

EXHIBIT F

Owens Lake Revised Moat and Row Dust Control Measures

STATEMENT OF FINDINGS

December 17, 2009

CEQA FINDINGS

These Findings on the Owens Lake Revised Moat and Row Dust Control Measures Project (Project) proposed by the City of Los Angeles, Department of Water and Power (City or LADWP), are made by the California State Lands Commission (Commission or CSLC), acting as a responsible agency pursuant to Public Resources Code section 21081 and the Guidelines for the California Environmental Quality Act (CEQA) (Title 14, California Code of Regulations, sections 15091, 15096(h), and 15163(e)).

The City prepared a Final Supplemental Environmental Impact Report (2009 City Supplemental EIR or 2009 FSEIR, SCH No. 2008121074) for the *Owens Lake Revised Moat and Row Dust Control Measures* to evaluate potential significant impacts from design changes to the proposed Moat and Row dust control measures (DCMs) that were evaluated in the Great Basin Unified Air Pollution Control District's (District or GBUAPCD) Final Subsequent EIR for the *2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan* (2008 District Final Subsequent EIR or 2008 FSEIR, SCH No. 2007021127).

When a supplemental EIR has been prepared for a project, the decision-making body "shall consider the previous EIR as revised by the supplemental EIR" (CEQA Guidelines section 15163(e)). Therefore, the California State Lands Commission (Commission) as a responsible agency under CEQA must consider the 2008 District Subsequent EIR and the 2009 City Supplemental EIR and make its own findings as required by CEQA Guidelines sections 15096(h) and 15091.

The Commission has reviewed and considered the information contained in both the 2008 District Final Subsequent EIR and the 2009 City Final Supplemental EIR and the *Findings of Fact and Statement of Overriding Considerations* accompanying each document.

The Commission adopts the Findings made by the City contained in its Statement of Findings that relate specifically to the Revised Moat and Row Project as re-stated or modified in this Statement of Findings. These Findings relate to the potential significant impacts resulting from the revised Project design. As explained in the section "Findings Regarding Alternatives," the Commission declines to adopt the City's findings regarding alternatives. Instead, the Commission adopts the District's findings regarding the alternatives.

All significant adverse impacts of the Project identified in the 2008 District Final Subsequent EIR and the 2009 City Final Supplemental EIR are included herein and organized according to the resource affected. For each significant impact, a finding has been made as to one or more of the following, as appropriate:

- a) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.
- b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- c) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.

A discussion of the facts supporting them follows the findings.

Whenever Finding (b) occurs, the agencies with jurisdiction have been specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed within each type of impact that could result from project implementation. However, under CEQA (Public Resources Code section 21081.6), the City, as the CEQA Lead Agency for the 2009 City Final Supplemental EIR or the District, as the Lead Agency for the 2008 District Final Subsequent EIR, have the responsibility to ensure that the mitigation measures are effectively implemented.

Whenever Finding (c) is made, the Commission has determined that sufficient mitigation is not practicable to reduce the impact to a less than significant level and, even after implementation of all feasible mitigation measures, there will or could be an unavoidable significant adverse impact due to the Project. Significant impacts requiring Finding (c) were identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR. The Statement of Overriding Considerations applies to all such unavoidable impacts as required by the CEQA *Guidelines* sections 15092 and 15093.

These Findings are based on the information contained in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR, as well as information provided by the City and gathered through an Informational Hearing (Calendar Item 52, August 11, 2009) all of which is contained in the record of proceedings as noted below.

The custodian of the record of proceedings upon which the Commission's decision is based is the Sacramento office of the California State Lands Commission, located at 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

FINDINGS OF FACT

Effects Found Not To Be Significant

The Initial Study (IS) prepared for the Revised Moat and Row Project (December 16, 2008, see Appendix A of the 2009 City Final Supplemental EIR) identified those effects that were already addressed in the 2008 District Final Subsequent EIR, or otherwise were found not to be significant. The IS documented that the proposed Project would have no impact on agricultural resources or recreation. In addition, the IS found that the following impacts were sufficiently analyzed in the 2008 District Final Subsequent EIR and were found to be less than significant: geology and soils, noise, population and housing and public services. These impacts would not change with implementation of the Revised Moat and Row Project.

As documented in the IS, the 2008 District Final Subsequent EIR determined that construction, maintenance, and operation of DCMs (including moat and row) would result in significant impacts to cultural resources, hazards, hydrology and water quality, land use and planning, mineral resources, transportation and traffic, and utilities. However, as the lead agency for the 2008 District Final Subsequent EIR, the District, determined that these significant impacts would be avoided or reduced to a less-than-significant level with implementation of mitigation measures adopted in the 2008 District Final Subsequent EIR. The District adopted a Mitigation and Monitoring Plan and *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The District's Findings are hereby incorporated by reference and the findings of fact related to significant impacts to cultural resources, hazards, hydrology and water quality, land use and planning, mineral resources, transportation and traffic, and utilities are summarized as follows.

Cultural Resources

The District found that implementation of the 2008 State Implementation Plan (SIP) has the potential to result in significant impacts to cultural resources related to the destruction of a unique paleontological resource, a substantial adverse change to the significance of archaeological and historical resources, and unknown burial sites. The District found that changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment related to cultural resources. Implementation of Measure Cultural-1 (Paleontological Resources Construction Monitoring), Measure Cultural-2 (Cultural Resources Investigations), and Measure Cultural-3 (Cultural Resources Monitoring Program) from the 2008 District Subsequent EIR would eliminate or substantially reduce these significant cultural resource impacts to a less-than-significant level. These findings are documented on pages III-13 through III-20 of the District's *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The City, as the lead

agency for the 2009 Revised Moat and Row Dust Control Measures Project, concurred with the District's findings of fact. The Commission, acting as a responsible agency, concurs with the District's findings of fact and hereby incorporates by reference those findings into this document.

Hazards and Hazardous Materials

The District found that implementation of the 2008 SIP has the potential to result in significant impacts related to the accidental release of hazardous materials into the environment resulting from routine transport, use or disposal of hazardous materials and the increased occurrence of wildland fires. The District found that changes or alterations have been required in, or incorporated into, the project that mitigate or avoid significant effects on the environment related to hazards and hazardous materials. Implementation of Measure Hazards-1 (Hazardous Materials Transport), Measure Hazards-2 (Spill Prevention Control and Countermeasure Program), Measure Hazards-3 (Emergency Response Business Plan), and Measure Hazards-4 (Fire Protection Services) from the 2008 District Subsequent EIR would eliminate or substantially reduce these significant impacts to a less-than-significant level. These findings are documented on pages III-20 through III-22 of the District's *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The City, as the lead agency for the 2009 Revised Moat and Row Dust Control Measures Project, concurred with the District's findings of fact. The Commission, acting as a responsible agency, concurs with the District's findings of fact and hereby incorporates by reference those findings into this document.

Hydrology and Water Quality

The District found that implementation of the 2008 SIP has the potential to result in significant impacts to surface water quality, groundwater, drainage, and increased flood potential. The District found that changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment related to hydrology and water quality. Implementation of Measure Hydrology-1 (Acquire and Adhere to National Pollution Discharge Elimination System General Permit), Measure Hydrology-2 (Water Quality Monitoring and Reporting Program), Measure Hydrology-3 (Shallow Flood Water Retention Berms), Measure Hydrology-4 (Reduction of Flash Flood and Alluvial Sediment Damage Potential), and Measure Hydrology-5 (Berm Failure Emergency Management Plan) from the 2008 District Subsequent EIR would eliminate or substantially reduce these significant hydrology and water quality impacts to a less-than-significant level. These findings are documented on pages III-22 through III-25 of the District's *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The City, as the lead agency for the 2009 Revised Moat and Row Dust Control Measures Project, concurred with these findings of fact. The Commission, acting as a responsible agency, concurs with the District's findings of fact and hereby incorporates by reference those findings into this document.

Land Use and Planning

The District found that implementation of the 2008 SIP has the potential to result in a significant impact related to a potential increase in mosquitoes and other biting insects. The District found that changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effect on the environment related to this land use issue. Implementation of Measure Land Use and Planning-1 (Resident Insect Control Program) from the 2008 FSEIR would eliminate or substantially reduce this significant land use impact to a less-than-significant level. These findings are documented on pages III-25 through III-26 of the District's *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The City, as the lead agency for the 2009 Revised Moat and Row Dust Control Measures Project, concurred with the District's findings of fact. The Commission, acting as a responsible agency concurs with the District's findings and hereby incorporates by reference those findings into this document.

Mineral Resources

The District found that implementation of the 2008 SIP has the potential to result in significant impacts to mineral resources due to increased flash flood potential for portions of the areas leased by U.S. Borax. The District found that changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment related to mineral resources. Implementation of Measure Minerals-1 (U.S. Borax Lease Area Approval and Compensation), Measure Hydrology-3 (Shallow Flood Water Retention Berms), and Measure Hydrology-4 (Reduction of Flash Flood and Alluvial Sediment Damage Potential) from the 2008 District Subsequent EIR would eliminate or substantially reduce the significant mineral resource impact to a less-than-significant level. These findings are documented on pages III-26 through III-27 of the District's *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The City, as the lead agency for the 2009 Revised Moat and Row Dust Control Measures Project, concurred with the District's findings of fact. The Commission, acting as a responsible agency concurs with the District's findings and hereby incorporates by reference those findings into this document.

Transportation and Traffic

The District found that implementation of the 2008 SIP has the potential to result in significant impacts to transportation and traffic related to substantial increases in hazards during construction due to turning vehicles and heavy trucks transporting materials and equipment to the site. The District found that changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant effects on the environment related to transportation and traffic. Implementation of Measure Traffic-1 (Traffic Work Safety Plan), Measure Traffic-2 (Traffic Work Safety Plan Conformance), and Measure Traffic-3 (Regional Transportation Network Damage Repair) from the 2008 District Subsequent EIR would eliminate or substantially reduce these significant traffic impacts to a less-than-significant level. These findings are

documented on pages III-27 through III-29 of the District's *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The City, as the lead agency for the 2009 Revised Moat and Row Dust Control Measures Project, concurred with the District's findings of fact. The Commission, acting as a responsible agency concurs with the District's findings and hereby incorporates by reference those findings into this document.

Utilities

The District found that implementation of the 2008 SIP has the potential to result in significant storm drain system impacts due to channeling storm water flows that could result in an increase of flash flood potential by directing water and sediment loads toward the U.S. Borax mineral lease, causing either erosion, deposition of sediment, or loss of ore material to the brine pool. The District found that changes or alterations have been required in, or incorporated into, the project that mitigate or avoid this significant effect on the environment related to the storm drain system. Implementation of Measure Hydrology-3 (Shallow Flood Water Retention Berms) and Measure Hydrology-4 (Reduction of Flash Flood and Alluvial Sediment Damage Potential) from the 2008 District Subsequent EIR would eliminate or substantially reduce this significant utilities impact to a less-than-significant level. These findings are documented on pages III-29 through III-30 of the District's *Findings of Fact and Statement of Overriding Considerations* dated January 14, 2008. The City, as the lead agency for the 2009 Revised Moat and Row Dust Control Measures Project, concurred with the District's findings of fact. The Commission, acting as a responsible agency, concurs with the District's findings and hereby incorporates by reference those findings into this document.

Visual Resources

The City evaluated potentially significant impacts to visual resources in the 2009 City Final Supplemental EIR and concluded that the impact would be less than significant (pp. ES-21 and 3.3-17 through 3.3-25). No mitigation or findings are required for impacts that are less than significant.

Effects Found To Be Significant

The City evaluated three new potentially significant effects in the 2009 City Final Supplemental EIR: biological resources, construction-related air quality, and visual resources. The City, as Lead Agency for the 2009 City Final Supplemental EIR, made specific findings for biological resources and construction-related air quality in Section 1.6.2, "Effects Found to Be Significant," in its *Findings of Fact and Statement of Overriding Considerations* dated September 2009. Except as specifically noted, the Commission, acting as a responsible agency, concurs with the District's Findings as re-stated or modified below.

The City's evaluation of visual resources in the 2009 City Final Supplemental EIR found that the impact would be less than significant and thus no mitigation is required

(pp. ES-21 and 3.3-17 through 3.3-25). The Commission, acting as a responsible agency, concurs with the District's determination. Therefore, no finding is required for visual resources.

Biological Resources

SIGNIFICANT EFFECT: EFFECTS ON WESTERN SNOWY PLOVER (IMPACT 3.1-1)

Implementation of the proposed project would result in the loss of up to 1,503.8 acres of suitable habitat for western snowy plover within moat and row cells. Other potential direct and indirect impacts of the project include potential loss of snowy plover individuals as a result of construction and operations and maintenance activities; isolation and loss of plover broods within fence grids; entrapment within moats; and increased predation by corvid species as a result of fence construction and additional corvid perch opportunities near plover nesting habitat. These potential impacts to habitat, individuals, and brood movements would result in potentially significant adverse effects on western snowy plover.

Finding

- a) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the 2008 District Subsequent EIR as revised by the 2009 City Supplemental EIR.
- b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Facts in Support of Finding

LADWP adopted the following mitigation measures to reduce or compensate for project impacts to western snowy plover. The following mitigation measures would reduce impacts to western snowy plover to a less-than-significant level.

Mitigation Measure 3.1-1 (Measure Biology-1 in 2008 FSEIR, 2008 SIP MMP Table III-1): Lake Bed Worker Education Program

To minimize potential direct impacts to western snowy plover from construction activities to below the level of significance, LADWP shall continue the lake bed worker education program consistent with the previous approach and per Department of Fish and Game (DFG) recommendations. The program shall mirror the program instituted for workers for the 1997 EIR and shall focus on western snowy plover identification, basic biology and natural history, alarm behavior of the snowy plover, and applicable mitigation procedures required of LADWP and construction personnel. The program shall be conducted by a biologist familiar with the biology of the western snowy plover at Owens Lake and familiar with special status plant and wildlife species of the Owens Lake basin. The biologist shall be approved by GBUAPCD prior to implementation of the education program. The qualifications of the biologist shall be submitted to DFG for review. The education program shall be based on the 1997 program EIR and shall include relevant updates by the biologist. The education program shall explain the need for the speed limit in the snowy plover buffer areas and the identification and meaning of buffer markers. All construction, operation, and maintenance personnel working within the project area shall complete the

program prior to their working on the lake bed. A list of existing personnel who have completed the program shall be submitted to GBUAPCD prior to the start of any work on the lake bed. A list of new personnel who have participated and completed the education program shall be submitted monthly to GBUAPCD. A copy of the worker education program shall be provided to DFG and CSLC.

**Mitigation Measure 3.1-2 (Measure Biology-2 in 2008 FSEIR, 2008 SIP MMP Table III-1):
Preconstruction Surveys for Western Snowy Plover**

To minimize potential direct impacts to western snowy plover within the project area due to construction activities, LADWP shall conduct a preconstruction survey for western snowy plover in all potential snowy plover habitat prior to any construction activity that is performed during the snowy plover breeding season (March 15 to August 15). Preconstruction surveys shall be performed no more than seven days prior to the start of ground-disturbing activities. LADWP shall place a 200-foot buffer around all active snowy plover nests that are discovered within the construction area. This buffer shall protect the plover nest from both destruction and construction noise. Green-colored stakes of less than 60 inches in height with yellow flagging shall be used to mark buffer edges, with stakes spaced at eight approximately equidistant locations. The location of the nest (global positioning system coordinates) and current status of the nest shall be reported within 24 hours of discovery to GBUAPCD. Maps of snowy plover nest locations shall be posted at the construction office and made available to all site personnel and GBUAPCD staff. The activity of the nest shall be monitored by a biological monitor approved by GBUAPCD, as per existing guidelines for the North Sand Sheet and Southern Zones dust control projects and any revisions to the monitoring protocol that have been approved by DFG. Active snowy plover nests shall be monitored at least weekly. The qualifications of the biological monitor shall be submitted to DFG for review. The nest buffer shall remain in place until such time as the biological monitor determines that the nest is no longer active and that fledglings are no longer in danger from proposed construction activities in the area. Buffers shall be more densely marked where they intersect project-maintained roads. Vehicles shall be allowed to pass through nest buffers on maintained roads at speeds less than 15 miles per hour, but shall not be allowed to stop or park within active nest buffers. Permitted activity within the nest buffer shall be limited to foot crews working with hand tools and shall be limited to 15-minute intervals, at least one hour apart, within a nest buffer at any one time. Compliance with this mitigation measure shall be confirmed by GBUAPCD through issuance of a weekly written report by LADWP to GBUAPCD.

Mitigation Measure 3.1-3 (Measure Biology-3 in 2008 FSEIR, 2008 SIP MMP Table III-1): Snowy Plover Nest Speed Limit

To minimize potential direct and cumulative impacts to western snowy plover and other sensitive biological resources from vehicles construction activities, LADWP shall implement a speed limit of 30 miles per hour within all active construction areas on Owens Lake during construction of DCMs. Speed limits shall be 15 miles per hour within active snowy plover nest buffers. Designated speed limits for other construction areas outside of active nest buffers shall be maintained at 30 miles per hour where it is determined to be safe according to vehicle capabilities, weather conditions, and road conditions. Site personnel and GBUAPCD staff shall be informed daily of locations where active nest buffers overlap with roads in the construction area. Signs shall be posted that clearly state required speed limits. Speed limit signs shall be posted at all entry points to the lake. The number of speed limit signs shall be kept at a minimum near active snowy plover nest areas to reduce potential perches for raptors and other snowy plover predators and shall be outfitted with Nixalite or the functional equivalent if greater than 72 inches (increased from the original 60 inches) in height at entry points to the lake and 60 inches in height by active snowy plover nest areas. Compliance with this mitigation measure shall be confirmed by GBUAPCD through issuance of a summary written report by LADWP to GBUAPCD after posting of speed limits. A copy of the summary report shall be provided to the DFG.

Mitigation Measure 3.1-4 (Measure Biology-4 in 2008 FSEIR, 2008 SIP MMP Table III-1): Lighting Best Management Practices

To minimize indirect impacts to nesting bird species associated with project lighting during construction activities, LADWP shall institute all best management practices to minimize lighting impacts on nocturnal wildlife consistent with previous requirements and DFG recommendations. Best management practices include those listed below, and are included in the Project Description of the 2008 State Implementation Plan Environmental Impact Report. Previous construction has occurred during nighttime hours to complete construction schedules and to prevent personnel from working during times of high temperatures. If night work is deemed necessary, then construction crews shall make every effort to shield lighting on equipment downward and away from natural vegetation communities or playa areas, and especially away from known nesting areas for snowy plovers during the nesting season (March to August). All lighting, in particular any permanent lighting, on newly built facilities shall be minimized to the greatest extent possible, while still being in compliance with all applicable safety requirements. Required lighting shall be shielded so that light is directed downward and away from vegetation or playa areas. Proof of compliance with this mitigation measure shall be confirmed by GBUAPCD, and a copy of the compliance record shall be provided to DFG.

Mitigation Measure 3.1-5 (Measure Biology-7 in 2008 FSEIR, 2008 SIP MMP Table III-1): Toxicity Monitoring Program

To avoid direct and cumulative impacts to native wildlife communities that may potentially result from bioaccumulation of toxic substances resulting from naturally occurring heavy metals and other potential toxins in lake bed deposits to below the level of significance, LADWP shall implement a toxicity monitoring program to investigate the potential of bioaccumulation of heavy metals and other potential toxins in wildlife from feeding in dust control areas throughout the Owens Lake bed. A copy of the long-term monitoring program shall be submitted to the CSLC and GBUAPCD for review and comment at least 60 days prior to the start of operation of new water-based DCMs. Monitoring shall take place in all dust control areas within the Owens Lake as well as at all spring and outflow areas within 500 feet of the construction boundaries. The purpose of the monitoring program shall be to determine if bioaccumulation of toxins is occurring within native wildlife populations attributable to the Dust Control Mitigation Program. Procedures for bioaccumulation monitoring shall follow existing permits issued by the Lahontan Water Quality Control Board (Lahontan Water Quality Control Board) and any subsequent water quality monitoring requirements deemed necessary by the Lahontan Water Quality Control Board. All monitoring shall be conducted by individuals familiar with the native wildlife species of the Owens Lake bed. Monitoring personnel shall be approved by GBUAPCD prior to implementation of the long-term monitoring. The monitoring plan shall include adaptive management procedures and mitigation procedures to follow in the instance that signs of toxicity do develop in native wildlife populations that are attributable to the Dust Control Mitigation Program. Management procedures would be implemented depending on the type and extent of impact that was observed and could potentially, but not necessarily, include covering of dust control areas to prevent wildlife utilization, hazing of wildlife to prevent utilization of dust control areas, or any other appropriate measures. Any adaptive management measures that would potentially be implemented shall be approved by GBUAPCD and DFG prior to implementation.

The monitoring shall be conducted as described in Table 3.2.5-1. Biology-7, Postconstruction Bioaccumulation Monitoring Schedule. In order to have the 2003 State Implementation Plan and 2008 State Implementation Plan monitoring schedules coincide, the final year for monitoring in 2003 State Implementation Plan areas has been moved from 2020 to 2023. Monitoring shall be conducted on a semiannual basis (summer and winter) during each year that monitoring is conducted. If, after the completion of the 14-year monitoring schedule as described in mitigation measure Biology-7, it is determined that there is no evidence of toxicity issues in native wildlife populations, then the monitoring program may be discontinued. If monitoring determines that impacts to native wildlife species are occurring, then the monitoring shall continue on a semiannual basis (summer and winter) in every year until significant impacts are not detected, and the monitoring sequence shall resume at the Year 3 monitoring event and shall continue at the intervals shown in Table 3.2.5-1. Written monitoring reports shall be provided to GBUAPCD, DFG, Lahontan Water Quality Control Board, and CSLC by the approved biological monitor

within four months following the end of the monitoring year. Any changes in the existing monitoring requirements by the RWQCB shall be included into this mitigation measure.

Table 3.2.5-1 Biology-7, Postconstruction Bioaccumulation Monitoring Schedule				
2003 SIP Areas Only	2003 SIP Areas Only	Year 1 Monitoring Event*	Year 2 Monitoring Event*	Year 3 Monitoring Event**
2008	2009	2010	2011	2012
Year 4 Monitoring Event*	Year 5 Monitoring Event**	Year 6 Monitoring Event*	Year 9 Monitoring Event**	Year 14 Monitoring Event*
2013	2014	2015	2018	2023
NOTE: *2003 and 2008 SIP areas monitored ** 2008 SIP areas only				

Mitigation Measure 3.1-6 (Measure Biology-9 in 2008 FSEIR, 2008 SIP MMP Table III-1): Plover Identification Training

To minimize potential direct, indirect, and cumulative impacts to western snowy plover resulting from required maintenance within Shallow Flooding dust control areas during the western snowy plover breeding season (March to August), foot crews and all-terrain vehicle (ATV) operators that must enter Shallow Flooding panels within the entire Owens Lake bed during the snowy plover breeding season shall be briefed in plover identification, nest identification, and adult alarm behavior, and the identification and meaning of buffer markers. Crews shall receive this training from a biologist knowledgeable in western snowy plover biology at Owens Lake as part of the contractor education program as described in mitigation measure Biology-1. The qualifications of the biological monitor shall be submitted to DFG for review. Maintenance crews shall utilize hand tools and ATVs only to conduct maintenance activities during this time period in Shallow Flooding panels where snowy plovers may be present. Crews shall minimize time within the Shallow Flooding and playa areas to the greatest extent possible.

In the event that a crew discovers an active nest a biologist shall be contacted to mark the nest buffer. If crews are working within an active nest buffer, they shall be limited to 15 minutes out of every hour within the buffer. If an unanticipated take to western snowy plovers or an active snowy plover nest occurs during any maintenance activities, a project biologist shall document the impact and report the incident to GBUAPCD and DFG within 48 hours of the event. A take in this case would be defined as mortality to adults, chicks, or fledglings, or a modification in adults' behavior due to human pressure that results in a loss of a nest and its contents. Proof of compliance with this mitigation measure shall be verified by submitting copies of any incident reports to GBUAPCD, the CSLC, and DFG.

Emergency repair activities are exempt from the requirements of this provision. An emergency is defined in the State of California Environmental Quality Act Guidelines. Section 15269, as "a sudden, unexpected occurrence that presents a clear and imminent danger, demanding action to prevent or mitigate loss of or damage to life, health, property, or essential public services." Emergency repairs as defined under the 2003 State Implementation Plan revision and the 1998 State Implementation Plan are further defined as those repairs that must be completed immediately to protect human health and safety, ensure the project is in compliance with required air quality standards, or protect project infrastructure from significant and immediate damage that could result in the failure of a DCM to maintain compliance with required air quality standards. In the event that an emergency repair must be performed on a Shallow Flooding panel during the

snowy plover breeding season, a qualified biological monitor shall be present on site during the duration of the repair activity to document any impacts to western snowy plover adults, juveniles, or active nests. GBUAPCD and DFG shall be notified within 24 hours of the start of all emergency repair activities. A copy of the biological monitor's written report shall be provided to GBUAPCD and DFG within 48 hours of completion of the emergency repair activity. Any appropriate mitigation that may be required from impacts to western snowy plovers shall be negotiated between LADWP and DFG based on the report provided by the biological monitor. A copy of the resultant mitigation that is negotiated between LADWP and DFG shall be provided to GBUAPCD and CSLC.

Mitigation Measure 3.1-7 (Measure Biology-10 in 2008 FSEIR, 2008 SIP MMP Table III-1): Long-Term Monitoring Program for Western Snowy Plover

To minimize potential direct, indirect, and cumulative impacts resulting, from operation and maintenance of DCMs to western snowy plover, LADWP shall implement a long-term snowy plover population monitoring program for the entire Owens Lake bed. Long-term monitoring is required due to long-term implementation of the proposed project. Long-term population monitoring allows for the distinction between natural population fluctuations and human-induced population changes. Postconstruction surveys implemented under the 2003 State Implementation Plan shall be continued under the 2008 State Implementation Plan 1, 2, 3, 4, 5, 7, 9, and 14 years after project implementation. The final western snowy plover monitoring schedule for all DCMs on Owens Lake bed shall be coordinated so that long-term monitoring for all DCMs covered within this document, as well as for preceding environmental documents, are conducted simultaneously. The long-term monitoring shall begin in 2010 or at such time that full build-out is completed. The goals of the monitoring are to confirm that overall numbers of snowy plovers within the dust control areas do not decrease due to implementation of the 2008 State Implementation Plan relative to baseline plover population numbers prior to implementation of the 2003 State Implementation Plan as shown by the 2002 plover report for Owens Lake, which found the population to be 272 plovers. Monitoring shall be conducted during the months of May and June by a qualified biologist familiar with the natural history and habitat requirements of western snowy plovers within the Owens Lake basin. The qualifications of the biological monitor shall be submitted to DFG for review. The monitoring methodology shall be consistent with the methodology used for the Owens Lake 2002 plover surveys.

Annual summary reports for the monitoring efforts shall be filed with GBUAPCD, CSLC, and DFG by December 31 of each monitoring year. GBUAPCD shall require adaptive management changes to operation and maintenance of DCMs if it determines that a decline in snowy plover numbers is occurring that is directly attributable to operation or maintenance procedures of the Owens Lake Dust Mitigation Program. GBUAPCD shall consult with LADWP, CSLC, and DFG prior to requiring adaptive management changes. Monitoring shall continue for a minimum of five years after implementation of adaptive management procedures to ensure that the procedures are having the desired effect on the lake-wide snowy plover population. If after the Year 5 monitoring event it is determined that no adverse impacts to the western snowy plover population at Owens Lake are occurring as a result of the project, then the long-term monitoring program and subsequent reporting may be discontinued.

Specified calendar years for conducting lake-wide plover population surveys are provided in Table 3.2.5-2. Biology-10, Postconstruction Lake-wide Plover Population Monitoring Schedule. Lake-wide surveys in 2008 and 2009 shall be conducted per the 2003 State Implementation Plan. Beginning in 2010, lake-wide surveys shall conform to the 2008 State Implementation Plan schedule. Proof of compliance with this mitigation measure shall be through issuance of a written monitoring summary report for each monitoring year specified in Table 3.2.5-2. Reports shall be submitted to GBUAPCD by December 31 of each monitoring year. The report shall document survey locations and dates, the number of plovers observed, and an estimate of the total plover population. A copy of the yearly summary reports shall be provided to DFG and CSLC.

Table 3.2.5-2 Biology-10, Postconstruction Lake-wide Plover Population Monitoring Schedule			
Year 1 Monitoring Event	Year 2 Monitoring Event	Year 3 Monitoring Event	Year 4 Monitoring Event
2010	2011	2012	2013
Year 5 Monitoring Event	Year 7 Monitoring Event	Year 9 Monitoring Event	Year 14 Monitoring Event
2014	2016	2018	2023

Mitigation Measure 3.1-8 (Measure Biology-12 in 2008 FSEIR, 2008 SIP MMP Table III-1, as revised by 2008 FSEIR Clarification Sheet, dated January 23, 2008): Habitat Management Program for Nesting Snowy Plovers

To minimize potential direct and cumulative impacts to nesting western snowy plover from shutdown of all Shallow Flooding panels on June 30, a habitat management program shall be implemented by LADWP on all Owens Lake bed Shallow Flooding areas to mimic the natural summer drying of seeps and springs in the area. Each year Shallow Flooding shall be slowly turned off from July 1 to July 21 to allow snowy plover broods to complete their nesting cycle. Consult Figure 3.2.5-1, Conceptual Owens Lake Operational Calendar, and Figure 3.2.5-2, Shallow Flooding Management for the Month of July, for a conceptual picture of Shallow Flooding panel operation. The schedule for decreasing the percentage of wetness in Shallow Flooding areas shall follow Table 3.2.5-3, Biology-12, Schedule of Percent Surface Area Wetted Required to Achieve Level of Control Efficiency After June 30. LADWP has the option of surveying within 0.5 mile of Shallow Flooding areas for snowy plovers, and if active snowy plover nests or young are not present on or within a 0.5-mile radius of Shallow Flooding areas, then the habitat flows described above would not be needed in those areas and those Shallow Flooding panels may be shut down as LADWP determines necessary. Surveying shall be conducted by a qualified biologist familiar with the natural history and habitat requirements of western snowy plovers within the Owens Lake basin and must be conducted within seven calendar days of planned shutdown. The qualifications of the biologist who conducts the snowy plover surveys shall be submitted to DFG for review. A final operations plan detailing the drying operations shall be submitted to GBUAPCD for approval, and a copy shall be provided to DFG prior to startup of new Shallow Flooding operations. Any changes made to the operations plan related to the drying of Shallow Flooding areas at the end of the dust season must be submitted in writing to GBUAPCD for approval one week prior to implementation, and a copy of the changes shall be provided to DFG.

Table 3.2.5-3 Biology-12, Schedule of Percent Surface Area Wetted Required to Achieve Level of Control Efficiency After June 30			
July 1-7	July 8-14	July 15-21	July 22
~ 50% wetted area	~ 20% wetted area	15% wetted area	Off

Mitigation Measure 3.1-9 (Measure Biology-14 in 2008 FSEIR Clarification Sheet, dated January 23, 2008): Long-Term Habitat Management Plan

To avoid direct and cumulative impacts to native wildlife communities that may result from the proposed project, a Long-term Habitat Management Plan shall be prepared, pursuant to the DFG requirements, by a qualified biologist familiar with the habitats and species present at Owens Lake and knowledgeable of wildlife management techniques. The qualifications of the biologist shall be submitted to the DFG for review. The Long-term Habitat Management Plan shall be submitted to both the DFG and the CSLC for comment, with final approval by the DFG. The Long-term Habitat Management Plan shall have final approval and be fully implemented by April 1, 2010. The Long-term Habitat Management Plan area shall encompass all emissive areas subject to dust control measures on lands owned by the CSLC and lands owned by the LADWP. In recognition of the public trust values related to resident and migratory wildlife resources at Owens dry lake, DFG and CSLC have acknowledged the benefit of a Long-term Habitat Management Plan as a tool for ensuring compatibility between the construction, maintenance, and operation of the State

Implementation Plan and the protection of public trust values. The plan shall include, at a minimum, the following objectives:

- ▶ Within the Environmental Impact Report analysis areas for 2008 State Implementation Plan dust controls (Figure 2.1-3), achieve no net loss of riparian or aquatic baseline habitat functions and values or total acres of these habitats (refer to Table 3.2.2-1 for type and amount plant communities).
- ▶ Manage 1,000 acres in perpetuity for shorebirds and snowy plovers in Zone II, in consultation with DFG.
- ▶ Pursuant to Condition No. 16 of the 2001 Streambed Alteration Agreement (Agreement No. R6-2001-060, Page 5), the project was expected to adversely impact 63 acres of shorebird foraging habitat at Dirty Socks Spring. Therefore, LADWP was required to create 145 acres of Habitat Shallow Flood suitable for shorebird foraging. LADWP has currently created 152 acres. If LADWP proposes to discontinue using the 145 acres or any portion thereof the Habitat Shallow Flood for shorebird foraging habitat, the LADWP shall provide shorebird foraging habitat of equivalent quality at a ratio of 1:1 to 2:1 as determined through coordination between the DFG and LADWP.
- ▶ In consultation with DFG, develop a specification for an appropriate amount of deep-water habitat and then develop and manage that deepwater habitat in perpetuity in order to support focal migratory water birds determined to be present during 1995-1997 baseline surveys in support of the 1998 State Implementation Plan. This shall include a variety of water birds that use Owens Lake as a temporary stopover habitat during spring and autumn migration; water birds that are adapted to saline conditions such as eared grebe (*Podiceps nigricollis*), Wilson's phalarope (*Phalaropus tricolor*), and California gull (*Larus californicus*); and other water birds including waterfowl that can tolerate saline or brackish conditions such as gadwall (*Anas strepera*) and lesser scaup (*Aythya affinis*), among other species.
- ▶ Maintain a baseline population of 272 snowy plovers.
- ▶ In addition to the 1,000 acres of shorebird and snowy plover habitat in Zone II, LADWP shall maintain a minimum of 523 acres of habitat specifically for snowy plovers in perpetuity at Owens Lake in consultation with the DFG. Suitability of Shallow Flooding habitat for western snowy plover consists of a mix of exposed sandy or gravelly substrate suitable for nesting in close proximity to standing water equal to or less than 12 inches in depth.
- ▶ Ensure that the approximately 17.5 acres of proposed dust control measures that are within DFG Cartago Springs Wildlife Area is compatible with the designated land use. DFG has determined that Habitat Shallow Flood or habitat restoration would be compatible with the Cartago Springs Wildlife Area's designated use (Figure 3.2.5-3, Cartago Springs Wildlife Area).

Mitigation Measure 3.1-10 (Replaced Measure Biology-13 in 2008 FSEIR, 2008 SIP MMP Table III-1): Wildlife Movement Gaps

To minimize or avoid effects of proposed fencing on movements of snowy plover broods at Cell T1A-1, LADWP shall install and maintain additional fence gaps within the three fence blocks located in the northeast corner of the cell. Based on the movement behaviors of snowy plover, fence gaps designed to facilitate brood movements shall be regularly distributed over relatively short distances, and easily encountered by fast-moving plovers. Plover broods must be able to physically fit through fence gaps, and must be able to visually locate the gaps efficiently during movements. The following describes the design considerations and specifications for installing fence gaps to facilitate plover movements. The final design shall be developed and implemented in consultation with DFG, CSLC, and GBUAPCD, and will be subject to the approval of DFG.

Fence gaps shall be installed using one of two basic design options: (1) vertical gaps beneath fences, or (2) horizontal gaps along fences (i.e., fence breaks).

Option 1

If vertical gaps are implemented, a minimum 2-inch gap shall be installed beneath the entire length of fencing. This gap size is considered sufficient for plover broods (including chicks and adults) to fit beneath fences (Page, pers. comm., 2008). Within 30 days prior to the core brooding season (March 15—August 15) each year, the sand fence shall be inspected, and maintained at that time if necessary, to ensure a minimum 2-inch gap beneath the fence. Following this initial inspection before the core brooding season each year, the fence gaps shall additionally be inspected by a biologist once per month, and maintained as needed, until August 15. Biologists shall attempt to avoid or minimize disturbances to nesting plovers while conducting the monthly inspections.

A 2-inch gap beneath a fence could be difficult for plovers to detect from a distance, due to its low visual profile relative to the surrounding landscape. For example, the average range of surface relief recorded at nest sites on Owens Lake was 1.5-8.2 inches (PRBO 2000, 2001, 2002); in some locations, this natural microtopography could obstruct a plover's visual detection of a 2-inch movement gap. To minimize or offset this potential detection problem, vertical gaps designed to facilitate brood movements shall extend along the entire fence length.

Option 2

If horizontal gaps along fences are installed, they shall be spaced no greater than 100 feet apart (i.e., no more than 100 feet of fence between two gaps); and the combined width of all fence gaps shall total a minimum of 10% of the total fence perimeter length. Gaps shall be maintained throughout the snowy plover brooding season (March 15—August 15). The same fence-gap inspection and maintenance procedures (conducted before and during the core brooding season [March 15—August 15]) described for Option 1 shall be implemented under Option 2. Although the minimum size and spacing of fence gaps to facilitate movement by snowy plovers is not known, Page (pers. comm., 2008) estimated that approximately 1-foot-wide gaps placed every 10 feet along fence rows could potentially allow for unimpeded movements. For developing a range of feasible options to meet this mitigation measure, it is assumed that these guidelines for gap size and frequency can generally be extrapolated as follows: based on 1 foot of gap within a 10-foot segment (i.e., a gap occupies 10% of the fence perimeter), all fence gaps shall total a minimum of 10% of the total fence perimeter (e.g., over a 500-foot fence perimeter, a minimum total of 50 feet within a gap condition would be required). Therefore, based on 1 foot of gap within a 10-foot segment (i.e., a gap occupies 10% of the fence length), all fence gaps shall total a minimum of 10% of the total fence perimeter length (e.g., over a 500-foot fence perimeter, a total of 50 feet within a gap condition shall be required).

The ability of broods to visually locate horizontal gaps is probably affected by the relationship between gap frequency and size; as the spacing between gaps increases (and distance from a plover at a given location to a gap increases), the size of individual gaps required for visual detection from a given location increases. Therefore, in addition to maintaining a minimum of 10% of total fence perimeter within a gap condition, gaps shall be spaced regularly and no more than 100 feet apart. It is assumed that this maximum spacing of gaps would allow for sufficient opportunity for broods to meet their daily movement requirements.

Mitigation Measure 3.1-11 (Revised Measure Biology-11 in 2008 FSEIR, 2008 SIP MMP Table III-1, as revised by 2008 FSEIR Clarification Sheet, dated January 23, 2008): Corvid Management Plan

To reduce potential direct and cumulative impacts to western snowy plover and other migratory shorebirds within the project area due to increased predation on shorebird young and eggs from potential corvid population increases on Owens Lake resulting from construction of DCMs, LADWP shall continue to implement the corvid management plan resulting from the 2003 SIP with an extension of one year within the project area, or comparable corvid control measures, to the satisfaction of DFG, that are capable of achieving the same performance standard of no substantial net increase in corvid predation of native

nesting shorebirds (including eggs). The corvid management plan was implemented in 2005 and may conclude in 2011 depending on success. Components of the corvid management plan include lake bed trash management procedures associated with DCMs, utilization of Nixalite or the functional equivalent on all structures greater than 72 inches in height (increased from the original 60 inches in height) to minimize perching of corvids and raptor species on dust control equipment where they can easily observe shorebirds during the nesting season, burial of power and communication lines on all lake bed areas below the elevation of 3,600 feet and use of harassment techniques for corvids in specific instances where corvids are proving to be particularly harmful to nesting shorebirds.

Specifically in conjunction with the Moat & Row dust control measure, the corvid management techniques shall be expanded to specify that the sand fence fabric and fence posts shall be designed to prevent perching by corvids, within 0.25 mile of occupied nesting shorebird habitat. Occupied nesting shorebird habitat will be evaluated on an annual basis, in collaboration with DFG, to identify areas requiring perch deterrents. The annual habitat evaluation will attempt to identify potential shifts in occupied nesting habitat over time. The use of sand fencing on top of rows within the Moat & Row areas will be considered under this mitigation measure as exceeding the height of 72 inches. Sand fence design to deter perching by corvids shall include the installation of: (1) Nixalite or the functional equivalent on the tops of fence posts; and (2) monofilament line or the functional equivalent along and above the sand fence fabric. To avoid a potential avian collision hazard, monofilament or other line shall be installed no greater than two inches above the top of sand fence fabric. Within 30 days prior to the brooding season (March 15—August 15) each year, the perch deterrent structures shall be inspected. If a structure has been damaged or otherwise needs maintenance, it shall be repaired at that time.

The corvid management plan shall be implemented by a wildlife biologist familiar with the sensitive shorebird populations within the project area and familiar with corvid management techniques. The qualifications of the wildlife biologist shall be submitted to DFG for review. Lethal methods of corvid control such as shooting or poisoning shall not be implemented initially due to public and government agency concerns in the project region for such control methods and to prevent putting workers at risk from such control measures. If it is later determined that corvids are having a significant impact on shorebird populations within the project area and direct removal of corvids is a viable alternative, proposed control methods would be presented to GBUAPCD and DFG for approval prior to implementation of the additional control measures. The corvid management plan includes a yearly written report estimating the lake bed nesting and foraging corvid population size, documenting the results of the corvid management techniques, documenting the observed effectiveness of the techniques in minimizing corvid impacts on shorebirds within the lake bed, and suggesting improvements for corvid management within the lake bed. Effectiveness may be determined based on the corvid population size on the lake bed. Copies of the yearly reports shall be submitted to GBUAPCD and DFG no later than December 31 of each corvid management year. If after the sixth year of reporting in 2011, GBUAPCD determines that the corvid management program is effective and that corvids are not impacting snowy plover populations then the reporting schedule shall phase out in the same time frame as shown in Table 3.2.5-1 (of the 2008 FSEIR). However, the corvid management practices shall be continuously implemented.

Mitigation Measure 3.1-12: Monitoring and Adaptive Management for Moat Entrapment of Snowy Plover

To minimize or avoid potential moat entrapment of western snowy plovers, LADWP shall develop and implement a moat monitoring and adaptive management strategy. Although entrapment of snowy plovers within moats is assumed to be infrequent, in the absence of empirical data or other observations, there is reasonable uncertainty about this assumption. Therefore, this monitoring and adaptive monitoring approach is recommended to address this uncertainty, identify specific incidences of plover entrapment or mortality, and mitigate for significant effects.

Monitoring and Adaptive Management Purpose and Guidelines

The purpose of the monitoring and adaptive management strategy is to: (1) determine whether moat entrapment or loss of plovers occurs due to moat design or other elements (e.g., side slope angle presence of water); (2) identify and implement site-specific corrective actions that would minimize or avoid any additional impact; and (3) identify whether compensatory measures for significant losses or entrapment are required. This analysis assumes that repeated and regular observations of plover entrapment or mortality would indicate a potentially significant adverse effect. Specific adaptive management response thresholds are discussed below under "4. Response Triggers."

The moat monitoring and adaptive management strategy shall:

- ▶ be developed in consultation with DFG, CSLC, and GBUAPCD, and will be subject to the approval of DFG;
- ▶ be completed prior to initiating moat construction; and
- ▶ where appropriate, maintain consistency with and tier from existing monitoring programs, such as the Toxicity Monitoring Program (2008 FSEIR Measure Biology-7), and the Long-Term Monitoring Program for Western Snowy Plover (2008 FSEIR Measure Biology-10).

Monitoring and Adaptive Management Components

The moat monitoring and adaptive management strategy shall include the following components:

- ▶ a monitoring schedule, including the timing and frequency of monitoring;
- ▶ a description of monitoring locations and procedures;
- ▶ selection of indicators for identifying the type and extent of impacts to snowy plover due to moat entrapment;
- ▶ specific quantitative response triggers to indicate thresholds requiring management action;
- ▶ a list of corrective management actions appropriate for each type and extent of impact; and
- ▶ documentation and reporting requirements.

Guidelines for developing these six elements are summarized below.

1. Implementation Schedule, Timing, and Frequency

Moat monitoring shall be conducted during the snowy plover brooding season (March 15-August 15) for a minimum of two full brooding seasons after completion of project construction. Until the end of the first full brooding season after project construction, monitoring shall be conducted twice per week. If no entrapments (defined in "3. Entrapment Indicator," below) are observed during this initial period, the frequency of monitoring may be reduced to once per week for the second complete brooding season.

Monitoring shall commence immediately after construction of any perimeter moat is complete, if during the snowy plover brooding season. Otherwise, monitoring shall commence at the start of the following brooding season. If after two full brooding seasons of monitoring, it is determined that there is no evidence of significant moat entrapment or mortality, this monitoring requirement may be discontinued. However, if at any point within the monitoring period corrective management actions are required (i.e., response triggers or thresholds are met), monitoring shall be continued for an additional two full brooding seasons after corrective actions are implemented to ensure effectiveness of the action. This monitoring cycle shall be repeated until significant mortality or entrapment ceases to occur during a two-year cycle.

2. Monitoring Locations and Procedures

Monitoring surveys shall be conducted at all moats forming the perimeter of moat and row cells identified as high or moderate risk of interacting with snowy plover individuals or broods (T37-1, T37-2, and T1A-3). In the event that any entrapment of snowy plover is observed in moats, moats forming the perimeter of moat and row cells identified as low risk of interacting with snowy plover (T32-1, T12-1, and T1A-4) shall be added to this monitoring and adaptive management program. All monitoring shall be conducted by wildlife biologists familiar with snowy plover identification, movement patterns, and life history requirements. Monitoring protocols shall be developed to determine the presence and condition of plovers in moats, and to document existing moat conditions where entrapment is observed. Key information collected during monitoring shall include, but is not limited to:

- ▶ specific locations of all areas surveyed;
- ▶ locations of all snowy plovers detected inside or within 100 feet of moats (using global positioning system [GPS]);
- ▶ age or life stage (juvenile, adult), behavior, and condition of individuals of snowy plover and all other wildlife species found within moats (including injury, death, and the identified cause of adverse condition, if possible);
- ▶ moat side-slope measurements where plovers are found, and within 200 feet of these locations;
- ▶ presence, depth, and quality (including salinity) of water in moats, where plovers are found (water quality data collection will follow that described for surface water monitoring of moat and row cells in the 2008 FSEIR Mitigation Measure Hydrology-2); and
- ▶ incidental observations of snowy plovers and other wildlife species made during monitoring surveys.

Any live shorebird found within a moat shall be observed at a distance for a minimum of 15 minutes, or until it exits the moat.

3. Entrapment Indicator

Moat entrapment shall be indicated and quantified by the number of plover mortalities or other observed entrapments within a moat per breeding season. In addition to mortality, "entrapment" shall include an incidence of a live bird that: (1) visibly attempts but is unable to exit the moat for 15 minutes or more, (2) is caught within the moat's substrate (e.g., mud), or (3) does not attempt to exit the moat and appears injured or in otherwise poor condition to do so. Any observed mortality or entrapment will be reported to DFG within 48 hours of documenting the incident. (This timeframe is consistent with reporting standards for observed avian mortalities established in Mitigation Measure Biology-9 of the 2008 FSEIR [GBUAPCD 2008]).

4. Response Triggers

The threshold for requiring corrective actions is three or more snowy plover moat entrapments per DCA per calendar year. (The maximum number of observed entrapments per year that could occur without requiring corrective actions under this measure would range from two birds at any one DCA to six birds across the three monitored DCAs [T37-1, T37-2, and T1A-3].) If three or more entrapments at any DCA are observed, corrective adaptive management actions shall be required within the moat(s) where entrapments were detected.

It is assumed that a loss of plovers up to this threshold would not significantly increase juvenile or adult mortality rates above existing levels or substantially affect the overall snowy plover population size, due to the following factors:

- ▶ The threshold number is small relative to the overall snowy plover population size and productivity. In 2008, 478 adults and 39 broods were counted over a portion of Owens Lake; during the period of 2003-2008, the number of broods counted annually ranged from 18 to 52 (PRBO 2008). These counts include only the broods and adults observed during one-week lake-wide surveys conducted in late May to early June. Because adults often initiate multiple nesting attempts (sometimes up to three) and produce multiple broods during a breeding season, these numbers represent only a proportion of the broods produced at Owens Lake during a breeding season. Also, not all areas of suitable habitat were included in all years of the lake-wide surveys.
- ▶ The Owens Lake population appears viable, based on reproductive success metrics and an increasing population trend. Although juvenile or adult survival rates for the Owens Lake population have not been estimated, the number of nests and nest success rates have been relatively high. The most complete lake-wide nesting data are from 2002 and 2003. In 2002, when 272 adults were counted, 128 nests were located; and the average nest hatching rate was 82.5%. In 2003, when 401 adults were counted, 199 nests were located; and the average hatching rate was 80%.
- ▶ Multiple nesting attempts, particularly those initiated by a pair after a nest or brood has failed, would compensate for some loss during the breeding season.

5. Corrective Adaptive Management Actions

If the response threshold is met, LADWP shall notify DFG as soon as possible and within 48 hours of the incident. Notification shall be sent to the designated personnel at DFG. In coordination with DFG, CSLC, and GBUAPCD, LADWP shall implement corrective management actions as appropriate depending on the cause of moat entrapment (e.g., slope, presence of water, or other).

Appropriate corrective actions for entrapment due to moat side-slopes could include one or more of the following:

- ▶ add escape ramps every 100 feet within the identified problem moat;
- ▶ add rip-rap to side-slopes; and
- ▶ reduce side slopes within the identified problem moat, to the maximum extent feasible without substantially compromising overall dust control effectiveness.

Appropriate corrective actions for entrapment due to the presence of water in moats could include one or more of the following:

- ▶ add rip-rap to bottoms of moats, so that the top of rip-rap exceeds the maximum water and mud level observed in moats during the breeding season; and
- ▶ reduce side slopes within the identified problem moat, to the maximum extent feasible without substantially compromising overall dust control effectiveness.

If the monitoring and adaptive management process indicates that corrective actions are not effective, or if actions are determined to not be feasible, then LADWP shall work collaboratively with DFG, CSLC, and GBUAPCD to develop a revised action or provide on- or off-site habitat enhancement and protection as compensation. Revised corrective actions or habitat enhancement shall require approval by DFG.

6. Reporting Requirements

LADWP shall provide summaries of monitoring methods and results to DFG, CSLC, and GBUAPCD within 60 days of completing each monitoring season. Reports shall include summaries of all detections of snowy plover or other shorebirds in and around moats; their behavior, state or condition when detected; side-

slopes and water depths measured in association with each detection; and whether any mortalities or other entrapments were observed. After completing the second year of monitoring, annual reports that summarize the cumulative results of monitoring efforts shall also be submitted to DFG, CSLC, and GBUAPCD.

Integration with Existing Snowy Plover Monitoring and Management

The specific monitoring and adaptive management program for moat entrapment could be incorporated directly into existing plover monitoring and management commitments as appropriate, including as an element of the Long-term Monitoring Program for Western Snowy Plover (Mitigation Measure 3.1-8; Measure Biology-10 in the 2008 FSEIR) or the Long-term Habitat Management Plan (Mitigation Measure 3.1-9; Measure Biology-14 in the 2008 FSEIR).

Level of Significance after Mitigation

Implementation of Mitigation Measures 3.1-10, 3.1-11, and 3.1-12 , and the applicable measures from the 2008 FSEIR (Mitigation Measures 3.1-1 through 3.1-9), would reduce potential effects of project implementation on western snowy plover to a less-than-significant level. Collectively, these measures would avoid substantial mortality and population reductions as a result of project implementation; also habitat for snowy plover would be protected in perpetuity.

Air Quality

SIGNIFICANT EFFECT: PROJECT-GENERATED EMISSIONS OF CRITERIA AIR POLLUTANTS AND PRECURSORS (IMPACT 3.2-1)

Implementing the proposed project would not result in the generation of short-term construction emissions beyond the level analyzed in the 2008 FSEIR, because the proposed modifications would not require additional daily land disturbance, heavy-duty equipment use, or construction personnel beyond the levels previously evaluated. However, construction of the proposed project (moat and row elements) would cause the delay of implementation of moat and row DCMs, a relatively small part of the overall DCM program, beyond the time frame specified in the 2008 SIP (i.e., delay in implementation of 3.5 square miles of DCMs by 6 months or more). Thus, implementation of the project as proposed would conflict with the applicable air quality plan, resulting in a potential for an increase in the number of days when violations of the NAAQS and exposure of sensitive receptors would occur. This impact would be considered significant.

Finding

- a) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.
- b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

- c) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.

Facts in Support of Finding

LADWP adopted the following 2008 FSEIR mitigation measures as a requirement of Mitigation Measure 3.2-1 for the project's air quality impacts related to increases in regional criteria pollutants during construction. These mitigation measures would reduce this impact to the greatest extent feasible, but not to a less-than-significant level.

Mitigation Measure 3.2-1: 2008 FSEIR Mitigation Measures Air-1 through Air-6 (2008 SIP MMP, Table III-1)

LADWP is committed to implement all required DCMs as quickly as feasible. LADWP will continue to investigate the implementation of additional and/or accelerated air pollution control measures to reduce or eliminate these impacts.

As discussed in the 2008 FSEIR, GBUAPCD requires that all feasible control measures, dependent on the size of the construction area and the nature of the activities involved, shall be incorporated into project design and implemented during project construction. As a result, LADWP adopted and incorporated the following 2008 FSEIR mitigation measures, Mitigation Measures Air-1 through Air-6, into the proposed project.

Measure Air-1, Construction Activities Fugitive Dust Emissions Control and Minimization

Fugitive dust emissions during construction shall be controlled and minimized, to comply with GBUAPCD Rules 400 and 401 (EPA 1992), through LADWP's application of best available control measures during construction activities from unpaved roads and areas affected by the construction work specified in this 2008 Revised SIP, or related transportation and staging of equipment and materials. This may include, but would not be limited to the use of, surface coverings, windbreaks, water trucks, and water sprays twice a day or comparable measures that prevent visible dust from occurring. At a minimum, active operations shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type that is part of the active operation. LADWP shall demonstrate compliance with this measure through the preparation of a project construction dust control plan to be prepared by LADWP and approved by GBUAPCD prior to the start of construction and the submission of weekly monitoring reports to GBUAPCD and CSLC. GBUAPCD shall monitor the application of best available control measures at least once a week on an ongoing basis during the construction phase of the proposed project and maintain a monitoring log on file.

Measure Air-2, Construction Equipment Low-emissions Tune-ups Schedule

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall develop a schedule of low-emissions tune-ups for all equipment operating on site for more than 10 working days, and maintain a log of required tune-ups and submit a monthly copy to GBUAPCD during the project's construction phase. Prior to implementation of the schedule, LADWP shall submit the schedule to GBUAPCD and CSLC. GBUAPCD shall ensure conformance of the equipment operation with the approved schedule.

Measure Air-3, Low-emission Construction Equipment Utilization

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall apply best available control measures during construction by utilizing low-emission equipment/mobile construction equipment for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. GBUAPCD should monitor the application of low-emission equipment/mobile construction equipment, or other approved equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase.

Measure Air-4, Low-sulfur Fuel Utilization during Construction

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall apply best available control measures during construction by utilizing low-sulfur and/or alternative fuels for on-site stationary equipment. Stationary sources of air emissions, such as pumps, compressors, and generators shall be line-powered unless LADWP submits documentation and consults with GBUAPCD and CSLC that the use of such equipment is not practical, feasible, or available. GBUAPCD should monitor the application of low-sulfur and/or alternative fuels for on-site stationary equipment, or other approved on-site stationary equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase.

Measure Air-5, Low-emission Mobile Vehicle Utilization during Construction

To mitigate the air quality impact related to greenhouse gas emissions, low-emission or alternative-fueled mobile vehicles during the proposed project's construction shall be utilized for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. In addition, carpooling of construction workers should be considered and encouraged by LADWP to reduce vehicular emissions.

Measure Air-6, Low-emission Mobile Vehicle Utilization during Operation

To mitigate the air quality impact related to greenhouse gas emissions during the proposed project's operation, hybrid, low-emission (CA LEV II; PZEV; SULEV; or ULEV) or alternative-fueled mobile vehicles, such as electric or fuel cells, shall be utilized for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. LADWP shall provide GBUAPCD with its purchasing policy procedures that shall provide provisions that encourage the use of low-emission or alternative-fueled mobile vehicles before operation of the project. In addition, carpooling of operations and maintenance workers should be considered and encouraged by LADWP to reduce vehicular greenhouse gas emissions.

Significance after Mitigation

Changes or alterations, which reduce but do not completely avoid the significant effects of short-term construction emissions, have been incorporated into the project, as explained below. While these mitigation measures would substantially reduce the significant air quality effects of the project, the residual impact would continue to be significant. Therefore, this impact would be significant and unavoidable.

Approval of the Project would be subject to a Statement of Overriding Considerations (see Exhibit G).

All requirements from GBUAPCD for the permit to construct would be met, and project emissions would be reduced to levels acceptable by GBUAPCD with implementation of Mitigation Measures Air-1 through Air-6 of the 2008 FSEIR. Mitigation Measures Air-1 through Air-6 include construction-related fugitive reduction techniques, such as watering loose soils and using windbreaks; requiring tune-ups to ensure that the equipment is operating at the highest efficiency possible; using low-emission equipment to ensure that the lowest emitting pieces of equipment are used at all feasible times; using low-sulfur fuel in all capable engines; and using low-emission mobile vehicles to ensure that the lower emission vehicles are used by LADWP during project construction and operation. With implementation of these adopted mitigation measures from the 2008 FSEIR, all feasible emission-reduction methods would be implemented by LADWP, and the lowest possible amount of emissions related to the project would be generated. However, at this time, there is no feasible way to complete implementation of the moat and row features by October 1, 2009. LADWP has shortened the time to implement moat and row DCMs and other DCMs evaluated in the 2008 FSEIR to the greatest extent feasible (i.e., 1 year or less). There are no other measures or actions LADWP can take to implement the moat and row DCMs on a faster timetable. Therefore, implementation of the proposed project would continue to conflict with the applicable air quality plan, resulting in an increased number of days when violations of the NAAQS and the subsequent exposure of sensitive receptors would occur. This impact would be significant and unavoidable.

Cumulative Air Quality Impacts

SIGNIFICANT CUMULATIVE EFFECT: AIR QUALITY - PROJECT-GENERATED EMISSIONS OF CRITERIA AIR POLLUTANTS AND PRECURSORS

The overall size and location of ground disturbance, construction duration and phasing, heavy-duty construction equipment, and number of construction personnel required for construction of the proposed project would remain the same as specified in the 2008 FSEIR, for which emissions were calculated and mitigation recommended. However, because DCM operations would be delayed by the new construction schedule beyond the date specified in the 2008 SIP, implementation of the proposed project would result in a significant project-level impact related to the conflict that would be created with the applicable air quality plan. Thus, the project could contribute to the continued potential violation of the NAAQS and the subsequent exposure of sensitive receptors to substantial pollutant concentrations. Emissions attributable to project implementation along with emissions from other reasonably foreseeable future projects in the OVPA, would continue to contribute to increases in emissions, which would exacerbate existing and projected nonattainment conditions. As a consequence, project-generated emissions would result in a cumulatively considerable net increase to this significant cumulative impact (e.g., region is a nonattainment area under the applicable ambient air quality standards).

Finding

- a) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the

2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.

- b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- c) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.

Facts in Support of the Finding

As discussed in the 2008 FSEIR, GBUAPCD requires that all feasible control measures, dependent on the size of the construction area and the nature of the activities involved, shall be incorporated into project design and implemented during project construction. As a result, LADWP adopted and incorporated the 2008 FSEIR Mitigation Measures Air-1 through Air-6 into the proposed project per Mitigation Measure 3.2-1.

Mitigation Measure 3.2-1: 2008 FSEIR Mitigation Measures Air-1 through Air-6 (2008 SIP MMP, Table III-1) Measure Air-1, Construction Activities Fugitive Dust Emissions Control and Minimization

Fugitive dust emissions during construction shall be controlled and minimized, to comply with GBUAPCD Rules 400 and 401 (EPA 1992), through LADWP's application of best available control measures during construction activities from unpaved roads and areas affected by the construction work specified in this 2008 Revised SIP, or related transportation and staging of equipment and materials. This may include, but would not be limited to, the use of, surface coverings, windbreaks, water trucks, and water sprays twice a day, or comparable measures that prevent visible dust from occurring. At a minimum, active operations shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type that is part of the active operation. LADWP shall demonstrate compliance with this measure through the preparation of a project construction dust control plan to be prepared by LADWP and approved by GBUAPCD prior to the start of construction and the submission of weekly monitoring reports to GBUAPCD and CSLC. GBUAPCD shall monitor the application of best available control measures at least once a week on an ongoing basis during the construction phase of the proposed project, and maintain a monitoring log on file.

Measure Air-2, Construction Equipment Low-emissions Tune-ups Schedule

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall develop a schedule of low-emissions tune-ups for all equipment operating on site for more than 10 working days, and maintain a log of required tune-ups and submit a monthly copy to GBUAPCD during the project's construction phase. Prior to implementation of the schedule, LADWP shall submit the schedule to GBUAPCD and CSLC. GBUAPCD shall ensure conformance of the equipment operation with the approved schedule.

Measure Air-3, Low-emission Construction Equipment Utilization

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall apply best available control measures during construction by utilizing low-emission equipment/mobile construction equipment for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. GBUAPCD should monitor the application

of low-emission equipment/mobile construction equipment, or other approved equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase.

Measure Air-4, Low-sulfur Fuel Utilization during Construction

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall apply best available control measures during construction by utilizing low-sulfur and/or alternative fuels for on-site stationary equipment. Stationary sources of air emissions, such as pumps, compressors, and generators shall be line-powered, unless LADWP submits documentation and consults with GBUAPCD and CSLC that the use of such equipment is not practical, feasible, or available. GBUAPCD should monitor the application of low-sulfur and/or alternative fuels for on-site stationary equipment, or other approved on-site stationary equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase.

Measure Air-5, Low-emission Mobile Vehicle Utilization during Construction

To mitigate the air quality impact related to greenhouse gas emissions, low-emission or alternative-fueled mobile vehicles during the proposed project's construction shall be utilized for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. In addition, carpooling of construction workers should be considered and encouraged by LADWP to reduce vehicular emissions.

Measure Air-6, Low-emission Mobile Vehicle Utilization during Operation

To mitigate the air quality impact related to greenhouse gas emissions during the proposed project's operation hybrid, low-emission (CA LEV II; PZEV; SULEV; or ULEV) or alternative-fueled mobile vehicles, such as electric or fuel cells, shall be utilized for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. LADWP shall provide GBUAPCD with its purchasing policy procedures that shall provide provisions that encourage the use of low-emission or alternative-fueled mobile vehicles before operation of the project. In addition, carpooling of operations and maintenance workers should be considered and encouraged by LADWP to reduce vehicular greenhouse gas emissions.

Significance after Mitigation

Although implementation of project mitigation measures would reduce the project's contribution to regional pollutant loads, the project would contribute to the continued exceedance of state and federal ambient air quality standards for ROG, NO_x, PM₁₀, and TACs. No other feasible mitigation is available. This would be a cumulatively significant and unavoidable impact.

Approval of the Project would be subject to a Statement of Overriding Considerations (see Exhibit G).

Significant Cumulative Effect: Air Quality - Project-Generated Greenhouse Gas Emissions

As stated in the 2008 FSEIR, construction activities associated with construction of the proposed project would occur over a 12-month period. During that time, a net increase in GHG emissions would result from various construction activities. As stated in 2009 FSEIR

Impact 3.2-1, construction activities would not change as a result of schedule variability; because there would be no net change, emissions from the redesign of moat and row DCMs were addressed in the 2008 FSEIR CO₂ emissions modeling.

Although the GHG emissions contributed by the project would be reduced by 2008 FSEIR Mitigation Measures Air-3 through Air-6, the emission reduction attributable to the mitigation measures is not known at this time, nor is the amount of CO₂ that would be a significant contributor to the cumulative condition. Thus, the 2008 FSEIR concluded that the project's contribution to GHG levels would be a significant unavoidable contribution to the cumulative condition.

Finding

- a) Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen the significant environmental effect as identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.
- b) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- c) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the 2008 District Final Subsequent EIR as revised by the 2009 City Final Supplemental EIR.

Facts in Support of the Finding

GBUAPCD adopted the following mitigation measures, Measures Air-3 through Air-6, as part of the 2008 FSEIR, which would reduce greenhouse gas emissions to the maximum extent practicable. Consistent with the 2008 FSEIR, LADWP has adopted and incorporated these mitigation measures into the proposed project.

Measure Air-3, Low-emission Construction Equipment Utilization

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall apply best available control measures during construction by utilizing low-emission equipment/mobile construction equipment for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. GBUAPCD should monitor the application of low-emission equipment/mobile construction equipment, or other approved equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase.

Measure Air-4, Low-sulfur Fuel Utilization during Construction

To mitigate the air quality impact related to greenhouse gas emissions, LADWP shall apply best available control measures during construction by utilizing low-sulfur and/or alternative fuels for on-site stationary equipment. Stationary sources of air emissions, such as pumps, compressors, and generators shall be line-

powered, unless LADWP submits documentation and consults with GBUAPCD and CSLC that the use of such equipment is not practical, feasible, or available. GBUAPCD should monitor the application of low-sulfur and, or alternative fuels for on-site stationary equipment, or other approved on-site stationary equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase.

Measure Air-5, Low-emission Mobile Vehicle Utilization during Construction

To mitigate the air quality impact related to greenhouse gas emissions, low-emission or alternative-fueled mobile vehicles during the proposed project's construction shall be utilized for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. In addition, carpooling of construction workers should be considered and encouraged by LADWP to reduce vehicular emissions.

Measure Air-6, Low-emission Mobile Vehicle Utilization during Operation

To mitigate the air quality impact related to greenhouse gas emissions during the proposed project's operation, hybrid, low-emission (CA LEV II; PZEV; SULEV; or ULEV) or alternative-fueled mobile vehicles, such as electric or fuel cells, shall be utilized for the proposed project site, unless LADWP submits documentation and consults with GBUAPCD and CSLC that use of such equipment is not practical, feasible, or available. LADWP shall provide GBUAPCD with its purchasing policy procedures that shall provide provisions that encourage the use of low-emission or alternative-fueled mobile vehicles before operation of the project. In addition, carpooling of operations and maintenance workers should be considered and encouraged by LADWP to reduce vehicular greenhouse gas emissions.

Significance after Mitigation

The GHG emissions quantified in the 2008 FSEIR were found to be cumulatively significant and unavoidable. The emissions generated by the proposed revised project would be the same as the amount generated by the project evaluated in the 2008 FSEIR. Therefore, although there would be no net change in GHG emissions (from the 2008 FSEIR analysis) as a result of the proposed moat and row design changes, this impact would remain the same as described in the 2008 FSEIR: cumulatively significant and unavoidable.

Approval of the Project would be subject to a Statement of Overriding Considerations (see Exhibit G).

FINDINGS REGARDING ALTERNATIVES

The Commission's action consists of approval of a lease amendment for 3.5 square miles of State-owned sovereign lands for the construction and maintenance of Moat and Row DCMs, a DCM that uses no water. As explained below, the Commission declines to adopt the City's findings regarding alternatives. Instead, the Commission adopts the District's findings regarding the alternatives.

The District made "Findings Regarding Alternatives" when it certified the 2008 District Final Subsequent EIR (Section V of its findings; all subsequent page references are to the District's findings). These "Findings Regarding Alternatives" covered a larger project of 15.1 square miles, including 12.7 square miles of new dust control areas. The four

alternatives evaluated in the 2008 District Final Subsequent EIR included the No Project Alternative, All Shallow Flooding, All Managed Vegetation, and All Gravel Cover. The alternatives analysis looked at each of these DCMs for use on the entire 12.7 square mile dust control area. In contrast, the proposed project that was approved by the District was a mixed project that included 9.2 square miles of shallow flooding and 3.5 square miles of Moat and Row DCMs.

The Commission approved the 9.2 square miles of shallow flooding, which the City is now in the process of constructing, at its August 22, 2008, public meeting. The purpose of the 2009 City Final Supplemental EIR was to evaluate the potentially significant impacts from the revised design of the Moat and Row DCMs compared with the design that was analyzed in the 2008 District Subsequent EIR. As a result, the City's reevaluation of alternatives was unnecessary because only the 3.5 square miles of Moat and Row DCMs remained of the larger project.

As additional background, the District made the following "Findings Regarding Alternatives." It rejected the No Project Alternative because it would not control dust. All three of the DCMs (shallow flooding, managed vegetation, and gravel cover) evaluated in the alternatives analysis are approved by the District as Best Available Control Measures (BACM) for controlling PM₁₀ dust emissions. The District determined that the All Shallow Flooding and All Managed Vegetation alternatives were feasible alternatives (pp. V-11 and V-13 respectively). Additionally, the All Shallow Flooding alternative was identified as "the environmentally superior alternative due to its proven capability to control PM₁₀ emissions" and because it has "the ability to minimize impacts to biological resources (especially western snowy plover) because it provides additional wildlife habitat resources" (p. V-7).

The District specifically rejected the Moat and Row DCM from consideration as the environmentally superior alternative because "[t]he City has not provided enough evidence in the record to demonstrate the efficacy of the Moat & Row DCM" (p. V-7). The Moat and Row DCM has not been approved as BACM because it is experimental.

The District determined that the All Gravel Cover alternative was infeasible because: it would not minimize the long-term significant, adverse changes to sensitive resources; it would not provide a high likelihood of success because of the difficulty in obtaining the large amounts of gravel required; it would not conform to adopted plans and policies; it would not minimize the cost per ton of particulate pollution controlled because of high costs to mine, process, and haul the aggregate; and because it would be incompatible with the State of California's public trust values (p. V-14).

To summarize the District's Findings, the All Shallow Flooding and All Managed Vegetation alternatives were determined to be feasible alternatives to the proposed mixed project composed of 9.2 square miles of shallow flooding areas and 3.5 square miles of Moat and Row DCMs. The All Gravel Cover was determined to be infeasible.

As noted above, the City prepared a Final Supplemental EIR to the 2008 District Final Subsequent EIR to evaluate potential significant impacts resulting from design changes in

the Moat and Row component of the larger project that occurred after the analysis in the 2008 District Final Subsequent EIR was completed and certified. As explained by the City, “[t]he proposed changes affect only the moat and row dust control areas, not the larger dust control program evaluated in the 2008 FSEIR and approved by the GBUAPCD [District]. . . . Further, CEQA Section 15163(b) states that the supplemental EIR need contain only the information necessary to make the previous EIR adequate” (p. 1-3, City’s Findings of Fact).

Because the 2009 City Final Supplemental EIR needed to address only the potential significant impacts resulting from design changes to the proposed Moat and Row DCMs, there was no reason to reevaluate the comprehensive alternatives analysis contained in the 2008 District Final Subsequent EIR. The City, however, did look at the alternatives and it reached new conclusions about the feasibility of Shallow Flooding and Managed Vegetation. Based on its assertion that “[n]o additional water supplies are available to expand shallow flooding (i.e., more water used) beyond what is previously approved for the lake bed” the City concluded that the Shallow Flooding Alternative was infeasible (p. 1-27, City’s Findings of Fact). The City also cited its objective to eliminate the use of water as a reason to reject the Managed Vegetation Alternative (pp. 1-29 and 1-31, City’s Findings of Fact).

The City had no substantial evidence to support its conclusion that the Shallow flooding and Managed Vegetation alternatives were infeasible because no water is available. Several sources of water are available. The section of the 2009 City Draft Supplemental EIR on the City’s water supplies concluded, incorrectly, that “[w]ith regard to dust control activities on Owens Lake, all water supplies uses for dust control or other environmental restoration benefits must be supplemented through additional purchases from MWD” (p. 2-9, 2009 City Draft Supplemental EIR).

The District wrote the City that this assumption is not correct: “Current water control efficiency improvement efforts on the existing and proposed water-based dust control areas should result in significant water savings. In addition, the City is currently conducting a large groundwater resource investigation in the Owens Lake area to determine if local water supplies could supplement aqueduct deliveries” (Draft EIR Comment Letter from District, dated June 23, 2009, p. 2). Increased efficiency in the use of water in existing shallow flood areas is one option that would allow for expanded shallow flooding or irrigation for expanded managed vegetation. The City has already submitted an application to the Commission for monitoring wells to determine if groundwater might be available for DCMs.

The City also recently signed a Memorandum of Understanding with NASA’s Jet Propulsion Laboratory and the California Institute of Technology to develop instruments that will measure the lakebed’s surface moisture to increase the efficient use of water. Because it failed to adequately consider other sources of water, the City lacked substantial evidence to conclude that shallow flooding and managed vegetation were infeasible.

For future dust control phases, it may be necessary to reevaluate the alternatives based on available water supplies or other information, but to do so now is premature. First, as described above, the purpose of the 2009 City Final Supplemental EIR was to evaluate the design changes to the Moat and Row DCMs. Second, water supply is not an issue for the waterless Moat and Row DCM so there was no compelling reason to look at water-related alternatives in the supplemental EIR. Third, there are currently several ongoing and planned studies to determine if new supplies of water might be available for future DCMs.

Because the City incorrectly found the Shallow Flooding alternative infeasible, the City had no substantial evidence to conclude that the Revised Moat and Row DCMs Project is the environmentally superior alternative. The designation of the environmentally superior alternative is a designation among feasible alternatives. Since the Shallow Flooding alternative is feasible, it is also the environmentally superior alternative for the same reasons cited in the 2008 District Final Subsequent EIR: it is a proven measure for controlling dust (BACM) and it provides wildlife habitat.

Furthermore, the conclusion that the Revised Moat and Row DCMs Project is the environmentally superior alternative directly contradicted the determination made by the District in its *Findings of Fact and Statement of Overriding Considerations* quoted above—there is insufficient evidence that Moat and Row is effective. The Moat and Row DCM is still experimental. Since no additional test data from the Moat and Row Demonstration Project were presented in the 2009 City Final Supplemental EIR that would change the determination reached previously by the District, the City lacked substantial evidence to find that the Moat and Row Project was the environmentally superior alternative.

Additionally, the City has recently disclosed that it has high expectations that solar panels can be used to control dust. On December 1, 2009, the City approved plans to build a 50 megawatt solar demonstration project at Owens Lake. City staff advised its Board of Water and Power Commissioners “that properly aligned solar arrays combined with gravel roadways and fencing is potentially the most effective dust control measure implemented on Owens Dry Lake.” The \$300 million dollar solar demonstration project was approved by the Board of Water and Power Commissioners to gather information to develop a large-scale Owens Valley Solar Park. The City has indicated to Commission staff that it intends to submit an application to lease land for the solar demonstration project in the immediate future.

Because the City's alternatives analysis in the 2009 City Final Supplemental EIR and the alternatives findings in the City's *Findings of Fact and Statement of Overriding Considerations* overreach what is needed for the Commission to approve the Revised Moat and Row DCMs Project and are not based on substantial evidence, the Commission rejects the City's findings concerning alternatives. The Commission finds that shallow flooding and managed vegetation are feasible alternatives as described in the 2008 District Final Subsequent EIR, and that shallow flooding remains the environmentally superior alternative. The Commission, therefore, adopts the “Findings Regarding

Alternatives” made by the District in its 2008 *Findings of Fact and Statement of Overriding Considerations* attached and incorporated herein by reference (see Attachment A).

Attachment A

to EXHIBIT F

SECTION V FINDINGS REGARDING ALTERNATIVES

Alternatives were analyzed in the Environmental Impact Report (EIR) for the 2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan (project), consistent with the recommendations of Section 15126.6 of the State of California Environmental Quality Act (CEQA) Guidelines, which require evaluation of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant project effects, and evaluate the comparative merits of the alternatives. An environmentally superior alternative must be identified in addition to the No Project Alternative. The analysis of alternatives is limited to those that the Great Basin Unified Air Pollution Control District (District) determines could feasibly attain most of the basic objectives of the project. Section 15126.6(f) of the State CEQA Guidelines describes feasibility as being dependent on site suitability, economic viability, availability of infrastructure, general plan consistency, consistency with other plans or regulatory limitations, jurisdictional boundaries, and the ability of the project proponent to gain access to or acquire an alternative site.

Alternatives addressed in the EIR were derived from work undertaken by the District, from comments that were received in response to the Notice of Availability, and from comments provided by interested parties that attended the public scoping meeting. The resulting range of alternatives considered in this EIR consists of the following:

- No Project Alternative
- Alternative 1: All Shallow Flooding (the environmentally superior alternative)
- Alternative 2: All Managed Vegetation
- Alternative 3: All Gravel Cover

The ability of the project and four alternatives under consideration to meet the objectives of the project is summarized in these Findings as Table V-1, *Summary of Adequacy of Project and Alternatives to Attain Project Objectives*; Table V-2, *Project Alternative Elements*; and Table V-3, *Comparative Analysis of Impacts for Project and Alternatives*. As required by CEQA, evaluation of the No Project Alternative considered what would reasonably be expected to occur in the foreseeable future if the project were not approved; however, the No Project Alternative is not capable of meeting most of the project objectives. Three of the proposed alternatives were consistent with some of the basic project objectives and, for this reason, were carried forward for comparative analysis with respect to the determined environmental issues of the project.

**TABLE V-1
SUMMARY OF ADEQUACY OF PROJECT AND ALTERNATIVES
TO ATTAIN PROJECT OBJECTIVES**

Objectives	Alternatives				
	Project	All Shallow Flooding	All Managed Vegetation	All Gravel Cover	No Project
1. Implement all Owens Lake bed PM ₁₀ control measures by April 1, 2010, pursuant to the revised 2008 SIP to achieve the NAAQS	Yes	Yes	Yes	Yes	No
2. Revise the approved 2003 SIP by July 1, 2008	Yes	Yes	Yes	Yes	No
3. Minimize (or compensate for) long-term, significant, adverse changes to sensitive resources within the natural and human environment	Yes	Yes	Yes	No	No
4. Provide a high technical likelihood of success without substantial delay	Yes	Yes	No	No	No
5. Conform substantially to adopted plans and policies and existing legal requirements	Yes	Yes	Yes	No	No
6. Minimize the long-term consumption of natural resources	Yes	No	Yes	Yes	No
7. Minimize the cost per ton of particulate pollution controlled	Yes	Yes	No	No	No
8. Be consistent with the State of California's obligation to preserve and enhance the public trust values associated with Owens Lake	Yes	Yes	Yes	No	No

KEY:

SIP = State Implementation Plan

NAAQS = National Ambient Air Quality Standards

TABLE V-2
PROJECT ALTERNATIVE ELEMENTS

Project	All Shallow Flooding	All Managed Vegetation	All Gravel Cover	No Project
<p>Dust Control Measures (DCMs)</p> <p>Shallow Flooding: 9.2 square miles (approximately 5,888 acres) of the project area would be subject to shallow flooding.</p> <p>Moat & Row: 3.5 square miles (approximately 2,240 acres) of the project area would be subject to Moat & Row.</p> <p>Gravel Cover: There are no Gravel Cover DCMs.</p> <p>Note: There are a mandatory 12.7 square miles of new DCMs with 0.5 square mile of Channel Area and 1.9 square mile of potential study area Moat & Row.</p>	<p>Shallow Flooding: 12.7 square miles of the project area would be subject to DCMs.</p> <p>Managed Vegetation: There are no managed vegetation DCMs.</p> <p>Moat & Row: There are no Moat & Row DCMs.</p> <p>Gravel Cover: There are no Gravel Cover DCMs.</p> <p>Note: There are a mandatory 12.7 square miles of new DCMs with up to a 15.1 square miles of DCMs overall.</p>	<p>Shallow Flooding: There are no shallow flooding DCMs.</p> <p>Managed Vegetation: There are no managed vegetation DCMs.</p> <p>Gravel Cover: 12.7 square miles of the project area would be subject to DCMs.</p> <p>Note: There are a mandatory 12.7 square miles of new DCMs with up to a 15.1 square miles of DCMs overall.</p>	<p>Same as existing conditions. No additional DCMs would be constructed in areas required to reduce PM₁₀ emissions to meet NAAQS by April 2010.</p>	
<p>Power Supply and Control</p> <p>Up to 2,000 kilovolts of electrical power may be required to operate project facilities, including the Shallow Flooding facilities. This power will be supplied from existing power facilities to the site. Underground power lines will be buried 18 to 30 inches below ground surface and will be located generally in the vicinity of access roads and pipelines. Up to several thousand feet of underground power line may be installed.</p> <p>Existing overhead power lines run along the north end and down the east side of Owens Lake, generally paralleling the historic shoreline on the north and State Route 136 on the east. Power drops from nearby overhead lines are connected to the underground power lines that carry power to the lake bed control measure facilities.</p> <p>In addition, small portable generators mounted on construction vehicles will provide some temporary construction and emergency power.</p>	<p>Similar to the project; however, more power would be needed for the greater number of Shallow Flooding areas required by this alternative.</p>	<p>Less power would be needed for the greater number of Gravel Cover areas required by this alternative.</p>	<p>Same as existing conditions. Existing power supplies would generate the energy necessary for the completed 29.8 square miles of DCMs pursuant to the 2003 SIP. No additional DCMs would be constructed in areas required to reduce PM₁₀ emissions to meet NAAQS by April 2010.</p>	

TABLE V-3
COMPARATIVE ANALYSIS OF IMPACTS FOR PROJECT AND ALTERNATIVES

Project	All Shallow Flooding	All Managed Vegetation	All Gravel Cover	No Project
<p>Air Quality</p> <p>The project would allow PM₁₀ emissions to be brought into compliance with the NAAQS for PM₁₀ with maximum efficiency, substantially benefiting air quality.</p> <p>The project would install a total of 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to air quality, which would be reduced to below the level of significance through the implementation of mitigation measure Air-1.</p> <p>Unavoidable impacts would occur related to greenhouse gas emissions. Implementation of mitigation measures Air-2 through Air-6 would reduce the impacts related to greenhouse gas emissions.</p>	<p>Same as the project.</p>	<p>Same as project</p>	<p>Same as project</p>	<p>The No Project Alternative would not allow PM₁₀ emissions to be brought into compliance with the NAAQS for PM₁₀ with maximum efficiency, resulting in greater operational air quality impacts from PM₁₀ emissions.</p> <p>There would be no construction-related air quality impacts from this alternative, and the impacts related to greenhouse gases would not occur. However, the No Project Alternative would not allow for the improvement of overall air quality in the area by attaining NAAQS for PM₁₀ by 2010 and does not revise the 2003 SIP.</p>
<p>Biological Resources</p> <p>The project would install a total of up to 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to biological resources, which would be reduced to below the level of significance through the implementation of mitigation measures Biology-1 through -14.</p>	<p>Comparative Impact: Neutral</p> <p>This alternative has the potential to provide more habitat for western snowy plover (<i>Charadrius alexandrinus nivosus</i>) than the project as it would provide a greater acreage of Shallow Flooding.</p>	<p>Comparative Impact: Neutral</p> <p>This alternative would remove habitat suitable for nesting western snowy plovers and special status plant and invertebrate species. This alternative would require the incorporation of mitigation measures to reduce impacts to below the level of significance. Potentially significant impacts related to biological resources resulting from this alternative would be reduced to below the level of significance through the incorporation of mitigation measures Biology-1 through -14.</p>	<p>Comparative Impact: Neutral</p> <p>This alternative would have greater impacts to biological resources than the project, requiring a higher level of implementation of mitigation measures for loss of habitat and impacts to sensitive resources. As with the project, potentially significant impacts related to biological resources resulting from this alternative would be reduced to below the level of significance with the incorporation of mitigation measures.</p>	<p>Comparative Impact: Negative</p> <p>The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. DCMs would be placed primarily in salt pan areas of similar habitat.</p>
<p>Cultural Resources</p> <p>The project would install a total of up to 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to cultural resources, which would be reduced to below the level of significance through the implementation of mitigation measures Cultural-1 through -4.</p>	<p>Comparative Impact: Positive</p> <p>This alternative would result in significant impacts related to archaeological and historical resources. As with the project, potentially significant impacts related to cultural resources resulting from this alternative would be reduced to below the level of significance through the incorporation of mitigation measures</p>	<p>Comparative Impact: Negative</p> <p>The alternative would entail heavy equipment and the placement of gravel on the lake surface, resulting in significant adverse impacts to cultural resources.</p>	<p>Comparative Impact: Neutral</p> <p>The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail conversion of vacant land, including grading, paving, and construction. Therefore, the No Project Alternative would not require implementation of mitigation measures for cultural resources.</p>	<p>Comparative Impact: Positive</p>

TABLE V-3
COMPARATIVE ANALYSIS OF IMPACTS FOR PROJECT AND ALTERNATIVES, Continued

Project	All Shallow Flooding	All Managed Vegetation	All Gravel Cover	No Project
Hazards and Hazardous Materials The project would install a total of up to 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to hazards and hazardous materials, which would be reduced to below the level of significance through the implementation of the mitigation measure.	This alternative would reduce the use and generation of chemicals that would potentially occur with the project. This alternative would not result in short- or long-term impacts from hazards and hazardous materials; therefore, mitigation measures would not be required. Comparative Impact: Positive	Same as the project.	This alternative would entail reduced use of chemicals but may still result in release of hazardous materials from construction equipment related to gravel hauling and dumping, therefore requiring implementation of mitigation measures. Comparative Impact: Neutral	The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. The 2003 SIP includes DCMs that would continue the use of potentially hazardous materials associated with the operation of Managed Vegetation. Comparative Impact: Negative
Hydrology and Water Quality The project would install a total of up to 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to hydrology and water quality, which would be reduced to below the level of significance through the implementation of the mitigation measures Hydrology-1 through -5.	Same as the project. Comparative Impact: Neutral	Unlike the project, this alternative would require the use of additional chemicals for vegetation growth. Comparative Impact: Neutral	This alternative would reduce some of the potential impacts associated with the project due to the reduced application of water or use of chemicals associated with the application of gravel. However, this alternative may result in construction-related release of hazardous materials from equipment related to gravel hauling and dumping, requiring construction-related mitigation measures. Comparative Impact: Neutral	The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail conversion of the plays to DCMs via grading and installation of infrastructure for dust control, and implementation of mitigation measures would not be required for hydrology. However, the No Project Alternative would not provide control of emissive dust. Comparative Impact: Negative
Land Use The project would install a total of up to 15.1 square miles (9,664 acres) of DCMs. These would not pose potentially significant impacts to land use and planning, but implementation of mitigation measure Land Use-1 would reduce the potential impacts related to land use and planning to below the level of significance.	Same as the project. Comparative Impact: Neutral	Same as the project. Comparative Impact: Neutral	This alternative would not be consistent with adopted plans and policies in the project area and may therefore result in a greater impact than the project in terms of land use and planning. Therefore, this alternative may require additional mitigation measures to reduce these potential impacts. Comparative Impact: Negative	The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not be consistent with adopted plans and policies in the project area and may therefore result in a greater impact than the project in terms of land use and planning. Therefore, the No Project Alternative may require additional mitigation measures to reduce these potential impacts. Comparative Impact: Negative
Mineral Resources The project would install a total of 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to mineral resources, which would be reduced to below the level of significance through the implementation of mitigation measures Land Use-1 through -3.	Same as the project. Comparative Impact: Neutral	Same as the project. Comparative Impact: Neutral	This alternative would have the potential for lesser impacts related to mineral resources because it does not include a provision for the use of high amounts of freshwater resources or the possible channeling of those resources. However, the potential increase in recharge to shallow groundwater from precipitation may affect mineral resources and would require mitigation measures. Comparative Impact: Negative	The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail the construction of new structures to support the DCMs. Implementation of mitigation measures would not be required. Comparative Impact: Positive

TABLE V-3
COMPARATIVE ANALYSIS OF IMPACTS FOR PROJECT AND ALTERNATIVES, Continued

Project Transportation and Traffic	All Shallow Flooding	All Managed Vegetation	All Gravel Cover	No Project
The project would install a total of up to 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to transportation and traffic, which would be reduced to below the level of significance through the implementation of mitigation measures Traffic-1 through -3.	Same as the project.	Same as the project.	Same as the project.	The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would create no additional transportation components that could cause greater damage to existing roadways. Implementation of mitigation measures would not be required.
Utilities and Service Systems	Comparative Impact: Neutral	Comparative Impact: Neutral	Comparative Impact: Neutral	Comparative Impact: Positive
The project would install a total of up to 15.1 square miles (9,664 acres) of DCMs. These would pose potentially significant impacts to utilities and service systems, which would be reduced to below the level of significance through the implementation of mitigation measures Utilities-1 through -2.	This alternative would require installation of more infrastructure associated with Shallow Flooding. This alternative has the potential of using more water resources than the project. The All Shallow Flooding Alternative would incur additional impacts to utilities by increasing the time that Shallow Flood systems must remain operational. This would incur additional expenditures of electricity and water resources to meet the requirements of this alternative.	This alternative would entail the use of one DCM, which would require the installation of more infrastructure related to Managed Vegetation (mainline, submain, lateral and riser pipes, irrigation lines, fertilizer injection, water treatment systems, perimeter berms, and tailwater recycling facilities) than the multiple DCMs of the project. The Managed Vegetation DCM uses approximately 1.2 acre-feet/acre, which is greater than that of the project with the inclusion of Moat & Row. Thus, implementation of this alternative has the potential to use more water resources than the project.	This alternative would not result in potential impacts to utilities and service systems. Unlike the project, this alternative would not require the application of water. Therefore, this alternative may utilize less water than the project and reduce those anticipated impacts from the project. Any impacts to utilities and service systems would be mitigated to below the level of significance.	The No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail the construction of new water control infrastructure. Implementation of mitigation measures would not be required.
	Comparative Impact: Negative	Comparative Impact: Negative	Comparative Impact: Positive	Comparative Impact: Positive

Based on the alternatives analysis provided in Section 4.0 of the EIR, the District determined that the No Project Alternative does not accomplish most of the basic objectives of the project and that it does not qualify as the environmentally superior alternative. The No Project Alternative includes continuing the implementation of the 2003 SIP, which involved the construction of 29.8 square miles of DCMs per year until the NAAQS for PM₁₀ are met. Under the No Project Alternative, the NAAQS would not be achieved by December 31, 2010, and DCMs would not be installed in locations that the District now knows cause or contribute to NAAQS exceedances. In addition, the No Project Alternative would not benefit from air quality improvement measures that are part of the project.

The project meets all project objectives without resulting in impacts that cannot be mitigated to below the level of significance. The All Shallow Flooding and All Managed Vegetation Alternatives analyzed in Section 4.0 of the Draft EIR are also feasible because they meet most of the project objectives, including the primary objective of attaining the NAAQS for PM₁₀ by April 1, 2010, pursuant to the revised 2008 SIP, but do not meet the secondary objective of minimizing the long-term consumption of natural resources, as described below. The No Project Alternative is not feasible since it does not meet the objective of attaining the NAAQS for PM₁₀ by April 1, 2010, although it may minimize consumption of natural resources.

The City of Los Angeles Department of Water and Power (City) is concerned about the diversion of water and the potential loss of other beneficial uses of that water. Therefore, under requirements of the SIP agreements, they have negotiated the use of Moat & Row as a possible allowable DCM more effectively utilizing the water resources at Owens Lake. The City has not provided enough evidence in the record to demonstrate the efficacy of the Moat & Row DCM. The City is the party responsible for the implementation and construction of the DCMs within the proposed area and believes it to be an effective means for dust control. The EIR analyzed the potential for effects on the sixteen (16) CEQA regulated environmental issue areas. Based on the data collected during the analysis and resulting from coordination with the City, the EIR does not make the determination that the Moat & Row DCM is the environmentally superior alternative for dust control on Owens Lake.

The All Shallow Flooding Alternative (Alternative 1) was identified as the environmentally superior alternative due to its proven capability to control PM₁₀ emissions needed to meet NAAQS by April 2010. Alternative 1 also has the ability to minimize impacts to biological resources (especially western snowy plover) because it provides additional wildlife habitat resources. However, it failed to minimize the long-term consumption of natural resources due to its need for more water, and it failed to provide an adequate time interval to perform the site maintenance necessary to ensure reliable operation of the dust control facilities.

The alternatives to the project evaluated in Section 4 are as follows:

No Project Alternative

Alternative 1: All Shallow Flooding (the environmentally superior alternative)

Alternative 2: All Managed Vegetation

Alternative 3: All Gravel Cover

V.A No Project

Description of Alternative: The project components of the No Project Alternative are identical to the project components of the 2003 SIP. They include Shallow Flooding, Gravel Cover, and

Managed Vegetation DCMs (and associated infrastructure) installed over 29.8 square miles of the Owens Lake bed.

Effectiveness in Meeting Project Objectives: The No Project Alternative would not allow the District to meet its primary project objective of attaining the NAAQS for PM₁₀ by April 1, 2010 (Objective 1), since only 29.8 square miles of DCMs would be implemented by that time. The No Project Alternative would not meet the District's secondary objective of revising the approved 2003 SIP by July 1, 2008 (Objective 2). The No Project Alternative may minimize adverse changes to sensitive resources (Objective 3). The No Project Alternative would not have the capability of being implemented with a high technical likelihood of success without delay, since it would not allow for the needed 43 square miles of DCMs to meet attainment of the NAAQS (Objective 4). In addition, the No Project Alternative would not conform to adopted plans, policies, and legal requirements, as required by Objective 5. The No Project Alternative would not allow for flexibility in use of water, thus potentially increasing long-term consumption of natural resources such as water (Objective 6). The No Project Alternative would not minimize the cost per ton of particulate matter controlled (Objective 7) because it may not allow the most efficient DCM construction to take place through installation on the most emissive areas of the lake bed. Finally, the No Project Alternative would not be consistent with the State of California's obligation to preserve and enhance the public trust values associated with Owens Lake. The summary of this alternative's ability to meet the objectives is described in Table V-1.

Comparison of Effects of the Alternative to Effects of the Project: A summary comparison of this alternative to effects of the project is presented in Table V-3. The analysis presented in the table shows that this alternative differs from the project in the area affected by DCMs and the efficiency with which they would be installed. This alternative differs from the project in the assessment of air quality, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, transportation and traffic, and utilities and service systems.

- **Air Quality:** As documented in Table V-3, the No Project Alternative would not allow PM₁₀ emissions to be brought into compliance with the NAAQS for PM₁₀ with maximum efficiency, resulting in greater air quality impacts from PM₁₀ emissions.
- **Biological Resources:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. DCMs would be placed primarily in salt pan areas of similar habitat. Any impacts to biological resources would be mitigated to below the level of significance.
- **Cultural Resources:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail conversion of vacant land, including grading, paving, and construction. Therefore, the No Project Alternative would not require implementation of mitigation measures for cultural resources.
- **Hazards and Hazardous Materials:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. The 2003 SIP includes DCMs that would continue the use of potentially hazardous materials associated with the operation of

Managed Vegetation. Any impacts from hazards and hazardous materials would be mitigated to below the level of significance.

- **Hydrology and Water Quality:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail conversion of the playa to DCMs via grading and installation of infrastructure for dust control, and implementation of mitigation measures would not be required for hydrology. However, the No Project Alternative would not provide control of emissive dust.
- **Land Use and Planning:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not be consistent with adopted plans and policies in the proposed project area and may therefore result in a greater impact than the proposed project in terms of land use and planning. Therefore, the No Project Alternative may require additional mitigation measures to reduce these potential impacts. Any impacts to land use and planning would be mitigated to below the level of significance.
- **Mineral Resources:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail conversion of vacant land, including grading, paving, and construction. No water resources would be necessary for this DCM, thus the mineral lease would be protected against leakage. Therefore, the No Project Alternative would not require implementation of mitigation measures for mineral resources.
- **Transportation and Traffic:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would create no additional transportation components that could cause greater damage to existing roadways. Implementation of mitigation measures would not be required.
- **Utilities and Service Systems:** As documented in Table V-3, the No Project Alternative would only result in the 29.8 square miles (19,072 acres) of DCMs installed pursuant to the 2003 SIP. This alternative would not entail the construction of new water control infrastructure. Implementation of mitigation measures would not be required.

Feasibility: This alternative is not feasible.

Facts: The above feasibility finding is based on the following:

- None of the eight objectives are met in the No Project Alternative (Table V-1).
- The primary goal of the project, to achieve NAAQS for PM₁₀ by April 1, 2010, is not likely to be met by this alternative.

V.B Alternative 1: All Shallow Flooding

Description of Alternative: Alternative 1, All Shallow Flooding, would involve the use of the known and effective Shallow Flooding DCM on the proposed 15.1 square miles, including the 12.7 square miles of supplemental dust control areas. In this alternative, the project elements would be constructed or carried forward with the exception of the Managed Vegetation, Gravel Cover, and Moat & Row DCMs on the project area. Alternative 1 does not include additional components to those described for the project. However, this alternative would require the installation of more infrastructure associated with Shallow Flooding (mainline, submain, lateral, and riser pipes, perimeter berms, and tailwater recycling facilities) than the project. It would also require the use of a greater amount of water.

Effectiveness in Meeting Project Objectives: Alternative 1 would be capable of meeting seven of the eight project objectives identified by the District:

- Implement all Owens Lake bed PM₁₀ control measures by April 1, 2010, pursuant to the revised 2008 SIP to achieve the NAAQS
- Minimize (or compensate for) long-term, significant, adverse changes to sensitive resources within the natural and human environment
- Provide a high technical likelihood of success without substantial delay
- Conform substantially to adopted plans and policies and existing legal requirements
- Minimize the cost per ton of particulate pollution controlled
- Be consistent with the State of California's obligation to preserve and enhance the public trust values associated with Owens Lake

Alternative 1 would only entail the use of one DCM, Shallow Flooding. Implementation of this alternative would result in more consumption of freshwater resources than the project. Thus, Alternative 1 would not be able to meet the objective of minimizing the long-term use of natural resources.

Comparison of Effects of the Alternative to Effects of the Project: A summary comparison of this alternative to effects of the project is presented in Table V-3. The analysis presented in the table shows that this alternative differs from the project in terms of use of water. This alternative differs from the project in the assessment of impacts to biological resources, hazards and hazardous materials, hydrology and water quality, land use and planning, and utilities and service systems. Impacts related to air quality, cultural resources, mineral resources, and transportation and traffic would be similar to the project.

- **Air Quality:** As documented in Table V-3, Alternative 1 would have the same impacts to air quality as the project. As with the project, the impacts resulting from implementation of Alternative 1 on global climate change related to greenhouse gas emissions may be considered significant and unavoidable.
- **Biological Resources:** As documented in Table V-3, Alternative 1 has the potential to provide more habitat for western snowy plover than the project as it would provide a greater acreage of Shallow Flooding. Any impacts to biological resources would be mitigated to below the level of significance.

- **Cultural Resources:** As documented in Table V-3, Alternative 1 would have the same impacts to cultural resources as the project. Any impacts to cultural resources would be mitigated to below the level of significance.
- **Hazards and Hazardous Materials:** As documented in Table V-3, Alternative 1 would reduce the use and generation of chemicals that would potentially occur with the project. Therefore, Alternative 1 would not require the use of mitigation measures. Alternative 1 would not result in short- or long-term impacts from hazards and hazardous materials. Any impacts from hazards and hazardous materials would be mitigated to below the level of significance.
- **Hydrology and Water Quality:** As documented in Table V-3, Alternative 1 would not require the use of additional chemicals for vegetation growth but would still require implementation of mitigation measures to reduce impacts to below the level of significance. As with the project, any impacts to hydrology and water quality would be mitigated to below the level of significance.
- **Land Use and Planning:** As documented in Table V-3, Alternative 1 would require installation of more infrastructure associated with Shallow Flooding than the multiple DCMs of the project. Alternative 1 would require implementation of one mitigation measure to reduce impacts to below the level of significance. Any impacts to land use and planning would be mitigated to a below the level of significance.
- **Mineral Resources:** As documented in Table V-3, Alternative 1 would have the same impacts to mineral resources as the project. Any impacts from mineral resources would be mitigated to a below the level of significance.
- **Transportation and Traffic:** As documented in Table V-3, Alternative 1 would have the same impacts to transportation and traffic as the project. Any impacts to transportation and traffic would be mitigated to below the level of significance.
- **Utilities and Service Systems:** As documented in Table V-3, Alternative 1 would require installation of more infrastructure associated with Shallow Flooding. Alternative 1 has the potential of using more water resources than the project. Any impacts to utilities and service systems would be mitigated to below the level of significance.

Feasibility: This alternative is feasible.

Facts: The above feasibility finding is based on the following:

- Seven of the eight objectives are met; however, the objective of minimizing the long-term consumption of natural resources is not met with Alternative 1 (Table V-1).

V.C Alternative 2: All Managed Vegetation

Description of Alternative: Alternative 2, All Managed Vegetation, would involve the use of the known and effective Managed Vegetation DCM on the proposed 15.1 square miles, including the 12.7 square miles of supplemental dust control areas (EIR, Figure 4.3-1, *Alternative 2: All Managed Vegetation*). In this alternative, the project elements would be constructed or carried forward with the exception of the Shallow Flooding, Gravel Cover, and Moat & Row DCMs on the project area.

Effectiveness in Meeting Project Objectives: Alternative 2 would allow the District to meet its objective of implementing and attaining the NAAQS for PM₁₀ by April 1, 2010 (Objective 1). The District could also attain its second objective to revise the approved 2003 SIP by July 1, 2008 (Objective 2) through this alternative. This alternative would minimize (or compensate for) long-term, significant, adverse changes to sensitive resources within the natural and human environment (Objective 3), and conform substantially to adopted plans and policies and existing legal requirements (Objective 5). In addition, this alternative would minimize the long-term consumption of natural resources (Objective 6) and allow the District to meet its final objective of consistency with the State of California's obligation to preserve and enhance the public trust values associated with Owens Lake (Objective 8).

This alternative would not enable the District to meet its objective to provide a high technical likelihood of success without substantial delay (Objective 4) because the amount of time needed for plants to reach the level of growth required for dust control may be difficult to achieve by the determined date of April 2010. This alternative would not allow the District to meet its objective to minimize the cost per ton of particulate pollution controlled (Objective 7) due to the fact that implementation of Managed Vegetation would result in a higher cost per acre. The summary of this alternative's ability to meet the objectives is described in Table V-1.

Comparison of Effects of the Alternative to Effects of the Project: A summary comparison of this alternative to effects of the project is presented in Table V-3. The analysis presented in the table shows that this alternative differs from the project in its impacts to biological resources, hydrology and water quality, and utilities and service systems. Impacts related to air quality, cultural resources, hazards and hazardous materials, land use and planning, mineral resources, and transportation and traffic would be similar to the project.

- **Air Quality:** As shown in Table V-3, Alternative 2, like the project, would result in potentially significant impacts to air quality due to construction-related activities. As with the project, the impacts of Alternative 2 on global climate change may be considered significant and unavoidable.
- **Biological Resources:** As documented in Table V-3, Alternative 2 would have greater impacts on biological resources than the project and would require the incorporation of mitigation measures to reduce impacts to below the level of significance.
- **Cultural Resources:** As documented in Table V-3, Alternative 2 would result in a substantial adverse change in the significance of a paleontological resource or site or unique geological feature. As with the project, potentially significant impacts related to cultural resources resulting from Alternative 2 would be reduced to below the level of significance through the incorporation of mitigation measures.

- **Hazards and Hazardous Materials:** As documented in Table V-3, Alternative 2 would result in potentially significant impacts related to hazards and hazardous materials. As with the project, potentially significant impacts related to hazards and hazardous materials resulting from Alternative 2 would be reduced to below the level of significance through the incorporation of mitigation measures.
- **Hydrology and Water Quality:** As documented in Table V-3, Alternative 2 would result in potentially significant impacts related to hydrology and water quality. This alternative would reduce potential impacts from Moat & Row and Shallow Flooding DCMs in terms of flood risk, but would have the potential to affect water quality.
- **Land Use and Planning:** As documented in Table V-3, Alternative 2 would result in potentially significant impacts related to land use and planning. As with the project, potentially significant impacts related to land use and planning resulting from Alternative 2 would be reduced to below the level of significance through the incorporation of a mitigation measure.
- **Mineral Resources:** As documented in Table V-3, Alternative 2 would result in potentially significant impacts related to mineral resources. As with the proposed project, potentially significant impacts related to mineral resources resulting from Alternative 2 would be reduced to below the level of significance through the incorporation of mitigation measures.
- **Transportation and Traffic:** As documented in Table V-3, Alternative 2 would result in potentially significant impacts related to transportation and traffic. As with the proposed project, potentially significant impacts related to transportation and traffic resulting from Alternative 2 would be reduced to below the level of significance through the incorporation of mitigation measures.
- **Utilities and Service Systems:** As documented in Table V-3, Alternative 2 may result in potential impacts to utilities and service systems. This alternative would entail the use of one DCM, which would require the installation of more infrastructure related to Managed Vegetation (mainline, submain, lateral and riser pipes, irrigation lines, fertilizer injection, water treatment systems, perimeter berms, and tailwater recycling facilities) than the multiple DCMs of the project. The Managed Vegetation DCM uses approximately 1.2 acre-feet/acre, which is greater than that of the project with the inclusion of Moat & Row. Thus, implementation of this alternative has the potential to use more water resources than the project.

Feasibility: This alternative is feasible.

Facts: The above feasibility finding is based on the following:

- Six of the eight objectives are met in the All Managed Vegetation Alternative (Table V-1).
- The All Managed Vegetation Alternative would have greater significant impacts related to biological resources and utilities and service systems than the project.

V.D Alternative 3: All Gravel Cover

Description of Alternative: Alternative 3, All Gravel Cover, would involve the use of the known and effective Gravel Cover DCM on the proposed 15.1 square miles, including the 12.7 square miles of supplemental dust control areas.

Effectiveness in Meeting Project Objectives: This alternative would meet the objective of implementing all Owens Lake bed PM₁₀ control measures by April 1, 2010, pursuant to the revised 2008 SIP to achieve the NAAQS. Alternative 3 would meet the objective to revise the approved 2003 SIP by July 1, 2008. Gravel Cover would meet the objective of minimizing the long-term consumption of natural resources. This alternative would not minimize the long-term significant, adverse changes to sensitive resources as it would essentially cover all potential resources. It would not provide a high likelihood of success as it would require large amounts of gravel. Available sources of aggregate are difficult to obtain. Gravel Cover would not conform to adopted plans and policies. This alternative would not minimize the cost per ton of particulate pollution controlled since there are high costs associated with mining, processing, and hauling the aggregate. In addition, this alternative is incompatible with the State of California's public trust values.

Comparison of Effects of the Alternative to Effects of the Project: A summary comparison of this alternative to the effects of the project is presented in Table V-3. This alternative differs from the project in the assessment of biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, and utilities and service systems. Impacts related to air quality and transportation and traffic would remain similar to the project.

- **Air Quality:** As documented in Table V-3, Alternative 3, as with the project, would result in potentially significant impacts related to air quality. It cannot be determined to a reasonable degree of certainty that Alternative 3 would not result in a cumulatively considerable, incremental contribution to the significant cumulative impact of global climate change. The impacts of Alternative 3 on global climate change may be considered significant and unavoidable.
- **Biological Resources:** As documented in Table V-3, Alternative 3 would have the greatest impacts to biological resources when compared with all other alternatives, including the project. This alternative would have greater impacts to biological resources than the project, requiring a higher level of implementation of mitigation measures for loss of habitat and impacts to sensitive resources. As with the project, potentially significant impacts would be mitigated to below the level of significance.
- **Cultural Resources:** As documented in Table V-3, Alternative 3 would cause a substantial adverse change in the significance of a paleontological resource or site or unique geological feature. As a result, implementation of Alternative 3 would result in significant impacts related to archaeological and historical resources. This alternative would entail heavy equipment and the placement of gravel on the lake surface, resulting in significant adverse impacts to cultural resources.
- **Hazards and Hazardous Materials:** As documented in Table V-3, Alternative 3 would reduce the potential impacts from release of hazards and hazardous materials resulting from the project. This alternative would entail reduced use of

chemicals but may still result in release of hazardous materials from construction equipment related to gravel hauling and dumping. However, potentially significant impacts related to hazards and hazardous materials resulting from Alternative 3 would be mitigated to below the level of significance.

- **Hydrology and Water Quality:** As documented in Table V-3, Alternative 3 would reduce some of the potential impacts associated with the project. However, this alternative may result in construction release of hazardous materials requiring construction-related mitigation measures. This alternative would reduce some of the potential impacts associated with the project due to the reduced application of water or use of chemicals. However, this alternative may result in construction-related release of hazardous materials from equipment related to gravel hauling and dumping, requiring construction-related mitigation measures.
- **Land Use and Planning:** As documented in Table V-3, Alternative 3 may result in significant impacts related to land use and planning. Implementation of this alternative would not be consistent with adopted plans and policies in the project area and may therefore result in a greater impact than the project in terms of land use and planning. Therefore, Alternative 3 may require additional mitigation measures to reduce these potential impacts.
- **Mineral Resources:** As documented in Table V-3, Gravel Cover would not result in significant impacts related to hydrologic issues of mineral resources. No water resources would be necessary for this DCM, thus the mineral lease would be protected against leakage. Therefore, this alternative would not require implementation of mitigation measures for mineral resources related to protection of the mineral lease from leakage.
- **Transportation and Traffic:** As documented in Table V-3, Alternative 3 would have the potential for greater impacts related to transportation and traffic than the project. Alternative 3 would be expected to increase road damage to related roadways during transport of the higher volumes of gravel to the project site. As with the project, potentially significant impacts related to transportation and traffic would be mitigated to below the level of significance.
- **Utilities and Service Systems:** As documented in Table V-3, Gravel Cover would not result in potential impacts to utilities and service systems. Unlike the project, this alternative would not require the application of water. Therefore, this alternative may utilize less water than the project and reduce those anticipated impacts from the project. Any impacts to utilities and service systems would be mitigated to below the level of significance.

Feasibility: This alternative is not feasible.

Facts: The above feasibility finding is based on the following:

The Gravel Cover Alternative would be capable of accomplishing only three of the eight objectives identified by the District:

- Implement all Owens Lake bed PM₁₀ control measures by April 1, 2010, pursuant to the revised 2008 SIP to achieve the NAAQS
- Revise the approved 2003 SIP by July 1, 2008
- Minimize the long-term consumption of natural resources