

CHAPTER 8

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Enabling Legislation to Implement Control Strategy

8.1 CONTROL STRATEGY IMPLEMENTATION

Under California Health & Safety Code Section 42316 (see following page, Section 2.2.2.2 and Section 7.12), the Great Basin Unified Air Pollution Control District (District) will adopt an order to the City of Los Angeles to implement the “2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan” (2008 SIP) PM₁₀ control measures on the schedule included below. The schedule will require that implementation of the additional PM₁₀ control measures take place over about a two-year period with completion by April 1, 2010. The Board order to implement the control strategy is incorporated into this 2008 SIP and will be adopted concurrently with the approval of this 2008 SIP.

The order requires the City of Los Angeles (City) to implement Shallow Flooding, Managed Vegetation and/or Gravel Blanket, with an option for limited areas of Moat & Row within the areas shown in and described by Exhibit 1, below. Implementation under the Board’s order also ensures compliance with the California Environmental Quality Act (CEQA). This includes specified environmental mitigation measures, and environmental monitoring and reporting requirements as set forth in the Environmental Impact Report (EIR) prepared for the 2008 SIP. Although the District has prepared a project-level EIR with the intention that it be used both in association with the District’s adoption of this 2008 SIP and the City’s award of construction contracts for the implementation of PM₁₀ control measures, it is possible that the City may need to prepare environmental documents in addition to the 2008 SIP EIR in order to lawfully complete implementation of the proposed control strategy. The preparation of any such documents are the sole responsibility of the City. In addition, the City is solely responsible for securing all approvals, permits and leases required to implement the PM₁₀ control measures.

The Attainment Demonstration in Chapter 7 shows that, based on data collected during the four-year period between July 2002 and June 2006, implementing the PM₁₀ controls required in this 2008 SIP will provide for the Owens Lake bed to attain the National Ambient Air Quality Standards everywhere above the historic shore line (3600 foot elevation).

Text of California Health & Safety Code §42316

H&S Sec. 42316. Authority to require City of Los Angeles to mitigate air quality impacts of its water production, storage, or conveyance; Fees

(a) The Great Basin Air Pollution Control District may require the City of Los Angeles to undertake reasonable measures, including studies, to mitigate the air quality impacts of its activities in the production, diversion, storage, or conveyance of water and may require the city to pay, on an annual basis, reasonable fees, based on an estimate of the actual costs to the district of its activities associated with the development of the mitigation measures and related air quality analysis with respect to those activities of the city. The mitigation measures shall not affect the right of the city to produce, divert, store, or convey water and, except for studies and monitoring activities, the mitigation measures may only be required or amended on the basis of substantial evidence establishing that water production, diversion, storage, or conveyance by the city causes or contributes to violations of state or federal ambient air quality standards.

(b) The city may appeal any measures or fees imposed by the district to the state board within 30 days of the adoption of the measures or fees. The state board, on at least 30 days' notice, shall conduct an independent hearing on the validity of the measures or reasonableness of the fees which are the subject of the appeal. The decision of the state board shall be in writing and shall be served on both the district and the city. Pending a decision by the state board, the city shall not be required to comply with any measures which have been appealed. Either the district or the city may bring a judicial action to challenge a decision by the state board under this section. The action shall be brought pursuant to Section 1094.5 of the Code of Civil Procedure and shall be filed within 30 days of service of the decision of the state board.

(c) A violation of any measure imposed by the district pursuant to this section is a violation of an order of the district within the meaning of Sections 41513 and 42402.

(d) The district shall have no authority with respect to the water production, diversion, storage, and conveyance activities of the city except as provided in this section. Nothing in this section exempts a geothermal electric generating plant from permit or other district requirements.

(Added by Stats. 1983, Ch. 608, Sec. 1. Effective September 1, 1983.)

Text of CH&SC §42316 that allows the District to assess fees for studies and order mitigation measures to implement the SIP control strategy.

8.2 THE BOARD ORDER

The following order of the Governing Board of the Great Basin Unified Air Pollution Control District is incorporated into this 2008 State Implementation Plan and constitutes an integral part thereof:

**BOARD ORDER # 080128-01
REQUIRING THE CITY OF LOS ANGELES TO UNDERTAKE MEASURES TO
CONTROL PM₁₀ EMISSIONS FROM THE DRIED BED OF OWENS LAKE**

With regard to the control of PM₁₀ emissions from the bed of Owens Lake, the Governing Board of the Great Basin Unified Air Pollution Control District (District) orders the City of Los Angeles (City) as follows:

PREAMBLE

- A. WHEREAS, the 1998 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan (1998 SIP), dated November 16, 1998 and the 2003 Revision to the Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan (2003 SIP), dated November 13, 2003, require the City to implement a series of measures and actions to reduce particulate emissions from the Owens Lake bed such that the Owens Valley Planning Area (OVPA) will attain and maintain the federal 24-hour National Ambient Air Quality Standards (NAAQS) for particulate matter (PM₁₀) by the statutory deadlines;
- B. WHEREAS, the District is required by law to maintain its discretion to protect the environment, public health and safety, and this Order is intended to fulfill those duties without improperly constraining that lawful exercise of discretion;
- C. WHEREAS, based on additional information collected subsequent to the information used to adopt the 1998 SIP and 2003 SIP, the District has determined that additional measures and actions will be required to continue to reduce particulate emissions in the OVPA such that the OVPA will attain and maintain the federal 24-hour NAAQS for PM₁₀ by the statutory deadlines;
- D. WHEREAS, in 2006 a dispute arose between the District and the City regarding the District's requirements for the City to control dust from additional areas at Owens Lake beyond those areas identified in the 2003 SIP;
- E. WHEREAS, on December 4, 2006 a Settlement Agreement was approved by both the District and the City. Under the provisions of this agreement, the City agreed to implement additional dust control measures by April 1, 2010 and the District agreed to revise the 2003 SIP before March 1, 2008 to incorporate the provisions of the Settlement Agreement;
- F. WHEREAS, on March 23, 2007, the U.S. Environmental Protection Agency (USEPA) published a finding that the Owens Valley Planning Area did not attain the 24-hour NAAQS for particulate matter of 10 microns or less (PM₁₀) by December 31, 2006 as mandated by the U.S Clean Air Act Amendments of 1990;

- G. WHEREAS, as a result of the USEPA finding, the 2003 SIP must be revised to include a control strategy that will provide for attainment in the Owens Valley Planning Area as soon as practicable and that said revised SIP must be submitted to the USEPA by December 31, 2007;
- H. WHEREAS, in consideration of the District's continuing duties under federal and state law, including but not limited to the Clean Air Act, to control particulate emissions from the Owens Lake bed without interruption, the District intends, if this Order is stayed or disapproved, that Board Order #031113-01 (adopted on November 13, 2003) shall continue to be in effect, so that at all times there will be continuous control of these emissions;
- I. WHEREAS, the District thereby intends that if this Order is stayed due to a legal challenge, including but not limited to a challenge to this Order under California Health and Safety Code Section 42316, to the State Implementation Plan, or to the Environmental Impact Report for this SIP, or if this Order is disapproved by the California Air Resources Board (CARB), the District will revert to enforce the terms of Board Order #031113-01 which shall continue to be in effect and shall remain in full force for the duration of any stay or, in the case of disapproval, unless and until another Order is issued by this Board; and
- J. WHEREAS, to prevent the deterioration of air quality due to dismantling or "backsliding" on control measures that have already been implemented before any such stay or disapproval, the District intends that the City shall continue to operate and maintain all control measures already implemented at the time of any such stay or disapproval without interruption, unless and until a further Order of the District allows for such interruption, if the City has not appealed the control measures under Section 42316 within 30 days of the effective date of this Order, and if those control measures were not invalidated as a result of that appeal;
- K. WHEREAS, it is the District's intention that this 2008 revised SIP is consistent with the 2006 Settlement Agreement between the District and the City and that it is the District's intention to independently meet all its commitments and obligations under said Settlement Agreement.

THEREFORE, IT IS HEREBY ORDERED AS FOLLOWS:

ORDER

IMPLEMENTATION OF OWENS LAKE BED PM₁₀ CONTROL MEASURES

1. Existing PM₁₀ controls – From the date of adoption of this order, the City shall continue to operate and maintain the existing Best Available Control Measures (BACM) for PM₁₀, as described in Paragraph 8 hereof, on 29.8 square miles of the Owens Lake bed within the 2003 Dust Control Area (DCA) delineated in Exhibit 1.

2. Additional Shallow Flood supplemental PM₁₀ controls – By April 1, 2010 the City shall implement a minimum of 9.2 square miles of additional Shallow Flooding BACM PM₁₀ controls within the 12.7 square-mile area known as the 2006 Supplemental Dust Control Area (SDCA) delineated in Exhibit 1. The areas within the SDCA designated for Shallow Flooding only are delineated in Exhibit 1. Shallow Flooding BACM is described in Paragraphs 8, 9 and 15 hereof.
3. Other additional supplemental PM₁₀ controls – On a maximum of 3.5 square miles within the 2006 SDCA delineated in Exhibit 1, the City shall implement BACM for PM₁₀, as described in Paragraphs 8, 9 and 15 through 17 hereof, or the City may implement the alternative non-BACM PM₁₀ control measure known as “Moat & Row,” as described in Paragraph 18. If BACM are installed, the controls shall be operational by April 1, 2010. If Moat & Row is installed, it shall be operational by October 1, 2009.
4. Channel Area PM₁₀ controls – A 0.5 square-mile area of natural drainage channels on the south area of the Owens Lake bed is known as the “Channel Area” and is delineated in Exhibit 1. The City shall control PM₁₀ emissions from the Channel Area by implementing and operating BACM, modified-BACM or alternative non-BACM controls approved by the District’s Air Pollution Control Officer (APCO), that take into account the resource issues in the Channel Area, by April 1, 2010. Portions of the Channel Area that are determined by the APCO to be naturally non-emissive (for example, adequately vegetated areas) will not require controls. If BACM are implemented in the Channel Area, they shall be as described in paragraphs 8, 9 and 15 through 17 hereof. If the City seeks to implement modified-BACM or alternative non-BACM, the City will apply such modifications as are permissible to resource agencies in this channel, with the primary objective of controlling dust, and provide the District with a monitoring plan aimed at identifying source areas that could cause or contribute to shoreline violations. Should such areas be identified after facilities are fully operational (including vegetative development), the District and the City will work with resource agencies to develop site-specific and implementable dust control approaches. Regardless of the approach selected for Channel Area dust control, the City shall prepare and submit to the District a detailed plan demonstrating the need and effectiveness of the control measures and their projected impacts to the environment, and obtain the prior approval of the District and any other applicable regulatory agencies with jurisdiction over the Channel Area for use of the modified-BACM. The City shall be responsible for any additional environmental analyses that may be required and for all required permits.
5. Total PM₁₀ control area – The 29.8 square-mile 2003 Dust Control Area (DCA), the 12.7 square-mile 2006 Supplemental Dust Control Area (SDCA) and the 0.5 square-mile Channel Area together comprise the 43.0 square-mile area known as the 2008 Total Dust Control Area (TDCA). These PM₁₀ control areas are delineated in Exhibit 1.
6. Minor adjustments to PM₁₀ control area boundaries – Upon written request by the City to the District and written approval by the District’s APCO, minor adjustments may be made to the interior and exterior boundaries of the 2006 SDCA, for example to avoid impacts to existing resources or features, or for constructability reasons, which approval shall not be unreasonably withheld. In the event of such modification, the boundaries of the 2008 TDCA shall also be modified to reflect the modified 2006 SDCA boundaries.

7. Study Areas – The District has identified four additional “Study Areas” on the Owens Lake bed totaling up to 1.85 square miles that may require some level of control in order to attain the PM₁₀ NAAQS. The four Study Areas are delineated in Exhibit 1. The District will study emissions from the Study Areas occurring between July 1, 2006 and April 1, 2010 to determine whether they will cause or contribute to PM₁₀ NAAQS exceedances such that controls will be required. The District will use the data collected during this period to make a determination after May 1, 2010 as to the need for additional controls, as set forth in Paragraph 10, below. However, if the City is not in compliance with Paragraphs 1 and 3 of this Order, the determination as to the need for additional controls in the Study Areas may be made prior to May 1, 2010.

PM₁₀ CONTROL MEASURES

8. The City shall implement BACM PM₁₀ control measures as set forth in this Order, described below in Paragraphs 15 through 17. The City may implement the alternative non-BACM PM₁₀ control measure as set forth in this Order, described below in Paragraph 18. To complete implementation of a specified control measure by a date as required by this Order means that the control measure shall be constructed, installed, operated and maintained without interruption, so as to comply with the performance standards for the specified control measure not later than 5:00 p.m. on the required date.
9. All PM₁₀ control measures within the 2006 SDCA shall be designed, constructed, installed, operated and maintained by the City to achieve the initial target minimum dust control efficiencies (MDCEs) shown on the MDCE Map, attached as Exhibit 2. MDCEs are the actual dust control measure control efficiencies required to meet the PM₁₀ NAAQS, based on data collected during the four-year period between July 2002 and June 2006. Prior to April 1, 2010, upon request of the City and written approval of the APCO, which approval shall not be unreasonably withheld, the initial target MDCEs may be modified if the modified target MDCEs meet the criteria set forth in the MDCE Selection Process Spreadsheet, as set forth in the 2006 Settlement Agreement between the District and the City. This Settlement Agreement is attached as Attachment A.

CONTINGENCY MEASURES – SUPPLEMENTAL CONTROL DETERMINATIONS

10. At least once per calendar year after May 1, 2010, the District’s APCO will make a written determination as to whether any areas, in addition to those described in Exhibit 1, require air pollution control measures in order to attain or maintain compliance with the NAAQS for PM₁₀. The APCO’s determination will also contain an analysis of the minimum dust control efficiency provided by the PM₁₀ controls in the 2008 TDCA to determine if a higher level of control efficiency is required in order to attain or maintain compliance with the NAAQS for PM₁₀. In making these determinations, the APCO shall employ the methods described in Paragraph 11 of this Order. If the City is not in compliance with Paragraphs 1 and 3 of this Order, the determination as to the need for additional controls may be made prior to May 1, 2010.
 - A. If the APCO determines under this Paragraph that additional areas require air pollution control measures or that existing PM₁₀ control measures require a higher level of control efficiency, the APCO shall issue a written determination to the City informing them that the provisions of Paragraph 11 of this Order require the City to implement, install,

operate and maintain PM₁₀ BACM on additional areas of the Owens Lake bed or that the control efficiency on existing PM₁₀ controls must be increased. The determination will identify those areas of the lake bed that will require PM₁₀ BACM and the control efficiency necessary to attain the PM₁₀ NAAQS. The City shall secure all permits and leases necessary to implement BACM and conduct any additional analysis, if any, required to comply with the California Environmental Quality Act and any other applicable laws.

- B. The APCO's annual determinations will use data collected after April 1, 2010, except as provided in Paragraph 7, above, for the four Study Areas. The annual determinations for the Study Areas will use data collected after July 1, 2006.
- C. In the event the City appeals the supplemental control determination under Health & Safety Code Section 42316, and pending a decision of the CARB, the City is not required to comply with any measure imposed by the supplemental control determination. The District relies upon action by the CARB to issue its decision on the City's appeal within 90 days. If CARB does not affirm the District supplemental control determination, or otherwise require the City to immediately undertake alternative supplemental control measures within 90 days in such circumstances where automatic control measures are required under Sections 172(c)(1) or 182(c)(9) of the federal Clean Air Act, 42 U.S.C. Sections 7502(c)(9) and 7511a(c)(9), the District relies upon the CARB to take these federal requirements into account in its determination of the City's appeal and to issue such interim orders as necessary to implement automatic supplemental control measures so that this Order complies with the Clean Air Act and can be approved by the U.S. Environmental Protection Agency as a proper State Implementation Plan. The foregoing is not intended to provide the CARB with any authority other than its authority under state law.
- D. Paragraph 11 fixes the period of time within which the implementation of the additional control measures must be completed. Upon implementation, the City shall continuously operate and maintain, without interruption, the control measures to comply with performance standards set forth for such measures in the control measure descriptions contained in this Order.

CRITERIA FOR DETERMINING THE NEED FOR ADDITIONAL PM₁₀ CONTROLS

- 11. The criteria, methods and procedures for the APCO's determination of the need for additional PM₁₀ controls described in Paragraph 10 shall be those described in detail in the "2008 Owens Valley Planning Area Supplemental Control Requirements Determination Procedure" document incorporated as Attachment B along with its referenced "2008 Owens Lake Dust Source Identification Program Protocol" incorporated as Attachment C.

NEW BACM, ADJUSTMENTS TO EXISTING BACM, AND BACM TRANSITIONS

- 12. Upon written request by the City, the APCO may approve new BACM, a modification or adjustment to the existing BACMs described in Paragraphs 15, 16 and 17 of this Order, and/or the transition from one BACM to another provided that, at all times, the performance standards of one or the other BACM are continuously met during the transition to assure that the transition shall not prevent the OVPA from attaining or maintaining the NAAQS for

PM₁₀. The City's request shall contain a detailed description of the proposed alternative and a demonstration that the request satisfied all requirements of law and this Order. The APCO shall have full discretion to consider any such application for a change in BACM, and to accept, reject or condition its approval of such application. Non-compliance with any such condition shall be enforceable as noncompliance with a District Order. Without limiting the District's discretion as provided herein, the procedures for transitions of implemented control measures or adjustments to BACM shall be those described in Attachment D, "2008 Procedure for Modifying Best Available Control Measures (BACM) for the Owens Valley Planning Area."

ALTERNATIVE METHODS FOR IMPLEMENTING CONTINGENCY MEASURES AND SUPPLEMENTAL CONTROLS

13. Notwithstanding any other provision of this Order, the District shall maintain its authority under Health and Safety Code Section 42316 to order the City to implement additional controls, to control additional emissive areas and/or to undertake additional reasonable measures necessary to mitigate the air pollution caused in the District by the City's water-gathering activities in order to prevent the OVPA from failing to attain or maintain the NAAQS for PM₁₀, if circumstances arise that are not specifically addressed in Paragraphs 10 or 12 of this Order.

RELATIONSHIP TO BOARD ORDER 031113-01

14. The District hereby stays the force and effect of Board Order 031113-01 for all times that this Order is in full force and effect. In the event this Order, or any provision of this Order, is stayed due to a legal challenge, including but not limited to a challenge to this Order under Health & Safety Code Section 42316, or any other law, to the State Implementation Plan, or to the Environmental Impact Report for this Revised SIP, or in the event the Order is disapproved by the CARB, the following shall apply:

- A. If the stay or disapproval causes Paragraph 1 through 5 of this Order to cease its operative force and effect, Board Order #031113-01 shall immediately be in effect and shall remain in full force for the duration of any stay or, in the case of disapproval, until another Order is issued by this Board. In addition, the City shall continue to operate and maintain without interruption all control measures already implemented in any area if those control measures were not appealed under Health & Safety Code Section 42316 within 30 days of the date of this Order, and if those measures were not invalidated as a result of that appeal.
- B. If the stay or disapproval causes Paragraph 10 and/or 11 of this Order to cease its operative force and effect, but does not affect Paragraphs 1 through 5 of this Order, the City shall continue to operate and maintain all control measures already implemented without interruption.
- C. If the stay or disapproval does not affect Paragraphs 1 through 7, 10 or 11 of this Order, those Paragraphs and any other terms of this Order that are not stayed or disapproved shall be in effect, and shall remain in full force for the duration of any stay. In all cases, the City shall continue to operate and maintain, without interruption, all control measures already implemented.

- D. If a stay of this Order is imposed, then lifted so that this Order is in effect, the City shall, immediately, meet all requirements and deadlines set by this Order as if no stay had been imposed. The City shall not remove or decrease any control measures without the express written permission of the APCO, and the provisions of Board Order 031113-01 shall again be stayed. If the stay of this Order is only partially lifted such that any portion of this Order remains stayed, Board Order 031113-01 shall remain in effect as provided under Paragraphs 14.A., 14.B. and 14.C, above.

PM₁₀ CONTROL MEASURES

15. BACM Shallow Flooding

The “Shallow Flooding” PM₁₀ control measure will apply water to the surface of those areas of the lake bed where Shallow Flooding is used as a PM₁₀ control measure. Water shall be applied in amounts and by means sufficient to achieve the following performance standards:

A. For Shallow Flooding areas within the 29.8 square-mile 2003 DCA:

- i. Until April 1, 2010: At least 75 percent of each square mile of the designated areas shall continuously consist of standing water or surface-saturated soil, substantially evenly distributed for the period commencing on October 1 of each year, and ending on June 30 of the next year. If a contiguous Shallow Flood dust control area is less than one square mile, 75 percent of the entire contiguous area shall consist of substantially evenly distributed standing water or surface-saturated soil.
- ii. After April 1, 2010:
 - a. At least 75 percent of each square mile of the designated areas shall continuously consist of standing water or surface-saturated soil, substantially evenly distributed for the period commencing on October 16 of each year, and ending on May 15 of the next year. If a contiguous Shallow Flood dust control area is less than one square mile, 75 percent of the entire contiguous area shall consist of substantially evenly distributed standing water or surface-saturated soil.
 - b. Beginning May 16 and through May 31 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 70 percent.
 - c. Beginning June 1 and through June 15 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 65 percent.
 - d. Beginning June 16 and through June 30 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 60 percent.
 - e. If for any Shallow Flooding area, the percent of areal wetness cover in the periods specified in Paragraphs 15.A.ii,b, c, and d, above, is below the minimum percentages specified for each shallow flood area based on the air quality model for the analysis period from July 2002 through June 2006, and there were no monitored or modeled exceedances of the federal standard at the historic shoreline, that area will be deemed to be in compliance, if the City demonstrates in writing and the APCO reasonably determines in writing that maximum water delivery mainline flows were maintained throughout the applicable period.

- B. For Shallow Flooding areas within the 12.7 square-mile 2006 SDCA:
- i. The percentage of each area that must have substantially evenly distributed standing water or surface-saturated soil shall be based on the Shallow Flood Control Efficiency Curve (SFCE Curve) attached as Exhibit 3 to achieve the control efficiency levels in the MDCE Map (Exhibit 2).
 - ii. For Shallow Flooding areas with control efficiencies of 99 percent or more:
 - a. Beginning May 16 and through May 31 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 70 percent.
 - b. Beginning June 1 and through June 15 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 65 percent.
 - c. Beginning June 16 and through June 30 of every year, Shallow Flooding areal wetness cover may be reduced to a minimum of 60 percent.
 - d. If for any Shallow Flooding area, the percent of areal wetness cover in the periods specified in Paragraph 15.B.ii.a,b, and c, above, is below the minimum percentages specified for each shallow flood area based on the air quality model for the analysis period from July 2002 through June 2006, and there were no monitored or modeled exceedances of the federal standard at the historic shoreline, that area will be deemed to be in compliance if the City demonstrates in writing and the APCO reasonably determines in writing that maximum water delivery mainline flows were maintained throughout the applicable period.
- C. Beginning on April 1, 2010, if modeled or monitoring data shows an exceedance or exceedances of the PM₁₀ NAAQS at the historic shoreline as a result of excessive dry areas within Shallow Flooding control areas during the dust control periods for each year between October 1 and June 30 of the next year, the provisions of Paragraph 10 shall apply.
- D. From July 1 through September 30 of each year, the City is not required by the 2008 SIP to apply water to Shallow Flooding areas for dust control purposes, but is required to maintain minimum areal wetness cover as required by applicable environmental documents, permits, leases and approvals.
- E. Aerial photography, satellite imagery or other methods approved at the sole discretion of the APCO shall be used to confirm wetness coverage.
- F. The following portions of the areas designated for control with Shallow Flooding are exempted from the requirement of dust control by means of a saturated surface:
- i. Raised berms, roadways and their shoulders necessary to access, operate and maintain the control measure which are otherwise controlled and maintained to render them substantially non-emissive and
 - ii. Raised pads containing vaults, pumping equipment or control equipment necessary for the operation of Shallow Flooding infrastructure which are otherwise controlled and maintained to render them substantially non-emissive.

- G. “Substantially non-emissive” shall be defined to mean that the surface is protected with gravel, durable pavement or other APCO-approved surface protections sufficient to meet the requirements of District Rules 400 and 401 (visible emissions and fugitive dust).
- H. Excess surface waters and shallow groundwaters above the annual average water table that existed before site construction that reach the lower boundary of the dust control areas will be contained, collected and recirculated for reapplication to dust control areas or otherwise lawfully discharged. The dust control measure areas shall have lateral boundary edge berms and/or drains as necessary to contain excess waters in the control areas and to isolate the dust control measure areas from each other and from areas not controlled. If drains are used, they shall be designed and constructed so that they may be regulated such that groundwater levels, surface water extent and wetlands in adjacent uncontrolled areas are not impacted. These requirements do not apply to Shallow Flood area T36-4, due to its adjacency to the Lower Owens River Project (LORP) and the City’s intention to integrate the design and operation of T36-4 into the LORP.
- I. The City shall remove all exotic pest plants, including salt cedar (*Tamarix ramosissima*), that invade any of the areas designated for control by Shallow Flooding.
- J. As necessary to protect human health, the City shall prevent, avoid and/or abate mosquito, other pest vector and biting nuisance insect breeding and swarming within and in the vicinity of the control areas, including within communities less than three miles from a PM₁₀ control area, by effective means that minimize adverse effects upon adjacent wildlife.

16. BACM Managed Vegetation

A. Existing Managed Vegetation areas

For areas controlled with the Managed Vegetation PM₁₀ control measure prior to January 1, 2007, the areas shall be operated and maintained in accordance with a Managed Vegetation Operation and Management Plan to be approved in writing by the APCO, which approval shall not be unreasonably withheld. The requirements of the Plan may be revised upon written request by the City and written approval of the APCO, which approval shall not be unreasonable withheld,. The City’s request shall contain a specific description of the modification requested and provide a demonstration regarding the effect of the modification on the environment and PM₁₀ control effectiveness.

B. New Managed Vegetation areas

In PM₁₀ control areas constructed after January 1, 2007 where Managed Vegetation is used as a PM₁₀ control measure, the following performance standard shall be achieved commencing on October 1 of each year, and ending on June 30 of the next year: substantially evenly distributed live or dead vegetation coverage of at least 50 percent on each acre designated for Managed Vegetation.

C. All Managed Vegetation areas

- i. The vegetation planted for dust control shall consist only of locally-adapted native species approved by the APCO or other species approved by both the APCO and the California State Lands Commission (CSLC). To date, the only approved locally-

- adapted native species is saltgrass (*Distichlis spicata*). However, other appropriate species may be approved upon written request of the City and written approval of both the APCO and CSLC.
- ii. Vegetation coverage shall be measured by the point-frame method, by ground-truthed remote sensing or by other methods approved at the sole discretion of the APCO.
 - iii. The following portions of the areas designated for control with Managed Vegetation are exempted from the requirements set forth in Paragraphs 16.A. and 16.B., above:
 - a. Portions consistently inundated with water, such as reservoirs, ponds and canals,
 - b. Roadways and equipment pads necessary to access, operate and maintain the control measure which are otherwise controlled and maintained to render them substantially non-emissive, and
 - c. Portions used as floodwater diversion channels or desiltation/retention basins.
 - iv. “Substantially non-emissive” shall be defined to mean that the surface is protected with gravel, durable pavement or other APCO-approved surface protections sufficient to meet the requirements of District Rules 400 and 401 (visible emissions and fugitive dust).
 - v. Excess surface waters and shallow groundwaters above the root zone depths that reach the lower boundary of the dust control areas shall be collected and recirculated for reapplication to dust control areas or otherwise lawfully discharged. The dust control measure areas shall have lateral boundary edge berms and/or drains as necessary to contain excess waters in the control areas and to isolate the dust control measure areas from each other and from areas not controlled. Drains shall be designed and constructed so that they may be regulated such that groundwater levels, surface water extent and wetlands in adjacent uncontrolled areas are not impacted.
 - vi. To protect the Managed Vegetation control measure from flood damage and alluvial deposition, the City shall incorporate stormwater and siltation control facilities into and around Managed Vegetation areas adequate to maintain the dust mitigation function of Managed Vegetation. The Managed Vegetation protection facilities shall be designed to dissipate flood waters and capture the alluvial material carried by flood waters, so as to avoid greater than normal water flows and deposition of alluvial material into the Owens Lake brine pool.
 - vii. The City shall remove all exotic pest plants, including salt cedar (*Tamarix* spp.), that invade any of the areas designated for control by Managed Vegetation.
 - viii. As necessary to protect human health, the City shall prevent, avoid and/or abate mosquito, other pest vector and biting nuisance insect breeding and swarming within and in the vicinity of the dust control areas, including within communities less than three miles from a PM₁₀ control area, by effective means that minimize adverse effects upon adjacent wildlife.

17. BACM Gravel Blanket

- A. In areas where Gravel Blanket is used as a PM₁₀ control measure, the City shall meet the following performance standard: one hundred percent of the control area shall be covered with a layer of gravel at least four inches thick. All gravel material placed must be screened to a size greater than one-half inch (½ inch) in diameter. Where it is necessary to support the gravel blanket, it shall be placed over a permanent permeable geotextile fabric. The gravel shall have resistance to leaching and erosion. It shall be no more toxic than the gravel from the Keeler fan site analyzed by the District in the Final Environmental Report prepared for the 1997 SIP. To minimize visual impacts, all gravel used shall be comparable in coloration to the existing lake bed soils.
- B. To protect the Gravel Blanket control measure from flooding, the City shall incorporate drains and channels into and around the control measure areas adequate to maintain the dust mitigation function of the Gravel Blanket, and outlet flood waters into the Owens Lake brine pool, Shallow Flooding areas, or reservoirs. The drains and channels shall be designed to incorporate features such as desiltation or retention basins that are adequate to capture the alluvial material carried by the flood waters and to avoid greater than normal deposition of this material into the Owens Lake brine pool.
- C. The gravel placement design and implementation shall adequately protect the graveled areas from the deposition of wind- and water-borne soil or infiltration of sediments from below. All graveled areas will be visually monitored to ensure that the Gravel Blanket is not filled with sand, dust or salt and that it has not been inundated or washed out from flooding. If any of these conditions are observed over areas larger than one acre, additional gravel will be transported to the playa and applied to the playa surface such that the original performance standard is maintained. The City shall apply best available control measures (BACM) and New Source Performance Standard (NSPS) emission limits to its gravel mining and transportation activities occurring within the District's geographic boundaries as required by the District in the City's District-issued Authority to Construct and Permit to Operate.

18. Alternative Non-BACM Moat & Row Control Measure

- A. The Moat & Row PM₁₀ control measure is not a currently-approved BACM. The preliminary form of Moat & Row is described in Exhibit 4 of the 2006 Settlement Agreement between the District and the City (Attachment A). The final form of the Moat & Row PM₁₀ control measure will be determined from the results of a demonstration project and testing to be conducted by the City on the lake bed. All Moat & Row controls will be designed, constructed and operated to achieve the MDCEs described in Paragraph 9.
- B. The PM₁₀ control effectiveness of Moat & Row may be enhanced by combining it with other dust control methods such as vegetation, water, gravel, or the addition of other features that enhance sand capture and sheltering or directly protect the lake bed surface from wind erosion. The effectiveness of the array can also be increased by adding additional moats and rows to the array.

- C. Final design for the Moat & Row control measure will be determined solely by the City after consultation with and written notification to the District. The City shall consider the following elements in its final design:
 - i. Test results demonstrating that the required MDCE for each Moat & Row area can be met,
 - ii. Completion of all required environmental documentation, approvals, permits and leases, and
 - iii. Inclusion of monitoring in the infrastructure design to continuously monitor compliance with the target MDCE for each area.
- D. Upon written request of the City, the APCO shall determine in writing if any given Moat & Row design constitutes BACM or MDCE-BACM in accordance with Attachment D, “2008 Procedure for Modifying Best Available Control Measures (BACM) for the Owens Valley Planning Area.”
- E. Areas of Moat & Row that do not function as designed or that cause or contribute to an exceedance of the federal 24-hour PM₁₀ NAAQS will be remediated as specifically provided in Attachment B, the “2008 Owens Valley Planning Area Supplemental Control Requirements Determination Procedure.”

PM₁₀ CONTROL MEASURE COMPLIANCE AND ENFORCEMENT

- 19. The District and City will work collaboratively to develop improved wetness and vegetative cover measurement techniques, control efficiency relationships, and compliance specifications for all PM₁₀ control measures. Final acceptance and implementation of all compliance measurement techniques and PM₁₀ control measure compliance specifications with regulatory impact will be at the sole discretion of the APCO.

STORMWATER MANAGEMENT

- 20. The City shall design, install, continually operate and maintain flood and siltation control facilities to protect the all PM₁₀ control measures installed on the lake bed at all times, and in a manner that groundwater levels, surface water extent, and wetlands in adjacent uncontrolled areas are not impacted by induced drainage. Flood and siltation control facilities shall be integrated into the design and operation of the PM₁₀ control measures. All flood and siltation control facilities and PM₁₀ control measures damaged by stormwater runoff or flooding shall be promptly repaired and restored to their designed level of protection and effectiveness. All flood and siltation control facilities shall be designed and operated in a manner to prevent any greater threat of alluvial material contamination to the existing trona mineral deposit lease area (State Lands Commission leases PRC 5464.1, PRC 3511 and PRC 2969.1) than would have occurred under natural conditions prior to the installation of PM₁₀ control measures.

SCHEDULE

21. The Control Measures shall be implemented on the areas set forth in Paragraphs 1 through 4 by the dates set forth in those Paragraphs. Supplemental Control Requirements shall be met on the schedule provided for in Attachment B.

PERFORMANCE MONITORING PLAN

22. The City, in consultation with the District, shall annually develop and provide to the District in writing a Performance Monitoring Plan (PMP) to aid in its operation of the Owens Lake dust mitigation program on the Owens Lake bed.

- A. The PMP shall describe the measurements and methods used to verify the performance of the constructed DCMs. The PMP shall also describe the measurements and methods used to maximize information on dust emissions from any areas of special interest.
- B. The City shall implement the PMP, and will use the results as a guide for making operational decisions about the type, location, timing, and level of dust control measures needed to prevent exceedances of the federal standard at the shoreline.
- C. The District may use information from the PMP to assist in determining the likely sources of dust emissions causing or contributing to exceedances (if any) of the federal standard at the shoreline.
- D. The PMP for each calendar year shall be submitted to the APCO by March 31 of the following calendar year.

ADDITIONAL REQUIREMENTS

23. The District Board orders the City of Los Angeles to satisfy the following requirements related to the implementation of the Shallow Flooding, Managed Vegetation, Gravel Blanket and Moat & Row control measures:

- A. The City's construction, operation and maintenance activities shall comply with all Mitigation Measures set forth in Final Environmental Impact Reports, EIR Addendums and Mitigated Negative Declarations associated with the areas on which dust controls are placed, and all subsequent environmental documents adopted by the District for implementation of the requirements of this SIP.
- B. The City shall comply with any and all applicable requirements of the Mitigation Monitoring and Reporting Programs adopted by the District and associated with the Final Environmental Impact Reports and Final Environmental Impact Report Addendums for this project, and with all subsequent environmental documents adopted by the District for implementation of the requirements of this SIP. All mitigation measures required in certified environmental documents associated with the implementation, operation and maintenance of PM₁₀ control measures required by this order are hereby incorporated as requirements of this order and may be enforced as such.

- C. The City shall apply best available control measures (BACM) to control air emissions from its construction/implementation activities occurring in the District's geographic boundaries.

Exhibits

Exhibit 1 Map and Coordinates of PM₁₀ Control Areas

Exhibit 2 Minimum Dust Control Efficiency Map

Exhibit 3 Shallow Flood Control Efficiency Curve

Attachments

Attachment A 2006 Settlement Agreement between the Great Basin Unified Air Pollution Control District and the City of Los Angeles

Attachment B 2008 Owens Valley Planning Area Supplemental Control Requirements Determination Procedure

Attachment C 2008 Owens Lake Dust Source Identification Program Protocol

Attachment D 2008 Procedure for Modifying Best Available Control Measures (BACM) for the Owens Valley Planning Area