



## GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

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**B/O #130916-01**

September 16, 2013

**I HEREBY CERTIFY** that Board Order No. 130916-01 was duly adopted and issued by the Governing Board of the Great Basin Unified Air Pollution Control District at a regular meeting on September 16, 2013, held in the Town of Mammoth Lakes Town Council Chambers, 437 Old Mammoth Road, Suite Z, Mammoth Lakes, California and entered as follows:

**AGENDA ITEM #4: APPROVAL OF AN ORDER AMENDING THE 2008 OWENS VALLEY PM<sub>10</sub> PLANNING AREA DEMONSTRATION OF ATTAINMENT STATE IMPLEMENTATION PLAN**

A motion was made by Arcularius and seconded by Rawson adopting the proposed Board Order 130916-01 with a modification to remove reference in the order to the Coso Junction Maintenance Plan. The following findings were also made:

1. That the Governing Board conducted a public hearing as required for a State Implementation Plan (SIP) revision.
2. That the Governing Board adopted the amendment to the 2008 Owens Valley PM<sub>10</sub> Planning Area Demonstration of Attainment State Implementation Plan to incorporate revisions to the date required for the implementation of Best Available Control Measures for the "Phase 7a" dust control areas, modifying certain Best Available Control Measure Descriptions and modifying provisions for PM<sub>10</sub> control in the Keeler Dunes.
3. That the Governing Board directed the Clerk of the Board to submit the SIP revision to the California Air Resources Board for forwarding to the United States Environmental Protection Agency.

Ayes: Board Members – Eastman, Hames, Rawson, Arcularius, Kingsley, Johnston, Hunt

Noes: Ø

Abstain: Ø

Absent: Ø

Motion carried 7/0 and so ordered.

**B/O #130916-01**

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ATTEST:

A handwritten signature in cursive script, appearing to read "Tori DeHaven", written over a horizontal line.

Tori DeHaven, Clerk of the Board

**BOARD ORDER 130916-01**  
**ORDER OF THE GOVERNING BOARD OF THE**  
**GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT**  
**AMENDING THE 2008 OWENS VALLEY PM<sub>10</sub> PLANNING AREA**  
**DEMONSTRATION OF ATTAINMENT STATE IMPLEMENTATION PLAN**  
**TO INCORPORATE REVISIONS TO THE DATE REQUIRED FOR THE IMPLEMENTATION OF**  
**BEST AVAILABLE CONTROL MEASURES FOR THE “PHASE 7A” DUST CONTROL AREAS,**  
**MODIFYING CERTAIN BEST AVAILABLE CONTROL MEASURE DESCRIPTIONS AND**  
**MODIFYING PROVISIONS FOR PM<sub>10</sub> CONTROL IN THE KEELER DUNES**

*September 16, 2013*

WHEREAS, on February 1, 2008, the Governing Board of the Great Basin Unified Air Pollution Control District (“District”), an agency organized pursuant to Division 26, Part 3, Chapter 3 of the California Health and Safety Code, approved the *2008 Owens Valley PM<sub>10</sub> Planning Area Demonstration of Attainment State Implementation Plan* (“2008 SIP”) and its associated implementing Board Order Number 080128-01 (“SIP Order”). The SIP Order is attached as Exhibit 1.

WHEREAS, the SIP order requires the City of Los Angeles, acting by and through its Los Angeles Department of Water and Power (“LADWP”), a municipal corporation organized under the Los Angeles City Charter and the Constitution and laws of the State of California, to construct Best Available Control Measure (“BACM”) PM<sub>10</sub> controls on various emissive areas of the dried Owens Lake bed in Inyo County, California. The SIP Order sets forth a methodology for identifying emissive lake bed areas that require BACM PM<sub>10</sub> controls.

WHEREAS, on September 25, 2009, the LADWP requested and was granted a conditional variance by the District Hearing Board (District Hearing Board Order Number GB09-06, Exhibit 2) to extend the deadline by one year for the completion of dust control measures in an approximately 3.1 square-mile area now known as “Phase 7a,” which includes the six Dust Control Areas (“DCAs”) designated as T37-1, T37-2, T1A-3, T1A-4, T-32-1 and T12-1.

WHEREAS, on March 17, 2011, the District Governing Board issued Stipulated Order for Abatement Number 110317-01 (“Order 110317-01”) (Exhibit 3). Order 110317-01 extended the SIP Order and Hearing Board Order GB09-06 deadlines by which the LADWP was required to construct the Phase 7a dust control project. With the exception of DCA T12-1, Order 110317-01 required Phase 7a dust controls to be BACM controls. Order 110317-01 allows LADWP to conduct a BACM test of Tillage in DCA T12-1 and to transition approximately 3.0 square miles of existing BACM control areas to other types of BACM control (“Transition Area”).

WHEREAS, Order 110317-01 requires LADWP to install the Phase 7a and Transition Area BACM controls by no later than December 31, 2013, and to install BACM controls in the T12-1 tillage test area by May 1, 2016. (*See also* Governing Board Order No. 120206-07.) Under Order 110317-01, all Phase 7a Areas and Transition Areas controlled by Managed Vegetation BACM are to achieve fully-compliant BACM vegetation cover by December 31, 2015.

WHEREAS, the LADWP subsequently determined that it would be unable to meet the deadlines set forth in Order No. 110317-01 and, after discussions with the District, entered into a settlement agreement with the District entitled *Phase 7a and Keeler Dunes Settlement Terms*, dated June 25, 2013 ("Term Sheet") that was approved by LADWP's Water and Power Commissioners on June 26, 2013, and the District's Governing Board on June 27, 2013. The Term Sheet is attached as Exhibit 4.

WHEREAS, the Term Sheet required the District and the LADWP to enter into a Settlement Agreement that formalized and approved the provisions of the Term Sheet. On August 19, 2013 and August 27, 2013, the District and LADWP, respectively, approved the *Settlement Agreement and Release Between the Great Basin Unified Air Pollution Control District and City of Los Angeles Acting by and Through its Department of Water and Power Concerning Modification to Phase 7a Stipulated Order for Abatement No. 110317 and Keeler Dunes Project* ("Settlement Agreement"). The Settlement Agreement is attached as Exhibit 5.

WHEREAS, the Term Sheet and Settlement Agreement required the District to modify Order 110317-01 to comply with the provisions of the Term Sheet and Settlement Agreement. On August 19, 2013, the Governing Board adopted Order No. 130819-01 – *Findings and Decision of District Governing Board Upon Hearing for Stipulated Modification to Stipulated Order for Abatement 110317-01* which modified Order 110317-01. Order 130819-01 is attached as Exhibit 6.

WHEREAS, the Term Sheet (Section II.B.1.c.) and Settlement Agreement (Section II.b.iii.) require that "The District shall amend the 2008 SIP and Board Order 080128-01 consistent with the terms of this Agreement, ... and shall request the United States Environmental Protection Agency ("EPA") and CARB [California Air Resources Board] to approve the amended SIP."

THEREFORE, as required by the Term Sheet and Settlement Agreement, the District Governing Board hereby makes the following amendments to the 2008 SIP and the 2008 SIP Order, and directs the Board Clerk to promptly submit the two amended documents to the California Air Resources Board ("CARB") for approval and forwarding to the U.S. Environmental Protection Agency ("EPA") for its consideration and approval. The District requests that the CARB and EPA consider the above two amendments separately and approve those portions that are approvable. It is the intention of the Governing Board to only make such amendments that are necessary to implement and enforce the terms and provisions of the Term Sheet, Settlement Agreement and Abatement Order Number 130819-01.

The amendments to the 2008 SIP and 2008 SIP Order are as follows:

**A. PHASE 7a DUST CONTROLS**

1. **Deadline Extensions:** All of the locations in the 2008 SIP and SIP Order that discuss the deadlines for constructing dust controls in the "Moat & Row" areas (now known as the "Phase 7a" areas) shall be revised to be consistent with the new timeframes discussed below in subdivisions (a)-(d) and the following shall be added to the 2008 SIP and SIP Order:

- a. With the exceptions noted below, the deadline for LADWP to construct all infrastructure and install fully-compliant BACM PM<sub>10</sub> controls (other than Managed Vegetation BACM) in those portions of the “2008 Dust Control Area” (SIP Sec. 7.3 and SIP Order paragraphs 2 and 3) known as the “Phase 7a” areas, which total approximately 3.1 square miles, shall be December 31, 2015. All infrastructure and plant materials for Phase 7a areas controlled with Managed Vegetation BACM will be installed by December 31, 2015. The Phase 7a areas are a portion of the 2008 Dust Control Area previously referred to in the 2008 SIP and SIP Order as “Moat & Row Dust Control Areas” and are shown and described in Exhibit 7.
  - b. The deadline to achieve fully-compliant BACM vegetation cover for those Phase 7a areas controlled by the Managed Vegetation BACM shall be December 31, 2017. (See 2008 SIP Section 7.3 and SIP Order paragraph 3)
  - c. The extensions of the deadlines set forth in sections A.1.a. and A.1.b. shall be contingent upon all of the following:
    - (1) LADWP timely receiving from California State Lands Commission (“CSLC”) and all other agencies all of the required permits, approvals, or leases necessary to allow LADWP to construct BACM controls within the deadlines set forth in sections A.1.a. and A.1.b..
    - (2) The timely removal from the Phase 7a areas of all California Register of Historical Resources (“CRHR”)-eligible areas plus necessary buffer areas, referred to as the “Eligible Cultural Resource (“ECR”) areas.” The ECR areas initially consist of 277 acres of the Phase 7a areas (the “Initial Phase 7b Areas”). The Initial ECR areas and any newly discovered CRHR-eligible and necessary buffer areas shall comprise the “Phase 7b” areas. The Phase 7b Areas are not limited are not limited to the initial 277 acres.
    - (3) Order 110317-01 being revised to state explicitly that any newly discovered potential ECRs in the Phase 7a areas are considered a condition of force majeure under paragraph 5(d) of that Order.
  - d. If any one of the above contingencies is not met, LADWP may seek further extensions of time under the provisions of paragraph 5 of Order 110317-01, as modified by Order 130819-01, and paragraphs 6 and 22 of Order 110317-01, which shall not be unreasonably denied by the District.
2. **Removal of Phase 7b Areas:** All of the locations in the 2008 SIP and SIP Order that discuss or identify the boundaries of Moat & Row (now Phase 7a) shall be revised to recognize that LADWP shall not be required to install dust controls in the Phase 7b areas (initially, 277 acres) under the provisions of the 2008 SIP, the SIP Order, Order 110317-01 or Order 130819-01, and the following shall be added to the 2008 SIP and SIP Order:

If the District Governing Board subsequently decides to order LADWP to install dust controls in Initial Phase 7b Areas, the District Governing Board will do so by issuing a new Board order or orders. The new Board order or orders shall include deadlines for constructing dust controls that accommodate project circumstances. Any future order or orders issued by the District for Phase 7b will give due consideration to the shared goal of the District and LADWP to control air pollution and decrease the use of water as a dust control measure at Owens Lake. LADWP is not waiving its right to contest the new Board order or orders.

3. **Figure Revisions:** The existing figures in the 2008 SIP, including Figure 2.3 and 7.1, and SIP Order Exhibit 1 shall be revised to identify:
  - a. The Moat & Row Areas as “Phase 7a”
  - b. The location of “Brine Shallow Flooding” BACM
  - c. The existing shallow flooding areas to be transitioned to other BACM as part of the Phase 7a project, and
  - d. The completed BACM controls in the Phase 8 area.

**B. BEST AVAILABLE CONTROL MEASURE (BACM) MODIFICATIONS**

1. **Reduced Thickness Gravel:** All of the locations in the 2008 SIP and SIP Order that discuss the Gravel Blanket BACM control shall be revised to recognize that the District Governing Board approves “Reduced Thickness Gravel” as an approved type of the Gravel Blanket BACM. Reduced Thickness Gravel is defined per the 2008 SIP Section 5.4 and SIP Order paragraph 17 except that the gravel thickness is reduced from a minimum of four inches (4”) to two inches (2”) and all reduced thickness gravel areas shall be underlain with geotextile fabric. All geotextile fabric shall be Class I woven or nonwoven geotextile fabric meeting the minimum specifications set forth in the National Standard Materials Specification “Material Specification 592—Geotextile” (National Engineering Handbook, Chapter 3, Part 642), or equivalent as approved by the Air Pollution Control Officer.
2. **Brine Shallow Flood:** The following shall be added to the 2008 SIP and SIP Order:

The Governing Board approves “Brine Shallow Flooding BACM” as a subcategory of Shallow Flooding BACM. Brine Shallow Flooding is defined per the “Shallow Flooding BACM” in the 2008 SIP except that the water used for dust control may contain elevated levels of dissolved salts. The Air Pollution Control Officer will develop a Brine Shallow Flood BACM compliance methodology with input from the LADWP.

The District and LADWP acknowledge and agree that the District’s approval of Brine Shallow Flooding BACM shall not make LADWP liable for maintenance of

the existing natural Brine Pool on Owens Lake. The existing “natural Brine Pool” is defined as those areas at Owens Lake below elevation 3,553.55 feet.

3. **Removal of Moat & Row:** Remove the following sentence from the fourth paragraph of Section 2.1.1 “LOCATION” in the 2008 SIP:

If the Moat & Row control measures cannot achieve the necessary PM<sub>10</sub> control efficiency for the indicated areas (ranges from 50% to 99%), the unsuccessful Moat & Row areas must be converted to Shallow Flooding.

4. **BACM Testing and Approval:** The following shall be added to the 2008 SIP Section 7.9 “CHANGES TO BACM” and to the SIP Order as Paragraph 12.a.:

The District shall work with LADWP on accelerated testing schedules and BACM approval, if warranted, for Engineered Roughness Elements and Tillage in soil type areas where these controls can be applied. The District Governing Board shall consider BACM approval of these candidate measures by September 28, 2014. If the accelerated testing does not result in approved BACM for the candidate measures, the District’s and LADWP’s respective Boards shall jointly assess why the accelerated testing did not result in the District Board’s BACM approval. The District and LADWP shall also work on accelerated testing schedules and BACM approvals for other forms of BACM controls.

5. **Waterless BACM:** Revise the first sentence in Section 7.9 “CHANGES TO BACM” of the 2008 SIP adding the underlined text:

Existing BACM controls may be replaced with other BACM to help reduce implementation and operating costs and water usage. The District and LADWP shall make every effort to develop, approve and deploy high-confidence, waterless dust control measures in all areas where dust controls are ordered on Owens Lake. In addition, control measure research may identify new BACM control methods that are as effective as the BACM methods discussed in Chapter 5. Any approved BACM can be changed to any other approved BACM, however, with the exception of the provisions made in Order 110317-01 for “Transition Areas,” associated with the such transitions must be done in a manner that at all times results in the performance specifications for one or the other BACMs being met. Any environmental analyses, permits or leases required as a result of the transition are the sole responsibility of the City.

#### C. **KEELER DUNES**

1. **2008 SIP Section 6.4:** The third paragraph in Section 6.4 of the 2008 SIP titled “ATTAINMENT DEMONSTRATION” shall be removed and replaced with the following:

Emissions from the Keeler dunes were excluded from the simulations to assess attainment in the 2008 SIP. As discussed in more detail in Section 7.5, the District

will work with federal, state and local agencies, other than LADWP, to develop a plan to control dust emissions from the Keeler dunes. Any PM<sub>10</sub> control measures necessary for the Keeler dunes will be implemented by the District, or by entities other than the LADWP, by December 31, 2015.

2. **2008 SIP Section 7.5:** Section 7.5 of the 2008 SIP titled “DUST CONTROLS FOR KEELER DUNES” shall be removed and replaced with the following:

The Keeler dunes are located northwest of the town of Keeler above the 3,600-foot elevation that defines the regulatory Owens Lake shoreline (Figure 4.14). The total area covered by deep sand is about 0.64 square kilometers (157 acres). Figure 7.4 shows a sand dune about one-half mile north of Keeler in the Keeler dune field that formed across the abandoned State highway. Sensits and sand catchers have been installed in the Keeler dunes so that their PM<sub>10</sub> emissions can be modeled, and not attributed to lakebed sources.

Due to their proximity to the town of Keeler, dust emissions from the Keeler dunes contribute significantly to exceedances of the federal PM<sub>10</sub> standard in the town. After all the Owens Lake bed sources that cause or contribute to PM<sub>10</sub> standard exceedances are controlled, the Keeler dunes area is expected to be the only significant remaining dust source that causes exceedances of the PM<sub>10</sub> standard in the planning area.

In June 2013, in an agreement with the LADWP, the District committed to implement a PM<sub>10</sub> control project on the Keeler Dunes with funding provided by the LADWP. The District will work with federal, state and local agencies, other than the LADWP, to develop and implement a project to control dust emissions from the Keeler dunes. This project is known as the “Keeler Project.” The District shall have exclusive authority over, and responsibility for, the Keeler Project including, but not limited to, environmental impact analysis, design, permitting, construction, operation, maintenance, management, and monitoring. The Keeler Project includes all those portions of the Keeler Dunes owned by LADWP and the United States Bureau of Land Management (“BLM”). LADWP shall have no responsibility for the design, permitting, construction, operation, maintenance, management, monitoring and any other activities directly and exclusively related to the Keeler Project for as long as dust controls are required. Any dust monitoring undertaken by the District on LADWP’s Keeler Dunes property shall exclusively be for the Keeler Project and shall not be used for any other purpose.

In addition, the District forever releases LADWP from any and all liability under any and all federal, state and local laws that the District can enforce and settle, including but not limited to the Health and Safety Code, those portions of the 2008 SIP and SIP Order that can be enforced by the District, and fugitive dust emission rules, for dust emissions, regardless of origin, from the Keeler Dunes, including but not limited to portions of the Keeler Dunes owned by LADWP. The District forever agrees not to



request, encourage, or join in an enforcement action by any other agency against LADWP related to dust emissions from the Keeler Dunes, regardless of origin, including but not limited to portions of the Keeler Dunes owned by LADWP. A map defining the geographical boundaries of the Keeler Dunes is attached as Exhibit 8 and incorporated into the 2008 SIP and SIP Order. Keeler Dunes controls will be implemented by December 31, 2015.

The other major dune area, the Olancho dunes, is shown in Figure 4.14 and was not monitored or included in the model. The Olancho dunes are believed to be primarily natural dunes. If PM<sub>10</sub> violations are attributed to the Olancho dunes, these violations will be treated as natural events and a Natural Events Action Plan will be developed and implemented in accordance with the USEPA guidance and rules on Exceptional Events (see Section 2.2.3.3). In addition, the District forever releases LADWP from any and all liability under any and all federal, state, and local laws that the District can enforce and settle, including but not limited to the Health and Safety Code, those portions of the 2008 SIP and SIP Order that can be enforced by the District, and fugitive dust emission rules, for dust emissions from the Other Dunes Areas in the vicinity of Owens Lake, regardless of origin, including but not limited to portions of the Other Dunes Areas that may be owned by LADWP. The District forever agrees not to request, encourage, or join in an enforcement action by any other agency against LADWP related to dust emissions from the Other Dunes Areas in the vicinity of Owens Lake, regardless of origin. The LADWP is not released from liability for dust emissions resulting from any future groundwater pumping by LADWP at or below the 3600-foot contour in the Owens Lake area. Maps defining the geographical boundaries of the Other Dunes Areas is attached as Exhibit 8 and incorporated into the 2008 SIP and SIP Order.

3. **2008 SIP Section 7.10**: The fourth paragraph in Section 7.10 of the 2008 SIP titled "IMPLEMENTATION MILESTONES AND EMISSION REDUCTIONS" shall be removed and replaced with the following:

Attainment of the federal PM<sub>10</sub> standard is expected by the end of 2017. By this time, the District expects to have at least one year of air monitoring data that show no violations of the federal standard in the planning area.

4. **2008 SIP Section 7.11**: Section 7.11 of the 2008 SIP titled "REASONABLE FURTHER PROGRESS" shall be removed and replaced with the following:

Under CAAA Section 189(c), the demonstration of attainment SIP is required to include quantitative milestones that are to be achieved every three years until the area is redesignated attainment. These milestones must demonstrate reasonable further progress toward attainment of the NAAQS by the attainment date. Table 7.1 includes the estimated emissions reductions associated with the various control strategies to achieve the emission reduction trend as shown in Figure 7.5 to demonstrate reasonable further progress toward attaining the NAAQS. Milestones associated with this 2008 SIP include completion of Phase 7a dust controls by

December 31, 2015, with full compliance of BACM Managed Vegetation areas by December 31, 2017 (unless the time frames are extended as provided by Orders 110317-01 and 130819-01 or the Phase 7a areas become Phase 7b areas), and control of the Keeler dunes by December 31, 2015. The contingency measures shall not be triggered against LADWP for Phase 7b or the District's failure to control Keeler Dunes by December 31, 2015. As required by Section 189(c)(2) of the CAAA, the District shall submit to the USEPA, no later than 90 days after the date of each milestone, a demonstration that each milestone has been met.

5. **2008 SIP Table 7.1:** Table 7.1 titled "Control strategy milestones and estimated PM<sub>10</sub> emission reductions" shall be modified by":
- Renaming the Table "Estimated PM10 emissions for control strategies."
  - Replacing the "Milestone" category with "Control Strategy."
  - Removing the term "Moat & Row" and replacing it with "Phase 7a."
  - In the "Keeler dunes control area" row of the "1<sup>st</sup> Year in Full Operation" column, removing "2014" and replacing it with "2016."

**The effective date of this Order and all its amendments shall be September 16, 2013.**

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APPROVED, ADOPTED and ORDERED by the Governing Board of the Great Basin Unified Air Pollution Control District this 16<sup>th</sup> day of September, 2013 by the following vote:


Yes: Board Members - Eastman, Hames, Rawson, Arcularius  
Kingsley, Johnston, Hunt

No: 0

Abstain: 0

  
John Eastman, Chair of the Governing Board

Attest:

  
Tori DeHaven, Clerk of the Governing Board

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**List of Exhibits**

- Exhibit 1        *2008 Owens Valley PM<sub>10</sub> Planning Area Demonstration of Attainment State Implementation Plan* Board Order Number 080128-01 (“SIP Order”)
- Exhibit 2        District Hearing Board Order GB09-06, *Findings and Order Granting Regular variance from Requirements set Forth in Governing Board Order 080128-01*, September 25, 2009.
- Exhibit 3        Stipulated Order for Abatement Number 110317-01
- Exhibit 4        *Phase 7a and Keeler Dunes Settlement Terms* dated June 25, 2013 (“Term Sheet”)
- Exhibit 5        *Settlement Agreement and Release Between the Great Basin Unified Air Pollution Control District and City Of Los Angeles Acting by and Through its Department of Water and Power Concerning Modification to Phase 7a Stipulated Order for Abatement No. 110317 and Keeler Dunes Project*, dated August 19, 2013 (“Settlement Agreement”)
- Exhibit 6        District Governing Board Order Number 130819-01 – *Findings and Decision of District Governing Board Upon Hearing for Stipulated Modification to Stipulated Order for Abatement 110317-01*, dated August 19, 2013
- Exhibit 7        Map of Phase 7a areas
- Exhibit 8        Map of Keeler and Other Dune Areas