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November 28, 2012

Mr. Theodore D. Schade  
Air Pollution Control Officer  
Great Basin Unified Air Pollution Control District  
157 Short Street  
Bishop, California 93514-3537

Dear Mr. Schade:

Subject: Preliminary Response to Final Staff Report on the Origin and  
Development of the Keeler Dunes

The City of Los Angeles acting by and through the Los Angeles Department of Water and Power (LADWP) submits the following Preliminary Response to Great Basin Unified Air Pollution Control District's (District) Final Staff Report on the Origin and Development of the Keeler Dunes, dated November 16, 2012 (Final Staff Report). These comments are in addition to, and are intended to supplement, LADWP's October 19, 2012, Technical Response to the Preliminary Staff Report (Technical Response) submitted to the District's September 7, 2012 (Preliminary Staff Report). A copy of the District's Preliminary Staff Report is attached hereto as Exhibit A, and a copy of LADWP's Technical Response is included in Appendix 1 of the Final Staff Report.

As discussed further below, District staff has included substantial new data and information in its Final Staff Report which is now over 700 pages in length. The new data and information included in the Final Staff Report do not address the points raised by LADWP in its Technical Response, but instead is offered as further data and information in support of District staff's original unfounded conclusion that LADWP, and LADWP alone, is responsible for the Keeler Dunes.

By including a substantial amount of new data and information in the Final Staff Report, District Staff is depriving LADWP and the public of the opportunity to adequately review, analyze, and fully respond to this new data and information in direct contravention of the intent of the District Governing Board (District Board). The District Board intended to give LADWP and the public 60 days within which to respond to the information and

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111 North Hope Street, Los Angeles, California 90012-2607    Mailing address: Box 51111, Los Angeles 90051-5700  
Telephone: (213) 367-4211    Cable address: DEWAPOLA

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analysis provided by District staff in support of its conclusions regarding the origin and development of the Keeler Dunes. Instead of fully disclosing in its Preliminary Staff Report all of the data and information being relied upon by District staff in its analysis, District staff chose to withhold much of the data and information until issuing its Final Staff Report on November 16, 2012. A simple comparison of the Preliminary Staff Report and the Final Staff Report reveals the extent of how much data and information has been withheld.

District Staff has required that any written response to its Final Staff Report be received no later than November 28, 2012, if the response is to be included in the Board packet for the hearing scheduled December 13, 2012. The Final Staff Report was issued on Friday, November 16, just prior to the Thanksgiving holiday, making it impossible for LADWP or the public to adequately respond by the arbitrary November 28 deadline selected by District staff for inclusion in the Board packet, or even by the December 13, 2012, hearing date. In addition, the District has not complied with LADWP's California Public Records Act (CPRA) request for documents and information relating to the District's analysis of the Keeler Dunes, and the Bureau of Land Management has also not complied with a similar Freedom of Information Act (FOIA) request made by LADWP. As such, LADWP requests that the hearing be postponed for at least two months to allow additional time to review the new material and to receive and review the documents responding to LADWP's CPRA and FOIA requests.

LADWP provides these preliminary comments based on its initial review of the new information in the Final Staff Report. These comments are not comprehensive and LADWP reserves the right to supplement these comments at the District's Governing Board hearing and afterward. In sum, LADWP objects to the District's Keeler Dunes conclusions for the following reasons:

- The District's investigation was not an objective evaluation to determine the origin of the Keeler Dunes and the causes leading to the observed increase in surface activity, but rather a narrowly focused series of studies designed to confirm the District's predetermined conclusion that LADWP is solely responsible for the formation of the dunes and, therefore, the dust emissions from them.
- District staff admits that the Keeler Dunes pre-date the Los Angeles Aqueduct and was a natural feature for thousands of years. Therefore, the origin of the Keeler Dunes was not the result of man-made activities; rather, it was and is a natural feature within the surrounding desert landscape. District staff is improperly attempting to require LADWP to control this natural source by inventing an unsupported theory that the Keeler Dunes were at one time "inactive" and are now "active" and expanding solely because of LADWP's water

gathering activities. Even if this theory had scientific support, which it does not, the District staff has failed to demonstrate that the dust emissions from “active” dunes are higher than “inactive” dunes, or that any expansion changed the emissivity of the dunes. Very likely, the “older” Keeler Dunes and surrounding desert have always been natural sources of dust in the Owens Valley. Therefore, irrespective of whether “new” sand has been added on top of “old” sand, the Keeler Dunes would still be a natural source of dust. Because the Keeler Dunes are a natural source, the contributions of any emissions towards any monitored national ambient air quality standards (NAAQS) exceedances should be removed under the United States Environmental Protection Agency’s (EPA) Exceptional Events Rule (EER).

- District staff solely focused on LADWP as the presumed cause and, as a result, failed to consider other obvious sources of any “new” sand on top of the “old” sand at Keeler Dunes, which might be completely unrelated to LADWP’s water gathering activities. The lack of objectivity by the District staff seriously undermines the integrity of the entire Final Staff Report.
- District staff is advocating a significant policy position, which is contrary to the Clean Air Act and other air districts’ interpretation of the Act that natural sources should be controlled. If the District Governing Board decides to issue a dust control order for this natural desert feature, this will have far reaching consequences for the vast desert areas controlled by the Bureau of Land Management and others within the Owens Valley.
- The 2008 State Implementation Plan (SIP) demonstrates that the Owens Valley Planning Area will attain the NAAQS for PM<sub>10</sub> without dust controls on the Keeler Dunes. The Board Order in the 2008 SIP does not require dust controls on the Keeler Dunes. Will the District Governing Board now declare the 2008 SIP a failure?
- District staff’s attempt to bifurcate the decision on the origin of the Keeler Dunes from an order to install dust controls is in violation of Health and Safety Code Section 42316 (Section 42316).
- The decision regarding the origin of the Keeler Dunes is part of a “project” under the California Environmental Quality Act (CEQA). The District cannot piecemeal the project approvals in an attempt to avoid its obligations under CEQA.

LADWP provides additional preliminary comments below:

**1. There Remain Significant Technical Defects With the Final Staff Report.**

The Final Staff Report summarized the results of seven categories of research, ranging from comparisons of “before” and “after” photographs to geomorphic mapping to sand-flux modeling. Only three of the seven sections (Sections 4.3, 4.5, and 4.6), however, provide any evidence or discussion pertaining to the causes of the observed changes in the Keeler Dunes over the past 70 years. The other four sections (Sections 4.1, 4.2, 4.4, and 4.7) are either silent on the subject of causation, or simply presumed that the cause was the desiccation of Owens Lake following LADWP’s water gathering activities in the early part of the 20th century. Of the three sections that discussed likely causes, two of them (Sections 4.3 and 4.6) presented evidence suggesting that the causes are natural in origin. None of the evidence presented in the Final Staff Report supports the District’s position that the recent development in the Keeler Dunes was caused solely by sand transport from the desiccated playa in the last 70 years.

Like the Preliminary Staff Report, the Final Staff Report is rife with unanswered questions and inconsistencies. For example, Section 4.3, Aerial and Satellite Image Analysis, notes that the Swansea Dunes have remained stable for the last 300-400 years. If a large influx of sand from the Owens playa caused the recent changes in the Keeler Dunes, as the District states repeatedly in the Final Staff Report without supporting evidence, then why weren’t similar changes observed in the Lizard Tail and Swansea Dunes, both located adjacent to the Keeler Dunes along the east shoreline of Swansea Bay? This is only one indication in the Final Staff Report that the changes in the Keeler Dunes might be caused by something other than sand from the Owens playa. Similarly, Section 4.3 states that even now, ten years after dust controls were constructed on the North Sand Sheet, the Keeler Dunes have “not yet an equilibrium with sand supply” and continue to expand. This could imply that other sources of sand continue to feed the Keeler Dunes, independent of sand from the Owens playa.

Section 4.4, Geomorphic Mapping and Analysis, presents evidence that other natural sand sources have long existed in the vicinity of the Keeler Dunes, including old shoreline beach deposits dating back the late Pleistocene epoch, the shorelines exposed by the periodic, natural desiccation of Owens Lake, and the shoreline area along Swansea Bay created by the 1872 earthquake and tectonic uplift, to name just a few. The Final Staff Report identified these natural sources but failed to evaluate their possible influence on the Keeler Dunes.

Section 4.5, Chronology and Stratigraphy, notes that stable, greasewood-anchored dunes (*nebkahs*) existed in the area of the Keeler Dunes until the 1960s, and then goes

on to state (without supporting evidence, here or elsewhere) that an influx of sand from the Owens playa buried the vegetation, further exposing the dune surfaces to wind erosion and triggering the development of the Keeler Dunes. The District *presumed* that this was the cause, but failed to support their hypothesis with any studies, data, or analysis. Yet another deficiency: Section 4.5 presented some estimates of the amount of sand on the Owens playa “available” for transport into the Keeler Dunes. However, the District made no attempt to estimate the volume of sand that was actually transported into the area of the dunes, from this or any other possible sand source.

The single greatest deficiency in the Final Staff Report is the lack of a comprehensive sand-source apportionment study: that is, a study that identifies the likely sources of sand contributing to the Keeler Dunes, with estimates of the volume of sand contributed from each source. A comprehensive study would include the following sources: the Owens playa above and below the natural low water mark, the Swansea Dunes, the deflating portions of the Keeler Dunes, the new and old Slate Canyon alluvial fan deposits, and the exposed shorelines predating the most recent desiccation of Owens Lake, among others. The District cannot conclude that the Owens playa is the sole source of sand feeding the Keeler Dunes without supporting information from this type of study. Circumstantial evidence (e.g., data showing that sand of similar origin exists on both the dunes and playa) is not sufficient; the District must demonstrate where and when sand was transported from the playa, and compare the estimates to those from other possible sources.

It is clear from the Final Staff Report that the District’s position is “all or none” with regard to attributing responsibility for the sand in the Keeler Dunes. The District staff apparently seeks a single, simple cause for the myriad of changes that have been observed in the Keeler Dunes. Case in point: Section 4.5 acknowledges that the ancient dune deposits underlying the active portions of the Keeler Dunes are a possible source of sand contributing to the current expansion of the dune field. But later in the section, the District inexplicably dismisses this source entirely because it could not account for all of the “new” sand feeding the Keeler Dunes. Instead, the District fell back on the well-practiced but unsupported charge that the large volume of sand in the active Keeler Dunes could only have originated from the Owens playa within the last 70 years.

The Final Staff Report is focused almost entirely on explaining the origin and development of the sand in the Keeler Dunes, presumably because the generally accepted mechanism for generating dust emissions is sand motion and abrasion. However, by focusing solely on sand motion, the District ignored other evidence that might explain why the Keeler Dunes are so much more emissive than other nearby dunes. For example, Section 4.5 notes that flashflood silt deposits have been ponding behind the ancient barrier beach dunes for the past 2,000 years. These highly emissive

silt deposits, which continue to be replenished with each new flash flood event, including the one that occurred on September 12, 2012, have no doubt contributed greatly to the dust plumes that are now observed in the Keeler Dunes. This also suggests that the Keeler Dunes have been producing dust emissions for at least the last 2,000 years, undermining the District's argument that the "older" Keeler Dunes were inactive and non-emissive.

The surface change analysis in Section 4.6 of the Final Staff Report is perplexing because it completely undercuts the District's much-repeated conclusion that the sand in the active Keeler Dunes was contributed solely by the Owens playa over the last 70 years. In fact, the sand-motion estimates presented in Section 4.6 do not support the District's position that a massive influx of sand from the Owens playa occurred in the last 70 years; they show that very little sand originated from the playa. The District's sand flux modeling analysis shows that an overall net loss of sand occurred in the Keeler Dunes during the pre-dust control period (loss of -0.1 cm/year). This belies the District's position that the Keeler Dunes accumulated sand prior to the shallow flood dust controls on Owens Lake. The District's sand flux modeling for the post-dust control period shows nearly the same result: a net loss of 0.13 cm/year within the Keeler Dunes. The relative lack of change in the Keeler Dunes following the construction of shallow flooding also supports the opinion that the Owens playa was not an important source of sand for the Keeler Dunes. Clearly, other sources have contributed to the recent dune activity.

According to the District's analysis, only one sand-motion monitoring site (7199) exhibited any sand flux into the Keeler Dunes during the pre-dust control period. However, the net sand flux at this location was tiny: an average of 0.14 cm/year. At this rate, it would take roughly 250 years to deposit the amount of sand in the Keeler Dunes that the District claims originated from the Owens playa in the last 70 years. If the results shown in Figure 4.6-5 of the Final Staff Report are used, the fluxes are even smaller (essentially zero), ranging from an erosion rate of -0.005 cm/year to a deposition rate of 0.005 cm/year. Using the highest rate, it would take roughly 8,000 years to deposit all of the sand that is now active in the Keeler Dunes. Either way, the District's sand-motion analysis is defective or there are other sources of sand feeding the Keeler Dunes, or both. Using the District's own data, the sand fluxes from the playa are too low to account for all the sand in the active Keeler Dunes.

Although most of the key studies in the Final Staff Report were conducted by highly regarded scientists from the Desert Research Institute and elsewhere, most of the emphasis was on characterizing the dunes, with much less focus on gaining a better understanding of the events that triggered the observed changes in the dunes over the last 70 years. No studies were performed to apportion the sand in the Keeler Dunes to

various sources, leaving open the question about what, or who, is responsible for the recent activity. Nearly all of the evidence presented by the District points to the conclusion that the dunes are natural in origin and have existed in the area for the past 2,000 years or more. Given their location at the toe of a very large and active alluvial fan with frequent influxes of flashflood sediments, there is every reason to believe that the ancient dunes were not only active but also highly emissive.

In its haste to find LADWP responsible for the dust emissions in the Keeler Dunes, the District failed to prove that the Keeler Dunes have only been emissive in the last 70 years, and to investigate the causes leading to the observed changes in the Keeler Dunes. The District's position that the observed changes in the Keeler Dunes were caused solely by the desiccation of Owens Lake is not supported by any of the evidence in the Final Staff Report.

## **2. Final Staff Report Fails to Address Other Sources of "New" Sand in the Keeler Dunes.**

Even if the District could establish with substantial evidence that the Keeler Dunes are anthropogenic in origin, *which it cannot and has not*, the District staff's investigation and analysis in the Final Staff Report ignores other sources of the "new" sand on top of the "old" sand at Keeler Dunes, which are completely unrelated to LADWP's water gathering activities. LADWP is presently concluding its study regarding the source of the "new" sand, and hopes to have study documentation completed in time to submit to the District at the December 13, 2012, hearing.

## **3. District's Release of Significant New Information and Data Demonstrates the District's Process is Flawed and Designed to Avoid Transparency and Full Participation by LADWP.**

Although the ultimate (erroneous) conclusions in the Final Staff Report remained the same as the Preliminary Staff Report – i.e., that the Keeler Dunes are anthropogenic in origin and sand from the Owens playa is the sole cause of the recent expansion of the dunes – the Final Staff Report is significantly different from the Preliminary Staff Report. Among other things, the Final Staff Report includes 7 new and/or revised reports prepared by District staff and consultants that were not part of the Preliminary Staff Report, 23 completely new/updated figures, 4 new tables and at least 17 new references added to the body of the Final Staff Report alone. This excludes the additional data, figures, tables and references cited in the various new/updated reports included as Attachments A through G to the Final Staff Report, as well as District staff's 80 page response to LADWP's October 19, 2012, comments on the Preliminary Staff Report, attached as Appendix 2 to the Final Staff Report.

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The District staff fails to provide any explanation for why these new data and reports were not included as part of the Preliminary Staff Report in accordance with the District Governing Board's express verbal and written direction, and the parties' understanding and assumption – *confirmed repeatedly by both District staff (the Air Pollution Control Officer included) and attorneys*<sup>1</sup> – that the Preliminary Staff Report and technical attachments posted on the District's website on September 7, 2012, represented the District's full and complete report on the origin and development of the Keeler Dunes. The District Governing Board was clear and unequivocal in its verbal and written directions to District staff that the Preliminary Staff Report and technical attachments were to include all of the "technical and scientific research, data and investigations conducted by the District pertaining to the origin and development of the Keeler Dunes" in order to allow sufficient opportunity for all interested parties, including LADWP, to review and provide comments. (September 5, 2012, Board Packet, pp. 124, 126.) LADWP, like all other members of the public with an interest in the Keeler Dunes, could not provide full and complete comments without having had an opportunity to review and consider all of the relevant reports and appendices supporting the findings and conclusions set forth in the Report.

The District staff's failure and refusal to include these significant additional data and studies as part of the Preliminary Staff Report, or to adequately explain why the materials were not previously disclosed, severely restricts LADWP's ability to thoroughly consider and respond to District staff's findings regarding the origin and development of the Keeler Dunes. The excuse proffered by District staff that they withheld these additional research, data and reports from the Preliminary Staff Report pending receipt of "information from the LADWP on the work they have conducted in the dunes" (Final Staff Report, Appendix 2, p. 50), is illogical and misunderstands the parties' respective roles and obligations regarding the Keeler Dunes. The District bears the burden to support its own conclusions. LADWP had no duty to conduct its own investigation into the origin of the Keeler Dunes to supplement or support the District staff's concurrent research and studies, much less to share the results of any such investigation with

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<sup>1</sup> On October 18, 2012, the Air Pollution Control Officer responded to a letter from LADWP expressing concerns about the completeness the District's Preliminary Staff Report in light of the various additional investigations referenced – but not included – in the Preliminary Staff Report by stating: "**The materials comprising the preliminary staff report should be considered complete as of this date. Any references to 'additional investigations' should be ignored in regards to the District's preliminary staff report.**" (Emphasis added.) The District's attorney, Peter Hsiao, Esq., provided a similar response to LADWP's request under the California Public Records Act (Gov. Code, §§ 6250, et seq.) for documents relating to pending Keeler Dunes investigations and studies. Thus, LADWP understood that there were no additional scientific or technical investigations relating to the Keeler Dunes *other than those published on September 7, 2012*, as attachments to the Preliminary Staff Report. In other words, the District represented that it had completed all pending technical investigations and analyses of the Keeler Dunes as of September 10, 2012, when the last report was posted to the District's website.



District staff. LADWP's sole responsibility as an interested member of the regulated public was to review the Preliminary Staff Report and its technical attachments – assumed to reflect the District staff's entire investigation on the Keeler Dunes – and comment on its adequacy, accuracy and completeness. LADWP did just that in its October 19, 2012, Technical Response. Moreover, the suggestion by District staff that these relevant data and studies were withheld from the Preliminary Staff Report in order to use the data to respond to and/or refute LADWP's anticipated comments and investigation evidences the District staff's disregard for the Governing Board's wishes that the investigation regarding the origins and development of the Keeler Dunes be open, objective and comprehensive.

It is patently unfair and unreasonable for the District staff to expect LADWP to comprehensively review and comment on all of this new data and information – **over 700 pages total** – within the span of six (6) business days over the Thanksgiving holiday in order to meet the District's arbitrary November 28, 2012, deadline for submitting comments on the Final Staff Report. Therefore, LADWP requests that the District postpone the December 13, 2012, hearing for a period of at least two months to allow LADWP, and other members of the public, sufficient time to consider all of the new data and materials included in the Final Staff Report and prepare an appropriate response. Should the District fail to do so, LADWP reserves its right to provide additional comments on the Final Staff Report and underlying technical investigations both at the December 13, 2012, hearing and afterwards until such time as LADWP has completed its review and analysis of the Final Staff Report.

Notwithstanding the above, LADWP reserves the right to submit further comments and analysis to the District after December 13, 2012.

#### **4. District Staff Admits the Final Staff Report Is Not An Objective Analysis of the Origins and Development of the Keeler Dunes.**

In its October 19, 2012, Technical Response to the Preliminary Staff Report, LADWP asserted that the results of the Preliminary Staff Report had been predetermined by the District in order to justify its prior statements in the 2003 and 2008 Owens Valley SIPs that the Keeler Dunes were created as a result of LADWP's water gathering activities and to ensure that the funding provided by LADWP for dust control – which represents over 90 percent of the District's annual operating budget – remains stable and secure long after LADWP has implemented controls on appropriate areas of the Owens lakebed.

The District staff addressed this issue in the Final Staff Report by stating that the District had not *predetermined* the results of its Keeler Dunes investigation to find that the

dunes developed as a result of LADWP's water gathering activities at Owens Lake, but merely *hypothesized* that this was the case and intended through its investigations to "test the hypothesis that the dunes are anthropogenic." (Appendix 2, p. 14.) In other words, the focus of the District staff's investigation was not – as stated in the Preliminary Staff Report – to objectively determine whether the Keeler Dunes are natural or anthropogenic in origin, but instead to try to prove staff's "working hypothesis" that the Keeler Dunes were created by sand transported from the Owens Lakebed. The District staff's statement that the District would be "more than willing" to accept a contrary conclusion rings hollow (Appendix 2, p. 14), particularly given that, as discussed above, the District staff and consultants purposefully ignored and/or failed to address the other potential sources of "new" sand in the Keeler Dunes, including the once-buried and now eroding ancient dune deposits underlying the "new" dunes.

#### **5. Clean Air Act's Exceptional Events Rule Does Not Provide the District With Authority to Require the Control of Emissions From Natural Sources.**

The District states in the Final Staff Report that it has the authority to require control of natural sources like the Keeler Dunes under the Clean Air Act's Exceptional Events Rule (42 U.S.C. § 7619 [Clean Air Act, § 319]; see also Treatment of Data Influenced by Exceptional Events, 72 FR 13560-01), but suggests that the EER does not apply to Keeler Dunes because there are currently no Best Available Control Measures (BACM) in place on the dunes. The District is wrong. Requiring the control of natural undisturbed surfaces is beyond the District's current authority under the Clean Air Act and Section 42316.

The District's staff misunderstands the purpose of the EER and its authority thereunder. The purpose of the EER is to allow for the exclusion of data caused by naturally-occurring high wind events that are, by definition, not reasonably controllable or preventable. In other words, the Clean Air Act recognizes that certain NAAQS exceedances cannot be prevented or controlled, *regardless of whether BACM has been installed or has proved to be ineffective*, and, as a result, permits data from those events to be excluded from NAAQS attainment demonstrations. Thus, the EER is intended to restrict – not broaden – the District staff's regulatory authority to issue control orders necessary to achieve attainment with the NAAQS by removing data from natural events from the attainment equation. Contrary to the District staff's statements in the Final Staff Report, there is no "public policy" exception to the Clean Air Act that authorizes the District to require control of natural sources simply because of the potential impacts to health and safety.

Furthermore, LADWP notes that the District staff has taken inconsistent positions regarding application of the EER in the Owens Valley. On the one hand, the District staff

have characterized the EER as having “limited usefulness” in Owens Valley, and categorically refused to consider, much less apply, the EER to potentially eligible high wind events on the Owens playa despite multiple requests by LADWP that it do so.<sup>2</sup> (See June 8, 2012, LADWP letter re: May 25, 2012, high wind event; June 21, 2012, District response re: same.) On the other hand, the District staff cites the EER – and no other authority – in the Final Staff Report as the sole basis for its purported authority to issue dust control orders for natural sources. Thus, according to the District staff, the EER **cannot** be used in Owens Valley for its intended purpose (*i.e.*, to exclude data from uncontrollable or preventable high wind events), but **can** be applied for the entirely unrelated and statutorily-unsupported purpose of authorizing the issuance of control orders for naturally-occurring, nonanthropogenic sources of PM<sub>10</sub> emissions. The District staff’s position in the Final Staff Report that the EER authorizes the control of natural sources is contrary to, and cannot be reconciled with, the plain language of the rule and the District’s own prior written statements.

Finally, the District staff fails to understand or acknowledge the serious long-term implications of issuing control orders for naturally-occurring, nonanthropogenic sources of emissions. The Owens Valley is a naturally arid, desert environment that is historically prone to dust storms and high wind events, and, like other desert landscapes, contains a seemingly endless supply of sand dunes and other naturally-occurring topographical features that have historically generated, and will continue to generate, PM<sub>10</sub> emissions. These emissions are attributable solely to the existing natural environment, and not any anthropogenic cause or effect of land ownership. If the District were to issue an order requiring LADWP to control a natural source of emissions like the Keeler Dunes, this would set a precedent for future control orders to be issued for every other sand dune and natural emission source in the OVPA. There would be virtually no end to the potential sources subject to dust controls, and the individuals and entities liable for implementing such controls, including the State and Federal agencies that hold title to vast swaths of the Owens Valley and other vacant desert lands throughout the United States. Moreover, attempting to control natural, undisturbed sources could, and likely would, render these sources disturbed and thereby transform what was a naturally-occurring element of the desert landscape into an anthropogenic source of emissions subject to the District’s jurisdiction and control. The District’s duty under the Clean Air Act and State law is to ensure the control of *existing* sources of *man-made* PM<sub>10</sub> emissions to the extent necessary to achieve the NAAQS – not to

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<sup>2</sup> Whereas the vast majority of air quality agencies support broad application of the EER as a means to exclude data that would prevent them from achieving attainment, and would seek to “flag” as much air quality data as possible so as to exclude the maximum amount of exceedances, the District inexplicably does not. As discussed above, the reason for this is simple: no other air quality agency has 90% of its operating budget provided by a single deep-pocketed member of the regulated community (*i.e.*, LADWP), and the purported statutory authority (Section 42316) to force that single member and the 4,000,000 citizens it serves to fund the construction of controls for mitigating all windblown dust in Owens Valley.

create additional “new” sources and the corresponding justification to order further, otherwise unnecessary, controls. The District’s authority with respect to LADWP is limited by Section 42316 to the imposition of reasonable measures to mitigate the impacts of the City’s water gathering activities, on the basis of substantial evidence establishing that the City’s activities cause or contribute to violations of the NAAQS and prevents the District from mandating measures that affect the City’s right to produce, divert, store, or convey water.

**6. District Staff Fails to Address that the OVPA Will Achieve Attainment According to the 2008 SIP and 2017 Attainment Strategy Without the Implementation of Additional Controls on Keeler Dunes.**

As noted in LADWP’s October 19 Technical Response to the Preliminary Staff Report (§ 3.2), according to the 2008 SIP, LADWP’s control of 43 square miles of Owens Valley playa – standing alone and excluding emissions from the Keeler Dunes – is expected to be sufficient to achieve attainment of the PM<sub>10</sub> NAAQS by 2017. The Final Staff Report does not, and cannot, refute this fact. Instead, District staff point to language in the 2008 SIP providing that “if” additional mitigation measures are required for the Keeler Dunes to demonstrate attainment, then such controls are required to be ordered by January 1, 2012, and implemented by January 1, 2014. (Final Staff Report, Appendix 2, p. 18.)

The District cannot issue orders to LADWP to implement dust controls on the Keeler Dunes without the EPA first finding that the current mitigation measures have failed to achieve attainment by the 2008 SIP’s projected attainment date of 2017 because of the lack of controls on the Keeler Dunes. The District staff cannot simply determine – on its own and without EPA consultation or approval – that additional controls on the Keeler Dunes above and beyond the 43 square miles of controls prescribed under the 2008 SIP are needed to demonstrate attainment by 2017 because to do so would constitute a de facto amendment to the 2008 SIP. There has been no finding by either the EPA or the District that attainment will not be achieved with these current controls nor could such a finding be made until, at the earliest, 2017. Furthermore, the mere existence of data showing past NAAQS exceedances on the Keeler Dunes – a natural source of natural emissions which data is subject to exclusion from attainment under the EER – does not automatically mean that the current controls required under the 2008 SIP have failed or are otherwise insufficient to meet attainment by the 2017 deadline.

Finally, the District staff appears to confuse and conflate the District’s obligations to demonstrate attainment with the federal NAAQS under the 2008 SIP with its concurrent responsibility to protect the health and safety of residents within the Owens Valley. In doing so, the District staff ignores the fact that the 43 square miles of controls

prescribed in the 2008 SIP and determined adequate by the District to achieve attainment with the NAAQS are, by their very nature, sufficient to protect the health and safety of local residents in accordance with federal standards. The Clean Air Act instructs EPA to set "ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator... **are requisite to protect the public health.**" (42 U.S.C. § 7409(b)(1) [emphasis added]; *Whitman v. Am. Trucking Associations* (2001) 531 U.S. 457, 472.) Thus, achieving attainment with the NAAQS in accordance with the measures prescribed in the 2008 SIP will simultaneously ensure the health and safety of Owens Valley residents. If not, then the District has no choice but to declare the SIP a failure.

In sum, the District staff's analysis of the origins and development of the Keeler Dunes, and any dust control order that the District Governing Board may be asked to issue as the result of this report, would be premature and unnecessary because by the District's own determination, the OVPA is expected to achieve attainment with federal PM<sub>10</sub> standards under the District's 2008 SIP without the implementation of dust controls on the Keeler Dunes.

#### **7. District Staff's Final Staff Report Does Not Present Substantial Evidence Necessary to Justify A Future Order For Dust Controls On Keeler Dunes Under Section 42316.**

Among other things, Section 42316 requires the District to demonstrate establish through "substantial evidence" that LADWP's water gathering activities have caused or contribute to an alleged air quality violation before it may lawfully order LADWP to implement dust controls. The Final Staff Report, like the Preliminary Staff Report issued on September 7, 2012, does not include any direct evidence showing that LADWP's activities at Owens Lake have caused or contributed to a specific violation of the federal NAAQS, or that any of the other requirements of Section 42316 have been met. Consequently, the Final Staff Report cannot be used as the basis for ordering LADWP to install controls on the Keeler Dunes.

Contrary to the District staff's statements in the Final Staff Report, the District has no authority besides Section 42316 to order LADWP to control the Keeler Dunes or, for that matter, any other lands within the Owens Valley. Neither the District's own local rules nor any other provision of state or federal law besides Section 42316, grant the District staff the authority to issue dust control orders to LADWP. Thus, absent a showing by the District that all of the criteria set forth in Section 42316 have been met, the District is without authority to order LADWP to implement dust controls on the Keeler Dunes.

Furthermore, the District staff's bifurcation of the control order process for Keeler Dunes does not remove or exempt the District from its statutory obligation to comply with Section 42316, and demonstrate, by substantial evidence, that: (1) the Keeler Dunes are a man-made source of emissions subject to control under the Clean Air Act; and (2) LADWP's water-gathering activities at Owens Lake caused a specific exceedance of the NAAQS at the Keeler Dunes. The District cannot avoid its legislative burdens under Section 42316 by characterizing the Final Staff Report and its analysis of the Keeler Dunes as a mere technical investigation rather than a control order proceeding under Section 42316. The decision on the origin of Keeler Dunes is a necessary and inseparable predicate to a control order.

**8. District Cannot Meet Its Burden of Showing that Keeler Dunes Are Anthropogenic In Origin.**

In order to serve as the predicate for a future order requiring LADWP to install controls on the Keeler Dunes, the Final Staff Report must find that the Keeler Dunes are anthropogenic in origin. The District cannot make this finding because the undisputed evidence – including the District's own evidence in the Final Staff Report – confirms that sand dunes have existed in the area around Keeler for thousands of years and certainly long before LADWP began its water gathering activities at Owens Lake.

Rather than acknowledge this fact, the District staff instead attempt to distinguish these historical dunes from the so-called "modern Keeler Dunes that require dust controls." (Final Staff Report, § 4.5; Appendix 2, p. 31; Attachment E to Final Staff Report.) This distinction by District staff is irrelevant, however, because the very fact that sand dunes have historically existed in Keeler long before human settlement in the area and before the recent elevation change at Owens Lake means that the dunes themselves are a natural, nonanthropogenic source of emissions. To the extent that the emissive sand from the current "active" dunes is different in origin from the material comprising the older "inactive" dunes is not relevant because the District staff cannot show as a matter of scientific fact that the "older" dunes were not themselves emissive. In other words, the fact that some of the sand comprising the top, emissive layer of the current Keeler Dunes may originate at Owens Lake does not ipso facto establish that the dunes themselves are anthropogenic.

Because neither the Clean Air Act nor any other statute permits the District to order the control of a natural source, the Final Staff Report cannot be used by the District as the foundation for ordering LADWP to install controls at Keeler Dunes.

Mr. Theodore D. Schade  
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If you would like to discuss this matter further, please contact me at (213) 367-1014, or Mr. William VanWagoner, Manager of Owens Lake Regulatory Issues and Future Planning, at (213) 367-1138.

Sincerely,



Martin L. Adams  
Director of Water Operations

WWW:vf  
Attachment

c: Mr. Larry Johnston, District, Mono County  
Mr. John Eastman, District, Town of Mammoth Lakes  
Mr. Richard Cervantes, District, Inyo County  
Mr. Henry "Skip" Veatch, District, Alpine County  
Mr. Tom Sweeney, District, Alpine County  
Ms. Linda Arcularius, District, Inyo County  
Mr. Tim Hansen, District, Mono County  
Ms. Tori DeHaven, District, Clerk of the Board  
Ms. Bernadette Lovato, Bureau of Land Management  
Mr. Mark Schaaf, Air Sciences  
Mr. William T. Van Wagoner