

Introduction

The DRAFT 2022 Annual Report and Work Plan (“ARWP”),¹ dated and received August 1, 2022, 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, 2021, and July 31, 2022, State Parks installed 90.0 new acres of dust controls, converted 53.1 acres of existing temporary controls to permanent controls, and maintained existing vegetation plots and wind fence arrays. This is work that was proposed in the 2021 ARWP² approved by the District on October 20, 2021.³

The ARWP also discloses that in addition to these mitigation measures, State Parks has chosen to keep an additional 293.3 acres of the ODSVRA closed year-round to off-roading and camping. Known as the Plover Exclosure, this area was previously closed to off-roading and camping seasonally from March through September to protect two nesting shorebird species: the western snowy plover and the California least tern. The closure is not being done at the request of the District, nor is it an element of any District-approved ARWP or other plan; nonetheless, it is expected to lower dust emissions, and thus the ARWP “credits” these reductions toward the mass emissions target of the SOA. The ARWP further notes that “The decision to close this area was an operational choice that could be reversed at some point in the future. If this area were to be re-opened ... State Parks would identify other areas for dust control that equal the credited mass emissions reductions occurring from this area.”

The ARWP further reports on the ambitious research and monitoring activities proposed in the previous year's ARWP. 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. Key results include refinements to the air quality model (used to quantify emissions from the ODSVRA and estimate particulate concentrations downwind) and a proposal to revise the emissions reduction target of SOA Section 2.c from 50% to 40.7%. The ARWP states that State Parks plans to petition the Hearing Board to modify the SOA to incorporate this new target.

The completion of this work represents continued progress toward implementing the requirements of the Stipulated Order of Abatement in Case 17-01 (“SOA”). These are concrete measures to protect the health and welfare of nearby residents. The District recognizes that this work was completed in

¹ California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division, “Oceano Dunes State Vehicular Recreation Area Dust Control Program: Draft 2022 Annual Report and Work Plan,” August 1, 2022. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Draft2022ARWP_202208012.pdf.

² California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division, “Oceano Dunes State Vehicular Recreation Area Dust Control Program: 2021 Annual Report and Work Plan, Conditional Approval Draft” October 1, 2021. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/2021ARWP_CondAppDraft_withAttach_20211001.pdf.

³ Gary E. Willey, “Conditional Approval of California Department of Parks and Recreation’s 2021 Annual Report and Work Plan in Response to Stipulated Order of Abatement Number 17-01,” October 20, 2021. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/2021-10-20_ARWP_Final_Approval.pdf.

San Luis Obispo County Air Pollution Control District August 23, 2022 Comments on the
DRAFT 2022 Annual Report and Work Plan dated August 1, 2022

the face of various challenges including the ongoing COVID-19 pandemic, legal challenges, and uncertainty about the future of the park.

Looking forward, the ARWP proposes to convert some existing temporary dust controls to permanent controls in 2023. The District is pleased that State Parks plans to continue this effort even after the expiration of the current ARWP. State Parks also plans to essentially continue the ongoing scientific work and the maintenance of existing controls. The ARWP does not, however, propose any new dust controls. Instead, it argues that the existing controls are sufficient to achieve the revised emissions reduction target of 40.7% if emissions reductions from the Plover Enclosure are credited using certain assumptions (which may not be justified as discussed later). While the SOA may be modified in the coming months, this is speculative, and the District can only approve a plan that complies with the *current* SOA; the existing dust controls fall short of the current SOA Section 2.c emissions reduction target of 50%. Specifically, as indicated most clearly in Figure 2-14 of the ARWP (reproduced as Figure 1, below), achieving the current target requires modeled daily emissions to be reduced to 91.4 metric tons per day for the 10 “baseline” days. Even accounting for the year-round closure of the Plover Enclosure, the current and revised models estimate that emissions have been reduced only to 108.2 and 104.0 metric tons per day, respectively.

For this reason (and others discussed later) the District cannot approve the ARWP in its current form. An approvable ARWP must plan for attaining the *current* SOA Section 2.c emissions reduction target of 50% by the expiration of the *current* SOA, which is Dec 1, 2023. It may also include an alternative plan for achieving a revised target of 40.7% (or some other value) in the event that the Hearing Board approves modifying the SOA to incorporate this target. The District could conditionally approve an ARWP that plans for certain dust control measures if the SOA remains as-is but also includes an alternative plan if certain modifications are approved by the Hearing Board.

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

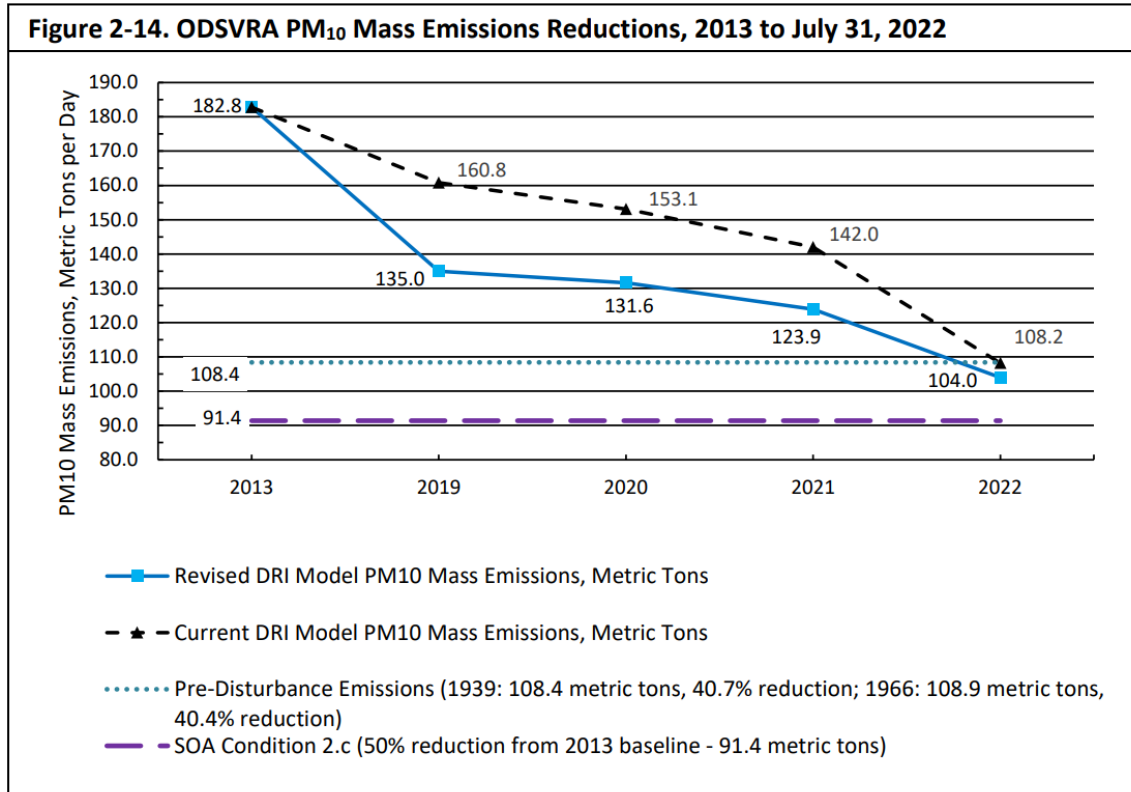


Figure 1: ARWP Figure 2-14

Emissions Reductions Target

As noted above, the ARWP is not approvable in its current form for the fundamental reason that it fails to demonstrate attainment of the goals of the SOA. As it stands, the SOA requires implementing a plan to achieve a 50% mass emissions reduction target by December 2023, and the ARWP only demonstrates a 40.8% reduction. Furthermore, the Section 2.c mass emissions reduction target is not the sole objective of the SOA. In fact, it is an ancillary goal, with the main goal expressed in Section 2.b: "to achieve state and federal ambient PM₁₀ air quality standards."⁴ With dozens of exceedances of the California PM₁₀ standard still occurring downwind of the ODSVRA on windy days, it is apparent that State Parks is not in compliance with this part of the SOA. We further note that the SOA was the outcome of a nuisance petition filed before the Hearing Board, and this nuisance is ongoing, with verified dust complaints still being received from residents downwind of the ODSVRA. Finally, State Parks remains subject to District Rule 1001, and the performance standard of section

⁴ It could even be argued that the issue of attaining a specific emissions reduction target is now moot. Attaining a specific modeled emissions level was never intended to be the only metric for determining compliance with the SOA. As stated plainly in Section 2.c, "**To meet the objective of 2b**, development of the Plan [PRMP] shall **begin** by establishing an **initial** target of reducing the maximum 24-hour PM₁₀ baseline emissions by fifty percent" (emphasis added). Thus, the Section 2.c target was intended as an "initial target," meant to get mitigation planning and implementation moving in the right direction with sufficient speed to reach the Section 2.b goal by the end of the SOA's term. While the SOA does not include an explicit deadline for modifying the Section 2.c target, it is apparent from the context of the order that the time to refine it was during the preparation of the PRMP, not three years into its implementation.

San Luis Obispo County Air Pollution Control District August 23, 2022 Comments on the
DRAFT 2022 Annual Report and Work Plan dated August 1, 2022

C.3 continues to be violated, with 31 days of non-compliance in 2021. In short, it is clear that more work remains to be done.⁵

The District also has concerns about the assumptions behind the revised target proposed by State Parks. We recognize that substantial work was done by the SAG to refine the target, and we defer to their expertise on the details of their work as documented in their report, "Scientific Basis for Possible Revision of the Stipulated Order of Abatement".⁶ But as they note in their report, lowering the target from 50% to 40.7% has "strong scientific justification" **if** "the management objective is to reduce emissions of PM₁₀ from the ODSVRA to a level consistent with dust emissions prior to significant OHV disturbance." A more appropriate management objective is to reduce emissions of PM₁₀ from the ODSVRA to a level consistent with what dust emissions would be today if the area had never been disturbed by vehicles. These objectives would be identical if it could be assumed that vegetation within today's ODSVRA would look much the same as it did in the 1930s even without the history of off-roading. However, the long-term trend for the West Coast has been an overall "greening," with undisturbed areas of the coast more vegetated today than 80 years ago. (This is apparent for the non-riding Oso Flaco area of the current ODSVRA, as shown in Figure 5 of Attachment 2 of the SAG report.⁷) It therefore stands to reason that were it not for the intervening history of vehicular use, the riding areas of the ODSVRA would be more vegetated today than in the 1930s, and thus less emissive. Yet the proposed emissions target of 40.7% assumes 1930s vegetative coverage.

We recognize that estimating emissions from a "pre-disturbance scenario" as done by SAG is both easier and subject to less uncertainty than estimating emissions from a hypothetical present-day scenario in which the ODSVRA had never been disturbed by vehicles. At least in the former scenario, aerial photos exist depicting where vegetation used to be. (Though whether the 1930s were truly "pre-disturbance" is debatable.) Nonetheless, the latter scenario represents the more appropriate management objective. A vegetation mask associated with this scenario could be derived by assuming that the expansion in vegetation documented for the non-riding areas from the 1930s to today would have also occurred in the riding area. **According to the SAG report (e.g., in Figure 5 of Attachment 2), about 20% more of the North and South Oso Flaco areas are covered with the vegetation today than in the 1930s. Thus, it is reasonable to assume that about 20% more of ODSVRA riding area would be vegetated today than in the 1930s.** The vegetation mask for this scenario could thus be derived by starting with 1930s mask assumed in the current proposal, and

⁵ This is consistent with the District's comments on the 2021 ARWP. Our comment letter on the first draft 2021 ARWP states "The overall objective of the SOA (as stated in Condition 2.b) is to attain the state and federal air quality standards—the 50% reduction in emissions is simply an "initial target" based on an initial estimate of what it would take to reduce the number of exceedances of the state PM₁₀ standard to the number observed downwind of a comparable non-riding area [i.e., Oso Flaco]. If a more refined analysis demonstrated that the standards could be attained with less than a 50% reduction in emissions, the District would likely support revising the emissions reduction target accordingly." The 2021 ARWP does not demonstrate that achieving the proposed 40.7% reduction would attain the California PM₁₀ standard or that it would reduce the frequency of standard exceedances at CDF to the same frequency as at Oso Flaco.

⁶ Scientific Advisory Group, "Memo: Scientific Basis for Possible Revision of the Stipulated Order of Abatement (SOA)," February 7, 2022. Available online at https://slocounty.granicus.com/MetaViewer.php?meta_id=414120.

⁷ Swet, N., Hilgendorf, Z., Walker, I., "UCSB Historical Vegetation Cover Change Analysis (1930-2020) within the Oceano Dunes SVRA," February 2022. Available as Attachment 2 to Reference 6.

then adding in enough vegetation (perhaps by padding out vegetation islands present in the 1930s) to cover an additional 20% of the area.

To address these issues, a **revised ARWP must:**

- Plan for additional dust controls to achieve a (modeled) 50% emissions reduction by December 1, 2023, consistent with the currently-in-force SOA. The modeling must address the issues outlined in subsequent sections. As in previous ARWPs, new dust control areas must be fenced from vehicular activity by March 1 and have treatments completed by April 15. The ARWP must plan for any necessary coordination with the California Coastal Commission, and it must include a deadline for application submittal. Dust controls related SOA implementation will also help with Rule 1001 compliance; thus, the District strongly recommends that any Coastal application note this.
- Include a list of *all* changes to the SOA that State Parks intends to pursue.

In addition, the District suggests that State Parks works with us and SAG to:

- Propose refinement of the SOA Section 2.b which states “The [PMRP] shall be designed to achieve state and federal ambient PM10 air quality standards.”) As noted in joint status report presented the Hearing Board at their June 17, 2022, meeting: “The District, SAG, and State Parks all recognize and have acknowledged that sand dunes are a natural feature of this area, and that even without the long history of vehicular disturbance, the area would be naturally dusty and would likely still see exceedances of the PM₁₀ air quality standards.”⁸
- Propose refinement of the SOA 2.c goal, based on the management objective of reducing emissions of PM₁₀ from the ODSVRA to a level consistent with what dust emissions would likely be today if the area had never been disturbed by vehicles.

Changes to the Air Quality Model

The SAG proposed changes to the air quality model used for assessing progress toward the SOA 2.c goal,⁶ and these changes are implemented the modeling in the current ARWP. As discussed in ARWP Section 2.2.1.3 and Attachment 04 (“Oceano Dunes: Status 2022”), the updates include:

Change 1. More realistic assumptions about emissions from dust control areas. In the original model, dust control areas were assumed to be completely non-emissive, i.e., controls were assumed to be 100% effective. In the revised modeling, fence arrays are assumed to be 72% effective, and the foredune restoration area is assumed to have the same emissivity as non-riding areas. These changes increase the modeled dust emissions from mitigated areas. The District supports these changes. (Keeping the Plover Enclosure closed year-round is a change from the previous years. While the ARWP is technically correct in describing the “current” modeling as “assuming that emissivity is zero within the [Plover] Enclosure,” the effect of keeping this area closed had not been modeled until the current ARWP. While the District

⁸ San Luis Obispo County Air Pollution Control District and California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division, “Joint Status Report on Implementation of the Stipulated Order of Abatement in Case 17-01,” June 14, 2022. Available online https://slocounty.granicus.com/MetaViewer.php?meta_id=414115

San Luis Obispo County Air Pollution Control District August 23, 2022 Comments on the
DRAFT 2022 Annual Report and Work Plan dated August 1, 2022

agrees that the assumption of zero emissivity is unrealistic, as discussed later we have concerns about how this area is handled in the revised modeling.)

Change 2. Accounting for downwind foredune sheltering effects. With this change, the revised model has lower wind speeds in the lee of the 48-acre foredune project and Plover Enclosure, and thus it predicts lower dust emissions from these areas. The District supports this change. This foredune sheltering “emissions credit” is expected to be small: As discussed in Section 3.5 of ARWP Attachment 07-03 (“Quantifying the value of a coastal foredune for wind erosion and dust emissions through numerical simulation,”) within 50 meters of the downwind edge of a foredune, wind shear has recovered to about 90% of the value it would have had without the sheltering effect.

Change 3. Using PI-SWERL measurements from 2019 instead of 2013 to derive the emissions grid used to model the effects of the dust controls. In the revised modeling, baseline emissions are still modeled using the 2013 grid. As discussed in more detail below, the District has concerns about this change.

As shown in ARWP Figure 2-14, these changes do not affect emissions for 2013, which are estimated as 182 metric tons per day (tpd) by both models. This is expected as 2013 is the baseline year and the original model (referred to as the “current model” in the figure) and revised models both use the 2013 emissions grid for the baseline, and no dust controls had yet been installed in 2013 which would be affected by the Changes 1 and 2. The effect of the modeling changes on emissions estimates for 2022 will be discussed later. For 2019-2021, the changes dramatically lower the modeled emissions. For example, for 2021, the changes reduce modeled emissions from 142.0 tpd to 123.9 tpd, net difference of 16.1 tpd.

Change 1 should cause the revised model to estimate higher emissions than the original model. Change 2 should decrease emissions slightly, but this is likely to be more than offset by the increased emissions resulting from Change 1. Regarding Change 3—updating the emissions grid to use 2019 PI-SWERL measurements—it is not obvious, a priority, whether this should increase or decrease emissions. Given that the net effect of all three changes is a large decrease in emissions, it stands to reason that this change results in a large decrease in emissions. The question is, “Why?” Is the apparent decrease in riding area emissivity over this time period real? Or does it reflect random variability from year to year or between seasons? Or it is an artifact of local conditions during the PI-SWERL measurement campaigns (e.g., relative humidity or soil moisture)? And if it is real, is this a permanent change that State Parks can guarantee will not be reversed or attenuated in the future? Neither the ARWP nor the SAG report⁶ recommending this change provide any insight into these questions.

The SAG has expressed similar concerns in their review of the ARWP: “the choice of PI-SWERL years (i.e., 2013 versus 2019) appears to drive a significant change in PM₁₀ emissions. It is not yet clear whether this change is due to long-term trends or statistical noise.” And late “taken together, it is

likely that the emissions reductions modeled both for the current model framework ... and for the refined model framework ... overestimate the actual emissions reductions.”⁹

Given these uncertainties, it is the District’s view that it is premature to implement Change 3 in the revised model. The District would likely endorse Change 3 only if a long-term downward trend in emissivity is confirmed in future PI-SWERL studies. The District is encouraged that PI-SWERL studies are ongoing, and more are planned.

To address these issues, **a revised ARWP must:**

- Use the original/“current” model for determining PM₁₀ mass emissions from the ODSVRA, or use a revised model incorporating only Changes 1 and 2. The latter is the District’s preferred option, though we recognize there may not be time to implement such a model within the timeframe of this ARWP cycle.
- As noted by the SAG in their review,⁹ “It would be very helpful to include an additional table showing the incremental effect of each specific model change (e.g., change from 2013 to 2019 PI-SWERL grid for untreated areas, CFD modeling of foredune shadow zone, etc.) on modeled PM₁₀ emissions.” Please include such a table.
- Include a discussion of the possible reasons why the measurements of open sand emissivity completed in 2019 tends to be lower than the measurements of those same areas made in 2013. The discussion should include addressing these questions: For open sand areas closed to riding in both years, is there a difference in emissivity? For the subset of areas measured over multiple years, how does emissivity evolve over time?

In addition, the District suggests that State Parks works with us and SAG to:

- Consider estimating emissions reductions based on modeling which uses the 2019 measurements emissions grid for **both** the baseline and the mitigation scenario. Using 2013 emissivity for baseline and 2019 emissivity for the mitigation scenario is to some degree an apples-to-oranges comparison, especially when the reasons for the apparent difference in emissivity is not understood. On the other hand, it is desirable to use the most current emissions measurements for planning placement of dust controls, as it makes little sense to mitigate an emissions “hot spot” that existing in 2013 if recent measurements suggest the area is no longer “hot”. Using 2019 emissivity for both the baseline and the mitigation scenario resolves both of these issues. (Areas that were open sand in 2013 but are now occupied by dust controls could either use mean riding area emissivity from 2019 or use the emissivity measured in 2013.)

Crediting Emissions Reductions from the Plover Enclosure

As noted above, State Parks has chosen to keep the 293.3-acre Plover Enclosure closed year-round to off-roading and camping. This is not being done at the request of the District, nor is it an element of any District-approved ARWP or other plan. As it is expected to lower dust emissions, the ARWP

⁹ Scientific Advisory Group, “Memo: SAG Review of CDPR ‘DRAFT 2022 Annual Report and Work Plan’ (dated August 1, 2022),” August 15, 2022. Available online at <https://www.slocleanair.org/air-quality/oceano-dunes-efforts.php>.

San Luis Obispo County Air Pollution Control District August 23, 2022 Comments on the
DRAFT 2022 Annual Report and Work Plan dated August 1, 2022

“credits” these reductions toward the mass emissions target of SOA. While the District agrees that State Parks should be credited for emissions reductions resulting from the closure, we have concerns, as outlined below.¹⁰

The District’s first concern is the permanence of the closure. The ARWP notes that their decision to close the area “could be reversed at some point in the future.” If District approves an ARWP that includes emissions credits from the Plover Exclosure, **then it would need to include a condition requiring that if the area (or parts of it) are re-opened, State Parks must simultaneously implement District-approved dust controls sufficient to offset the resulting increase in emissions.**

Our second concern is how the emissions reductions resulting from the closure are calculated. As noted in the ARWP, the original emissions model treats all dust control areas as non-emissive. For this reason, when estimating emissions for 2022 under the original (“current”) model, it appears to assume no emissions from this area. The District agrees that this is an unreasonable assumption. In the revised model, the emissivity the area is assumed to be “50% of the actual mean emissivity for the [area], based on the 2019 PI-SWERL emissions grid.” While this is a more reasonable assumption, the District is concerned that this still underestimates emissions from the area. The ARWP itself acknowledges that this: “Given the immature development of the nesting exclosure (as compared to other established foredune areas), this preliminary assumption may be an overestimate relative to actual emissions reductions.”

As shown, for example, in the “Assumed Emissivity Conditions” slide of ARWP Attachment 04, baseline (i.e., 2013) emissions from the Plover Exclosure are already quite low; in the figure, the area appears to be colored using the same shades of blue as the non-riding area directly to the south. And as noted previously, overall emissivity appears to be lower in 2019 than in 2013 (though whether this is true of the Plover Exclosure specifically cannot be determined from the available documentation.) Thus, taking the 2019 emissivity of the area and then cutting it in half might result in the area being modeled as even less emissive than the 48-acre foredune project and/or areas that have been off limits to off-roading for decades. The District does not believe that it is reasonable to model this area as less emissive than such areas, and unless it is confirmed by PI-SWERL measurements, **we cannot approve an ARWP that relies on this assumption.**

We note that the only difference (or at least the most significant difference) between the modeling of 2021 and 2022 is the inclusion of closure of the Plover Exclosure in 2022. As shown ARWP Figure 2-14, this results in a significant decrease in modeled emissions. For the original (“current”) model—represented by the dashed black line in the figure—this change of 33.8 tpd is likely overestimated, as the model assumes 100% elimination of baseline emissions from this area. For the revised model—light blue solid line—the decrease is smaller, as expected: 19.9 tpd, and this may still be an overestimate. If the original (“current”) model was used to model 2022, but with Plover Exclosure

¹⁰ State Parks also proposes to take credit for emissions reductions resulting from the closure of the area shown in ARWP Figure 2-3, though this has not been incorporated into any of the modeling disclosed in the ARWP. If the closure is year-round, then the District supports modeling emissions from this area as proposed in the ARWP. If the closure is seasonal, then the District supports modeling emissions from this area as a weighed average of riding and non-riding area emissions.

modeled as in the revised model (i.e., assuming emissivity of 50% of 2019 rather than as non-emissive), then estimated mass emissions would be approximately 122.1 tpd.¹¹ This level of emissions fails to attain both the current SOA Section 2.c target (50% reduction or 91.4 tpd; purple dashed line in the figure) and the proposed new target (40.7% reduction or 108.4 tpd; blue dotted line).

To address these issues, a revised ARWP must:

- Include graphics (maps) comparing the emissions/emissivity values assumed in the modeling of the baseline to the values assumed in the modeling of the 2022 dust controls. This should be done for both the original (“current”) model and the revised model, as well as any additional model variants that are introduced.
- Include a table that comparing the mean emissivity across the Plover Exclosure under various assumptions: 2013 baseline emissions (based on 2013 PI-SWERL measurements), 2019 emissions (based on 2019 PI-SWERL measurements), non-riding area emissions, and half of 2019 emissions as assumed in the revised model.
- Model the emissivity of the closure as the greater of mean non-riding area emissions or 50% of the actual mean emissivity for the area based on the 2013 PI-SWERL emissions grid. In other words, this area may not be modeled assuming emissivity less than mean non-riding area emissions. Alternatively, if sufficient PI-SWERL measurements of the area have been conducted in 2022, the area may be modeled using a grid derived from these measurements.

Other Comments

- Tables 2-12 and 2-13, Section 2.2.4, and elsewhere in the ARWP present progress toward compliance with SOA Section 2.b (achieving state and federal ambient PM₁₀ standards) in terms of the average modeled concentration of the 10 highest baseline days. Please note even if this average is less than the California standard (50 µg/m³), this will not demonstrate compliance with SOA Section 2.b, as individual days may still exceed the standard. In other words, compliance with the SOA 2.b is more difficult than simply showing that the *average* of the modeled days is less than the standard; *all* days must be less than the standard.
- Figure 2.8 and Section 2.3.2.2 present measurements of mean threshold wind speeds for saltation within the foredune treatment zones. The northernmost zones have the lowest threshold wind speeds, and the ARWP states that this is likely due to these areas having the least coverage of vegetation. Previous work by Desert Research Institute found a north-south gradient across the ODSVRA and attributed this to gradients in particle size and surface roughness.¹² How do the latest measurements compare to the earlier ones, and could the observed gradients share an underlying cause?

¹¹ Calculated as 142.0 tpd – 19.9 tpd.

¹²Gillies, J.A., and Etyemezian, V., “Wind and PM10 Characteristics at the ODSVRA from the 2013 Assessment Monitoring Network,” September 22, 2014. Available online at https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/APCD%20Exhibit%204%20-%20DRI%20Wind%20and%20PM10%20Character_2013%20Assess%20Monitoring_09-22-2014.pdf.

San Luis Obispo County Air Pollution Control District August 23, 2022 Comments on the
DRAFT 2022 Annual Report and Work Plan dated August 1, 2022

- ARWP Table 2-16 and Tables 1 and 3 in Attachment 05 (“Summary of Vegetation Monitoring of Restoration Sites at ODSVRA (2021)”) include 95% confidence intervals (CIs) for percent vegetation coverage. These do not appear to have been calculated properly, as in some cases, the CIs cross 0 or 100%. Given that only 3 or 4 measurements were performed per area, it may be simpler and more informative to quote the values of all the observations rather than presenting the within-area variation in terms of a calculated CI or standard deviation.

SAG Comments

The SAG submitted comments on the DRAFT 2022 ARWP to State Parks and the District on August 15, 2022.⁹ This was 10 business days after State Parks submitted the ARWP to the District and conforms with the timeline defined in the Order to Modify Existing Stipulated Order of Abatement in Case No. 17-01. The District endorses the comments of the SAG.

Summary

While the Draft 2022 ARWP documents a substantial effort to understand and control dust emissions over the last year, it proposes no new dust controls for 2022-2023. The conclusion that no new controls are needed rests on three main assumptions:

1. That the Hearing Board approves changing the SOA Section 2.c emissions reduction target from 50% to 40.7%,
2. That it is justified to use 2013 PI-SWERL measurements to estimate baseline emissions and 2019 measurements for 2023 emissions, and
3. That 2023 Plover Exclosure emissivity is half of pre-closure (2019) emissivity.

None of these assumptions are justified. Assumption 1 is speculative, and fundamentally the ARWP must show compliance with the current SOA. It may also include alternatives in case the SOA is amended, but at a minimum it must demonstrate attaining the current SOA Section 2.c target. Assumption 2 is premature: without an understanding of why emissivity changed so much from 2013 and 2019 (or whether these changes are even real) and with no plan to “lock in” these reductions, the apparent emissions reductions resulting from this assumption cannot be “credited” toward the SOA Section 2.c target. Finally, Assumption 3 may or may not be valid, but there is insufficient justification for it in the ARW. Specifically, it is unclear whether the emissivity assumed for the closed Plover Exclosure is greater than, equal to, or less than the emissivity of non-riding areas.