1 Larry R. Allen, Air Pollution Control Officer San Luis Obispo County Air Pollution Control District 2 San Luis Obispo, CA 93401 3 BEFORE THE HEARING BOARD OF THE SAN LUIS OBISPO COUNTY 4 AIR POLLUTION CONTROL DISTRICT3 5 STATE OF CALIFORNIA 6 In the Matter of Case No.: 17-01 7 SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT. 8 ORDER OF ABATEMENT Petitioner, 9 VS. 10 CAILIFORNIA DEPARTMENT OF PARKS AND 11 RECREATION- OFF-HIGHWAY MOTOR VEHICLE RECEATION DIVISION 12 Respondent. 13 WHEREAS, on September 10, 2017, the San Luis Obispo County Air Pollution Control District 14 (hereinafter referred to as the "District or APCD") filed with this Hearing Board a Petition for Abatement Order 15 (Case No. 17-01), pursuant to California Health and Safety Code section 42451, against respondents California 16 Department of Parks and Recreation-Off Highway Motor Vehicle Recreation Division (hereinafter referred to as 17 "State Parks or OHMVR") with regard to alleged nuisances defined pursuant to District Rule 402 and California 18 Health and Safety Code section 41700, beginning on or about May 20, 2010, and on certain occasions thereafter, as 19 a result of particulate dust emissions from the Oceano Dunes State Vehicular Recreation Area (ODSVRA). 20 WHEREAS, the ODSVRA facility is subject to California statutes and District rules and 21 regulations. California Health and Safety code section 41700 prohibits the discharge from any source whatsoever 22 quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any 23 considerable number of persons or to the public or that endanger the comfort, repose, health or safety of any of those 24 persons or the public, or that cause or have a natural tendency to cause, injury or damage to business or property. 25 District Rule 402, Nuisance, contains language identical to California Health and Safety Code section 41700. 26 27 28 ORDER OF ABATEMENT - 1

WHEREAS, the matter was scheduled for hearing on November 13, 2017, pursuant to a notice in accordance with the provisions of California Health and Safety Code section 40823. The hearing was conducted on that date and the public was given an opportunity to testify. Five members of the Hearing Board were present:

Dr. Yarrow Nelson, Acting Chair; Mr. Robert Carr; Mr. William Johnson; Dr. Thomas Richards; and Mr. Paul Ready. Evidence was received and the matter was considered.

THE HEARING BOARD FINDS AND ORDERS AS FOLLOWS:

FINDINGS OF FACT

- 1. The District was and is organized and existing pursuant to Division 26, Part 3 of the California Health and Safety Code, and is the sole and exclusive local agency with the responsibility for comprehensive air pollution control in San Luis Obispo County.
- 2. The ODSVRA is located in the area known as the Oceano Dunes in southern San Luis Obispo County, three miles south of Pismo beach and west of Highway 1. The property on which the facility is located is comprised of five and one-half miles of open beach and sand dunes bordered on the west by the Pacific Ocean, and on the east, north and south by other privately held lands. A portion of the facility lands known as the LeGrande tract is owned by the County of San Luis Obispo and is leased to State Parks. Numerous private homes, businesses, schools and other entities are located directly downwind of the ODSVRA facility. The facility is within the jurisdiction of the San Luis Obispo County Air Pollution Control District and subject to District Rules and Regulations.
- 3. State Parks is a California State Agency chartered with managing 280 park units within California, including the Oceano Dunes State Vehicular Recreation Area, which is managed by the Off-Highway Motor Vehicle Recreation Division (OHMVR). OHMVR is responsible for all activities that occur within the ODSVRA, including management and control of beach and dune riding areas, resource management including revegetation and erosion control, and public safety.
- 4. From May 29, 2012 through October 19, 2017 the District has received one hundred thirty-three (133) complaints from residents downwind of the ODSVRA regarding dust from off-road vehicle activity. Complainants state the level of particulate (dust) is unhealthy, creating an injurious environment and impacting their ability to go outdoors and enjoy their homes or property, or participate in outdoor activities in their neighborhoods. Complainants further state they associate difficulty breathing,

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- respiratory issues, exacerbation of pre-existing condition such as asthma and COPD, watery and stinging eyes, and other adverse effects, with particulate matter from the ODSVRA.
- 5. The District monitors air quality throughout San Luis Obispo County, with multiple monitoring sites on the Nipomo Mesa located directly downwind of the ODSVRA. These sites include CDF- Arroyo Grande; Mesa 2 Nipomo/Guadalupe Road; and NRP at Nipomo Regional Park. During the period between May 1, 2012 and March 31, 2017 there were 363 days when the District observed violations of the State PM10 standard at one or more these sites. Specifically, the state standard was exceeded 356 times at CDF, 190 times at Mesa2, and 59 times at NRP, for a collective total of 605 individual exceedances measured during this period at monitoring sites downwind of the ODSVRA riding areas; 7 of the state standard exceedances recorded at CDF during this timeframe also exceeded the Federal PM10 standard. From the installation of the Oso Flaco Control Site Monitor in July 2015 through March 31, 2017, the District recorded 93 violations of the District Rule 1001 air quality performance standard. The primary source of these exceedances and violations was determined after examining the wind speed and wind direction under which they occurred, using data from the extensive air monitoring network located downwind of the ODSVRA. Recent computer modeling of particulate emissions from the ODSVRA by the California Air Resources Board supports the finding of excessive levels of particulate matter in areas where complaints originated.
- 6. The Environmental Protection Agency and the California Air Resources Board (CARB) have set standards for particulate matter to protect human health and the environment. Exposure to particulate matter can affect both lungs and the heart, with scientific studies linking particle pollution exposure to a number of significant health effects, including premature death in people with heart or lung disease; nonfatal heart attacks; irregular heartbeat; aggravated asthma; decreased lung function; and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing. People with heart or lung disease, children, and older adults are the most vulnerable to health effects caused by particle pollution exposure.
- 7. Numerous scientific studies and analyses conducted by APCD, State Parks, and CARB have documented emissions from the ODSVRA offroad vehicle riding areas upwind of the Nipomo Mesa as the main source of particulate matter causing the dust and air pollution that is the subject of the ORDER OF ABATEMENT 3

complaints received, and the associated nuisance and public health risks and impacts that are the subject of this proceeding. Those studies show the LeGrande tract, where most of the camping and a large portion of the riding activity occurs, contains some of the most emissive areas in the ODSVRA and is a highly significant contributor to the particulate emissions impacting downwind residents.

8. State Parks soil emissivity studies, discussed and referenced in the staff report, show that prohibiting riding in protected areas using perimeter fencing, such as the seasonal fencing installed at the Snowy Plover exclosure adjacent to the Le Grande tract, can likely significantly reduce the amount of sand transport and associated dust generation from those areas, even on a seasonal basis. Installing perimeter fencing and prohibiting riding in the fenced areas requires far less time and resources to implement than any of the longer-term dust controls, such as reestablishing vegetated foredunes. Thus, it likely provides an effective method for reducing/abating the nuisance in a timely manner in the interim period before more permanent controls are designed and implemented.

Request for Abatement Order

In consideration of the aforementioned facts, the APCO requests this Board to find, based on substantial evidence, that the respondent is operating its facility in violation of Section 41700 of the California Health and Safety Code and District Rule 402, *Nuisance*, in that said respondent is allowing the discharge of air contaminants which cause injury, detriment, nuisance or annoyance to a considerable number of persons and to the public, and which endangers the comfort, repose, health and safety of such persons or such public, and which causes, or has the natural tendency to cause, injury or damage to business or property.

Petitioner further requests this Board to issue an Order for Abatement requiring respondent to refrain from violating Section 41700 of the Health and Safety Code and District Rule 402, *Nuisance*.

As part of the Abatement Order, Petitioner requests the Board to impose conditions on the Respondent to ensure the nuisance caused by operation of the ODSVRA is abated in a timely manner. Staff recommends requiring Respondent to implement the proposed conditions below, as well as such other and further relief as this Board deems just and proper:

- 1. Require Respondent, by January 31, 2018, to implement either Option a, b, c, or d below:
 - a. Fence off and prohibit vehicle traffic on a minimum of 100 acres that cumulatively encompass the most emissive areas within emission zones 1, 2, 3, and 4 as shown on the

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attached ARB modeling domain maps; a map of the proposed fencing areas shall be provided to the APCO for approval prior to installation. The fencing shall remain in place and be maintained until:

- i. A Particulate Matter Reduction Plan, as required by Rule 1001 and this Order, has been prepared by OHMVR and formally approved by the APCO; **and**
- ii. Dust control measures are in place that provide emission reductions equivalent to those provided by the 100 acres of fencing specified above, as determined by the APCO.

Over a timeframe of several months to a year, implementation of Option "a" will likely reduce, but not abate, the nuisance caused by operation of the ODSVRA. Thus, the Board may wish to consider requiring the Option "b" alternative below:

- b. Fence off and prohibit vehicle traffic on a minimum of 200 acres that cumulatively encompass the most emissive areas within emission zones 1, 2, 3, and 4 as shown on the attached ARB modeling domain maps; a map of the proposed fencing areas shall be provided to the APCO for approval prior to installation. The fencing shall remain in place and be maintained until:
 - i. A Particulate Matter Reduction Plan, as required by Rule 1001 and this Order, has been prepared by OHMVR and formally approved in writing by the APCO; and
 - ii. Dust control measures are in place that provide emission reductions equivalent to those provided by the 200 acres of fencing specified above, as determined by the APCO.

Over a timeframe of several months to a year, implementation of the Option "b" alternative should further reduce, but likely not abate, the nuisance caused by operation of the ODSVRA. Thus, the Board may wish to consider the option "c." alternative below:

- c. Require Respondent to annually prohibit camping and offroad vehicle riding on the Le Grande tract portion of the ODSVRA from February 1 through June 30 each year. This prohibition shall remain in place until:
 - A Particulate Matter Reduction Plan, as required by Rule 1001 and this Order, has been prepared by OHMVR and formally approved in writing by the APCO; and
 - ii. Dust control measures are in place that provide emission reductions equivalent to those achieved by prohibiting camping and offroad vehicle activity on the Le Grande tract from February through June each year, as determined by the APCO.

Implementation of the Option "c" alternative is expected to considerably abate the nuisance caused by operation of the ODSVRA during the months it is closed. It will not, however, abate the nuisance during the months it is open to riding, particularly during the fall months of September and October, when high winds and associated dust emissions also typically occur. Thus, the Board may wish to consider the option "d" alternative below:

- d. Require Respondent to prohibit all camping and offroad vehicle riding on the Le Grande tract portion of the ODSVRA. This prohibition shall remain in place until:
 - iii. A Particulate Matter Reduction Plan, as required by Rule 1001 and this Order, has been prepared by OHMVR and formally approved in writing by the APCO; **and**

iv. Dust control measures are in place that provide emission reductions equivalent to those achieved by prohibiting all camping and offroad vehicle activity on the Le Grande tract, as determined by the APCO.

Over a timeframe of several months to a year, implementation of the Option "d" alternative is expected to substantially abate the nuisance caused by operation of the ODSVRA.

- 2. Require Respondent, by June 30, 2018, to obtain APCO approval for a Particulate Matter Reduction Plan (PMRP) designed to achieve the performance standard in Rule 1001, Section C.3., by December 31, 2022, based on the CARB modeling. To achieve this result, the PMRP shall include the following:
 - a. Sufficient emission reduction measures proposed for implementation in 2019 to achieve at least a 25% reduction in the total emission reductions needed to comply with the Rule 1001 performance standard, as determined by the CARB modeling; and,
 - b. Sufficient emission reduction measures proposed for implementation in 2020 to achieve at least a 50% reduction in the total emission reductions needed to comply with the Rule 1001 performance standard, as determined by the CARB modeling.
 - c. Sufficient emission reduction measures proposed for implementation in 2021 to achieve at least a 75% reduction in the total emission reductions needed to comply with the Rule 1001 performance standard, as determined by the CARB modeling.
 - d. Sufficient emission reduction measures proposed for implementation in 2022 to achieve compliance with the performance standard in Rule 1001, Section C.3., by December 31, 2022, based on the CARB modeling.
- 3. Require Respondent and Petitioner to report back to the Hearing Board at least once every six months to provide a status update on progress in compliance with this Abatement Order.

It is important to note that implementation of Condition 1 Options a, b, c, or d above is intended to provide timely relief to the affected residents downwind of the ODSVRA while State Parks works to develop and implement a PMRP that will provide long-term, permanent emission reductions that can fully abate the Nuisance and demonstrate compliance with the requirements of Rule 1001 Section C.3 by December 31, 2022. Dr. Nickling, the Special Master in the Consent Decree process, recommends the following in that regard:

"More "natural" types of solutions are preferable to engineered solutions (e.g. fences and straw bales) given the areal extent of the problem. Engineered solutions are often unattractive and not in keeping with the Parks vision for maintaining the quality of the park experience. Natural solutions might include severely restricting rider activity, reducing the areal extent of rider activity, especially near the top of the tidal zone to allow the re-establishment of the foredunes that were formerly present at the site.

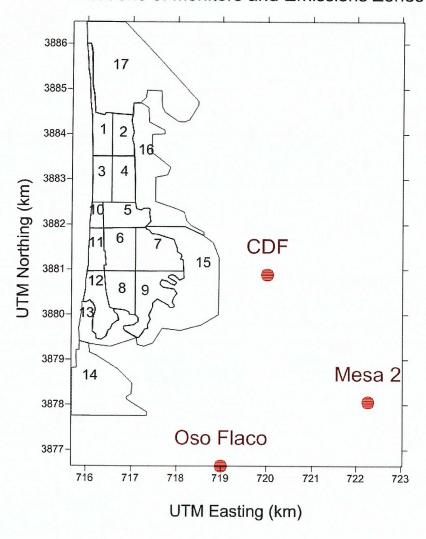
Inoculation or fertilizing of sediment to foster biological crust development might also be considered as part of this suite of approaches. In my opinion, the most effective approach would be to extend the amount

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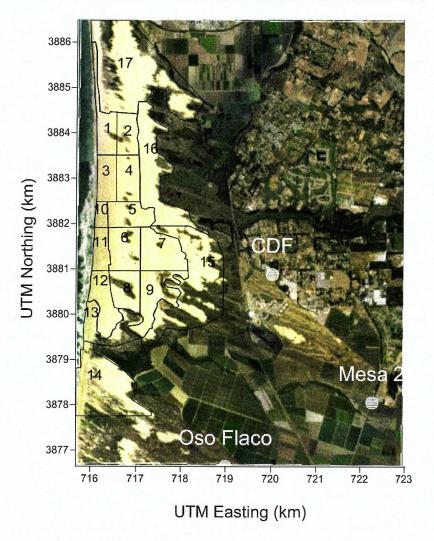
of vegetation cover at the site." (Mediation Report of the Special Master (Dr. W. G. Nickling) regarding the Notice of Violation between California Department of Parks and Recreation (OHMVRR division) and the San Luis Obispo Air Pollution Control District, page 4-5) It is expected that reestablishment of vegetated foredunes and revegetation of some inland open sand areas in the Le Grande tract and other disturbed areas within the ODSVRA will be substantial elements of the long-term dust control strategies identified in and implemented through the PMRP. Dated this 13th day of November 2017. Dr. Yarrow Nelson, Vice-Chair San Luis Obispo County APCD Hearing Board ORDER OF ABATEMENT - 7

Emission Zones

Locations of Monitors and Emissions Zones

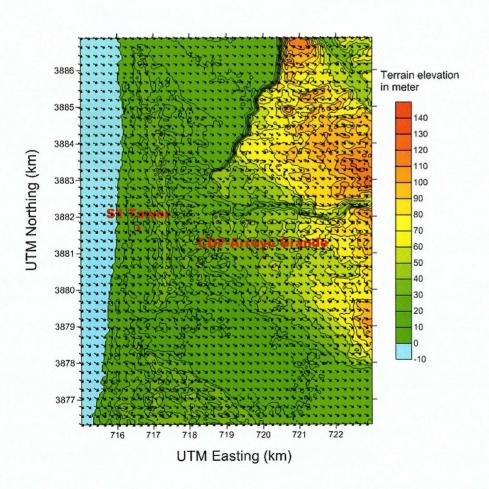


Locations of Monitors and Emissions Zones



Modeling Inputs

Gridded Wind Field



Gridded Emissions Field

