




air pollution control district
SANTA BARBARA COUNTY

Agenda Date: March 19, 2020
Agenda Placement: Regular
Estimated Time: 20 minutes
Continued Item: No

Board Agenda Item

TO: Air Pollution Control District Board

FROM: Aeron Arlin Genet, Air Pollution Control Officer 

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SUBJECT: Particulate Matter and Public Health

RECOMMENDATION:

Receive a presentation from Dr. Phil Martien of the Bay Area Air Quality Management District (BAAQMD) on the subject of Particulate Matter and Public Health.

BACKGROUND:

The Santa Barbara County Air Pollution Control District (District) has been planning for and implementing both voluntary and regulatory clean air measures for decades. Historically, the District's emphasis has been to reduce emissions of ozone precursors in order to attain and maintain compliance with state and federal ozone ambient air quality standards. However, the District also does not meet the state standards for particulate matter (PM) less than 10 microns in diameter, also known as PM₁₀.¹

The county's particulate levels vary year-to-year, and the number of days that the county exceeded the air quality standards was influenced by natural events such as wildfires and droughts. During events such as wildfires, as well as during extreme winds and dry weather, areas throughout the county experience elevated levels of particulate matter. During these events, the District's air monitors may record levels of PM₁₀, as well as PM_{2.5} (particulate matter less than 2.5 microns in diameter) that exceed the health-based air quality standards and expose individuals to unhealthy air. Over the past 10 years, the state PM₁₀ standard has been exceeded annually between 8 to 49 times.

¹ California has two PM₁₀ standards; a 24-hour standard of 50 µg/m³ and an annual arithmetic mean standard of 20 µg/m³.

The District meets quarterly with the Santa Barbara County Public Health Department to discuss health issues related to air quality. A constant agenda item for these meetings is focused on coordinating on messaging related to public awareness and preparedness for the particulate pollution impacts from wildfires. Before and during air quality events, we work together to notify the public in the form of jointly-issued air quality alerts to ensure individuals are aware of resources to access their local air quality conditions, and ways to reduce exposure.

DISCUSSION:

In order to better understand the issues related to particle pollution, Dr. Phil Martien of BAAQMD will provide a presentation to your Board. Dr. Martien has worked at the BAAQMD for 30 years and is currently the Director of the Assessment, Inventory, & Modeling Division at the BAAQMD. He and his team are focused on compiling and evaluating emissions of air pollutants and greenhouse gases, conducting modeling-based studies to estimate air pollution exposures and impacts, and supporting the Air District's development of prioritized mitigation measures. He received his M.S. and Ph.D. Degrees from UC Berkeley.

The presentation will discuss the following issue areas related to particulate matter: health effects, pollution sources, emissions inventory, measured concentration trends, and efforts to better understand the nature of PM emissions and public health effects. This information is being presented to your Board as a starting point as the District focuses its efforts to assess particulate matter air quality in the region and reduce exposure to PM pollution.

FISCAL IMPACT:

The costs for the presentation described above are included in the budget approved by your Board. There are no additional fiscal impacts.