CALIFORNIA
AIR RESOURCES BOARD

Post-Fire Air Monitoring at Santa Rosa Schools

Two air monitoring phases are underway to address concerns related to air quality surrounding Santa Rosa schools:

1) Pre-cleanup air monitoring conducted by the California Air Resources Board and Bay Area Air Quality Management District; and
2) Air monitoring related to environmental cleanup of fire-related disaster debris, conducted by U.S. Army Corps of Engineers.

Phase 1: Pre-Cleanup Air Monitoring

Prior to deployment of community air monitors by an environmental cleanup contractor (see Phase 2), the California Air Resources Board (CARB) worked with the Bay Area Air Quality Management District (BAAQMD) to coordinate the placement of particulate matter monitoring equipment to monitor air quality at schools near burned debris. This type of monitoring is used to evaluate levels of particulate matter in the air and inform surrounding communities (including schools) on outdoor air quality. When monitoring results indicate outdoor air quality is at higher levels, such as unhealthy for sensitive groups or higher, schools are encouraged to work with their local public health officials to limit or restrict outdoor activities (see AQI link in #5 below).

Particulate Air Monitoring -

1) What type of monitoring is occurring?
    a. **Particulate matter air monitoring**: We address the issue of fine particle pollution by measuring the concentration of particles in the air that are less than 2.5 micrometers (PM 2.5) in size, which is 1/20th the diameter of a human hair. These particles are the primary health concern for those exposed to fire smoke. Once inhaled, they can land on the surface of the deeper parts of the lungs, causing damage and inflammation. We inform communities that they may be impacted by this type of pollution by displaying particulate concentration levels in affected areas, broadcasting health advisories, and promoting recommendations to decrease exposure.
2) How is the data being collected?
    a. Data is being collected using Met One E-BAM portable air monitors. The monitors measure hourly average PM 2.5 concentrations.
3) Where is the data being sent?
    a. Data is automatically sent via satellite transmission to databases, which in turn populate statewide air quality websites that are available to the public. https://monitoring.airfire.org/monitoring/v3/#/?date=LATEST&productType=plotTable&userProfile=simple
4) How quickly is the data captured?
    a. Data is recorded hourly, 24-hours a day.

5) How is the data being analyzed?
    a. The data collected are preliminary measurements and the values are compared against the air quality standard index (AQI). For more on AQI, see: https://airnow.gov/index.cfm?action=aqibasics.aqi.
    b. We ensure the air quality monitors are operating within established guidelines by utilizing general quality assurance and quality control processes.
6) How is the data being interpreted and conveyed to the schools?
    a. Collected data is interpreted automatically as a value against the established AQI standards, and can be viewed by the schools or public at any time via the link identified in # 3 above. As noted above, if data indicates elevated levels, then schools may wish to consult with local public health authorities on whether to limit or restrict outdoor activities.

Phase 2: Cleanup Operations Air Monitoring

Based on past state-coordinated debris removal projects, air monitoring is typically conducted as part of the cleanup operations contract by an environmental consultant, as a subcontract to the debris removal contractor. Environmental consultants usually conduct community monitoring near schools, hospitals, and debris removal crews. They also conduct site-specific monitoring to ensure worker and public health and safety at the cleanup sites. Environmental cleanup air monitoring typically consists of measurement of particulate matter, asbestos fibers, and heavy metals. Please contact the U.S. Army Corps of Engineers for air monitoring information specific to the Santa Rosa debris removal project.