SLO COUNTY apcd | Air Pollution Control District
San Luis Obispo County

August 21, 2023

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, 2023, Oceano Dunes SVRA Draft 2023 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 2023 Annual Report and Work Plan (ARWP) for the Oceano Dunes SVRA, dated August 1, 2023. Thank you for submitting the Draft ARWP by the deadline specified in the Stipulated Order of Abatement (SOA).

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 ambitious research and monitoring activities proposed in the previous year's ARWP. Draft District data indicates the lowest number of yearly exceedances to date, since PM_{10} monitoring began.

For the 2023-2024 cycle, the ARWP proposes converting the remaining 37.5 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 because, (in part) "the model results based on the existing modeling approach demonstrates that State Parks is in compliance with the SOA as regards mass emissions." As discussed in detail in our attached comments, the referenced modeling does not comply with the requirements of the District's approval of the 2023 ARWP. It is therefore premature to conclude that no new dust control mitigations are needed. Accordingly, we cannot approve the ARWP in its current form.

Based on the timelines required by the SOA, State Parks has 21 days or until September 10, 2023, to make the corrections and submit those changes 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 13, 2023, Hearing Board public meeting. This meeting will be held at 9:00 a.m. and will be held in person. 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

Introduction

The DRAFT 2023 Annual Report and Work Plan ("ARWP"),[1] dated and received August 1, 2023, documents the substantial effort by State Parks to understand and control windblown dust emissions from the Oceano Dunes State Vehicular Recreation Area ("ODSVRA") over the last year. Between August 1, 2022, and July 31, 2023, State Parks completed the work proposed in the previous year's ARWP. While no additional acreage of the open-riding and camping area was converted to dust mitigations, State Parks maintained and managed 740.1 acres of the park for dust control. Some 27.3 acres of existing temporary controls were converted to permanent controls, i.e., dune vegetation, another 37.5 acres of existing temporary controls were maintained, and 20.2 acres of supplemental planting was completed in existing restoration areas.

Of note, the ARWP reports that compared to the first half of the years 2019-2022, the first half of 2023 had the most high-wind days (72 days versus 30-64 days) but was tied for the fewest exceedances of the California PM_{10} standard downwind (16 days versus 16-54 days).[2]

The ARWP further reports on the ambitious research and monitoring activities proposed in the previous year's ARWP, including model refinements and other work intended to implement and comply with the new targets established in the October, 2022, amendments to the Stipulated Order of Abatement in Case 17-01 ("SOA").[3] Much of this work was performed by or in close consultation with the Scientific Advisory Group ("SAG"), and the District appreciates the tremendous effort expended by State Parks and the SAG on these activities.

For the 2023-2024 cycle, the ARWP proposes converting the remaining 37.5 acres of temporary dust controls to permanent dune vegetation and completing supplemental plantings in previously restored areas. It does not propose converting any additional acreage of the open-riding and camping area to dust controls. This is because, "(i) the model results based on the existing modeling approach demonstrates that State Parks is in compliance with the SOA as regards mass emissions; and (ii) the new modeling framework is anticipated to yield a new set of numbers that may affect potential future dust control measures at ODSVRA."[4]

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[1] California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division, "Oceano Dunes State Vehicular Recreation Area Dust Control Program: Draft 2023 Annual Report and Work Plan," August 1, 2023. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/2023ARWP_APCDDraft_20230801_reduced.pdf (main document), https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/2023%20ARWP%20Cover%20Letter%20Final.pdf (cover letter), and https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/2023ARWP_Attach_ALL_20230801_reduced.pdf (attachments).

[2] These statistics have not been independently verified by the District. In fact, our database of PM_{10} (Standard Conditions) shows only 12 exceedances over this period for 2023.

[3] 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/slocleanair-org/images/cms/upload/files/SOA%2017-01%20Second%20Amendment%20Final%20Adopted%2010-14-2022%20%26%20Filed.pdf.

[4] 2023 ARWP, p 3-1.

It's premature to conclude that the SOA emissions goal has been achieved and that therefore no new dust control areas will be needed in the future. As alluded to in the ARWP cover letter and as described in more detail in the SAG's review,[5] the so-called "apples-to-oranges" comparison issue persists. Without an "apples-to-apples" comparison of emissions between the park as currently configured and the pre-disturbance scenario, it cannot be determined whether current mass-based PM_{10} emissions from within the ODSVRA really have been reduced to a level consistent with the pre-disturbance scenario.

The apples-to-oranges issue was identified by the both the SAG and the District last August in our comments on the 2022 ARWP,[6,7] and it was described further in the District's application to modify the SOA.[8] The District's conditional approval letter of the 2022 ARWP, specifically requires this issue be addressed in the 2023 ARWP.[9] The District understands that the model is currently being revised to achieve a more "apples-to-apples" accounting of emissions changes, and that the results will be included in the next draft of the ARWP.

We are also concerned with statements in the ARWP such as "The latest [i.e., the forthcoming] revision to the pre-disturbance model may provide an 'apples to apples' comparison of Dust Control Program effectiveness but it is not directly relevant to the excess emissions framework adopted in the October 2022 SOA amendments,"[10] and "While this exercise enhances the ability of State Parks, the SAG, and the APCD to compare model results, it is not directly relevant to the excess emissions framework adopted in the October 2022 SOA amendments."[11] The District disagrees. We regard an apples-to-apples comparison of emissions under the current configuration and under the pre-disturbance scenario as critical to demonstrating compliance with the SOA as amended.

Furthermore, to demonstrate compliance with the SOA's requirement to "eliminate emissions in excess of naturally occurring emissions from the ODSVRA that contribute to downwind violations of the state and federal PM_{10} air quality standards," State Parks is proposing a new "excess emissions

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[5] Scientific Advisory Group, "SAG Review of CDPR 2023 ARWP_APCDDraft_20230801," August 13, 2023. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/SAG%20Memo%20-%20SAG%20Review%20of%202023%20ARWP%20%28August%201%20version%29_FINAL_20230813.pdf.

[6] Scientific Advisory Group, "SAG Review of CDPR 'DRAFT 2022 Annual Report and Work Plan' (dated August 1, 2022)," August 15, 2023. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/SAG%20comments%202022%20ARWP%20-%2020220801%20version.pdf.

[7] San Luis Obispo County Air Pollution Control District, "Comments on the DRAFT 2022 Annual Report and Work Plan dated August 1, 2022," August 23, 2022. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/APCD%20Comments%20on%20SP%20Draft%202022%20ARWP_pdf.pdf.

[8] San Luis Obispo County Air Pollution Control District, "Air Pollution Control Officer's Application To Modify The Terms And Conditions Of Stipulated Order Of Abatement In Case 17-01 Dated October 5, 2022," prepared for the October 14, 2022, hearing before the Hearing Board Of The San Luis Obispo County Air Pollution Control District. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Application%20to%20modify.pdf.

[9] Gary E. Willey to Sarah Miggins, "Conditional Approval of California Department of Parks and Recreation's 2022 Annual Report and Work Plan in Response to Stipulated Order of Abatement Number 17-01," dated October 21, 2022. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Final%20Conditional%20Approval%20-%20Revised.pdf.

[10] 2023 ARWP Cover Letter.

[11] 2023 ARWP p 2-11.

framework." Described in Section 3.3.1 and Attachment 11-04 of the ARWP, this new framework itself relies on modeling pre-disturbance emissions, so it seems to the District that an apples-to-apples comparison of current and pre-disturbance is *directly* relevant to this effort.

For these reasons and others described later, the District cannot approve the 2023 ARWP in its current form. An approvable ARWP must include modeling that complies with the requirements of District's conditional approval letter of the 2022 ARWP. Furthermore, if such modeling demonstrates that the SOA's requirement to "reduce mass-based PM_{10} emissions within the ODSVRA to a level consistent with the pre-disturbance scenario…" has not been met, then an approvable ARWP must also plan for additional dust controls that will attain this goal.

The sections that follow expand on these issues and presents others. These comments must be addressed in a revised ARWP.

Compliance with the Modified SOA

As noted in the introduction of the 2023 ARWP, the last SOA modification fundamentally changed the goals and compliance mechanism of the SOA. Previously, the SOA had an initial target of reducing PM_{10} emissions from the ODSVRA riding area by 50%.[12] As discussed in the application to modify the SOA,[8] substantial work since the adoption of the original SOA supported refining that target to "reduc[ing] mass-based PM_{10} emissions within the ODSVRA to a level consistent with the pre-disturbance scenario identified by the SAG…"

The original SOA also required that mitigations be designed to achieve the state and federal PM_{10} standards.[7] Since then, it was recognized by State Parks, the District, and the SAG that sand dunes are natural features of the area, and that even without the long history of vehicular disturbance, some exceedances of the PM_{10} standards would likely still occur. Therefore, the application to modify the SOA proposed changing the requirement to "eliminat[ing] emissions in excess of naturally occurring emissions from the ODSVRA that contribute to downwind violations of the state and federal PM10 air quality standards."

Finally, recognizing that the proposed language was less concrete than the original language it was to replace, we proposed including the requirement that "By October 16, 2024, in consultation with the SAG and CARB, the Respondent shall obtain Hearing Board approval of a final excess emissions goal," in order to give the Hearing Board the final say on the issue. All of these modifications were agreed to by State Parks and included in the amended SOA.

To comply with the SOA requirement to "eliminate emissions in excess of naturally occurring emissions" and obtain Hearing Board approval of a "final excess emissions goal," State Parks and the SAG are devoting significant resources to a proposed excess emissions framework. This is described in Section 3.3.1 and Attachment 11-04 of the ARWP. Certain statements in the ARWP, such as those quoted above in the Introduction, seem to imply that resources are being applied to developing this framework at the expense of demonstrating attainment of the mass-based PM_{10} emissions

[12] Hearing Board of the San Luis Obispo County Air Pollution Control District, "Stipulated Order Of Abatement," Case 17-01, filed May 4, 2018. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Filed%20%26%20Approved%20SOA%20Case%2017-01%20Apr-30-18.pdf.

reduction goal. This District cautions against this trade-off and also against overreliance on the proposed framework for obtaining Hearing Board approval.

The proposed excess emissions framework is based on the ratio of total PM_{10} to total wind power density ("TPM10:TWPD"), a metric developed by Desert Research Institute ("DRI").[13] The District agrees that when applied to *observed* data, TPM10:TWPD appears to be a very useful metric for assessing changes in PM_{10} levels in response to mitigations. However, the proposed excess emissions framework extends to TPM10:TWPD to a *modeled* scenario. Specifically, the TPM10:TWPD relationship for the naturally occurring emissions would be estimated from wind power density and PM_{10} values modeled under the pre-disturbance scenario; TPM10:TWPD for observed exceedances would then be compared to the pre-disturbance relationship to determine whether emissions were in excess of naturally occurring emissions. This is a complicated metric that may be difficult to explain, and involves many complex issues that have yet to be determined. These include bias in modeled windspeeds, selecting representative events to "calibrate" the TMP10:TWPD curve for naturally occurring emissions, defining the uncertainty band around the TMP10:TWPD curve (i.e., the gray area in ARWP Figure 3-2),[14] and other issues noted by the SAG in their review of DRI's proof-of-concept analysis (ARWP Attachment 11-04).

In contrast, The District views achieving the new emissions reduction target as the most important of the SOA goals. If defensible pre-disturbance and current scenarios can be reliably modeled under reasonable assumptions, and if that modeling demonstrates that emissions under the current scenario are less than pre-disturbance emissions, then it would be reasonable to consider that current emissions are not in excess of naturally occurring emissions, even on days when standards are exceeded. Thus, attainment of the SOA requirement would have been demonstrated. (By "current," we mean the ODSVRA as configured at the time of the attainment demonstration, not necessarily as configured in August 2023.)

As for obtaining Hearing Board approval of the final excess emissions goal, the District does not believe that SOA requires State Parks to develop a new "excess emissions framework" such as the TPM10:TWPD analysis proposed in the ARWP. Nor does the SOA require that future standard exceedances be evaluated on a case-by-case basis, as seems to be envisioned by the SAG proposal in Attachment 11-04, in order to determine whether they were caused by emissions in excess of naturally occurring emissions. On the contrary, we believe the best approach for obtaining the Hearing Board's approval would be to simply present to them with a package which includes:

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[13] Gillies, J. A., Furtak-Cole, E., Nikolich, G., & Etyemezian, V. (2022). The role of off-highway vehicle activity in augmenting dust emissions at the Oceano Dunes State Vehicular Recreation Area, Oceano, CA. *Atmospheric Environment: X*, *13*, 100146. Available online at https://www.sciencedirect.com/science/article/pii/S2590162121000460.

[14] Regarding the uncertainty band, DRI's proof-of-concept analysis includes graphs of modeled TPM10 versus TWPD for CDF, Mesa2, and S1. The SAG's review of this states, "The results are generally quite encouraging. It is particularly gratifying that the relationship between Total PM10 (TPM10) and Total Wind Power Density (TWPD) is linear and that the statistical correlation is quite good ($R2 \geq 0.85$)." (ARWP Attachment 11-04.) The District is less enthusiastic. While the relationship appears to be linear, there is significant scatter around the least square line through these points, and this suggests that the uncertainty band will likely be quite wide—possibly too wide to be of any practical use in determining compliance with the SOA.

- A demonstration that PM_{10} mass emissions from the then-current ODSVRA are less than or equal to, emissions from the pre-disturbance scenario, as described in the previous paragraph.[15]
- SAG and District concurrence with the demonstration.
- A commitment from State Parks to maintain the mitigations into the future.
- Other metrics based on PM_{10} monitoring data which show that the modeled reductions are, in fact, occurring. This could include a TPM10:TWPD analysis of observed monitoring data, as well as other analyses such as trends in exceedances and/or number of hours with PM_{10} greater than 300 $\mu g/m^3$ at CDF and Mesa2, and/or the District's "Difference-in-differences" analysis.[16].

In summary, the District believes the simplest path to complying with the SOA is to demonstrate that the mass emissions target has been achieved, backed up by analyses of monitored PM_{10} data.

The "Apples-to-Oranges" Issue

The so called "apples-to-oranges" issue relates to the use of different PI-SWERL emissivity datasets to derive the emissivity grids used in the emissions modeling. Specifically, PI-SWERL emissivity measurements made in 2013 are significantly higher, on average, than those made in 2019. This is the case for measurements in both the riding and non-riding areas. This issue is described extensively in the comments by the District and the SAG on the 2022 ARWP,[6,7] the District's application to modify the SOA,[8] and most recently in the SAG's memo on recommendations for emissivity grids.[17] Because of this, the comparison of model results which are based on different PI-SWERL emissions grids is an apples-to-oranges comparison, which results in the appearance of emissions changes which are, in fact, artifacts of the different dataset underlying the models.

To resolve this, the SOA was amended in October 2022 to require State Parks "initially reduce mass-based PM_{10} emissions within the ODSVRA to a level consistent with the pre-disturbance scenario identified by the SAG," using "**a representative emissivity grid** derived from PI-SWERL measurements as recommended by the SAG [emphasis added]."

In addition, the District's final conditional approval letter of the 2022 ARWP included the following requirements related to emissions calculations:

> *b. Emission calculations in the 2023 ARWP shall be based on assumptions*

[15] Certain mitigations need time to mature to reach full effectiveness, i.e., plants need time to grow, and dune systems need time to mature. If the demonstration relies on an assumption full effectiveness, then an estimate of actual emissions at current effectiveness should be included, as should a projection of how long it will take to reach full effectiveness.

[16] See, for example, "Appendix A: Assessing the Effectiveness of ODSVRA Mitigations" in San Luis Obispo County Air Pollution Control District, "2021 Annual Air Quality Report," November 2022. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/%28D-3%29.pdf.

[17] Scientific Advisory Group, "SAG Recommendations for Establishing Emissivity Grids to be used in Modeling of Pre-Disturbance Conditions and Future Excess Emissions Reductions," June 21, 2023. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/SAG%20Memo_Emissivity%20Grids%20for%20Future%20Modeling%20of%20Excess%20Emissions%20-%2020230621Rev1.pdf

recommended by the SAG and preapproved, in writing, by the APCO.

c. If APCO approval of emissions modeling assumption[s] is not obtained prior to the submission of the 2023 ARWP, then the emissions modeling shall use the following assumptions:

i. The same PI-SWERL dataset(s) used to derive the emissivity grid for the pre-disturbance scenario shall be used to derive the emissivity grid for the mitigation scenario, with the exceptions noted below for seasonal closures and the Plover Exclosure. If recommended by the SAG, State Parks may recalculate pre-disturbance emissions using different assumptions and/or data than those used by the SAG in their initial recommendation (e.g., 2022 PI-SWERL measurements may be incorporated); however, the same updates must also be applied to the calculation of emissions under the mitigation scenario.

ii. Emissions from areas that are seasonally open to off-roading shall be modeled based on the weighted average of the average emissivity of riding and non-riding areas.

iii. When modeling emissions from the permanent closure of the Plover Exclosure area, the emissivity grid shall be derived from actual PI-SWERL measurements conducted since it was permanently closed.

Regarding Condition b, the SAG has provided recommendations on the emissions calculations that weren't through our approval process in time to be incorporated into the initial draft ARWP. Since the modeling was not done according to Condition b, it should have followed Condition c. Conditions c.ii and c.iii appear to have been followed, but Condition c.i explicitly requires that "The same PI-SWERL dataset(s) used to derive the emissivity grid for the pre-disturbance scenario shall be used to derive the emissivity grid for the mitigation scenario,". Instead, the ARWP uses the 2019 measurements for mitigation scenario and measurements from 2013 and 2019 for the pre-disturbance scenario. In short, this ARWP does not comply with these conditions, and therefore it cannot be approved.

The District looks forward to the revised modeling that State Parks has committed to providing in the next draft of the 2023 ARWP. This modeling must comply Condition c. State Parks should also explain whether (and if so, how and when) it plans to adopt the SAG's emissivity grid recommendations.

Other Comments

Section: 2.2.1.1 DRI Model Assumptions

Section 2.2.1.1 of the ARWP discusses DRI model assumptions—specifically the assumed relationship between emissivity, F, in mg/m^{2}s, and shear velocity, u_*, in m/s. For the plover exclosure, foredune restoration area, and seasonal exclosure areas, the assumed relationships are $F = 7.847u_*^{7.104}$, $F = 10.286u_*^{7.1924}$, and $10.096u_*^{5.3521}$, respectively. The SAG emissivity memo (Reference 17) analyzed the same underlying PI-SWERL data and derived the following relationships:

$F = 11.416u_*^{9.355}$, $F = 10.710u_*^{8.060}$, and $13.0426u_*^{6.798}$, respectively. These are quite different. Please comment.

Table 2-7: Measured and Modeled Emission Estimates for Key Modeled Areas

Please update the table with units.

Section 2.2.4.1: Total PM_{10} and Total WPD April to September 2022

Despite the District's trepidation about the proposed excess emissions framework, we agree that the TPM10:TWPD is a useful metric for tracking how PM_{10} concentrations change in response to the deployment of mitigation measures. We note, however, that Figure 2-4 in this section omits data points for 2014, 2015, 2019, and 2020, and Figure 2-5 omits 2019 and 2020. We also note that the datum for 2022 is plotted at approximately 410 acres along the x-axis, but this year there were 740.1 acres of the ODSVRA providing dust control benefits. Please explain. There may be very good reasons for these apparent anomalies, but there is nothing in the main text, captions, or footnotes to explain these choices. Finally, while we are encouraged to see a downward trend in TPM10:TWPD versus acres of dust control, we note that a linear trend is not necessarily expected. How much of an impact an acre of controls has on a receptor depends on the type of control and where it is installed relative to the receptor. Furthermore, the effectiveness of a mitigation may change of over time: as vegetation matures effectiveness may increase, as fence arrays age effectiveness may decrease, etc.

2.3.4: Computational Fluid Dynamics (CFD)

Is it unclear how "wind speed ratio" (WSR) is defined. Section 2.3.4.1 states, "The relation between the upwind and downwind wind speed for each treatment area (measured and modeled) was defined as the wind speed ratio (WSR)," however Attachment 05 states, "The degree of matching between measured and modeled was defined as the Wind Speed Ratio (WSR), which was calculated as modeled wind speed at 3.5 m AGL/measured wind speed at 3.5 m AGL." Is the WSR the ratio of modeled and measured windspeeds or the ratio of upwind and downwind windspeeds? Which value is the numerator and which is the denominator?

This section and related attachment seem to argue that the CFD modeling can successfully reproduce the effects of the foredune vegetation on wind shear. It is not clear from the ARWP whether (and if so, how) CFD is being used in the emissions modeling. Please clarify the actual/proposed use of CFD in the emissions modeling of the current and pre-disturbance scenarios.

Section 2.3.5.2: September 2022 Nesting Exclosure and Foredune Beach and Transportation Corridor Areas

This section states that "The September 2022 measurements indicates the mean emissivity of the 48-acre foredune area, nesting exclosure, and beach area west of the foredune ranged from approximately 12% to 38% lower than the mean non-riding area emissivity for the period 2013 through 2019 and approximately 16% to 50% lower than the mean non-riding area emissivity for just 2019." In other words, the 2022 measurements were 62-88% of the 2013-2019 measurements and 50-84% of the 2019 measurements. This appears to conflict with the general trend in PI-SWERL measurements, i.e., 2013 measurements being higher than 2019. Please comment.

3.1.1.2 Criteria for Supplemental Planting

If there are past project areas with significant vegetation loss where conditions have not changed, State Parks should consider removing these areas from the dust control program, while establishing new dust control areas in their place. Emissions reductions from new dust control areas should fully offset any unrealized emissions reductions from the failed project areas that are removed from the dust control program.

3.2.1.2 PI-SWERL Surveys

The District agrees with State Parks that "PI-SWERL measurements are critical to informing the excess emissions stipulation in the SOA, and ongoing measurement campaigns are important for assessing the temporal and spatial dimensions of dust emissions from the ODSVRA. Any new measurements can be incorporated into the global data set of PI-SWERL measurements to inform adaptive management strategies in the future."[18]

As noted in our comments to the SAG on their emissivity grid recommendations, "The emissivity grid is supposed to capture the spatial variation in emissivity, so disentangling spatial effects from temporal effects is critical. For some zones, this may not be possible with the data discussed in the [SAG Memo on emissivity recommendations]. For example, as shown in Memo Figure 8, measurements made in the Plover Exclosure (PE) and Foredune Restoration Area (FRA) skew lower than measures made in the other non-riding areas (NRA), but the PE and FRA were measured *only* in September 2022, while *none* of the NRA measurements were made then. Thus, it is impossible to determine whether the lower emissivity of the PE and FRA relative to the NRAs is a spatial or temporal effect."[19]

For these reasons, we advised the SAG that we "strongly suggest conducting additional PI-SWERL measurement campaigns that are designed to address the issue of temporal vs spatial variation. This could be done by remeasuring the FRA and PE areas while simultaneously remeasuring areas that have already been extensively measured, e.g., the Central-North Riding Area in between Dune Preserve and the Foredune Restoration Area. This area was extensively measured in 2013, 2015, and 2019. If the new PE and FRA measurement are within the range of values observed in 2022, and the riding area measurements are with the range observed in 2019, then this would suggest that the difference between the two areas is a true spatial effect, and not an artifact of the whole ODSVRA being more emissive in one year versus another."

3.5.2 Additional Dust Controls Needed To Achieve SOA Goals

As noted previously, without an "apples-to-apples" comparison of emissions, it is premature to conclude that "State Parks is in compliance with the current requirements of the SOA" and to thus propose no new dust control measures. This section will need to be revised to include new dust

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[18] 2023 ARWP p 3-7.

[19] San Luis Obispo Air Pollution Control District, "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.

controls, if the required modeling, once completed, estimates that current emissions exceed pre-disturbance emissions.

SAG Comments

The SAG submitted comments on the DRAFT 2023 ARWP to State Parks and the District on August 14, 2023. This was 10 business days after State Parks submitted the ARWP to the District and conforms with the timeline defined in the SOA. With caveat about overreliance on the proposed excess emissions framework noted above, the District endorses the comments provided by the SAG.