District: Personal fireworks can have negative health effects

Fireworks elevate PM levels and threaten public health

This Independence Day, Air District officials remind Valley residents that personal fireworks emit high levels of particulate matter (PM), including soot, ash and metals, which can cause serious health effects. Individuals most at-risk are small children, the elderly and people with existing respiratory conditions (including COVID-19).

While a nation-wide pandemic has forced many communities to cancel 4th of July celebrations and fireworks displays, the District asks Valley residents to resist the urge to light personal fireworks and seek other methods of celebrating and showing their patriotism for our country’s Independence.

“We ask that residents are considerate to the health and well-being of the Valley’s most vulnerable individuals, especially during this unprecedented health crisis,” said Samir Sheikh, the Valley Air District’s Executive Director/Air Pollution Control Officer. “Fireworks release large amounts of PM at ground-level, where individuals can breathe in the harmful pollutant,” he added.

Each 4th of July, air monitors across the Valley reflect spikes in PM concentrations from fireworks, often four to five times higher than the health-based federal standard, and typically during evening hours, when personal fireworks are most in use. This unnecessary source of air pollution threatens the Valley’s progress in meeting air-quality standards that protect public health. (An attached graph illustrates a typical increase in PM following fireworks). Fine particulate matter can invade the bloodstream, get deep into the lungs, and increase the risk of heart attack and stroke.

The District’s Real-time Air Advisory Network (RAAN) provides access to localized air quality data from an extensive air-monitoring network. Visit myRAAN.com and input any address in the San Joaquin Valley.

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, 2019 in the City of Turlock.