FRIENDS OF OCEANO DUNES

TO: Chair and Members, California Off-Highway Motor Vehicle Recreation Commission
FROM: Jim Suty, President, Friends of Oceano Dunes
DATE: November 12, 2026

RE: Oceano Dunes SVRA — summary of findings from the Friends of Oceano Dunes documentary film series; written material for the Commission's November 19, 2026 meeting

Dear Chair and Members:

Friends of Oceano Dunes is the nonprofit organization that has worked for decades for continued public access to Oceano Dunes State Vehicular Recreation Area. Over the past several years our members have produced a series of short documentary films examining the dust program at Oceano Dunes (all can be found on YouTube). Every film is built entirely from the agencies' own data and documents — air-district monitoring records, the Air Resources Board's and the Scientific Advisory Group's own papers, State Parks' work plans — with the sources shown on screen. We submit this summary for the record of your November 19, 2026 meeting, because the findings bear directly on matters before this Commission and the Division.

1. What actually moves the dust

We tested every candidate explanation for the PM10 measured at the air district's CDF monitor against the monitor's own record (*The Natural Dust Cycle*). With the seasonal cycle removed, the strongest single factor is soil moisture (correlation −0.67): wet ground, less dust. Air temperature follows (+0.50), then rainfall (−0.39 month to month, and −0.81 against the trailing three-year annual rainfall). Wind speed — the variable the current program's modeling leans on hardest — shows essentially no relationship (+0.06).

Vehicle visitation appears to correlate with dust only until the era trend the two series share is removed (+0.71 raw; −0.32 with the trend taken out): an artifact of the period, not a dose. And the dose test has been run twice by events. **In 2020 the park was closed to every vehicle for seven months, and the CDF monitor still recorded 49 days over the state standard. In May 2020, with zero riding, CDF recorded 12 exceedance days, and its monthly mean *rose* compared with May 2019**.

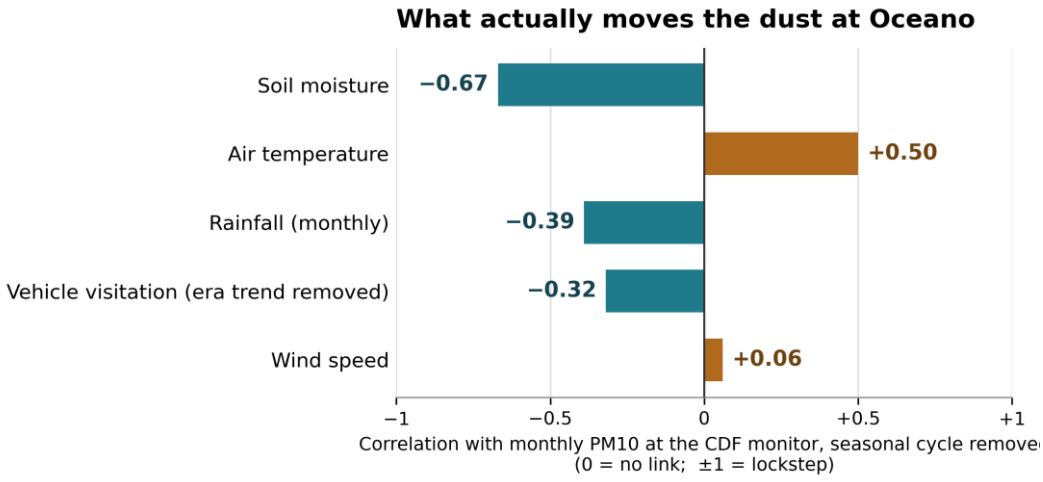


Figure 1 — What correlates with PM10 at the CDF monitor, and what does not. Teal: more of it, less dust. Amber: more of it, more dust. Vehicle visitation's apparent link disappears once the era trend is removed. (The Natural Dust Cycle.)

2. The improvement came before the closures

The largest single improvement at CDF came in one step between 2017 and 2018, when the annual mean fell from 39.3 to 28.7 µg/m³ (−27 percent) — before the foredune fencing of December 2019, and before the October 2021 closure of the roughly 300-acre nesting exclosure. Lompoc, which has no dust program, fell 22 percent in the same step. CDF's annual mean has fallen from 39.9 µg/m³ in 2013 to 22.9 µg/m³ in 2025. The timing matters, because the step that did most of the work happened before the measures it is usually credited to.

3. What the dust is actually made of

Two speciation studies sampled the same CDF monitor in 2021 (*Fourteen Percent*). Scripps Institution of Oceanography (Dr. Lynn Russell) measured mineral dust at 14 percent of PM10 on high days. The Desert Research Institute, weighing filter samples, measured 43.1 percent. DRI's more widely quoted figure of 63.5 percent is reached only by folding its 20.4 percent of unidentified mass into the dust column by, in its own words, "opinion." The measurement is 43.1 percent.

There is a third measurement, and the Commission has never seen it. The air district's own 2020 samples were analyzed by Scripps in a supplemental report, which put mineral dust at 30 percent of PM10 — in the report's words, "well under half of the overall PM10 concentration" — agreeing with Scripps. That supplemental was withheld by State Parks at the air district's request. It was never published and never discussed in public; Friends recovered it from our own files this month. Meanwhile, the Scientific Advisory Group's bottom line, stated on February 26, 2024, is that "whether mineral dust constitutes 14% or 43% or xx% is irrelevant … regulations are not specific to mineral dust, but to PM10 in general." Composition, it turns out, mattered only until it was measured.

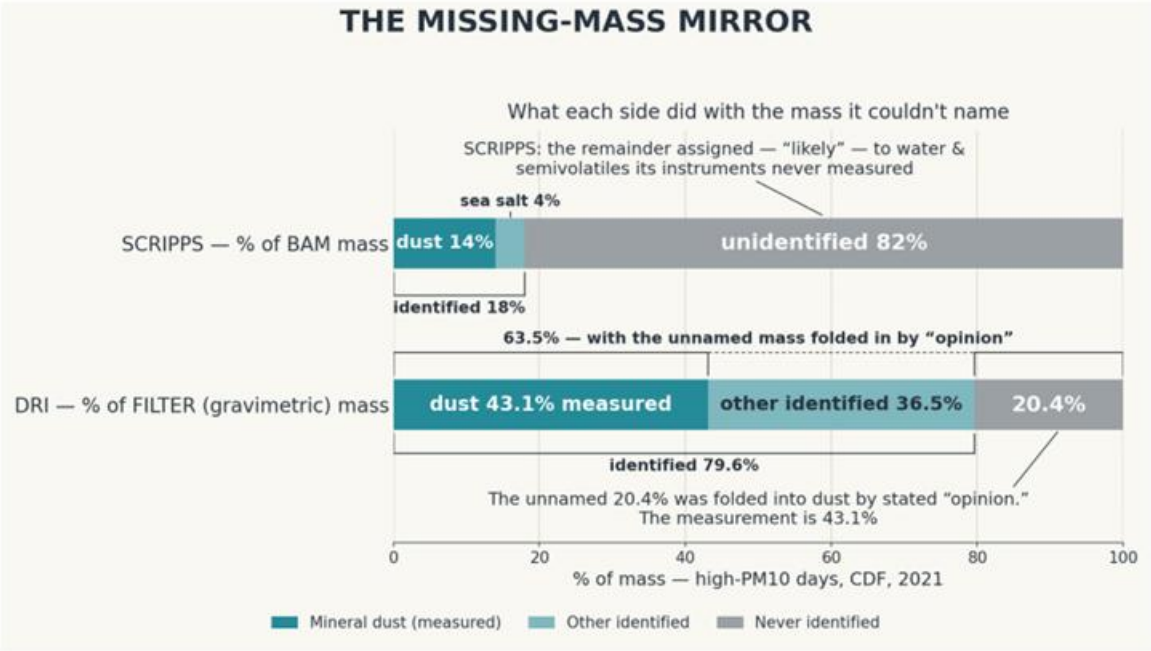


Figure 2 — The missing-mass mirror: the 14 percent and the 43.1 percent are measurements; the 63.5 percent is an opinion about mass nobody identified. (Fourteen Percent.)

4. The ocean is in the monitor

The agencies' own beach monitor, NFRA, sits upwind of the SVRA on a beach closed to off-highway vehicles throughout the measuring season**. In 2025 it measured hourly-mean PM10 of 36–45 µg/m³ —**

about twice the *annual* state standard of 20 µg/m³ — before the first campsite (*Sea Spray Conundrum*; *Fourteen Percent*). The Scientific Advisory Group's September 22, 2026 memo concedes an oceanic source of PM10 that decreases inland, and concedes that sea salt deposited in the sand matrix "is then released into the air as PM10" when saltation begins, and becomes "part of the emissions that are measured by the PI-SWERL instrument" — the instrument on which the abatement program's accounting rests. In Santa Barbara County, Chow and colleagues found in 1996 that marine aerosol was 55–63 percent of PM10 at two coastal background sites.

The accounting treats natural sources two ways. On August 6, 2018, readings of 551 µg/m³ at CDF and 527 µg/m³ at the Mesa2 monitor were excluded from the record as wildfire smoke: natural smoke is discounted. Natural sea spray, measured at about twice the annual standard before any vehicle reaches the sand, is not discounted at all. It is counted against the park.

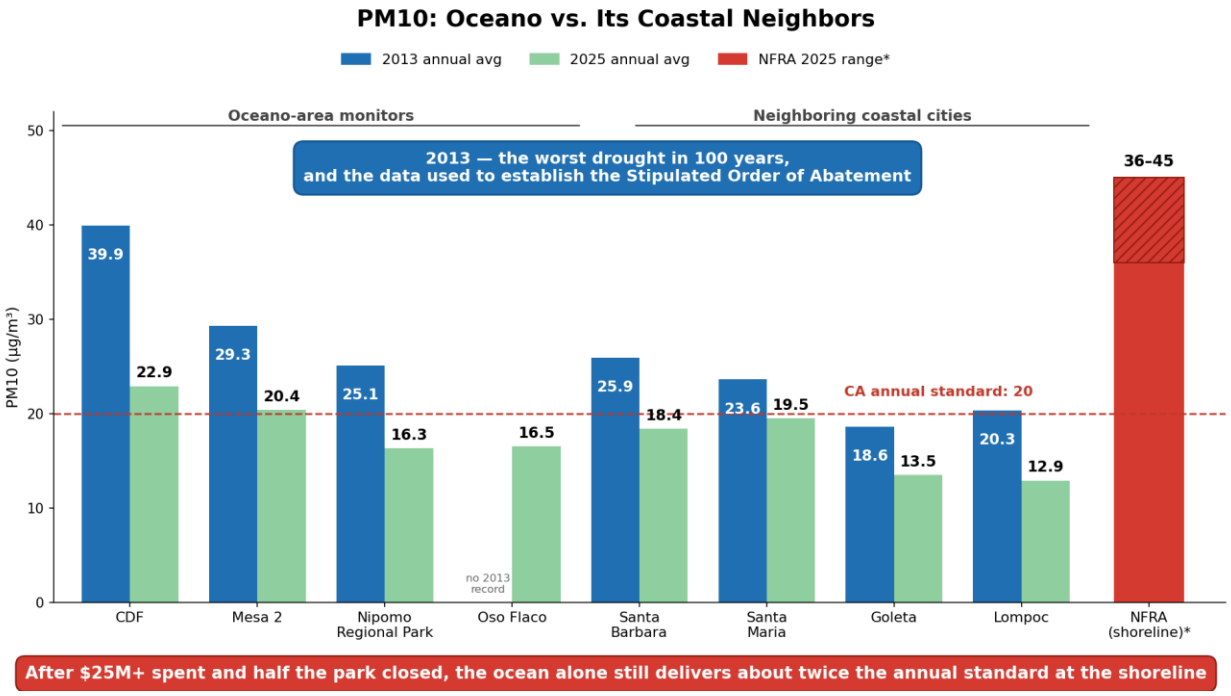


Figure 3 — Majority of PM10 reductions came before ANY planting and is shown at other monitors which correlate to rainfall and soil moisture. The oceans contribution (red bar) drives down wind dust blamed on OHV.



Figure 4 — Natural smoke is discounted. Natural sea spray is not.

5. The silica chapter

The health case against the dunes was built for years on crystalline silica (*What Are We Abating?*). The silica hazard was asserted from 2007 onward without any measurement of silica in Mesa PM10; the district's own 2010 board memo conceded silica had been "not specifically measured." When testing finally occurred in **2017–18, respirable crystalline silica measured below occupational standards**, and the district's June 2020 FAQ concludes the chronic risk is "likely to be negligible." **The Air Resources Board conceded as long ago as 1997 that sea salt has not been shown to add risk beyond the particles themselves**; its September 26, 2023 letter nonetheless confirms the standards apply "regardless of whether it is from natural or manmade sources." A standard applied regardless of composition is precisely why composition has to be measured honestly.

6. The referee monitor

Rule 1001 compliance turns on a comparison between CDF and a control monitor at Oso Flaco. Friends' consultant BlueScape told the district in 2011 that Oso Flaco "is not an appropriate scientific control site." The monitor was installed anyway, in 2015. The Scientific Advisory Group's February 24, 2025 memo now says Oso "serves poorly as a control site" (its daily readings track CDF with an R^2 of just 0.107). Friends also litigated the rule itself, and won: in 2015 the Court of Appeal held that a state park is not a "contrivance" subject to the district's permit authority (*Friends of Oceano Dunes, Inc. v. San Luis Obispo County Air Pollution Control District* (2015) 235 Cal.App.4th 957). The counting never stopped.

7. What has been spent, and what stays closed

More than $25 million had been spent on the dust program as of March 2023. Roughly 300 acres have been closed to all recreation since October 2021 — a closure **State Parks' own 2025 work plan describes as "an operational choice … made independently of Dust Control Program" requirements**. The Final Habitat Conservation Plan's bird criteria for reducing closures are not all met: the least tern fledge rate stands at 0.83–0.9 against a threshold of 1.0.

8. The ad hoc committee

There has been no ad hoc committee meeting regarding Oceano Dunes in 2026. That is so despite a year of major developments — a new stipulated-order compliance metric, the Scientific Advisory Group's sea-spray concession quoted above, and the surfacing of the withheld speciation supplemental. We ask the Commission to reconvene its Oceano Dunes ad hoc committee, so this evidence can be taken up in a working session and not only in three-minute public comments.

What we ask

We therefore ask the Commission to:

(a) Commission independent speciation at NFRA and CDF — the same method, on the same days — plus the identical study at one coastal monitor north of the SVRA and one south, and publish whatever it returns, with its uncertainty.

(b) Subtract the measured ocean load at NFRA before PM10 is attributed to the SVRA.

(c) Release the full Scripps record, including the withheld 2021 supplemental report, into the public file.

(d) Begin a phased reopening of the closed acres, under monitoring, starting with the acres that were closed before any updated modeling supported them — the 48 acres of foredune sites selected in December 2019, when Parks staff, asked whether the emissions model had been updated with the latest data, answered "no, not yet, and not yet."

(e) Ask the Hearing Board and the air district to revisit a compliance metric that counts natural background against the park.

(f) On agenda item XI.b, the Oceano Dunes OHV Concessions Contract RFP: Friends supports moving the rental concessions off the beach (the way it used to be), in order to preserve more camping for the public.

We do not ask the Commission to take our word for any of this. Every number in this letter comes from the agencies' own monitors, studies, and documents, and we will gladly provide the underlying records. We ask only that the science be measured before it is enforced — and that it be the whole science, ocean included.

Sincerely,



Jim Suty
President, Friends of Oceano Dunes

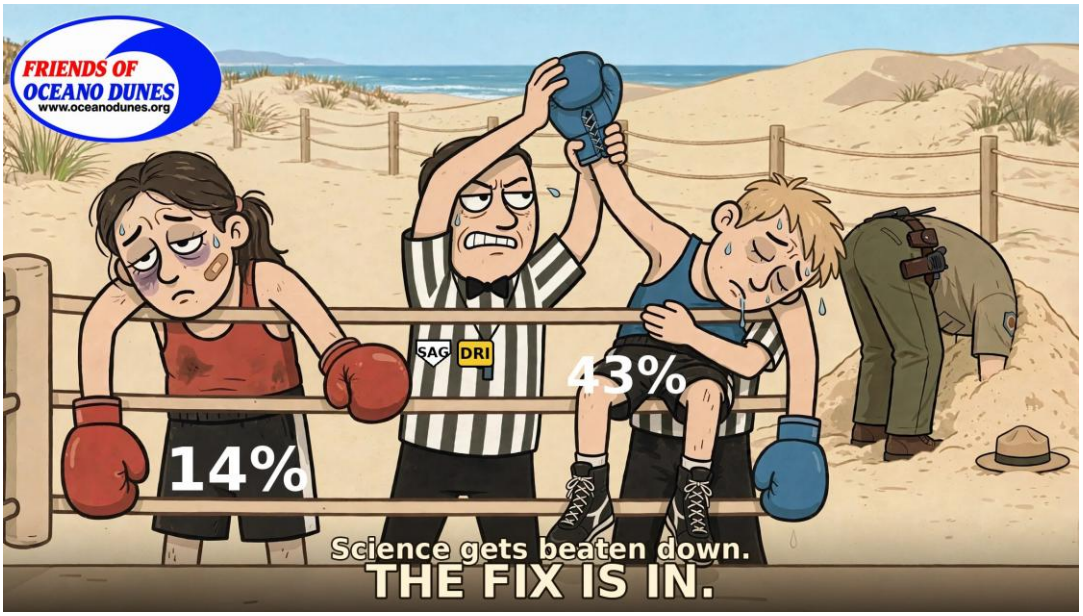


Figure 5 — "Science gets beaten down. The fix is in." Closing frame of Fourteen Percent.

The films

All of the films are on the Friends of Oceano Dunes YouTube channel: https://www.youtube.com/channel/UCSgmNJ8CpGJPwBotZrVigOA

- *The Natural Dust Cycle* — what actually drives PM10 at the CDF monitor — moisture and weather, not vehicles.
- *Fourteen Percent* — the Scripps and DRI speciation studies, the two denominators, and the report that was withheld.
- *Sea Spray Conundrum* — the ocean's contribution, measured at the beach before the first campsite.
- *The Empty Park* — posted as "COVID COVER UP" — the 2020 closure year, when the dust stayed and the people were gone. https://www.youtube.com/watch?v=mGIoNoVU428
- *The Loaded Beach* — how winter storms load the beach — the supply side of the dust story. https://www.youtube.com/watch?v=VHFP_185ue0
- *What Are We Abating?* — the silica chapter, and the question the program has never answered.