



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

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BOARD REPORT

Mtg. Date: April 13, 2016

To: District Governing Board

From: Phillip L. Kiddoo, Air Pollution Control Officer

Subject: **PUBLIC HEARING on adoption and approval of** (1) a proposed order authorized by California Health & Safety Code Section 42316 for the City of Los Angeles Department of Water and Power to install, operate and maintain additional dust control measures on the Owens Lake bed, (2) a proposed Great Basin Unified Air Pollution Control District Rule 433 - Control of Particulate Emissions at Owens Lake, and (3) a proposed final 2016 revision to the previously-adopted Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (collectively "Board Actions").

Summary

On February 11, 2016, the Great Basin Unified Air Pollution Control District (District) issued for public notice and comment (1) proposed order authorized by California Health & Safety Code Section 42316 for the City of Los Angeles Department of Water and Power (City) to install, operate and maintain additional dust control measures on the Owens Lake bed, (2) proposed Great Basin Unified Air Pollution Control District (District) Rule 433 - Control of Particulate Emissions at Owens Lake, and (3) proposed final 2016 revision to the previously-adopted Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (2016 SIP) (collectively "Board Actions").

After receiving public comment, minor changes and corrections were made to (1) proposed Board Order 160413-01, (2) proposed Rule 433 - Control of Particulate Emissions at Owens Lake, and (3) proposed 2016 SIP but none were so substantial as to be a significant change that would require a new notice.

At the April 13, 2016 Board hearing, the District staff will recommend that the Board approve the Board Actions. This will include the issuance of an order to the City for additional dust control measures at the dried Owens Lake bed, and adoption of a new State Implementation Plan and District Rule that will be submitted to the California Air Resources Board and the U.S. Environmental Protection Agency as required by the federal Clean Air Act to demonstrate that the Owens Valley Planning Area will attain the federal and state air quality standards.

Background

On August 7, 1987, the Environmental Protection Agency (USEPA) designated the Owens Valley Planning Area (OVPA) as one of the regions in California in violation of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than 10 microns in diameter (PM10) and designated the OVPA as a “serious non-attainment area”. PM10 is a criteria pollutant regulated by the federal Clean Air Act, 42 U.S.C. Section 7401 *et seq.*, as amended (CAA). Under the NAAQS adopted pursuant to the CAA, PM10 levels may not exceed an average concentration of 150 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) during a 24-hour period more than one time per calendar year averaged over three years.

The serious non-attainment area designation for PM10 in the OVPA is strictly attributed to air pollution from Owens Lake located in Inyo County, California, caused as a direct result of the drying of the lake due to water diversions by the City of Los Angeles in 1913. The completion of the Los Angeles Aqueduct diverted the entire Owens River, the primary source of water for Owens Lake, to provide water and power to the residents of Los Angeles. As a result, this diversion resulted in the exposure of the lake bed’s saline soils to wind erosion. Prior to dust mitigation efforts, wind-borne dust pollution caused elevated concentrations of PM10 more than one hundred times higher than the federal air quality standard on the worst days with air quality violations occurring on up to one-third of the days every year.

The District is a unified district as provided by Division 26, Part 3, Chapter 3 of the California Health and Safety Code and consists of all of Inyo, Mono and Alpine counties. The District has regulatory authority over air quality issues in the OVPA where Owens Lake is situated. California Health and Safety Code Section 42316, (CHSC 42316) enacted by the California Legislature in 1983, provides in part that the District has authority to require the City to undertake reasonable measures at Owens Lake in order to address the impacts of its activities that cause or contribute to violations of air quality standards.

The District is the lead agency under federal and state law to prepare a plan for attaining the air quality standards for the OVPA. To carry out its duty under the Clean Air Act and state law, and to bring the OVPA into attainment with the federal air quality standard, the District, under authority of CHSC 42316, submitted to USEPA its 1998 State Implementation Plan (SIP) that was approved the following year with an attainment deadline of December 31, 2001. That deadline was later extended by five years. The District Governing Board approved a new SIP in 2003. In 2008, the District Governing Board approved the 2008 Revised State Implementation Plan for the OVPA (2008 SIP), which was implemented and enforced through District Board Order #080128-01. The SIP was amended once more in 2013 to incorporate changes to dust control measure requirements and to initiate efforts to control dust from the Keeler Dunes.

In 2011, a dispute arose between the City and the District over the District’s orders that the City implement supplemental air pollution controls at the dried Owens Lake bed. The City’s many challenges were reviewed and denied by the California Air Resources Board, the U.S. District Court for the Eastern District of California and the California Superior Court for the County of Sacramento. Following these rulings, the parties settled the disputes on terms contained in a Stipulated Judgment entered by the Sacramento Superior Court against the City on December 30, 2014 in the case captioned *City of Los Angeles v. California Air Resources Board, et al.*, Case No.

34-2013-80001451-CU-WM-GDS (Stipulated Judgment). Under the major provisions of the Stipulated Judgment, the City agreed to implement additional dust control measures on 3.62 square miles of the lake bed (for a total of 48.6 square miles) by December 31, 2017. The District may also order the City to implement dust control measures on up to 4.8 additional square miles of the lake bed if needed to meet the NAAQS or related state standards. The Stipulated Judgment also provides for the development and use of water-saving measures for dust control.

The Stipulated Judgment further provides that by December 2015 (extended by subsequent court order to April 15, 2016), the District shall prepare a 2016 SIP that consists of its prior 2008 SIP Order (Board Order #080128-01) and the provisions of the Stipulated Judgment. The Stipulated Judgment also provides that the “City shall support and not challenge the adoption of the 2016 SIP Order by the District Governing Board,” except for any new term that is not contained in the 2008 SIP Order as modified by the Stipulated Judgment. The Board Actions for adoption on April 13, 2016 will accomplish this purpose.

In addition, to provide a rule that can be federally approved as part of the Clean Air Act, the District also proposes to adopt District Rule 433 pursuant to California Health & Safety Code Section 41511. The Rule includes the control elements of the 2016 SIP Order and comprises the attainment strategy for the 2016 SIP to be submitted to the California Air Resources Board (ARB) and the USEPA for their approval. The goal of the proposed Board Actions is to continue to reduce dust emissions from the dry lake bed to reduce PM10 levels below the 24-hour NAAQS by the end of 2017.

Finally, the District Board will be asked to approve the 2016 SIP, a document required by USEPA that contains the plan and analysis demonstrating that the District’s control measures will attain the federal air quality standards. This plan includes proposed Rule 433 as the control strategy and shows how it will be used to attain the NAAQS. Including the Phase 9/10 Project dust control area of 3.62 mi², the 2016 SIP requires the City to construct, operate and maintain dust controls on an area totaling 48.6 mi².

Response to Public Comments

The 30-day public comment period for the Board Actions ended on March 18, 2016. During this time, the District received the following two comment letters:

- Wuester, Mary L., Tribal Chairperson, Lone Pine Paiute-Shoshone Reservation, Letter to Phillip L. Kiddoo, Air Pollution Control Officer, GBUAPCD, February 24, 2016;
- Taghavi, Milad, Manager of Owens Lake Planning, Los Angeles Department of Water and Power, Letter to Phillip L. Kiddoo, Air Pollution Control Officer, GBUAPCD, March 18, 2016.

The entire contents of these letters, along with the District’s written responses are provided as Attachment A in the separately bound document enclosed with this report. Based on these comments and informal discussions with the USEPA and ARB, the District has revised portions of the proposed order, District Rule 433, and 2016 SIP. In addition to these revisions, the District has made other minor revisions, including the correction of typographical errors. The following summarizes revisions made to the aforementioned documents since their release to the public.

Key updates made to the version of Board Order #160413-01 released on February 11, 2016 include the following:

- Inclusion of references to the 2013 Amendment to the Owens Valley PM10 SIP (2013 SIP Amendment) and Board Order #130916-01;
- Clarification to the fact that the 2016 SIP revises and supersedes the 2008 SIP and the 2013 SIP Amendment;
- Clarification or removal of ambiguous or redundant text;
- Clarification of the temporal requirements for the rejuvenation/repair of Gravel Blanket BACM with new gravel or different BACM;
- Updates to Exhibit 1 PM10 Control Area and Coordinates table to capture February 4, 2016 Exhibit 1 Map changes. Updates include addition of 'Dust Control Area' headers on each page and 'BACM Type' column removal.

The exact revisions to the text of proposed Board Order #160413-01 are provided in redline-strikeout format in Attachment B of the separately bound document enclosed with this report. The revised Exhibit 1 to the Board Order is also provided in Attachment B.

Key updates made to the version of Rule 433 released on February 11, 2016 include the following:

- Clarification that the "Owens Lake" referred to in the rule is located in California;
- Clarification as to the way in which Best Available Control Measures demonstrate their ability to reduce PM10 emissions to specified Control Efficiency ("CE") levels;
- Updates to Exhibit 1 to include an inset that shows that the OVPA is located in California.

The exact revisions to the text of proposed Rule 433 are provided in redline-strikeout format in Attachment C of the separately bound document enclosed with this report. The revised Exhibit 1 to Rule 433 is provided in Attachment E of the same separately bound document.

Key updates made to the 2016 SIP released on February 11, 2016 include the following:

- Inclusion of references to the 2013 SIP Amendment and Board Order #130916-01;
- Clarification to the fact that the 2016 SIP revises and supersedes the 2003 SIP, the 2008 SIP, and the 2013 SIP Amendment;
- Revisions to the reported number of NAAQS violations in the OVPA from 2012 to 2014 to be consistent with the data recorded in the USEPA's Air Quality System. The related summary tables in Appendix III were updated for consistency purposes;

- Emphasis on the fact that while PM10 emissions in the OVPA over the past century have been dominated by fugitive dust emissions from the exposed Owens Lake bed, these emissions have been on the decline since 2002 with the implementation of dust control measures by the City of Los Angeles;
- Inclusion of the Lone Pine Landfill in the significant source analysis; this source had previously been accounted for in the modeled attainment demonstration, but had not been separately listed in the exceedance day inventory. In addition to the main SIP text, this revision was also incorporated into Appendices IV and V;
- Change in the methodology for calculating fugitive dust emissions from unpaved roads within the two-kilometer buffer surrounding the Owens Lake bed. The change in methodology was based on discovery by District staff and confirmation by Ramboll Environ personnel that the unpaved roadways surrounding the dried lake bed are equal or less emissive than the adjacent desert;
- Addition of text describing how the City has the option to conduct field testing to refine the Shallow Flooding BACM wetness cover requirement;
- Addition of text describing the uncertainties related to the estimate of emissions from lake bed dust deposited on the two-kilometer buffer surrounding Owens Lake. This revision was also incorporated into Appendix V;
- Incorporation of additional data in support of the conclusions made in regards to transportation conformity;
- Addition of a figure to show the outlines and locations of the dunes located in the vicinity of the Owens Lake bed;
- Correction to a subset of the Keeler data used in the modeled attainment demonstration. It was discovered that data from one of the secondary monitors was used for a portion of the modeled attainment demonstration. These values were subsequently revised to match the data recorded in the USEPA's Air Quality System. The related summary tables and figures in Chapter 7 and Appendix VII were updated accordingly;
- A clarifying paragraph was added to the Modeled Attainment Chapter to provide greater clarity to the reader regarding the Hybrid Model approach;
- Removal of the use of the term "dust year" in tables, figures, and text. The "dust year" concept has historically been used to follow the dust season in the OVPA, which begins in July and lasts through the following June. The use of this term in the PM10 emissions forecast and relevant discussion was removed, as it was the source of some confusion. The affected analyses, plots, and tables were revised to use a calendar year instead;
- Addition of an Attainment Inventory for the year 2017;
- Addition of text describing in greater detail the reasonable further progress made by the District through their phased control approach, as well as the District's anticipated

reductions from their next phase of control.

The revisions to the text of the 2016 SIP and associated appendices are provided in redline-strikeout format in Attachment D of the separately bound document enclosed with this report. The revised Figures to the 2016 SIP are provided in Attachment E of the same separately bound document.

CONCLUSION

District Staff has prepared the proposed form of a Board Resolution and Findings to adopt the Board Actions and to comply with applicable laws including the California Environmental Quality Act. The Board Actions are the result of extensive consultations with the City, the CARB and the USEPA. They are the culmination of more than a year of intensive efforts to implement the terms of the Stipulated Judgment and to comply with the requirements of the federal and state clean air laws. District Staff recommends that the Board approve and adopt the Board Actions.

BOARD ACTION

STAFF RECOMMENDATION:

- 1) Consider the Staff Report and all written comments and responses to the draft (1) Board Order #160413-01, (2) Rule 433 – Control of Particulate Emissions at Owens Lake, and (3) 2016 SIP.
- 2) Conduct the Public Hearing on (1) a proposed order authorized by California Health & Safety Code Section 42316 for the City of Los Angeles to install, operate and maintain additional dust control measures on the Owens Lake bed, (2) a proposed Great Basin Unified Air Pollution Control District Rule 433 - Control of Particulate Emissions at Owens Lake, and (3) a proposed final 2016 revision to the previously-adopted Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (collectively “Board Actions”) and consider the comments and other matters submitted to the Board during that hearing, and staff responses.
- 3) Make changes the Board considers necessary.
- 4) Direct Air Pollution Control Officer to incorporate changes to proposed Board Actions.
- 5) Adopt attached Resolution No. 2016-02 making and adopting responsible agency findings pursuant to the California Environment Quality Act for (1) proposed order #160413-01 under the provisions of California Health & Safety Code Section 42316, (2) proposed District Rule 433 for the Control of Particulate Emissions at Owens Lake, (3) proposed final revision to the 2016 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan, and authorize the Air Pollution Control Officer to sign the Notices of Determination.
- 6) Adopt attached Resolution No. 2016-03 adopting and issuing (1) Board Order #160413-01 under the provisions of California Health & Safety Code Section 42316, (2) District Rule 433 for the Control of Particulate Emissions at Owens Lake, (3) Final 2016 Revision to the

Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan, and making findings of fact.

- 7) Direct Air Pollution Control Officer to forward (1) Board Order #160413-01, (2) Rule 433 – Control of Particulate Emissions at Owens Lake, (3) 2016 SIP, (4) Resolutions 2016-02, and (5) Resolution 2016-03 to the California Air Resources Board for approval and forwarding to the U.S Environmental Protection Agency for final approval, and to promptly file a Notice of Determination regarding these actions with the State Clearinghouse.

Attached:

1. Board Order #160413-01
2. Notice of Determination for Board Order #160413-01
3. Rule 433 - Control of Particulate Emissions at Owens Lake
4. Notice of Determination for Rule 433 - Control of Particulate Emissions at Owens Lake
5. Resolution No. 2016-02
6. Resolution No. 2016-03
7. Resolution No. 2016-03 Exhibit A – Findings of Fact Under the Provisions of California Health & Safety Code §42316(a); Public Resources Code Sections 21000 et seq., and California Code of Regulations, Title 14, Sections 15091 and 15096; and Other Findings of Fact for District Board Order #160413-01, District Rule 433 and 2016 Revision to the Owens Valley PM10 Demonstration of Attainment State Implementation Plan
8. Notice of Determination for 2016 SIP

**February 11, 2016 Public Release Draft Order #160413-01, Rule 433 and 2016 SIP
(Separately Bound Enclosed Document)**

- Draft Board Order 160413-01
- Draft Rule 433
- Draft 2016 SIP
- Draft 2016 SIP Appendices (digital only)
- Draft 2016 SIP References (digital only)
- LADWP Phase 9/10 EIR (digital only)

**Staff Report Supporting Document
(Separately Bound Enclosed Document)**

- Attachment A: Draft 2016 SIP Comment Letters and District Responses
- Attachment B: Proposed Board Order #160413-01 with Marked Text Changes
- Attachment C: Proposed Rule 433 with Marked Text Changes
- Attachment D: Excerpts from Draft 2016 SIP and Appendices with Marked Text Changes
- Attachment E: Revised Figures
- Attachment F: Final Rule 433 Package