September 26, 2023

Patricia Urena, Chair
Off-Highway Motor Vehicle Recreation Commission
P.O. Box 942896
Sacramento, California 94296
patricia.urena@parks.ca.gov

Dear Chair Urena,

Thank you for your letter regarding regulating PM10 emissions at the Oceano Dunes State Vehicle Recreation Area (Oceano Dunes) outlining the concerns of local citizens and park visitors and requesting that the California Air Resources Board (CARB) attend the California Off-Highway Motor Vehicle Recreation Commission (Commission) meeting scheduled September 28-29, 2023.

Thank you for the invitation to attend the Commission meeting. However, I am unable to attend your next Commission meeting due to a conflict with the CARB Board meeting. I do look forward to attending a future meeting to talk about PM10 as it relates to Ocean Dunes. On August 22, 2023, I did let Ms. Sarah Miggins, Deputy Director, California Department of Parks and Recreation (State Parks) know that I will be unable to attend the next Commission meeting and would welcome participating in a future meeting. In the meantime, I do want to provide some information on the harmful effects of PM10 pollution.

Hundreds of scientific studies published over the past 50 years point to the harmful effects of coarse particulate (PM10) air pollution. Anyone exposed to PM10 can experience adverse health effects with young children, older adults, and those with respiratory diseases more likely to be affected. PM10 are particles small enough to pass through the throat and nose and enter the lungs. PM10 particles make up a large portion of windblown dust and high PM10 concentrations can be common downwind of loose or disturbed soils during wind events. Due to these impacts, both the U.S. Environmental Protection Agency and California have set air quality standards for PM10 that define the maximum amount of pollutant that can be present in outdoor air without harming human health, regardless of whether it is from natural or manmade sources. The State has two PM10 standards, a 24-hour standard of 50 $\mu g/m^3$ and an annual standard of 20 $\mu g/m^3$, both not to be exceeded. An area is considered nonattainment for PM10 if there is at least one violation of either State standard, based on three years of air monitoring data.

CARB and our local air district partners are committed to protecting public health and improving air quality. PM10 emissions over the standards have public health impacts irrespective as to whether they are natural or manmade with some particles having more of an impact. The San Luis Obispo Air Pollution Control District (District) has the authority and responsibility to adopt and enforce rules and regulations for controlling local anthropogenic

sources to achieve and maintain state and federal ambient air quality standards, including windblown dust emissions at the Oceano Dunes.

The Oceano Dunes are naturally emissive, becoming increasingly emissive in the presence of off-road vehicle activity. Modeling and collected measurements continue to demonstrate that Oceano Dunes derived windblown dust is the largest contributor to the PM10 exceedances measured at air monitoring sites downwind of Oceano Dunes. Air monitoring studies conducted by the District confirmed that the high particulate levels impacting residents are associated with windblown dust from Oceano Dunes during high northwest wind conditions. Additional studies by the Desert Research Institute have indicated the source of the elevated particulate matter to be windblown dust from the open sand areas of Oceano Dunes, and that emissions are increased by off-road vehicle activity.

The District uses CARB and the U.S. Environmental Protection Agency approved monitoring equipment and observes standards of practice of ambient air quality monitoring consistent with State and federal regulatory guidance. Adherence to standard sampling techniques is an important foundation for regulatory work and understanding the causes of elevated PM10 levels. Sampling methodologies to determine mass concentration and chemical components of air should follow standards of collection and analysis consistent with State and federal guidance. Deviation from standardized sampling techniques limits the usefulness of data for regulatory attainment purposes.

In 2018, the District and State Parks entered into a Stipulated Order of Abatement (SOA) to mitigate particulate matter emissions from the Oceano Dunes. The goal of the SOA is to reduce emissions from Oceano Dunes to levels that would occur in the absence of riding activity, with proportional responsibility for impacts associated with off-road vehicle activity. The SOA was modified in 2022, committing to further technical analysis and consultation needed to refine the emission reduction target, accounting for both the natural dune emissivity and the dune emissivity in the presence of off-road vehicle activity.

State Parks has done significant work to mitigate particulate matter emissions from Oceano Dunes, and PM10 air quality in and around Oceano Dunes has improved significantly since the application of dust controls within the park. The collaborative partnership between State Parks and the District is paramount to continued successful efforts to reduce emissions affecting downwind areas, and CARB applauds the effort to continue working together to improve PM10 air quality.

Thank you again for the invitation to participate in the upcoming Commission meeting. I look forward like to attending a future Commission meeting to discuss this matter.

Sincerely,

Edie Chang, Deputy Executive Officer

cc: Wade Crowfoot, Secretary, California Department of Natural Resources
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