



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 SHORT STREET, BISHOP, CALIFORNIA 93514-3537
TEL: 760-872-8211 FAX: 760-872-6109

BOARD REPORT

Mtg. Date: December 4, 2006
To: District Governing Board
From: Theodore D. Schade, Air Pollution Control Officer
Subject: Consideration of proposed Settlement Agreement with the City of Los Angeles to resolve the City's challenges to the Air Pollution Control Officer's April 4, 2006 Owens Lake supplemental control determination requiring additional dust control measures at Owens Lake in order to meet the federal PM-10 standard

Summary

The District Governing Board is being asked to consider a proposed Settlement Agreement with the City of Los Angeles regarding air pollution emissions from the dried bed of Owens Lake. The Agreement would bring an end to the City's current appeals to the California Air Resources Board and Superior Court litigation regarding the Air Pollution Control Officer's April 4, 2006 Owens Lake supplemental control determination requiring additional dust control measures at Owens Lake in order to meet the federal PM-10 standard. The Agreement will provide for the City to continue work to control emissive areas on the lake bed, while providing for the dust controls to be implemented using water resources more effectively.

Background

The dried bed of Owens Lake is the largest single source of particulate matter (PM-10) air pollution in the United States. In the five years between 2000 and 2004, of the 100 highest 24-hour PM-10 value days measured in the entire United States, 78 days occurred at Owens Lake, 21 days occurred at Mono Lake and one day occurred elsewhere (El Paso, TX). The District estimates that, in the year 2000, Owens Lake emitted over 80,000 tons of PM-10. The air pollution at Owens and Mono Lakes is caused by the City of Los Angeles' diversion of water from the Eastern Sierra to the City via the Los Angeles Aqueduct.

As a result of a State Implementation Plan (SIP) prepared by the District and approved by the U.S. Environmental Protection Agency in 1998, the City of Los Angeles Department of Water and Power (LADWP) began constructing dust control measures on the lake bed with a goal of implementing the controls necessary to meet the federal PM-10 standards by the end of 2006. In the same 1998 SIP, the District committed to continue to study the lake bed and to revise the SIP in 2003 to refine the actual areas necessary for control. Based on those additional studies, in November 2003 the Great Basin Governing Board adopted a revised SIP and ordered the LADWP to implement dust controls on 29.8 square miles of the Owens Lake bed by December 31, 2006.

Status of Dust Control Efforts

The LADWP has been constructing dust control measures on the lake bed since 2000. Five phases of construction will be complete by the end of December 2006. Upon completion of Phase 5, there will be 29.8 square miles of dust controls in place at a cost to the LADWP of about \$415 million. The final 2006 dust control measures will consist of about 26 square miles of shallow flooded lake bed and 3.8 square miles of salt-tolerant vegetation. Dust control measures that are properly constructed and operated have been found to be very effective in controlling PM-10 emissions. Both the peak PM-10 values and the total tons of PM-10 emitted have been declining since 2001, when operational dust controls started phasing in.

Supplemental Control Requirements

In addition to requiring the LADWP to construct and begin operating 29.8 square miles of dust controls on the lake bed by the end of 2006, the 2003 SIP also contains provisions requiring the District to continue to monitor air pollution emissions from the lake bed and identify any additional areas that may require PM-10 controls in order to meet the standards. The federal Clean Air Act requires all SIPs to contain “contingency measures” that will be implemented in case the initial control strategy (29.8 square miles of controls) fails to bring the facility (lake bed) into compliance.

The Supplemental Control Requirements (SCR) provision of the 2003 SIP sets forth detailed procedures and protocols to determine if additional areas require controls. The Air Pollution Control Officer (APCO) is required to make an annual SCR determination and, if necessary, direct the LADWP to “implement, operate and maintain air pollution control measures on additional areas of the Owens Lake bed.” This contingency measure is automatic—it is incorporated into the 2003 SIP and associated Board Order and requires no further action or approval by the District Governing Board or any other agency. In addition, the SIP states that the APCO’s annual SCR determination cannot be appealed by the LADWP to the California Air Resources Board (CARB)—it can only be challenged by the LADWP in state court for review under the abuse of discretion standard.

As required by the 2003 SIP, the District continues to collect and analyze data regarding the need for additional dust controls. This data collection and analysis program is known as the “Dust ID Program” and generally consists of PM-10 measurements collected at 7 stations around the lake bed and in surrounding communities, meteorological data collected at 12 locations and sand motion data from 150 electronic monitors located across over 50 square miles of dry lake bed. In addition, the District uses human and video observations of emissive areas taken during dust storms and on-lake mapping of emission areas after dust storms to determine the boundaries of emissive areas. The collected data is then analyzed according to a detailed protocol set forth in the 2003 SIP.

After collecting the SCR data for two years (from July 2002 through June 2004), the District began meeting with LADWP staff to discuss the results of the data collection and the analysis as per the SCR provisions. District and LADWP staff met many times during 2004 and 2005 to discuss the data and analysis. Based on the July 2002 through June 2004 data, on December 21,

2005, the APCO completed the required SCR analysis and issued an SCR determination that an additional 9.31 square miles of the lake bed would require dust controls in order to meet the PM-10 standards.

On January 20, 2006 the LADWP filed an appeal of the APCO's determination with the CARB. The LADWP objected to the determination that an additional 9.31 square miles of lake bed requires controls and contended that the District's imposition of additional dust control measures was unreasonable. The District's position was that such an appeal is barred because the 30-day appeal period provided by law expired in 2003, with no appeal being taken, and in October 2003 the LADWP provided the District with their express, written agreement to all the provisions of 2003 SIP.

The 2003 SIP provides 60 days for the LADWP to prepare and submit an alternative analysis of the data used by the District to make the SCR determination and 30 days for the District to review and respond to the LADWP's alternative analysis. On February 22, 2006 the LADWP submitted an alternative analysis that argued no additional areas of the lake bed required controls. On April 4, 2006, after an extensive review and response to the LADWP's analysis, the District responded to the LADWP and modified the original determination to require an additional 8.66 square miles of additional dust controls.

On May 3, 2006 the LADWP filed a second appeal with the CARB. This was an appeal of the APCO's final SCR determination. On May 15, 2006 the LADWP filed a lawsuit against the District seeking a writ of mandamus to, among other things, have the court invalidate the APCO's April 4, 2006 Final SCR determination requiring dust controls on an additional 8.66 square miles of the Owens Lake bed.

Mediation Efforts

On May 18, 2006 the LADWP sent the APCO a letter wherein the General Manager of the LADWP suggested mediation as a means to resolve the two agencies' differences. The District Board agreed to mediation and appointed the APCO as the District's negotiator. The District and the LADWP agreed to utilize the services of David Nawi of Sacramento as mediator.

On July 10, 2006 and September 11, 2006, the APCO provided status reports to the Board in closed sessions. On November 7, 2006 negotiators for both parties reached consensus on a proposed Settlement Agreement.

The Proposed Settlement Agreement

The proposed Settlement Agreement (attached) was negotiated by the District and LADWP technical and legal staffs. As mentioned above, David Nawi served as mediator. The Agreement is a complex document that:

1. Addresses the amount, location, type and schedule of additional dust control measures (DCMs) on the lake bed;
2. Provides for DCMs to be designed, constructed and operated to provide the actual level of control needed to meet the federal standard, as opposed to the current requirement of requiring maximum levels of control for all DCMs;

3. Sets forth the framework for an effort to improve the Dust ID Program;
4. Suspends additional SCR determinations until the additional DCMs are in place;
5. Provides for the LADWP to accelerate efforts to refine the amount of water used to control dust, only after additional DCMs are in place and there have been no monitored violations of the federal standard for a year;
6. Provides for the LADWP to slightly reduce the amount of lake bed area wetted during two less emissive periods in the fall and spring, in order to save water;
7. Sets forth a dispute resolution process;
8. Requires the District to prepare an Environmental Impact Report (EIR) and revised SIP to implement the provisions of the Settlement Agreement;
9. Contains a number of other miscellaneous provisions.

This report will now provide additional explanation of the above points to assist the reader in understanding the proposed Agreement. Numbers in square brackets, e.g., [9], refer to the sections in the Agreement where the discussed information can be found.

1. Amount, Location, Type and Schedule of Additional DCMs

A. Amount of Additional DCMs

On January 1, 2007 the 29.8 square miles of DCMs ordered by the 2003 SIP will be operational. The Agreement refers to these existing dust control areas as the 2003 “Dust Control Area” or DCA. [1.A.(ii)]

The Agreement requires the LADWP to construct at least 12.7 additional square miles of DCMs by April 1, 2010. These areas are known as the 2006 “Supplemental Dust Control Area” or SDCA. [1.A.(i)]

The total area of additional DCMs may increase by up to 0.5 square miles depending on the need and ability to construct DCMs along the Olancho Creek channel on the southern tip of the lake bed. This 0.5 square mile area is known as the “Channel Area.” [1.A.(iii) and 2.C.]

By April 1, 2010, the LADWP is required to have constructed and be fully operating a total of 43.0 square miles of DCMs on the lake bed. This entire area of DCMs is referred to the “Total Dust Control Area” or TDCA. [1.A.(iv) and 1.C.]

B. Location of Additional DCMs

The additional DCMs will be constructed primarily from the eastern corner down along the southeast shoreline to the southern tip of the lake bed. There will also be smaller, isolated areas of control in the northeast, northwest and west portions of the lake bed. Exhibit 1 in the Agreement shows the location of all existing and additional DCMs. Exhibit 2 is a Table that provides a coordinate description of the SDCA.

C. Type of Additional DCMs

Of the minimum 12.7 square miles of DCMs to be constructed, at least 9.2 square miles will consist of Shallow Flooding and no more than 3.5 square miles will consist of a new DCM known as “Moat and Row.” The location of the DCM types is shown in Exhibit 3. Shallow Flooding currently exists on about 26 square miles of lake bed and has proven to be a very effective DCM. The new Moat and Row DCM is described in detail in Exhibit 4 of the Agreement, but essentially consists of an array of earthen berms (rows) about five feet high flanked by ditches (moats) about four feet deep. The Moat/Row elements are spaced from 250 to 1000 feet apart and act as wind breaks to prevent dust emissions. Because the Moat and Row DCM uses no water, there may be long-term cost savings associated with its implementation. [2, Exhibit 3 and Exhibit 4]

Prior to constructing any large-scale Moat and Row arrays, the LADWP is required to test the new DCM at two locations on the lake bed. The results of the test will determine the final design of the Moat and Row measure. [7 and 8]

D. Schedule of Additional DCMs

The Moat and Row DCMs shall be constructed and fully operational by October 1, 2009 and the Shallow Flood DCMs shall be complete and operational by April 1, 2010. [1.D.]

2. DCMs to Provide Actual Level of Control Needed to Meet the Federal Standard

The PM-10 emission rates across different areas on the Owens Lake bed vary depending on soil type, salt content, weather conditions and a number of other factors. Lake bed surfaces vary from non-emissive to highly emissive. However, the 2003 SIP provides for only a maximum level of control effort, regardless of the actual emission rates on different areas.

The proposed Agreement uses data collected over a six and a half year period (January 2000 through June 2006) to determine the actual levels of control required to reduce lake bed emissions to below the federal standard. This level of control is known as the “minimum dust control efficiency” or MDCE. The Agreement allows the LADWP to design, construct and operate the new DCMs to achieve the MDCE for each area. Exhibit 5 in the Agreement shows the MDCE for each new area of DCMs. The MDCEs vary from a high of 99 percent to a low of 30 percent. By designing and operating only to the MDCE required to meet the federal standard, the LADWP may reduce short-term construction costs and provide for long-term water savings. [3, 4, 5, 25 and Exhibit 5]

Related to the concept of MDCE, the LADWP currently has one contiguous 3.75 square mile area of Managed Vegetation DCM implemented on the lake bed. On January 1, 2007 only about half of the total Managed Vegetation area will meet the 2003 SIP requirement that vegetation be established on 50 percent of every acre. However, the Managed Vegetation area, as a whole, appears to be substantially non-emissive. The Agreement provides that as long as the LADWP maintains the Managed Vegetation site in its current condition and there are no federal standard exceedances caused by emissions from the Managed Vegetation area, the District will consider the existing Managed Vegetation area to be in compliance. [6]

3. Effort to Improve the Dust ID Program

A significant aspect of the LADWP's objection to the District's SCR determination involved the details of the Dust ID Program contained in the 2003 SIP. Although the current Dust ID Program is an approved and required component of the 2003 SIP, the LADWP believes that the Program could be improved to more accurately identify the location and magnitude of lake bed dust emissions. The Agreement commits the District and the LADWP to work cooperatively, with the assistance of third-party technical experts, to improve the Dust ID Program. The improvements would be in place before the SCR determinations resume in 2010 (see #4, below). [9 and 10]

4. Additional SCR Determinations Suspended Until the Additional DCMs Are in Place

Related to the effort to improve the Dust ID Program, the proposed Agreement also provides for additional SCR determinations to be suspended until 2010, when the Dust ID Program improvements will be in place and the construction of additional DCMs is complete. However, before 2010, the District will continue to collect and analyze Dust ID data and will advise the LADWP of the results. [11]

An exception to the Agreement's SCR determination suspension provision is that the District will continue to collect Dust ID data in four "Study Areas" where there is suspicion of dust emissions, but where either the location or magnitude of emissions is uncertain. The District will continue to collect data in these four areas totaling about 1.9 square miles and may use that data in 2010 to make an SCR determination. [11]

In 2010 the District will recommence SCR determinations using the latest Dust ID Program. The determination procedure will be somewhat modified from the procedure set forth in the 2003 SIP. If there are further exceedances of the federal standard, the LADWP will be able to appeal determinations to the CARB (the 2003 SIP prohibits such appeals), the LADWP is required to submit a Remedial Action Plan that details the actions they will take to prevent future exceedances, and there is a procedure that would require the conversion of any unsuccessful Moat and Row controls to traditional, approved DCMs. [17 through 24]

5. Acceleration of Efforts to Refine the Amount of Water Used to Control Dust

Although some of the new Shallow Flood DCM areas will be constructed and operated to provide less than 99 percent dust control efficiency (see MDCE discussion in #2, above), existing Shallow Flood DCMs and many of the new Shallow Flood areas will require 99 percent control (see Exhibit 5). The District's Shallow Flood research conducted in the 1990s indicated that 99 percent control was achieved when 75 percent of an area consisted of standing water or surface-saturated soil. This is a conservative requirement for two reasons: 1) the actual amount of water required to provide 99 percent control may be less than 75 percent on certain soil types and 2) some of the existing Shallow Flood DCMs may not require 99 percent control in order to meet the federal standard.

The proposed Agreement allows the LADWP to immediately conduct limited field testing on no more than 1.5 square miles of existing Shallow Flood areas to refine the amount of water required to achieve 99 percent control. [13]

The Agreement also provides that once DCMs are in place and operational on the entire 43 square mile dust control area for one full year and there have been no monitored violations of the federal standard, then the LADWP may begin reducing the wetness cover on shallow flood areas. The reductions will occur in small, annual steps of about 10 percent and reductions can only continue to occur as long as the standard continues to be met. If areas become too dry, the amount of wetness must be increased immediately. This provision of the Agreement may eventually allow the LADWP to save considerable amounts of water at Owens Lake. [14, 15 and 16]

6. “Shoulder Season” Shallow Flood Wetness Reductions

The 2003 SIP requires Shallow Flood DCMs to be functional during the “dust season” at Owens Lake. The District’s analysis of air quality data indicates that the federal standard will be attained if dust storms are eliminated from October 1 of every year through June 30 of the next year. Therefore, Shallow Flooding areas need to be wet for dust control only during that nine-month period. Lesser amounts of water are required outside of the dust season (during the summer) only to support wildlife attracted to the lake bed during the dust season.

However, dust emissions are generally significantly less during the beginning and end of the dust season than they are in the middle of it. This is because much of the lake bed forms a hard, non-emissive “summer crust” in late spring, which persists through fall. In order to provide enough water for adequate dust control during the fall and late spring shoulder seasons, while at the same time acknowledging that lower levels of control efficiency are appropriate during these periods, starting in 2010, the proposed Agreement allows for reduced Shallow Flood wetness from October 1 through October 15 and from May 16 through June 30. The wetness levels ramp up to maximum wetness on October 16, are maintained at maximum wetness through the worst part of the dust season, and then ramp down starting on May 16 through June 30. By the end of June, the wetness is allowed to be 20 percent less than the maximum.

Reduced wetness cover during the shoulder seasons will not necessarily reduce the amount of water applied to the lake bed—this is because the reduced dust generated during these periods coincides with the increased evaporation rate due to warmer fall and spring weather. So, the LADWP will likely apply the same amount of water during the shoulder seasons, the water just will not cover as large an area because more water is lost to evaporation. This pattern mimics the natural seep and spring flows on the lake bed that dry up in the spring and increase in late fall. Relief from the requirement to provide full wetness cover during the shoulder season will relieve the LADWP from the cost of building another pipeline connection to the LA Aqueduct. [25, 26 and 27]

7. Dispute Resolution Process

The proposed Agreement also provides for an expedited non-binding resolution process—such a process does not currently exist, but has been very helpful in resolving current disputes. The Agreement provides that legal and/or technical experts can be retained in an attempt resolve disputes and prevent litigation. [31, 32 and 34]

8. Revised SIP and EIR

The proposed Agreement requires the District to prepare a revised State Implementation Plan that incorporates the provisions of the Agreement. In addition, the District will prepare a project level Environmental Impact Report to be used by the District for SIP approval and by the LADWP for construction contract award. If the District adopts a revised SIP and EIR that are consistent with the Agreement, the LADWP agrees not to challenge or appeal the documents. The EIR must be certified by March 1, 2008 and the revised SIP must be adopted by the District Board by July 1, 2008. The agreement also provides for Agreement termination by either Party under certain conditions. [28]

9. Other Agreement Provisions

The proposed Agreement has a number of other provisions:

A. State Standard

The District has taken the position that the federal 24-hour PM-10 standard of 150 $\mu\text{g}/\text{m}^3$ must be met at and above the historic shoreline of Owens Lake. The 2003 SIP and the Agreement set this as the current “standard of success” for solving the dust problem at Owens Lake. However, there is also a state 24-hour standard for PM-10—it is 50 $\mu\text{g}/\text{m}^3$. The District’s position is that the state standard needs to be met in all the communities within the District. The Agreement provides that if the District needs to order additional controls to bring the communities surrounding Owens Lake into compliance with the state standard, such orders will not be issued until after April 1, 2010—after the additional DCMs are in place and operational. [11]

B. Performance Monitoring Plan

The Agreement requires the LADWP to prepare and submit to the District an annual Performance Monitoring Plan that describes the state of dust control efforts on the lake bed. This Plan will be used by both the District and the LADWP to assist with decisions regarding the performance of existing DCMs and the need for adjustments or additions to the controls on the lake bed. [12]

C. DCM Compliance

The Agreement commits the District and the LADWP to collaboratively develop methods to determine that DCMs are being operated as required. Final implementation of compliance measurement techniques is at the sole discretion of the Air Pollution Control Officer. [29]

D. Keeler Dunes

The Agreement states that both the District and the LADWP acknowledge that the Keeler Dunes area above the lake bed contributes to the dust problem in the community of Keeler. The Parties agree to work with other agencies to develop a plan for reducing Keeler Dune emissions. [30]

E. Time extensions

The Agreement gives the District Hearing Board the ability to grant variances for time extensions to the LADWP. District staff may support or oppose such variance requests. [33]

F. Lawsuit/Appeals Settlement

If the Agreement is approved by both the District and the LADWP, within 15 days the Air Pollution Control Officer will issue a revised Supplemental Control Requirement determination that incorporates the provisions of the Agreement. The LADWP will then commence work on the project and dismiss its CARB appeals and lawsuit. [35, 36, 37, 39 through 44]

Alternatives

The District Board is faced with two alternatives at this time: 1) do not approve the proposed Settlement and the LADWP will pursue its CARB appeals and lawsuit, or 2) approve the proposed Settlement Agreement and both the District and the LADWP will immediately begin to implement the terms of the Agreement.

1. Agreement is Not Approved

If the Agreement is not approved by both the District Governing Board and the LADWP Water and Power Commissioners, the LADWP's appeals to the CARB and lawsuit will proceed. If the District prevails in the lawsuit, the LADWP will be required to implement the 8.66 square miles of DCMs ordered by the 2005 SCR determination without benefit of any of the Agreement's cost and water saving provisions. Without an agreement in place, the District would use data collected through June 2006 to issue a 2006 SCR determination and would continue to issue annual determinations. The 2006 data indicates that about five more square miles of the lake bed would require DCMs. This would bring the total area of additional DCMs to about 14 square miles. It is likely that the LADWP would also challenge a 2006 SCR determination, as well as future determinations.

If the LADWP prevails in its lawsuit, uncertainty would exist in the 2005 SCR determination and possibly future determinations as well. The District may have to wait until additional data is collected before additional areas of the lake bed can be ordered for control. There may be additional challenges from the LADWP in the future. If the LADWP prevails in the lawsuit, there is no way to predict when attainment will be reached. The time delays involved in resolving the current lawsuit (and possible future challenges) are unknown, but could be substantial.

2. Agreement is Approved

If the Agreement is approved by both the District and the LADWP, the lawsuit will be dismissed, the District will begin work on a revised SIP and EIR, and the LADWP will begin work toward meeting the April 2010 deadline of having at least 12.7 more square miles of dust controls on the lake bed. However, the DCMs will be less conservative than those currently required by the SIP. On the other hand, the DCMs may use water more efficiently, and the Agreement provides assurances that the federal standard will still be met in an expeditious manner.

Pros and Cons of Proposed Settlement Agreement

Pros

1. The LADWP will build one more large project in an effort to solve the Owens Lake dust problem. They are committing to control most of the areas identified as problems through 2006 and the control areas exceed the 8.66 square miles ordered for control in 2005 under the current SIP provisions. If additional areas require DCMs after 2010, they will likely be limited to some portion of the 1.9 square-mile Study Areas.
2. The LADWP will begin work on the project immediately and will complete the work by April 2010. The alternative may mean waiting until lawsuits and appeals are completed. The time for this is unknown.
3. Orders for additional areas beyond the 8.66 square miles may mean more challenges from the LADWP. This would mean more delays.
4. The proposed settlement allows for water to be used more efficiently.
5. The proposed settlement would establish a framework for cooperation between the District and the LADWP to continue to work together to solve the Owens Lake dust problem.

Cons

1. If controls are required on any of the 1.9 square-mile Study Areas, they cannot be ordered for control until 2010 and would not be in place until about 2014. With the exception of the four Study Areas, areas that emit dust between 2006 and 2010 would be ignored.
2. The Moat and Row dust control measure is unproven at Owens Lake. There is some uncertainty about the ability of the 3.5 square miles of Moat and Row to adequately control dust emissions. If Moat and Row does not perform as required, there may be delays in meeting the standard.
3. Reducing Shallow Flood wetness makes exceedances more likely. The LADWP proposes a system of operational adjustments that will result in concentrations slightly below the federal standard. Less than full (99%) control efficiency makes it more likely (risky) that controlled areas will emit dust.
4. Shallow Flood ramping in October and May/June presents some risks. Exceedances of the standard may occur as dust controls are “fine tuned” and additional areas are controlled at less than 99% control efficiency. Lack of pipeline capacity means there is no fast (or inexpensive) solution to providing more water to under-wetted Shallow Flood areas.

Summary Table

Immediately following this report is a table summarizing the main terms of the proposed Agreement. It compares the routes forward under both the Agreement and the current SIP.

Press Releases

The District and the LADWP issued a joint press release and the LADWP issued its own press release on November 15 when the proposed Agreement was released to the public. The press releases are attached.

Fiscal Impacts to the District

There will be increased costs to the District to prepare an EIR and revised SIP and there will be costs associated with increased monitoring and Dust ID Program refinements. The LADWP is responsible for paying the District's costs associated with work at Owens Lake under Health & Safety Code Section 42316.

APCO Recommendation

The Air Pollution Control Officer recommends approval of the proposed Settlement Agreement. It is my opinion that, given all the circumstances of this situation, the route set forth by the Settlement Agreement is the most expeditious path toward attaining the federal PM-10 standard in the Owens Valley.

Enclosures: Summary Table
 Press Releases (2)
 Proposed Settlement Agreement

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**COMPARISON OF
APRIL 4, 2006 SCR DETERMINATION AS REQUIRED BY 2003 SIP
AND PROPOSED SETTLEMENT AGREEMENT**

Item	SCR Determinations	Proposed Settlement
1. Total additional DCM area Total additional area requiring controls by 2010	8.66 (to approx 14 w/ additional SCR determinations)	12.7 square miles
2. Area of 99% Control DCMs Areas requiring control as required in the existing 2003 SIP (75% wet for Shallow Flood and 50% vegetated for Managed Veg) regardless of control efficiency (CE) required.	8.66 (to approx 14 w/ additional SCR determinations)	All based on reqd. CEs (significant portion will require 99% CE)
3. Area of CE-Adjustable DCMs Areas requiring control as specified in the 02 through 06 modeling. CEs vary from 30% to 99%.	0	12.7 square miles
4. Area Shallow Flood City has only one realistic option under SCR—Shallow Flood.	8.66	9.2 square miles
5. Area Moat & Row (M&R) 2003 SIP makes no provisions for M&R (or any other alternative measure) until after the standards are met. City get two tries to make M&R work. If not, M&R must be replaced with approved DCM.	0	3.5 square miles
6. Fall/Spring “Shoulder Season” Shallow Flood Ramping Relief of Shallow Flood compliance by area during October 1 - 15 and May 16 through June 30 period allows project to proceed without need for additional costly mainline infrastructure.	No	Yes
7. Revise Shallow Flood Adjustment Procedures Current SIP has very restrictive requirements regarding refining shallow flood operations to save water. Proposed method would allow City more flexibility and shorter times for refinement. <u>But, water savings only come after one year of no monitored exceedances.</u>	No	Yes
8. 2006-10 Supplemental Control Determinations Suspension Current SIP requires annual determinations. Proposal would provide suspension until 2010 from additional SCR determinations. SCR determinations would resume in 2010 under a modified procedure.	Yes - Annual	No
9. Possible Revision to Dust ID Procedure District and City would agree on a 3-year plan for possible revisions to improve the current Dust ID procedure. Relief for SCR determinations (#8) provides time for this to occur.	Yes - Incremental	Yes

<p>10. Managed Vegetation 50% Vegetated Requirement Relief Existing Managed Vegetation does not meet SIP-required 50% cover on every acre. District would agree to an alternative method of compliance enforcement.</p>	<p>No</p>	<p>Yes</p>
<p>11. Schedule 2003 SIP provides 2.5 years for implementation of shallow flood. Settlement would provide an additional year (until April 2010). Time for lawsuit delays is unknown.</p>	<p>2.5 years (+ lawsuit time?)</p>	<p>3.5 years</p>
<p>12. Lawsuit and appeals continue</p>	<p>Yes</p>	<p>No</p>

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PRESS RELEASE
November 15, 2006

Contact Information:

LADWP: Joe Ramallo
(213) 367-1394
Carol Tucker
(213) 367-1815

Great Basin APCD: Ted Schade
(760) 872-8211

Great Basin Unified Air Pollution Control District & LADWP Announce Proposed Settlement to Expand Dust Control Area for Owens Lake

The City of Los Angeles Department of Water and Power and the Great Basin Unified Air Pollution Control District have concluded negotiations on a draft agreement that, upon approval by their respective governing boards, will settle their disputes and outstanding litigation regarding additional dust mitigation on the Owens Lake bed.

Under the agreement, to be considered by both agencies' governing boards in the coming weeks, the City will apply dust controls to an additional 12.7 square miles of the Owens Lake bed to control dust emissions. The agreement will allow the City to use new and refined treatment methods to control the dust that are expected to use less water than currently required methods.

Under the proposed settlement, the City and District will cooperatively move forward to bring the Owens Lake area into compliance with the federal Clean Air Act standard for fine dust particles, known as PM-10. Windblown dust from the Owens Lake bed causes dust emissions in concentrations well above the limits allowed by the Clean Air Act.

According to Great Basin Air Pollution Control Officer, Ted Schade: "We expect that in early 2010, when construction on the additional 12.7 square miles of lake bed is complete, the Owens Valley will attain, or be very close to attaining, the federal particulate matter standard. The proposed Agreement provides for the City to promptly move forward with the dust controls necessary to solve the air pollution problem in the Owens Valley, while recognizing that the City's valuable water resources need to be conserved to the extent possible."

"The agreement is the culmination of intensive but amicable mediation process and signals a new era of cooperation between LADWP and Great Basin," said H. David Nahai, president of the LADWP Board of Water and Power Commissioners. "The department is committed to meet its moral and legal obligation to improve air quality in the Owens Valley. This agreement, once approved, will provide the flexibility and certainty necessary to help us meet that commitment."

The proposed settlement agreement, which is the result of an intensive five-month mediation process between City and District staffs, will result in the dismissal of the City's lawsuit against the District. It provides that the City will have the additional dust controls installed and in operation on the newly delineated 12.7 square miles by April 2010. The City will construct 9.2 square miles of shallow flooded lake bed and 3.5 square miles of a new wind-breaking dust control known as moat and row. Upon completion of this new project, the City will have

completed a total of 43 square miles of dust controls on the lake bed—more than 35 square miles of shallow flooding and 3.5 square miles each of native vegetation and moat and row.

The agreement also provides that once the dust storms are controlled, the City can implement a process to increase water-use efficiency, while still providing an adequate margin of safety to insure the dust storms are controlled.

The Board of Water and Power Commissioners are scheduled to meet on November 27 in Los Angeles and the Great Basin Governing Board will meet in Independence on December 4 to consider approval of the proposed Settlement Agreement.

FOR IMMEDIATE RELEASE

November 15, 2006

Contacts: Joe Ramallo/LADWP (213) 367-1394
Carol Tucker/LADWP (213) 367-1815
Ted Schade /Great Basin Unified Air Pollution Control District
(760)872-8211

LADWP & Great Basin Unified Air Pollution Control District Announce Proposed Settlement to Expand Dust Control Area for Owens Lake

Agreement Will Allow New Treatment Methods Designed to Improve Air Quality, Curb Spending and Save Water

LOS ANGELES—Affirming its commitment to the environment, the Los Angeles Department of Water and Power (LADWP), together with the Great Basin Unified Air Pollution Control District (Great Basin), have announced a proposed agreement to further reduce dust blowing off the dry Owens Lake by expanding the dust control area and using new methods that will save water and costs for the City of Los Angeles.

The agreement between LADWP and Great Basin, which requires approval of the governing boards of both agencies, “is the culmination of intensive but amicable mediation process and signals a new era of cooperation between LADWP and Great Basin,” said H. David Nahai, president of the LADWP Board of Water and Power Commissioners. “The department is committed to meet its moral and legal obligation to improve air quality in the Owens Valley. This agreement, once approved, will provide the flexibility and certainty necessary to help us meet that commitment.”

While agreeing to control dust on an expanded area of the lake, the City of Los Angeles will benefit from significant cost savings from using water more efficiently and avoiding additional, more expensive infrastructure upgrades that would have been required absent the agreement. In addition, LADWP will avoid further costly litigation and escalating construction costs that would result from further delay.

According to Great Basin Air Pollution Control Officer, Ted Schade: “We expect that in early 2010, when construction on the additional 12.7 square miles of lake bed is complete, the Owens Valley will attain, or be very close to attaining, the federal particulate matter standard. The proposed agreement provides for the City to promptly move forward with the dust controls necessary to solve the air pollution problem in the Owens Valley, while recognizing that the City’s valuable water resources need to be conserved to the extent possible.”

Under the terms of the negotiated settlement, LADWP will construct dust control measures on an additional 12.7 square miles of the dry Owens Lake bed by April 2010, at an estimated cost of \$105 million. LADWP is on target to complete dust control measures on 29.8 square miles of the lake bed by Dec. 31, 2006, as required by a 2003 State Implementation Plan (SIP). Upon completion of the new project, LADWP will have constructed 43 square miles of dust controls on the lake bed.

The proposed settlement agreement, which is the result of an intensive five-month mediation process between City and District staffs, will result in the dismissal of the City's lawsuit against the District.

The agreement reflects Mayor Villaraigosa's commitment to making Los Angeles the cleanest, greenest and most environmentally responsible city in America. It also demonstrates his administration's commitment to address issues forthrightly and in an environmentally responsible manner. "It shows that when opposing sides sit down and work out their differences, the result is a better, smarter and less costly path that puts the public's interest first," Nahai said.

The agreement also allows LADWP to use a new mitigation method called "moat and row" to prevent wind-blown soil erosion. This new technology will control the wind-blown dust without using any water, avoiding the cost of replacing that water supply for Los Angeles as well as the cost of losing hydroelectric power generation due to reduced flows through the Los Angeles Aqueduct.

The moat and row method works by building rows of berms flanked by ditches to create moats. The moats are designed to capture moving soil particles, while rows will physically shelter the lake bed from the wind. Since this method has not been used previously at Owens Lake, LADWP agreed to conduct a demonstration project prior to full implementation to determine the method's effectiveness.

The settlement, which resolves pending litigation over Great Basin's determination to expand the portion of the lake requiring dust control, calls for the agencies to work cooperatively to bring the Owens Lake area into compliance with the federal Clean Air Act standard for fine dust particles, known as PM10. Wind-blown dust from the dry Owens Lake bed has exceeded the Clean Air Act standard and is one of the most significant sources of air pollution in the southwestern United States.

In addition, under the agreement LADWP and Great Basin will work together to develop the best monitoring processes over the next four years through mediation and assisted by third-party experts and have agreed upon a path for resolving future disputes, should they arise.

The Board of Water and Power Commissioners are scheduled on November 27 in Los Angeles and the Great Basin Board will meet in Independence on December 4 to consider approval of the proposed Settlement Agreement.

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