On June 12, 2017 the Air Pollution Control Officer (Mr. Larry Allen) of the San Luis Obispo Air Pollution Control District (APCD) issued a Notice of Violation (NOV) to the California Department of Parks and Recreation, OHMVRR Division, in a letter to Mr. Mathew Fuzie, Deputy Director of OHMVRR, July 12, 2017. The NOV cited OHMVRR for failure to comply with Rules 1001 and 402:

1. **Rule 1001**: failure to maintain and operate a control site monitor (Section C2) and for exceeding the PM10 concentration limits
2. **Rule 402**: discharging or allowing the discharge of quantities of air contaminants (particulate matter) that has caused injury, detriment, nuisance or annoyance to a considerable number of persons

The letter cites violation dates from December 15, 2016 to March 24, 2017 that include ongoing nuisance events.

In his letter to Mr. Larry Allen (Air Pollution Control Officer) dated June 26, 2017, deputy director (OHMVRR) Mr. Matt Fuzie elected to submit the NOV to the Special Master (SM) for his recommendation. Subsequently, this was agreed to by Mr. Allen. Having been notified of the NOV and the correspondence between the parties, Special Master (Dr. W. G. Nickling) convened a hearing at the APCD offices in San Luis Obispo on Sept. 7-8, 2017. Prior to the meeting, the SM asked for detailed submissions from each of the parties. These were received one week prior to the meeting. Members of Parks and APCD staff, as well as Mr. Kurt Karperos, were in attendance, along with Mr. Ray Biering (Counsel for APCD) and Mr. Mitchel Rishe (Counsel for OHMVRR). Before the open session, the Special Master met with Mr. Biering and Mr. Rishe to discuss any outstanding issues (Appendix I contains the meeting agenda).

Following the opening remarks of the Special Master, who encouraged the participants to maintain civil discourse when discussing the pertinent issues, each of the two parties were
asked to present their arguments with regard to the notice of violation. Participants were asked to hold all questions until both oral submissions were completed. Following this, the Special Master directed specific questions toward both parties, and then moderated an open discussion that included all meeting attendees. The meeting ended with concluding remarks from the SM. On the following day, Sept 8, 2017 the meeting participants visited the Oceano dunes including all remediation sites, suspected major dust source areas, and all dust monitoring locations.

**Key Issues Identified in the Submission Reports**

The submission report provided by Parks is highly focused, well documented, and attempts to address the issues relating to the NOV straight on and without embellishment. It stands in strong contrast to the submission provided by APCD, which contains inflammatory language, demonstrates a notable lack of objectivity, and fails to provide direct reference to supporting documentation and data. The emphasis in the APCD report is on the rule, rather than on working toward a solution. This attitude was carried through to the Sept 7 meeting in which the Air Pollution Control Officer was noted to state that remediation is ‘quite frankly not my problem’.

The June 26, 2017 notice of violation cites ongoing nuisance events beginning Dec. 15, 2016 through to March 24, 2017. In that an ongoing problem with dust emissions from the Park has been well recognized for many years, one wonders why Parks has been cited for exceedances over this particular time period, and second to this, why issuance of the associated notice of violation was delayed until June of this year. No reasonable explanation has been given for this timing.

A key contention addressed in both submissions concerns the Oso Flaco (OF) site and whether or not it is a suitable Control Site Monitor. Further to this, there is a lack of agreement between the two parties as to whether or not the data obtained from the instrument site are legitimate with regard to the evaluation of attainment versus non-attainment. Parks strenuously argues
that Oso Flaco is not suitable as a control site monitoring station because of the large proportion of the surface area covered by vegetation (70%) and the relatively low proportion of unsheltered sand (30%), in comparison to the riding area (18% vegetation and 82% sand). APCD claims that the arc used by Parks and generated by CGS (shown in red in Fig. 1 of their submission) is skewed by 15 degrees at both sites, substantially increasing the proportion of vegetation cover relative to station CDF. If the 15 degree correction is applied as suggested by APCD, then it would appear to be true that the proportion of open sand is indeed similar between the upwind surfaces at CDF and OF. However, the corrected coverages are not provided in APCD’s report; the vector angles are also incorrectly drawn for CDF; no wind velocity or direction data (roses) are provided and compared for the two stations; and there remains considerable ambiguity in regard to the implications for emissions monitoring. The submission from APCD raises considerable concern regarding the ‘illegitimate’ removal of the monitoring station at OF. Whether or not it was ‘illegal’ to have moved the station, in the very least, Parks should have informed APCD either through the technical advisory committee, or by direct communication to the Pollution Control Officer, of their intent to remove the instrumentation from the site. In that Parks had determined that the OF site was not suitable as a long-term control site monitor, they were concerned that if the temporary test site was maintained for two full years, it would become a regular monitoring site for evaluation of the compliance with Rule 1001. This was clearly pointed out by Mr. Allen in his email of June 15, 2016 to Mr. Brent Marshall (State Park superintendent). Mr. Fuzie does acknowledge that the monitoring site should not have been removed from OF, and as such, the equipment was reinstalled on or about December 16, 2016. One might argue that removal of the equipment coincided with Mr. Fuzie’s adjustment to his new role as Deputy Director of OHMVRR, and that Parks did respond positively by replacing the equipment once the error became apparent. Despite this oversight, it SM’s opinion based on his review of numerous reports, as well as three site visits to the OF site, that its suitability is indeed questionable and needs to be verified by more detailed statistical analyses of the relevant data. If it is found to be unsuitable, a concerted effort needs to be undertaken to find an alternate location. This will take time, money and a willingness of the two parties to work collaboratively in action and not just word.
APCD was also highly critical concerning notable delays in implementing effective control measures (e.g. supplemental sand fencing, planting of vegetation in the near shore areas to re-establish the foredunes). At the Sept. 7, 2017 meeting, Parks addressed these delays in explaining the complexity of such measures in relation to threatened and existing lawsuits, as well as the lack of timely responses from external agencies who constrain the implementation of such measures. It is the SM’s opinion that APCD perhaps underestimates the significant time requirements needed to implement such control measures on large scale.

Approaches to Dust Control Implementation

Top down planning in many different contexts has proven to be rather unsuccessful in achieving desired outcomes. In contrast, community based approaches that involve the primary stakeholders (i.e. the bottom-up approach) has been shown to be more successful in long term planning exercises. The scale of the solution has to be directed at the scale of the problem. Although present attempts to stabilize the surface (i.e. fencing, roughness elements, planted vegetation) are well known to decrease wind erosion, the areal extent the remediation plots is proportionate very small in comparison to that of the activities which give rise to the emissions. Stakeholders need to be involved with a cooperative spirit and a willingness to entertain new approaches informed by individuals with detailed ‘feet on ground’ knowledge of the Park environment, its operations and usage practices.

The SM was encouraged to hear Mr. Fuzie’s views on the plan to implement in the near future a community based approach (to find solutions to the dust emissions issue) engaging park users, local residents, Parks staff in focus groups designed to engage these individuals in efforts to work together toward finding solutions. End users or residents may well have innovative solutions that could be more effective than those presented by the well meaning professional.

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 of vegetation cover at the site. As opposed the traditional approaches based on planting in blocks or rows, Parks might consider the planting of vegetation corridors that align with designated riding trails and enhance the visitor’s experience. Expert advice from workers in landscape architecture might be sought in developing the early stages of the design.

It was suggested during the meetings that the present camping area could be either be reduced in size and/or moved to a more southern location that is owned by Parks, but is presently leased for agriculture. The agricultural lands have direct access to country roads and an access corridor into the riding area. Any reduction in camping activity at the present site is expected to reduce vehicle traffic and surface disturbance within the camping corridor adjacent to the high-water level. As well, offering two different camping experiences (open versus structured sites, similar to more traditional campgrounds) might be preferable to some park users. Although a very positive measure from the perspective of dust control, moving of the camp grounds would indeed be expensive.

It is crucial that all parties understand the concept of the ‘relaxation time’ required for a geosystem to adjust to a disturbance, as well as to any efforts to mitigate such a disturbance. This timeline is often on the order of several years to decades. Early reporting of dust exceedances is largely absent for the Park, not necessarily because of lower dust concentrations at that time, but rather, because of a lack of observers. Urban development in the vicinity of the Park has been relatively recent, and so, one would expect that the number of complaints of dust impingement should increase in proportion to the number of residents.

The Special Master questions the purpose of levying an exceedance fine at this time. It would seem to be unnecessarily punitive and unproductive, as the timeline to for reparation of the
emissions problem is likely to span months and years. In accord with Rule 400, fines could be levied each day for the foreseeable future that dust emissions are in exceedance of state law.

**Summary Comments**

1. There would seem to be nothing gained in transferring monies arising from fines between state agencies, as opposed to the provision of adequate financial resources that will allow Parks to design and enact new creative measures to effectively manage the emissions. Fines will simply further diminish the ability of Parks to rectify the dust emissions issue over the long term. Present operating budgets are inadequate to remediate problems at this scale. Funds need to be sought at the state level, if effective solutions are to be implemented. It is suggested that increases in user fees cannot provide sufficient revenue to address the magnitude of the problem.

2. In order for such remediation measures to be implemented, Parks needs to be given ample opportunity to undertake such changes without fear of reprisal. However, it is noted that Parks needs to be held accountable to implement such measures within a designated time frame. Ideally this timeline would be set out in the community based plan that Mr. Fuzie is proposing. In this regard, some independent body or panel needs to be appointed to ensure that Parks fulfills its obligations. This perhaps could be a role that the California Air Resources Board could undertake.

3. There is strong evidence of poor horizontal and vertical information exchange within and between Parks and APCD, a lack of trust between the two groups, as well as a dismissive attitude by both parties to new initiatives. Success will only be attained if these issues are addressed and resolved. It is suggested that there needs to be either an individual or process put in place to ensure that information is related between Parks and APCD in a timely manner and that all information exchanged is recorded in a central
location. In addition, there needs to be some mechanism put in place to ensure that information makes its way up through each organization so that all units are well briefed on the important issues.

4. Resolving these difficult issues will take considerable effort and will only be achieved with much improved cooperation, a more realistic understanding of the large temporal and spatial scales involved, and an appreciation of the lengthy response time for any mitigation effort.

5. There is also the need to give the new Deputy Director of the OHMVR and the new incoming Air Pollution Officer for the SLO APCD, a fair chance to improve co-operation between the two units and to get control measures in place as quickly as possible using important input from as many stakeholders as possible.

Recommendation

It is my opinion that the Notice of Violation is not an effective tool to hasten resolution of the ongoing wind erosion problem and disputes between the two parties, and therefore, should be withdrawn. Rather, the two groups should work together cooperatively, as opposed to antagonistically, which seems to have been the model over the past several years.
APPENDIX I

Review by the Special Master Regarding the Notice of Violation Issued by the San Luis Obispo Air Pollution Control District to the Oceano Dunes State Vehicular Recreational Area.
September 7 and 8, 2017

AGENDA
September 7, 2017

0900 - 0915 Meeting of Special Master with Ray Biering and Mitch Rishe
0915 - 0925 Opening remarks by the Special Master
0915 - 0945 Presentation by the San Luis Obispo APCD outlining facts concerning the extent and reasons for the Notice of Violation
0945 – 1040 Presentation by the ODSVRA responding to the Notice of Violation
1040 - 1100 Response of the San Luis Obispo APCD to the ODSVRA arguments
1100 – 1200 Open discussion including all APCD, ODSRVA staff and ARB members moderated by the Special Master
1200-1300 Lunch
1300 – 1330 Continuation of open discussion (if required) moderated by the Special Master
1330- 1345 Closing remarks by the Special Master
1345 -1420 Planning of site visit to the dunes (times, vehicles, site locations to be visited).
1420 Adjourn

September 8, 2017

0900 Site visit to the dunes including all remediation sites, suspected major dust source areas and all monitoring locations