



Air Pollution Control District  
San Luis Obispo County

August 21, 2024

Sarah Miggins  
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California Department of Parks and Recreation  
P.O. Box 942896  
Sacramento, CA 94296-0001

SUBJECT: Comments on the California Department of Parks and Recreation's August 1, 2024, Oceano Dunes SVRA Draft 2024 Annual Report and Work Plan in Response to Stipulated Order of Abatement Number 17-01

Dear Ms. Miggins:

We are in receipt of your Draft 2024 Annual Report and Work Plan (ARWP) for the Oceano Dunes SVRA, dated August 1, 2024. Thank you for submitting the Draft ARWP by the deadline specified in the Stipulated Order of Abatement (SOA). On August 15, 2024, we also received comments on the 2024 ARWP from the Scientific Advisory Group (SAG).

The Draft ARWP documents the substantial effort by State Parks to control windblown dust emissions from the Oceano Dunes State Vehicular Recreation Area (ODSVRA) over the last several years, and it reports on the research and monitoring activities contained in the 2023 ARWP.

For the 2024-2025 cycle, the ARWP proposes converting the remaining 12 acres of temporary dust controls to permanent dune vegetation and completing supplemental plantings in previously restored areas. It does not propose any additional acreage of dust controls as current modeling predicts that emissions from the ODSVRA are likely lower today than they were prior to vehicular disturbance. The 2024 ARWP proposes some further refinements to the emissions model, including updates to its underlying emissivity relations which cannot occur until after the plover nesting area opens in October 2024. As a result, the updated model will not be available for the final 2024 ARWP.

The District tentatively agrees that no additional dust controls are warranted at this time, and we also agree that the proposed model refinements are needed in order to be confident that compliance with the SOA has been achieved. Thus, we are supportive of the work plan proposed in the ARWP, even though we cannot, at this time, find that Parks has achieved compliance with the SOA.

Rather than grant preliminary conditional approval of the first draft of the 2024 ARWP, we offer some suggestions for improvement below. The SAG review also suggested some

changes. Therefore, we will defer approval the ARWP at this time so that you may have the opportunity revise it in response to these comments.

According to the timelines required by the SOA, State Parks has 21 days or until September 12, 2024, to submit a revised ARWP for SAG and District review. After receipt of a provisionally approvable ARWP as required by the SOA, the APCD will schedule a public workshop. As we did last fall, the District plans to schedule the public workshop concurrently with a planned October 15, 2024, Hearing Board public meeting. This meeting will be held in-person at 9:00 a.m. in the San Luis Obispo County Board of Supervisors Chambers located at 1055 Monterey Street, San Luis Obispo, CA 93401. Thank you and feel free to contact me with any questions.

Respectfully,



GARY E. WILLEY

Air Pollution Control Officer

Enclosures

cc: Liz McGuirk & Jon O'Brien, CA DPR, APCD Hearing Board, APCD District Board, APCD District Counsel, Coastal Commission Staff & SAG

## General Comments

As with the previous Annual Reports and Work Plans,<sup>1</sup> the DRAFT 2024 ARWP<sup>2</sup> documents the substantial effort by State Parks to understand and control windblown dust emissions from the ODSVRA over the last year. Between August 1, 2023, and July 31, 2024, State Parks completed the work proposed in the previous year's ARWP as well as the additional items required by the District's conditional approval letter.<sup>3</sup> While no additional portions of the open-riding and camping area were converted to dust mitigations, State Parks maintained and managed 740.1 acres of the park for dust control. Some 37.5 acres of existing temporary controls were converted to permanent dune vegetation and another 2.4 acres of supplemental planting were completed in existing restoration areas. Only 12.3 acres of temporary controls remain, and these are straw treatment areas; all temporary wind fence projects have now been converted to permanent vegetation.

The ARWP provides evidence for continued increase in the overall effectiveness of the dust control program, even as its footprint remained unchanged at 740.1 acres in 2023. The ARWP reports that compared to the previous 5 years, the first half of 2024 had the fewest exceedances of the California PM<sub>10</sub> standard downwind of the ODSVRA. Specifically, the first half of 2024 had 13 days exceeding the standard at CDF versus 16 to 54 days over the same months in 2019-2023, and 11 days at Mesa<sup>2</sup> versus 11 to 38 days.<sup>4</sup> The ARWP also reports that 2023 had the lowest TPM<sub>10</sub>/TWPD ratio since measurement began.

The ARWP further reports on the ambitious research and monitoring activities at the ODSVRA, including model refinements and other work intended to implement the conditions of approval of the 2023 ARWP<sup>3</sup> and comply with the amended the SOA.<sup>5</sup> Much of this work was performed by or in close consultation with the SAG, and the District appreciates the tremendous effort expended by State Parks and the SAG on these activities.

For the 2024-2025 cycle, the ARWP proposes converting the remaining 12.3 acres of temporary straw treatment to permanent dune vegetation and completing supplemental plantings in

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<sup>1</sup> Previous and current Annual Reports and Work Plans as well as comment letters, approval letters, and related documents can be found on the District's website at <https://www.slcleanair.org/air-quality/oceano-dunes-efforts.php>.

<sup>2</sup> California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division, "Oceano Dunes State Vehicular Recreation Area Dust Control Program: Draft 2024 Annual Report and Work Plan," August 1, 2024. Available online at [https://storage.googleapis.com/slcleanair-org/images/cms/upload/files/2024ARWP\\_APCDDraft\\_20240801\\_Reduced.pdf](https://storage.googleapis.com/slcleanair-org/images/cms/upload/files/2024ARWP_APCDDraft_20240801_Reduced.pdf) (main document) and [https://storage.googleapis.com/slcleanair-org/images/cms/upload/files/2024ARWP\\_APCDDraft\\_Attachments\\_reduced.pdf](https://storage.googleapis.com/slcleanair-org/images/cms/upload/files/2024ARWP_APCDDraft_Attachments_reduced.pdf) (attachments).

<sup>3</sup> Gary E. Willey to Sarah Miggins, "Conditional Approval of California Department of Parks and Recreation's 2023 Annual Report and Work Plan in Response to Stipulated Order of Abatement Number 17-01," dated October 18, 2023. Available on at <https://storage.googleapis.com/slcleanair-org/images/cms/upload/files/2023-10-18%20Conditional%20Approval.pdf>

<sup>4</sup> These statistics have not been independently verified by the District.

<sup>5</sup> Hearing Board of the San Luis Obispo County Air Pollution Control District, "Order To Modify Existing Stipulated Order Of Abatement," Case 17-01, filed October 18, 2022. Available online at <https://storage.googleapis.com/slcleanair-org/images/cms/upload/files/SOA%2017-01%20Second%20Amendment%20Final%20Adopted%2010-14-2022%20%26%20Filed.pdf>.

previously restored areas. It does not propose converting any additional acreage of the open-riding and camping area to dust controls. This is because, as stated in the ARWP, “modeling indicates that the ODSVRA, as currently configured according to management zones and accounting for all treatment projects implemented since 2013, does not emit dust to a level that is in excess of the ‘naturally occurring’ conditions inherent to the ‘pre-disturbance’ scenario.”<sup>6</sup>

In their comments on the ARWP,<sup>7</sup> the SAG supports this conclusion, stating that “the evidence for compliance with the terms of the [amended] SOA is much more compelling [than what was presented in the 2023 ARWP], and the SAG supports the modeling framework and related results that have led [State Parks] to assess that the ODSVRA is most likely not in a condition of excess emissions at present. The SAG also agrees that there is, at this time, no reason to undertake new projects involving conversion of land from riding to non-riding use.”

The District tentatively concurs with this conclusion; however, we continue to have reservations about the modeling of the Plover Enclosure area. Specifically, the modeling assumes this area to be less emissive today than it was prior to vehicular disturbance and also less emissive than other non-riding areas within the contemporary ODSVRA.<sup>8</sup> At the request of the District, State Parks undertook supplemental modeling in which this area was modelled assuming the higher emissivity of the contemporary non-riding area. As noted in a footnote to ARWP Table 2-9, this supplementary modeling still found that emissions from ODSVRA are lower today than in the pre-disturbance scenario and thus no additional mitigations are needed to comply with the SOA. With these results and State Parks’ plan to conduct additional PI-SWRL emissivity measurements in the Plover Enclosure this fall, the District tentatively agrees that no additional dust control projects are indicated at this time to comply with the SOA as amended.

The ARWP also proposes some further refinements to the emissions modeling as well as updating its emissivity profiles to incorporate the results of recently completed and future PI-SWRL measurements. The District agrees that these are needed to ensure the accuracy of the compliance modeling. As such, while we agree with the overall approach and the proposed workplan, we cannot at this time find that State Parks is in compliance with the SOA as amended.

Notwithstanding our general concurrence with the ARWP, we decline to approve the ARWP at this time so that State Parks may revise it in response to the suggestions made by the SAG in their review and by the District, below.

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<sup>6</sup> 2024 ARWP at 2-77.

<sup>7</sup> Scientific Advisory Group, “SAG Review of ‘CDPR 2024 ARWP\_APCDDraft\_20240801,’” August 15, 2024. Available online at [https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/SAG%20Memo%20-%20SAG%20Review%20of%202024%20ARWP%20%28August%201%20version%29\\_FINAL\\_20240815.pdf](https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/SAG%20Memo%20-%20SAG%20Review%20of%202024%20ARWP%20%28August%201%20version%29_FINAL_20240815.pdf)

<sup>8</sup> For a full discussion of this issue, see “APCD Comments on the SAG Proposal Re: Emissivity Grids,” August 1, 2023, available online at <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Revised%20Comments%20on%20SAG%20proposal%20on%20emissivity%20grids.pdf>, and also the SAG’s response, “Reply to Comments from APCD and CDPR on SAG Proposed Emissivity Grids Document of June 21, 2023,” December 19, 2023, available online at <https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/SAG%20Memo%20-%20Reply%20to%20APCD%20and%20CDPR%20on%20Comments%20regarding%20June%2021%20Emissivity%20Grid%20Proposal.pdf>.

## Specific Suggestions

**Page 2-67.** Figure 2-28 of Section 2.3.1.2 and Figure 2-29 on the next page present graphs of  $TPM_{10}/TSP$  ratios versus acres of dust control for CDF and Mesa2, respectively; both graphs depict linear regression fits to the data. The District is encouraged to see sustained downward trends in the ratio at both sites, even as the dust control footprint remained the same in 2023. We note, however, that a *linear* trend is not necessarily expected. The impact of a dust control project on dust generation depends not only on its size but also its location and its type (i.e., revegetation, wind fence array, straw treatment, or vehicle enclosure). Furthermore, revegetation projects are expected to increase in efficacy over time as vegetation matures.

**Page 2-77.** As noted on this page and depicted in Figure 2-31 on the next page, vegetation islands are assumed to be completely non-emissive in the contemporary scenario. The District agrees that this is appropriate for evaluating whether the dust mitigation projects will achieve the goals of the SOA. We note, however, that there appear to be significant areas of open sand within some of these areas. See, for example, Figure 23 of ARWP Attachment 8, which overlays the 2020 vegetation cover mask onto the emissivity zones used to model the current ODSVRA. The vegetation mask does not completely overlay the vegetation island zones, implying that there may be areas of open sand that are being modeled as if they are non-emissive. (The District acknowledges that some of these areas may now be vegetated, as the vegetation mask used in the figure was derived from aerial photography from 4 years ago. On the other hand, the seaward edge of some islands may have since become inundated with sand leading to loss of vegetation.) Modeling areas of open sand as if they are vegetated and thus non-emissive could underestimate their emissions. For these reasons, the District suggests that future modeling consider refining the shape of the vegetations islands, perhaps using more recent aerial photography. Non-vegetated portions (which are closed to vehicles) should be modeled assuming non-riding area emissivity rather than assuming they are completely non-emissive.

**Page 3-5.** Section 3.3.2 states that “the extent of the model grid, as currently configured, does not cover the entire area of the ODSVRA. There are small sections on the north and south extremities of the ODSVRA that are not captured in the model grid.” While it is unfortunate that this discrepancy was not discovered until recently, the District agrees that it should be corrected, even though we do not anticipate it to affect estimated emissions very much. We suggest including a map in an updated ARWP that clearly shows which areas of the ODSVRA were omitted from the modeling presented section 2.3.2.

To expand the modeling domain while staying within the capabilities of the modeling software, this section proposes using a larger grid size: 25 m × 25 m versus 20 m × 20 m. The District suggests doing a sensitivity analysis in which the original domain is modeled using the coarser grid in order to test whether the grid expansion procedure has significant effects on the modeling results. While a coarser grid is expected to yield a coarser emissions estimate, it should not be so coarse as to yield different conclusions regarding compliance with emissions requirements. If the emissions model of the full domain generates a different conclusion regarding compliance, then a sensitivity analysis could increase confidence that the results are accurate and not artifacts of the grid expansion procedure.

**Page 3-8.** Section 3.3.4 discusses future PI-SWERL measurements in the Plover Exclosure (PE) and Foredune Restoration (FRA) areas. As noted above and in previous comment letters, the District has reservations about how these areas are being modeled under the current scenario—specifically the assumption that they are less emissive today than before vehicular disturbance, and less emissive than other contemporary non-riding areas which have been closed to off-roading for much longer. State Parks and the SAG should ensure that this measurement campaign is designed such that temporal and spatial effects can be disentangled. We suggest that while measuring the PE and FRA, measurements are made simultaneously in other zones of the park that have been repeatedly measured.