Direct exposure to neighborhood fireworks can have negative health effects for Valley residents

Fireworks elevate PM levels and threaten public health

This Independence Day, Air District officials remind Valley residents that July 4th fireworks can increase levels of dangerous particulate matter (PM), including soot, ash and metals, which cause serious health impacts. Individuals most at risk are small children, the elderly and people with existing respiratory conditions.

“Fireworks can cause pollution levels to rise significantly making the air dangerous for everyone to breathe,” said Samir Sheikh, the Valley Air District’s Executive Director/Air Pollution Control Officer. “The harmful effects from the use of personal fireworks can be avoided by supporting local professional Independence Day celebrations.”

Fine particulate matter can invade the bloodstream, get deep into the lungs and has been linked to heart attacks and stroke. Each year on the Fourth of July, air monitors across the Valley reflect spikes in PM concentrations, often four to five times higher than the health-based federal standards, and typically occur between the hours of 9 and 10 pm. These spikes are due in part to personal fireworks used throughout Valley neighborhoods and the high levels of PM threaten the Valley’s progress in meeting air-quality standards that protect public health. (An attached graph illustrates a typical increase in PM following fireworks).

The District’s Real-time Air Advisory Network (RAAN) provides localized air quality data from an extensive air-monitoring network which allows Valley residents to track PM at any Valley address by visiting myRAAN.com.

For more information about the Air District, call a regional office in Fresno (559) 230-6000, Modesto (209) 557-6400 or Bakersfield (661) 392-5500.

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This graph illustrates a spike in particulate levels on July 4, 2018 in the City of Visalia, which reached 244 µg/m³ as a result of fireworks use. Similar impacts are seen throughout the Valley each Fourth of July.