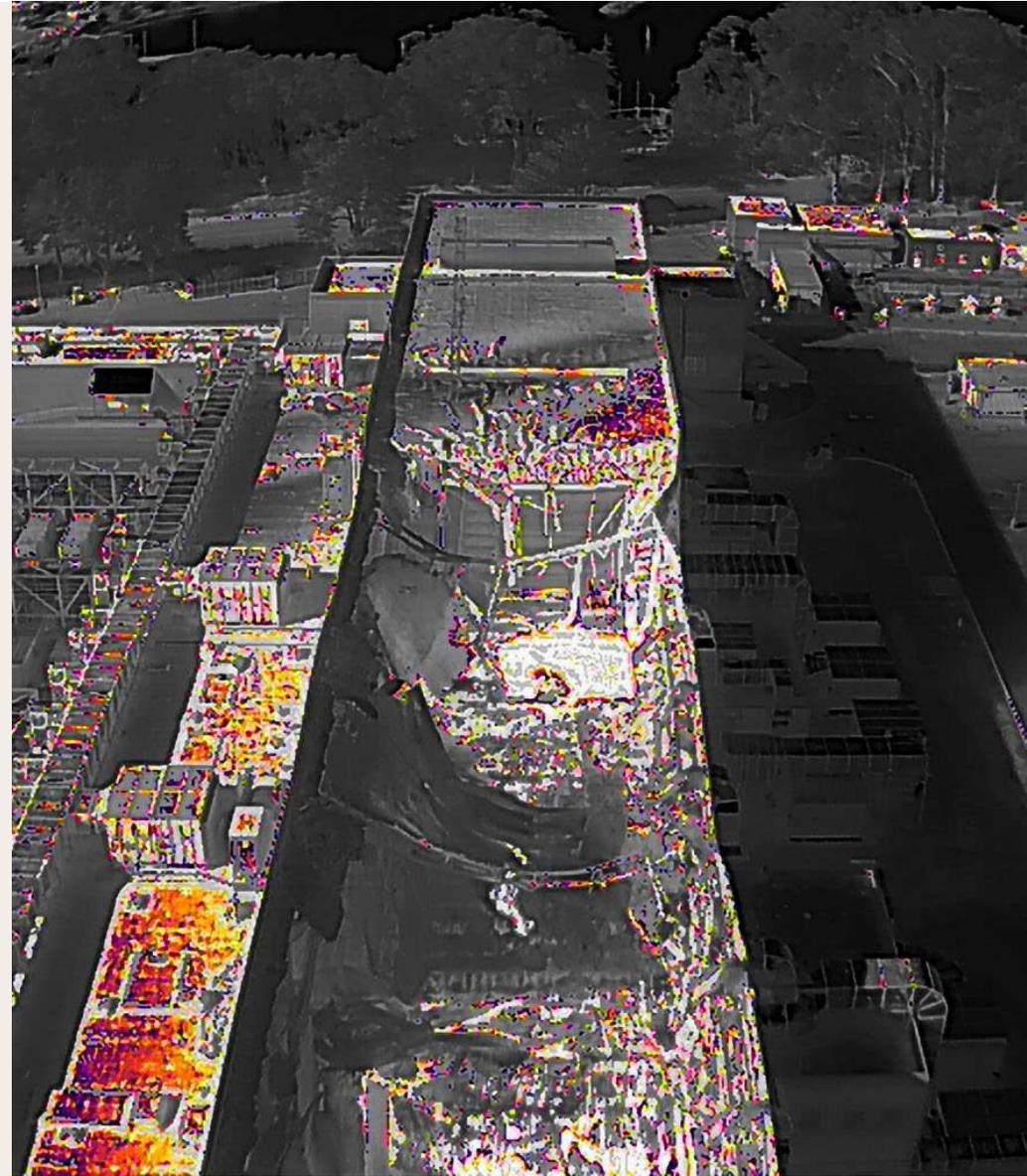
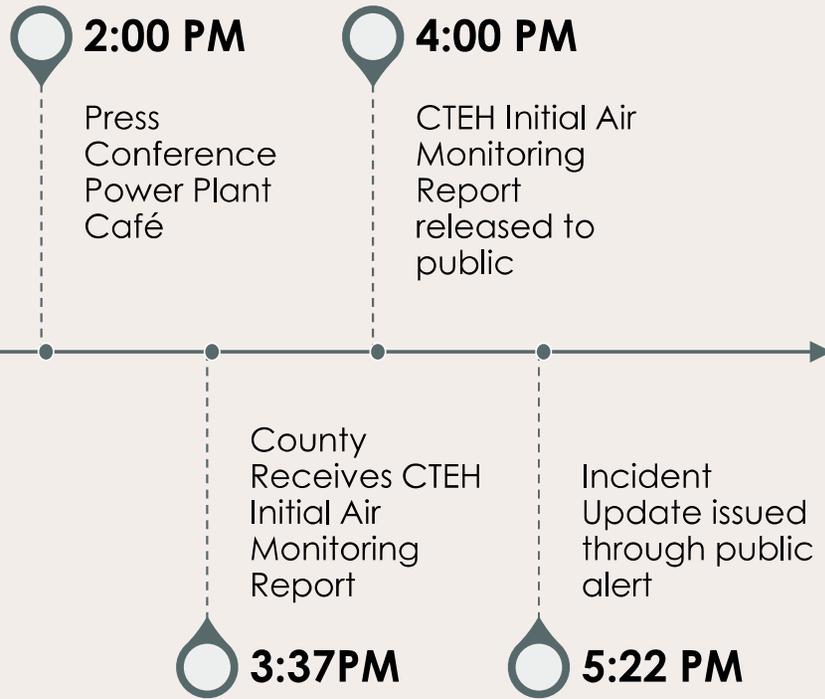
(U.S.
Environmental
Protection
Agency)

Air Constituents
Tested

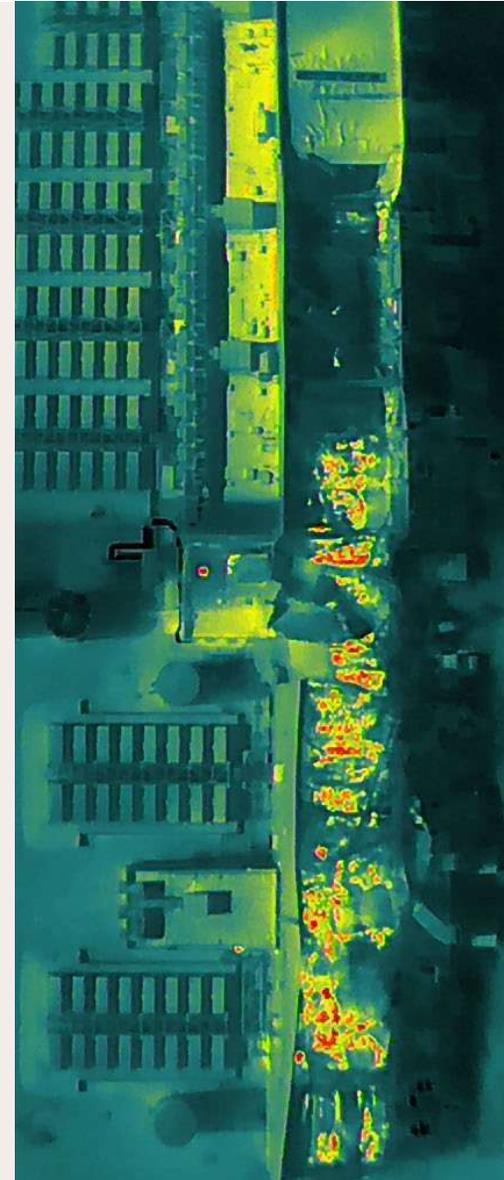
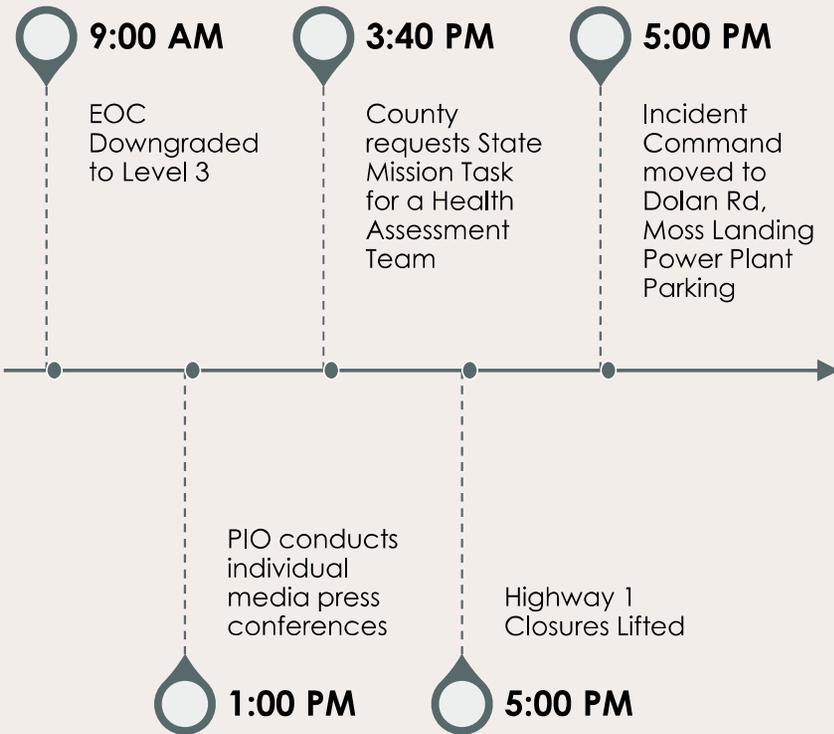
Monitoring to date has not detected hazardous compounds, and all particulate matter readings were low and within expected air quality index (AQI) bands deemed safe for the general public.



Day 3 – 1/18/2025



Day 4 – 1/19/2025



Day 5 – 1/20/2025

- Joint Information Center Established
- Schools notified of return to classes 1/21/2025
- Structural Engineer conducts initial assessment of stability of Moss 300.
- US EPA Demobilized
- State Health Assessment Team Mobilized



Emergency Operations Center Stats



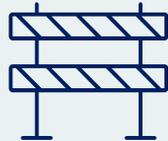
7

Emergency Alerts



1

Temporary Evacuation Point/Shelter



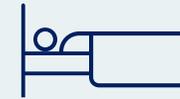
4

Road Closures



1,200

Persons Evacuated



37

Sheltered



24

Hours Evacuated

Public Information Officer / Joint Information Center Stats



3

Press
Conferences



7

Media
Advisories



200

Media
Contacts



5

Public Information
Officers



31

Interviews



57

Social Media
Posts

Resources

- [Incident Webpage | County of Monterey, CA](#) - Current updated emergency information
- [Moss Landing Response](#) - Vistra's Incident reporting page
- [Current Air Quality & Forecast - Monterey Bay Air Resources District](#) - Current real time air quality forecasts
- [Air Quality FAQs | News & Information | County of Monterey, CA](#) - Public Health and air monitoring FAQs
- [County of Monterey MGTV YouTube Channel](#) - Press Conference recordings and EPA segment

Thank You

- North County Fire Protection District
- Salinas Fire Department HAZMAT Team
- Monterey County Sheriff's Office
- County of Monterey Administrative Office
- County of Monterey Communications Bureau
- County of Monterey Contracts/Purchasing
- County of Monterey Clerk of the Board
- County of Monterey Information Technology Department
- County of Monterey Emergency Communications Department
- Monterey County Free Libraries
- County of Monterey Department of Emergency Management
- County of Monterey Department of Social Services
- County of Monterey Health Department
- County of Monterey Public Works, Facilities, and Parks
- County Elected Officials
- CAL FIRE
- California Highway Patrol
- California State Parks
- California Dept. of Fish and Wildlife
- California Department of Transportation
- US Environmental Protection Agency (EPA)
- Chevron Fire Department
- Castroville Recreation Center
- Moss Landing Harbor
- California Energy Commission
- Monterey Bay Air Resources District
- American Red Cross
- City of Watsonville
- County of Santa Cruz
- The Whole Enchilada
- Lighthouse Harbor Grill
- Power Plant Coffee