

SECTION ES

EXECUTIVE SUMMARY

This Subsequent Environmental Impact Report (EIR) analyzes the potential for significant environmental impacts in association with the 2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan (SIP)¹ (proposed project). The proposed project location is in the dry Owens Lake bed (frequently referred to as playa) at the southern end of Owens Valley, Inyo County, eastern-central California. The Great Basin Unified Air Pollution Control District (District) proposes a revised air pollution control strategy to bring the Owens Valley PM₁₀ Planning Area into attainment with the National Ambient Air Quality Standard (NAAQS) for particulate matter (PM₁₀) by April 1, 2010, as required by the Clean Air Act Amendments of 1990. Previous air pollution control programs, the Owens Valley PM₁₀ Planning Area Demonstration of Attainment 1998 SIP and 2003 SIP,^{2,3} were analyzed in previous program-level EIRs and approved by the U.S. Environmental Protection Agency (EPA) in 1998 and 2003. The proposed project revises the approved 2003 SIP. This Subsequent EIR incorporates the 1998 EIR and 2003 EIR by reference and provides broad program-level and project-specific environmental analyses for the 2008 SIP revision.

In the 1998 SIP, the District committed to continue studying the lake bed and revise the SIP in 2003 to refine the actual areas necessary for control. Based on those additional studies, in November 2003, the Great Basin Governing Board adopted a revised SIP and ordered the City of Los Angeles Department of Water and Power (LADWP) to implement dust control measures (DCMs) on 29.8 square miles of the Owens Lake bed by December 31, 2006. The 2003 SIP also contained provisions requiring the District to continue monitoring air pollution emissions from the lake bed and to identify any additional areas beyond the 29.8 square miles that may require PM₁₀ controls in order to meet the standards. On December 21, 2005, the Air Pollution Control Officer issued the Supplemental Control Requirements determination that additional areas of the lake bed would require DCMs in order to meet the PM₁₀ standards based on July 2002 through June 2004 data. Based on that SCR analysis, and subsequent discussions and agreements with the LADWP, the construction of an additional 15.1 square miles of DCMs would be necessary to bring the lake bed into compliance with the NAAQS for PM₁₀. These additional DCMs beyond the 29.8 square miles completed at the end of 2006 are the subject of the proposed project. The 2008 SIP revision would increase the previously approved locations for development and operation of shallow flooding and an additional DCM referred to as "Moat & Row." Moat & Row is currently being tested for effectiveness on the lake bed.

As provided by the State of California Environmental Quality Act (CEQA), this Subsequent EIR includes program-level environmental analysis for the 2003 SIP revision and project-level analysis for the construction and operation of the 15.1 square miles of DCMs. The proposed project would include the construction and operation of the following project elements:

¹ PM10 refers to particulate matter up to 10 micrometers in size, a regulated air emission pursuant to the federal Clean Air Act Amendments of 1990.

² Great Basin Unified Air Pollution Control District. 1998. *Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Addendum No.1 to the Final Environmental Impact Report*. State Clearinghouse Number No. 96122077. Bishop, CA.

³ Great Basin Unified Air Pollution Control District. February 2004. *2003 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Integrated Environmental Impact Report*. State Clearinghouse House Number 2002111020. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

- Site preparation (surface grading and earth moving)
- Berm construction and access road grading
- Irrigation and drain line construction (trenching, pipeline installation, trench backfilling)
- DCM area dewatering
- Irrigation system installation within the DCM areas
- Power line and DCM controls installation
- Moat & Row shaping and enhancing
- Shallow Flooding DCM flooding

ES.1 EXISTING FACILITIES

The Owens River flows south through the Owens Valley and terminates in the Owens Lake brine pool. There are three communities in the vicinity of the proposed project (the community of Lone Pine to the north, the community of Keeler to the east, and the community of Olancho/Cartago to the southwest) and one designated Indian reservation (Lone Pine Indian Reservation to the north). Other land uses include mining, recreation (hiking, birdwatching, hunting, and golfing) and cattle grazing. Historic mining and transportation sites are located along the former Owens Lake shoreline. The Owens Valley has a rich variety of plants, riparian habitat, alkaline meadow, and seep habitat, serving resident and migratory wildlife species. Several archaeological and historical sites are known in the area. The eastern shore of Owens Lake was used by Native American groups. The Los Angeles Aqueduct also traverses the Owens Valley from north to south. Water diverted from the Owens River through the aqueduct has resulted in a dry alkaline Owens Lake bed and the remnant Owens Lake brine pool. Winds in the Owens Valley raise clouds of fine particulate dust from the lake bed causing exceedances of the NAAQS for PM₁₀. Pursuant to an order from the District, LADWP has installed DCMs consisting of shallow flooding areas, managed vegetation plots, and gravel on 29.8 square miles (19,072 acres) of the emissive dry lake bed pursuant to an existing 1998 SIP and 2003 SIP revision mandated and approved by the U.S. Environmental Protection Agency.^{4,5} These existing DCMs and proposed DCMs will result in a reduction in PM₁₀ emissions of approximately 73,174 tons per year. Current annual uncontrolled lake bed emissions are estimated at about 76,000 tons per year.

ES.2 PROPOSED PROJECT

The proposed project consists of revisions to the 1998 and 2003 SIP dust control program analyzed in the 1997 and 2003 Program EIR and the 1998 Addendum, including changes in the location and size of the emissive dust control areas.^{6,7,8} Program-level environmental analysis is provided for

⁴ Great Basin Unified Air Pollution Control District. 1998. *Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Addendum No.1 to the Final Environmental Impact Report*. State Clearinghouse Number No. 96122077. Bishop, CA.

⁵ Great Basin Unified Air Pollution Control District. February 2004. *2003 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Integrated Environmental Impact Report*. State Clearinghouse House Number 2002111020. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

⁶ Great Basin Unified Air Pollution Control District. 1998. *Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Addendum No.1 to the Final Environmental Impact Report*. State Clearinghouse Number No. 96122077. Bishop, CA.

⁷ Great Basin Unified Air Pollution Control District. February 2004. *2003 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Integrated Environmental Impact Report*. State Clearinghouse House Number 2002111020. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

these changes to develop and operate the 15.1 square miles of new DCMs identified in the revised SIP. In addition, operational environmental monitoring programs proposed through mitigation measures in this EIR would be used in the operation of previously developed DCMs to provide project consistency and efficiency.

ES.2.1 Dust Control Measures

DCMs are defined as those measures of PM₁₀ abatement that could be placed onto portions of the playa, and when in place, are effective in reducing the PM₁₀ emissions from the surface of the playa. Since 1989, the District has pursued a comprehensive research and testing program to develop PM₁₀ control measures that are effective in the unique Owens Lake playa environment. The District, in cooperation with the LADWP, has developed three PM₁₀ control measures that it has found to be feasible and effective: shallow flooding, managed vegetation, and gravel cover. In addition, the proposed project includes a new DCM known as Moat & Row, which may be mixed with the proposed DCMs. The proposed project includes the use of shallow flooding and moat & row DCMs.

ES.2.1.1 *Shallow Flooding*

This DCM consists of releasing water along the upper edge of the Owens Lake bed and allowing it to spread and flow down-gradient toward the center of the lake. To attain the required PM₁₀ control efficiency, at least 75 percent of each square mile of the control area must be wetted to produce standing water or surface-saturated soil, between October 1 and June 30 of each year. It is estimated that between 0 and 4 acre-feet of water is required annually to control PM₁₀ emissions for an acre of lake bed. Except for limited habitat maintenance flows, water will be turned off between July 1 and September 30 to allow for facility maintenance activities. This is typically a period when dust storms do not occur.

ES.2.1.2 *Moat & Row*

The general form of the Moat & Row DCM is an array of earthen berms (rows) about 5 feet high with sloping sides, flanked on either side by ditches (moats) about 4 feet deep. The Moat & Row includes placement of a 5-foot-high sand fence on the top of the row. Moats serve to capture moving soil particles, and rows physically shelter the downwind lake bed from the wind. The individual Moat & Row elements are constructed in a serpentine layout across the lake bed surface, generally parallel to one another, and spaced at variable intervals, so as to minimize the fetch between rows along the predominant wind directions. The serpentine layout of the Moat & Row array is intended to control emissions under the full range of principal wind directions. Initial pre-test modeling indicates that Moat & Row spacing will generally vary from 250 to 1,000 feet, depending on the surface soil type and the PM₁₀ control effectiveness required on the Moat & Row area.

It is anticipated that the PM₁₀ control effectiveness of Moat & Row will be enhanced by combining it with various approved DCMs and currently utilized measures, including Augmentation, Shallow Flooding, Application of Brine, Armoring, and Managed Vegetation. These enhancements will ensure that if significant dust sources (hot spots) develop within these areas, they will be addressed.

⁸ Great Basin Unified Air Pollution Control District. 1998. *Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Addendum No.1 to the Final Environmental Impact Report*. State Clearinghouse Number No. 96122077. Bishop, CA.

Any single method or combination of the enhancements could be implemented for both primary and secondary wind vector mitigation. The primary Moat & Row DCMs include earthen Moat & Row and a sand fence. Enhancements to these methods include Managed Vegetation and irrigation/fertigation as required, Shallow Flooding facilities, and enhancing existing vegetation and natural topographic and surface drainage features at Owens Lake. Moat & Row earthwork and sand fences may also be enhanced through a number of additional methods. These measures include placing sand fences on the open playa, adding bands of Managed Vegetation, adding water from surrounding Shallow Flooding dust control areas (DCAs), and enhancing or protecting existing vegetation and natural topographic and surface drainage features at Owens Lake. These enhancements may be added during the current phase of construction or during a later phase.

ES.2.1.3 *Study Areas*

Included in the total 15.1 square miles of the total project area are 1.9 square miles of study areas. These are areas where there is a suspicion of dust emissions, but where either the location or magnitude of emissions is uncertain. In order to provide as extensive an impact analysis as possible, these areas will be addressed in the EIR as being emissive dust control areas. The District will continue to collect data in these four areas to determine their emissivity through the course of the project until 2010.

ES.2.1.3 *Channel Areas*

In addition to the above listed DCMs, this EIR addresses potential impacts to 0.5 square mile of channel areas. These areas represent areas containing natural drainage channels that have the potential to act as emissive areas thus requiring DCMs. These areas may have potentially significant resource issues and regulatory constraints that could affect the type and location of DCMs within these areas.

ES.2.2 Other Project Elements

ES.2.2.1 *Water Supply Conservation*

An additional element of the proposed project to be analyzed is the refinement of the amount of water used to control dust in shallow flood DCM areas. The District's shallow flood research conducted in the 1990s indicated that 99 percent control was achieved when 75 percent of an area consisted of standing water or surface-saturated soil. This is a conservative requirement for two reasons: 1) the actual amount of water required to provide 99 percent control may be less than 75 percent on certain soil types and 2) some of the existing shallow flood DCMs may not require 99 percent control in order to meet the federal standard. The LADWP will conduct limited field testing on no more than 1.5 square miles of existing shallow flood areas to refine the amount of water required to achieve 99 percent control. Based on data collected from January 2000 through June 2006, the level of control required to reduce lake bed emissions to below the federal standard has been identified for areas of the lake bed known as the minimum dust control efficiency (MDCE). The MDCEs for the new dust control areas vary from 99 percent to 30 percent. Although some of the new shallow flood DCM areas will be constructed and operated to provide less than 99 percent dust control efficiency, existing shallow flood DCMs will require 99 percent control efficiency and thus 75 percent of wetted area.

ES.2.2.2 *Water Supply and Conveyance*

The estimated water demand for the proposed project ranges between 1 and 4 acre-feet per acre per year depending on the control measures selected and climatic and operational conditions. The SIP does not require project water to be supplied from any particular source; however, based on the LADWP's previous decisions, the source of water for the proposed project is assumed to be the Los Angeles Aqueduct. Expanded water conveyance pipeline systems will be tied into existing mainlines on the proposed project site. Only water supplied from the Los Angeles Aqueduct has been analyzed in this EIR.

ES.2.2.3 *Access Roads*

Unpaved, permanent all-year access roads will be constructed and used for construction, operation, and maintenance of the dust control areas. Two new secondary access roads will be constructed directly off of U.S. Highway 395 for the northwestern areas of the Dust Control Areas, with the pathway being built on existing dirt roads rather than completely new construction for access. New secondary access roads will connect to existing primary access roads. Secondary access roads will be about 10 feet wide, with centerline elevation 2 feet above existing grade and shoulder slopes of 3:1. The elevation of the access roads may increase to about 4 feet above existing grade on portions of the lake bed. Access is currently provided from U.S. Highway 395 via the existing north and south mainline pipeline access roads, from State Route 136 via the existing Sulfate Road, and from State Route 190 via the existing Dirty Socks access road. Pipelines and buried power lines would be placed and constructed under, along, or close to these access roads.

ES.2.2.4 *Power Supply*

Up to 2,000 kilovolts of electrical power may be required to operate proposed project facilities, including the shallow flooding facilities. This power will be supplied from existing line power facilities to the site provided by the LADWP. 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.

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.

In addition, small portable generators mounted on construction vehicles will provide some temporary construction and emergency power.

ES.2.2.5 *Water Distribution Facilities*

Shallow flooding areas will be subdivided into smaller irrigation blocks to improve water use efficiency. It is anticipated that approximately half of the units will be operated simultaneously, with water being supplied nearly continuously during peak demand periods.

Water distribution facilities within the irrigation blocks include irrigation, submain pipelines, lateral pipelines, irrigation risers, drip and spray irrigation systems, tile drains, drain pump stations, and side and downslope berms. The number and size of the individual irrigation blocks may vary based on the final design and layout selected by the project contractor. However, the anticipated facilities would be similar to existing facilities.

ES.2.2.6 *Staging Areas*

Staging areas have been established to provide contractor(s) currently working on ongoing implementation of approved DCMs with storage and placement of heavy equipment and construction materials and supplies. One contractor staging area is located south of Sulfate Road and west of State Route 136 near their junction, just above the eastern historic shoreline of Owens dry lake. A secondary contractor staging area is located above the southeast shoreline of the lake bed near Dirty Socks Spring. It is anticipated that these areas will also suffice as staging areas for construction activities associated with the proposed project. A third staging area is located at T-37.

ES.2.2.7 *Effectiveness Monitoring Program*

A dust emissions monitoring program, known as the Dust ID Program, has been established by the District. The program consists of air monitoring devices, a grid of sand motion monitoring devices deployed on the lake bed, remote cameras, visual observations, and global positioning system mapping to measure and map dust emissions from the lake bed. The District and the LADWP, with assistance of third-party technical experts, will work cooperatively to improve the Dust ID Program by 2010. The Dust ID Program will continue to operate during and after DCM installation.

ES.3 AREAS OF KNOWN CONTROVERSY

Other than those described in Section ES.4, there are no areas of substantial controversy known to the District. The Owens Valley Planning Area (OVPA) has been in serious non-attainment for the NAAQS for PM₁₀ emissions since 1987. Since the 1998 certification of the Owens Valley PM₁₀ Planning Area Demonstration of Attainment SIP EIR, the District has been working in conjunction with the City of Los Angeles to bring PM₁₀ emissions from the dry lake bed into compliance with the NAAQS.⁹ This Subsequent EIR represents an important continuation of this process.

ES.4 ISSUES TO BE RESOLVED

Two issues to be resolved by the District to implement the proposed project are property ownership in areas where DCMs are to be installed and California Department of Fish and Game (CDFG) jurisdiction.

⁹ Great Basin Unified Air Pollution Control District. 1998. *Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Addendum No. 1 to the Final Environmental Impact Report*. State Clearinghouse Number No. 96122077. Bishop, CA.

ES.4.1 Property Ownership

The majority of the land in the project area falls under the jurisdiction of the State Lands Commission (SLC). Some areas in which DCMs would be installed are located on federal Bureau of Land Management (BLM) land (Approximately 11.4 acres). The requirements of the National Environmental Policy Act (NEPA) and other relevant legislation for the installation of DCMs on federal BLM land will be met by tiering off of this EIR.

ES.4.2 California Department of Fish and Game Jurisdiction

The second issue that needs to be resolved by the District is the extent of CDFG jurisdiction in the proposed project area. The District's position, supported by past Streambed Alteration Agreements provided to LADWP, is that the CDFG's jurisdiction includes all existing wetlands (including spring mounds), ephemeral and perennial stream courses with defined beds and banks, and the existing lake (brine pool) up to its ordinary high water mark. The extent of CDFG jurisdiction will determine the amount of acreage to be included in the Streambed Alteration Agreement, which LADWP will seek from CDFG for the installation of the DCMs.

ES.5 POTENTIAL IMPACTS FOUND NOT TO BE SIGNIFICANT

The analysis undertaken in support of this Subsequent EIR determined that there are seven environmental issue areas related to CEQA that are not expected to have significant impacts resulting from implementation of the proposed project.¹⁰ These issue areas are aesthetics, agricultural resources, geology and soils, noise, population and housing, public services, and recreation. These issue areas, therefore, were not carried forward for detailed analysis in the Subsequent EIR. The environmental issues identified in the Initial Study that need to be resolved in this Subsequent EIR are air quality, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, traffic and transportation, and utilities and service systems.

ES.6 SUMMARY OF IMPACTS

The analysis undertaken in support of this Subsequent EIR has determined that impacts to biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, traffic and transportation, and utilities and service systems can be mitigated to below the level of significance. Table ES.6-1, *Summary of Significant Impacts*, presents potentially significant impacts related to each issue area analyzed that might result or can be reasonably expected to result from implementation of the proposed project. Table ES.6-1 also presents the measures that can mitigate the significant impacts and the level of significance after mitigation for each issue area analyzed in the Subsequent EIR. Impacts to air quality in terms of green house gas emissions were found to be significant and unavoidable, but mitigation measures have been included to reduce impacts.

¹⁰ Great Basin Unified Air Pollution Control District. 1998. *Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Addendum No. 1 to the Final Environmental Impact Report*. State Clearinghouse Number No. 96122077. Bishop, CA.

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS**

Impact	Mitigation Measure	Level of Significance After Mitigation
<p>Air Quality</p> <p>Implementation of the proposed project has the potential to result in impacts to air quality related to air emissions.</p>	<p><i>Measure Air-1, Fugitive Dust Emissions Control and Minimization</i></p> <p>Fugitive dust emissions shall be controlled and minimized, to comply with Great Basin Unified Air Pollution Control District Rules 400 and 401 (EPA 1992), through the City of Los Angeles Department of Water and Power'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 chemical soil stabilizers, 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. The City of Los Angeles Department of Water and Power shall demonstrate compliance with this measure through the submission of weekly monitoring reports to the Great Basin Unified Air Pollution Control District and the California State Lands Commission, which will, in return, 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.</p> <p><i>Measure Air-2, Low Emissions Tune-ups Schedule</i></p> <p>To mitigate the air quality impact related to greenhouse gas emissions, the City of Los Angeles Department of Water and Power 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 the Great Basin Unified Air Pollution Control District during the project's construction phase. Prior to implementation of the schedule, the City of Los Angeles Department of Water and Power shall submit the schedule to the Great Basin Unified Air Pollution Control District and the California State Lands Commission for its review and approval. The Great Basin Unified Air Pollution Control District shall ensure conformance of the equipment operation with the approved schedule.</p> <p><i>Measure Air-3, Low-emission Equipment Utilization</i></p> <p>To mitigate the air quality impact related to greenhouse gas emissions, the City of Los Angeles Department of Water and Power shall apply best available control measures during construction by utilizing low-emission equipment/mobile construction equipment for the proposed project site, unless the City of Los Angeles Department of Water and Power submits documentation and receives approval from the Great Basin Unified Air Pollution Control District and the California State Lands Commission that use of such equipment is not practical, feasible, or available. The Great Basin Unified Air Pollution Control District 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.</p> <p><i>Measure Air-4, Low-sulfur Fuel Utilization</i></p> <p>To mitigate the air quality impact related to greenhouse gas emissions, the City of Los Angeles Department of Water and Power 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 the City of Los Angeles Department of Water and Power submits documentation and receives approval from the Great Basin Unified Air Pollution Control District and the California State Lands Commission that the use of such equipment is not practical, feasible, or available. The Great Basin Unified Air Pollution Control District 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.</p>	<p>Implementation of mitigation measure Air-1 would reduce potential impacts on air quality in relation to fugitive dust from the construction of the proposed project to below the level of significance.</p> <p>Impacts to air quality in terms of greenhouse gas emissions were found to be significant and unavoidable, but mitigation measures Air-2 through Air-6 would reduce impacts of the proposed project on global warming.</p>

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>Measure Air-5, Low-emission Mobile Vehicle Utilization during Construction</p> <p>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 the City of Los Angeles Department of Water and Power submits documentation and receives approval from the Great Basin Unified Air Pollution Control District and the California State Lands Commission that use of such equipment is not practical, feasible, or available. In addition, carpooling of construction workers should be considered and encouraged by the City of Los Angeles Department of Water and Power to reduce vehicular emissions.</p> <p>Measure Air-6, Low-emission Mobile Vehicle Utilization during Operation</p> <p>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 the City of Los Angeles Department of Water and Power submits documentation and receives approval from the Great Basin Unified Air Pollution Control District and the California State Lands Commission that use of such equipment is not practical, feasible, or available. In addition, carpooling of operations and maintenance workers should be considered and encouraged by the City of Los Angeles Department of Water and Power to reduce vehicular green house gas emissions.</p>	
Biological Resources		
<p>Implementation of the proposed project has the potential to result in impacts to biological resources related to sensitive habitats, federally protected wetlands, and special status biological resources.</p>	<p>Construction Measures</p> <p>Measure Biology-1, Lake Bed Worker Education Program</p> <p>To minimize potential direct impacts to western snowy plover from construction activities to below the level of significance, the City of Los Angeles Department of Water and Power shall continue the lake bed worker education program consistent with the previous approach and per California Department of Fish and Game 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 the City of Los Angeles Department of Water and Power 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 the Great Basin Unified Air Pollution Control District prior to implementation of the education program. The qualifications of the biologist shall be submitted to the California Department of Fish and Game 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 the Great Basin Unified Air Pollution Control District 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 the Great Basin Unified Air Pollution Control District. A copy of the worker education program shall be provided to the California Department of Fish and Game.</p> <p>Measure Biology-2, Preconstruction Surveys for Western Snowy Plover</p> <p>To minimize potential direct impacts to western snowy plover within the project area due to construction activities, the City of Los Angeles Department of Water and Power 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 will be performed no more than seven days prior to the start of ground-disturbing activities. The City of Los Angeles Department of Water and Power 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</p>	<p>Implementation of mitigation measures Biology-5, Biology-6, and Biology-8 would reduce significant impacts to biological resources related to sensitive habitats and federally protected wetlands to below the level of significance.</p> <p>Implementation of mitigation measure Biology-1, Biology-2, Biology-3, Biology-4, Biology-7, Biology-9, Biology-10, Biology-11, Biology 12, Biology-13, and Biology-14 would reduce significant impacts to special status biological resources to below the level of significance.</p>

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>and construction noise. Green-colored stakes of less than 60 inches in height with yellow flagging will 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 the Great Basin Unified Air Pollution Control District. Maps of snowy plover nest locations shall be posted at the construction office and made available to all site personnel and Great Basin Unified Air Pollution Control District staff. The activity of the nest shall be monitored by a biological monitor approved by the Great Basin Unified Air Pollution Control District, 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 the California Department of Fish and Game. Active snowy plover nests shall be monitored at least weekly. The qualifications of the biological monitor will be submitted to the California Department of Fish and Game 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 or maintenance 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 the Great Basin Unified Air Pollution Control District through issuance of a weekly written report by the City of Los Angeles Department of Water and Power to the Great Basin Unified Air Pollution Control District.</p> <p><i>Measure Biology-3, Snowy Plover Nest Speed Limit</i></p> <p>To minimize potential direct and cumulative impacts to western snowy plover and other sensitive biological resources from vehicles construction activities, the City of Los Angeles Department of Water and Power shall implement a speed limit of 30 miles per hour within all active construction areas on Owens Lake during construction of dust control measures. 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 Great Basin Unified Air Pollution Control District 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. The number of speed limit signs shall be kept at a minimum by posting at all entry points to the lake and by 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 60 inches in height. Compliance with this mitigation measure shall be confirmed by the Great Basin Unified Air Pollution Control District through issuance of a summary written report by the City of Los Angeles Department of Water and Power to the Great Basin Unified Air Pollution Control District after completion of the education seminar and posting of speed limits. A copy of the summary report shall be provided to the California Department of Fish and Game.</p> <p><i>Measure Biology-4, Lighting Best Management Practices</i></p> <p>To minimize indirect impacts to nesting bird species associated with project lighting during construction activities, the City of Los Angeles Department of Water and Power shall institute all best management practices to minimize lighting impacts on nocturnal wildlife consistent with previous requirements and California Department of Fish and Game 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 existing and 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 the Great Basin Unified Air Pollution Control District, and a copy of the compliance record shall be provided to the California Department of Fish and Game.</p>	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p><i>Measure Biology-5, Marking of Nonemissive Wetland and Upland Scrub Areas</i></p> <p>To minimize the potential direct impacts to nonemissive wetland and upland scrub vegetation communities from construction activities to below the level of significance, the City of Los Angeles Department of Water and Power shall clearly mark the boundary of construction zones (including the 50-foot buffer) within 50 feet of the boundary of nonemissive wetland areas and upland scrub communities to prevent construction activity from impacting these vegetation communities. No construction zone buffer is allowed for areas approaching wetland or sensitive areas. Construction zone boundaries near nonemissive areas shall be marked using stakes less than 60 inches high, spaced 10 feet apart, along the edges of spring mounds, and spaced 100 feet apart along other vegetated edges. Marking shall occur prior to the initiation of construction activities. Geographic information system mapping of nonemissive vegetation limits shall be provided to the contractor during the bidding process. Construction buffer areas outside of the dust control boundaries shall not exceed 50 feet in width, and shall be reduced as required to prevent construction activities from impacting adjacent vegetated areas. No temporary or permanent access routes through vegetated areas will be established, except those specified in the Project Description. Incursions into established vegetated areas, including vegetated areas within the temporary impact area of the 50-foot construction zone buffer, that cause measurable loss of plant cover will require revegetation with suitable local, native plant species. Proof of compliance with this mitigation measure shall be verified by submitting a written report to the Great Basin Unified Air Pollution Control District and California Department of Fish and Game detailing the type and locations of delineated wetland and upland areas. This report shall be submitted prior to the start of construction activities. The mitigation plan must contain a schedule and protocol for achieving revegetation within two years of any impacts to vegetation caused by access routes or construction activities outside the areas specified in the Project Description.</p> <p>Operations and Maintenance Measures</p> <p><i>Measure Biology-6, Wetland Mitigation Program</i></p> <p>To minimize direct impacts to emissive transmontane alkali meadow wetland communities caused by installation of dust control measures on emissive transmontane alkali meadow to below the level of significance, the City of Los Angeles Department of Water and Power shall institute a wetland mitigation program prior to the initiation of construction activities as recommended by the California Department of Fish and Game. The program shall be designed to emphasize restoration of equivalent functions and values of wetlands within the project area as compared to pre-project impacts.</p> <p>The wetlands mitigation program will include mitigation goals, target success criteria, an implementation plan, plant species and spacing, irrigation design, monitoring activities, and maintenance requirements. Managed Vegetation is deemed to have equivalent functions and values to dry transmontane alkali meadow that would be impacted by the project at a ratio of 2 acres of Managed Vegetation created for every 1 acre of dry transmontane alkali meadow impacted. Up to 413 acres of dry transmontane alkali meadow may be converted to dust control measures as a result of the project. The creation-to-impact ratio for the proposed project would be approximately 2:1. A Managed Vegetation area of up to 826 acres shall be designated as the wetland mitigation area within the prescribed Managed Vegetation areas as proposed in the project description. The City of Los Angeles Department of Water and Power shall designate the wetland mitigation area in a Managed Vegetation area that is either directly adjacent to, or in near proximity to, existing natural transmontane alkali meadow areas. Potential mitigation areas may include Sulfate Well outflow area and Swansea outflow area. Potential mitigation areas may not include state-owned lands currently used for cattle grazing.</p> <p>A design for the designated wetland mitigation area shall be provided to the Great Basin Unified Air Pollution Control District and California State Lands Commission for approval prior to construction of any Managed Vegetation. Included in the plan will be the location, plant species, schematics, schedule, irrigation requirements, performance criteria, and contingency measures. A copy of the map shall be provided to the California Department of Fish and Game, U.S. Army Corps of Engineers, and the State Lands Commission. A transmontane alkali meadow management plan shall be created by the City of Los Angeles Department of Water and Power to monitor the designated wetland mitigation areas for appropriate coverage of native species</p>	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>and for change in extent of transmontane alkali meadow over a five-year period postconstruction, and to conduct weed abatement in wetland areas in and within 500 feet of the project area. The management plan shall monitor wetland mitigation areas for five years postconstruction with specific goals for native plant species coverage and management of invasive, nonnative plant species. The transmontane alkali meadow management plan shall be approved by the Great Basin Unified Air Pollution Control District prior to the initiation of construction activities. A copy of the management plan and subsequent monitoring reports shall be provided to the California Department of Fish and Game, U.S. Army Corps of Engineers, and to the State Lands Commission.</p> <p>Calculations of dry transmontane alkali meadow impacts from implementation of the project are estimates based on the mapped extent of transmontane alkali meadow areas within the project area and a determination of whether an area is emissive or nonemissive based on dust monitoring data. The total acreage of wetland mitigation for dry transmontane alkali meadow shall be two times the actual direct and indirect impact area caused to dry transmontane alkali meadow by both construction and postconstruction activities. If any unanticipated direct or indirect postconstruction impacts to moist or saturated transmontane alkali meadow communities occur as a result of project construction or operation, City of Los Angeles Department of Water and Power would be required to designate additional wetland mitigation areas and incorporate design parameters that would result in the replacement of equivalent functions and values to the impacted moist or saturated transmontane alkali meadow wetlands within two years of the initiation of the replacement effort. Significant impacts would include loss of vegetative cover due to ground disturbance or change in species composition attributable to drying of springs or ponds, which does not self-repair within two years of detection. Managed Vegetation would not be suitable mitigation for impacts to moist or saturated transmontane alkali meadow communities. The City of Los Angeles Department of Water and Power shall compensate for all loss of transmontane alkali meadow that occurs. Mitigation for impacts to all transmontane alkali meadow associated with construction and operation of dust control measures constructed between 1998 and 2008 (prior to the project) will be replaced at a ratio of 1 acre of wetland replacement for every acre of wetland impact (1:1 replacement ratio). Replacement wetlands will consist of similar habitat function and values as the wetland that is lost. All wetland replacement described in this mitigation measure shall be approved by the Great Basin Unified Air Pollution Control District, the California Department of Fish and Game, U.S. Army Corps of Engineers, and the State Lands Commission, and will be constructed and fully functional no later than April 1, 2010.</p> <p><i>Measure Biology-7, Toxicity Monitoring Program</i></p> <p>To avoid direct and cumulative impacts to native wildlife communities that may potentially result from bioaccumulation of toxic substances resulting from construction from naturally occurring heavy metals and other potential toxins in lake bed deposits to below the level of significance, the City of Los Angeles Department of Water and Power 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 Great Basin Unified Air Pollution Control District prior to the start of any construction. 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. 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 the Great Basin Unified Air Pollution Control District 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 the Great Basin Unified Air Pollution Control District, the California Department of Fish and Game, and the State Lands Commission prior to implementation.</p>	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation																				
	<p>The monitoring shall be conducted as described in Table 3.2.5-1, <i>Biology-7, Postconstruction Bioaccumulation Monitoring Schedule</i>. 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 (two times per year) 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 the Great Basin Unified Air Pollution Control District, the California Department of Fish and Game, Lahontan Water Quality Control Board, and the State Lands Commission by the approved biological monitor within four months following the end of the monitoring year. Any changes in the existing monitoring requirements by the Regional Water Quality Control Board shall be included into this mitigation measure.</p> <p align="center">TABLE 3.2.5-1 BIOLOGY-7, POSTCONSTRUCTION BIOACCUMULATION MONITORING SCHEDULE</p> <table border="1" data-bbox="864 856 2085 1074"> <thead> <tr> <th>2003 SIP areas only</th> <th>2003 SIP areas only</th> <th>Year 1 monitoring event*</th> <th>Year 2 monitoring event*</th> <th>Year 3 monitoring event†</th> </tr> </thead> <tbody> <tr> <td>2008</td> <td>2009</td> <td>2010</td> <td>2011</td> <td>2012</td> </tr> <tr> <th>Year 4 monitoring event*</th> <th>Year 5 monitoring event†</th> <th>Year 6 monitoring event*</th> <th>Year 9 monitoring event†</th> <th>Year 14 monitoring event*</th> </tr> <tr> <td>2013</td> <td>2014</td> <td>2015</td> <td>2018</td> <td>2023</td> </tr> </tbody> </table> <p>* 2003 and 2008 SIP areas monitored † 2008 SIP areas only</p> <p><i>Measure Biology-8, Exotic Pest Plant Control Program</i></p> <p>To minimize indirect impacts to native vegetation communities that may result from the project construction and operations and to prevent creating an environment for weedy plant species to become established in native plant communities, the City of Los Angeles Department of Water and Power shall continue the exotic pest plant control program initiated in 2007 per the 2003 State Implementation Plan within the designated dust control areas after full build-out of the project (April 1, 2010). The spread of exotic, invasive plant species, such as salt cedar (<i>Tamarix</i> spp.), has detrimental effects on habitat quality for native plant and wildlife species and, in the case of species like salt cedar, can reduce the availability and quality of water within native vegetation areas for plant and wildlife species. The goals of the program shall be consistent with the goals specified in the Inyo County General Plan and the U.S. Fish and Wildlife Service Owens Basin Wetland and Aquatic Species Recovery Plan for the portion of the Recovery Plan included within the project area. The program shall be written by a pest management specialist or other person familiar with exotic plant species management and shall be submitted to the Great Basin Unified Air Pollution Control District no later than April 1, 2010. Measures for control shall include all best management practices, which include prudent and safe use of control measures such as herbicides, brushing, direct weed removal, tire washing, or comparable measures such that no increase in invasive plant cover occurs. The program shall include yearly monitoring to ensure that exotic plant species are being sufficiently controlled. The draft exotic plant species control program shall be submitted to and approved by the Great Basin Unified Air Pollution Control District and the State Lands Commission prior to the initiation of exotic plant control activities. Annual written monitoring reports documenting exotic plant location, type, pretreatment abundance, control type used, and control efficacy shall be delivered to the Great Basin Unified Air Pollution Control District within four months following the end of each calendar year. A copy of the control program and resulting monitoring reports shall be provided to the State Lands Commission and to the California Department of Fish and Game.</p>	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	
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																		

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p><i>Measure Biology-9, Plover Identification Training</i></p> <p>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 the California Department of Fish and Game 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. 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 the Great Basin Unified Air Pollution Control District and the California Department of Fish and Game 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 the Great Basin Unified Air Pollution Control District, the State Lands Commission, and the California Department of Fish and Game.</p> <p>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 dust control measure 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. The Great Basin Unified Air Pollution Control District and the California Department of Fish and Game 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 the Great Basin Unified Air Pollution Control District and the California Department of Fish and Game 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 City of Los Angeles Department of Water and Power and the California Department of Fish and Game based on the report provided by the biological monitor. A copy of the negotiated agreement between City of Los Angeles Department of Water and Power and the California Department of Fish and Game shall be provided to the Great Basin Unified Air Pollution Control District.</p> <p><i>Measure Biology-10, Long-Term Monitoring Program for Western Snowy Plover</i></p> <p>To minimize potential direct, indirect, and cumulative impacts resulting from operation and maintenance of dust control measures to western snowy plover, the City of Los Angeles Department of Water and Power shall implement a long-term snowy plover population monitoring program for the entire Owens Lake bed. Long-term monitoring is recommended 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 dust control measures on Owens Lake bed shall be coordinated so that long-term monitoring for all dust control measures 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</p>	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation																
	<p>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.¹¹ 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 the California Department of Fish and Game for review. The monitoring methodology shall be consistent with the methodology used for the Owens Lake 2002 plover surveys.</p> <p>Annual summary reports for the monitoring efforts shall be filed with the Great Basin Unified Air Pollution Control District, the State Lands Commission, and the California Department of Fish and Game by December 31 of each monitoring year. The Great Basin Unified Air Pollution Control District shall require adaptive management changes to operation and maintenance of dust control measures 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. The Great Basin Unified Air Pollution Control District shall consult with the City of Los Angeles Department of Water and Power, State Lands Commission, and the California Department of Fish and Game prior to implementing adaptive management changes. At the time that adaptive management changes are implemented, 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 shall be discontinued.</p> <p>Specified calendar years for conducting lake-wide plover population surveys are provided in Table 3.2.5-2, <i>Biology 10, Postconstruction Lake-wide Plover Population Monitoring Schedule</i>. Lake-wide surveys in 2008 and 2009 will be conducted per the 2003 State Implementation Plan with lake-wide surveys conforming to the 2008 State Implementation Plan schedule beginning in 2010. 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 the Great Basin Unified Air Pollution Control District by December 31 of each monitoring year. The report will 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 the California Department of Fish and Game.</p> <p align="center">TABLE 3.2.5-2 BIOLOGY-10, POSTCONSTRUCTION LAKE-WIDE PLOVER POPULATION MONITORING SCHEDULE</p> <table border="1" data-bbox="867 1332 2085 1518"> <thead> <tr> <th>Year 1 monitoring event</th> <th>Year 2 monitoring event</th> <th>Year 3 monitoring event</th> <th>Year 4 monitoring event</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>2011</td> <td>2012</td> <td>2013</td> </tr> <tr> <th>Year 5 monitoring event</th> <th>Year 7 monitoring event</th> <th>Year 9 monitoring event</th> <th>Year 14 monitoring event</th> </tr> <tr> <td>2014</td> <td>2016</td> <td>2018</td> <td>2023</td> </tr> </tbody> </table> <p><i>Measure Biology-11, Corvid Management Plan</i></p> <p>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 dust control measures, the City of Los Angeles Department of Water and Power shall continue to implement the corvid management plan resulting from the 2003 State Implementation Plan with an extension of one year within the project area. This 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 dust control measures, utilization of Nixalite or the functional equivalent on all structures greater than 72 inches in height (increased from the original 60 inches</p>	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	
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															

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>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. Due to the use of sand fencing on the tops of rows in Moat & Row areas, the sand fences are considered to be at a height of 10 feet (5 feet in height of row and 5 feet in height of fence). The use of sand fencing in Moat & Row areas will be considered under this mitigation measure as exceeding the height of 72 inches, thereby requiring the utilization of Nixalite or the functional equivalent on top of sand fencing. 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 the California Department of Fish and Game 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 the Great Basin Unified Air Pollution Control District and the California Department of Fish and Game 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. Copies of the yearly reports shall be submitted to the Great Basin Unified Air Pollution Control District and the California Department of Fish and Game no later than December 31 of each corvid management year. If after the sixth year of reporting in 2011, the Great Basin Unified Air Pollution Control District determines that the corvid management program is effective, and 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. However, the corvid management practices shall be continuously implemented.</p> <p><i>Measure Biology-12, Habitat Management Program for Nesting Snowy Plovers</i></p> <p>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 the City of Los Angeles Department of Water and Power 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, <i>Conceptual Owens Lake Operational Calendar</i>, and Figure 3.2.5-2, <i>Shallow Flooding Management for the Month of July</i>, for a conceptual picture of Shallow Flooding panel operation. The schedule for decreasing the percentage of wetness in Shallow Flooding areas will follow Table 3.2.5-3, <i>Biology-12, Schedule for Percent Reduction of Water Applied to Achieve Level of Control Efficiency on June 30</i>. The City of Los Angeles Department of Water and Power 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 the City of Los Angeles Department of Water and Power determines necessary. A final operations plan detailing the drying operations shall be submitted to the Great Basin Unified Air Pollution Control District for approval, and a copy shall be provided to the California Department of Fish and Game prior to startup of new Shallow Flooding operations.</p>	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation								
	<p align="center">TABLE 3.2.5-3 BIOLOGY-12, SCHEDULE OF PERCENT SURFACE AREA WETTED REQUIRED TO ACHIEVE LEVEL OF CONTROL EFFICIENCY AFTER JUNE 30</p> <table border="1" data-bbox="876 471 2073 536"> <thead> <tr> <th data-bbox="876 471 1168 501">July 1–7</th> <th data-bbox="1177 471 1470 501">July 8–14</th> <th data-bbox="1479 471 1771 501">July 15–21</th> <th data-bbox="1780 471 2073 501">July 22</th> </tr> </thead> <tbody> <tr> <td data-bbox="876 501 1168 536">~ 50% wetted area</td> <td data-bbox="1177 501 1470 536">~ 20% wetted area</td> <td data-bbox="1479 501 1771 536">~ 15% wetted area</td> <td data-bbox="1780 501 2073 536">Off</td> </tr> </tbody> </table> <p><i>Measure Biology-13, Wildlife Movement Gaps</i></p> <p>To minimize potential direct impacts to migratory corridors from the installation of sand fencing atop the rows of Moat & Row areas, the City of Los Angeles Department of Water and Power shall include gaps in sand fencing allowing wildlife movement on the lake bed. Any other barrier with vertical sides, such as a vertical moat, would also require gaps. Gaps in the fence shall be no more than 100 feet apart and may consist of either breaks in the fencing or openings within a fence. The size of gaps in the sand fencing will be submitted to and approved by the California Department of Fish and Game. Proof of compliance with this mitigation measure shall be verified by submitting a written report to the Great Basin Unified Air Pollution District and California Department of Fish and Game detailing the locations, size, and spacing of gaps for wildlife movement in sand fencing.</p> <p><i>Measure Biology–14, Wildlife Area Management Plan</i></p> <p>To avoid direct and cumulative impacts to native wildlife communities that may result from the proposed project, a wildlife area management plan shall be prepared and implemented by the City of Los Angeles Department of Water and Power as requested by the California State Lands Commission.¹² Components of the plan shall include at a minimum the goals and objectives of the wildlife area management plan, a description of baseline conditions of plant and wildlife resources, effects on biological resources as a result of implementation of dust control measures, descriptions of biological elements targeted for management, long-term goals, and a description of the operations and maintenance tasks required to complete each goal. The wildlife area management plan shall be prepared and implemented by a biologist familiar with the habitats and species present on Owens Lake and familiar with wildlife management techniques. The qualifications of the biologist shall be submitted to the California Department of Fish and Game and the California State Lands Commission for review. The wildlife area management plan shall include yearly monitoring, including a written report documenting the results of the wildlife management techniques, recording the observed effectiveness of the techniques and suggesting improvements for wildlife area management within the lake bed. Copies of the yearly reports shall be submitted to the California State Lands Commission, Great Basin Unified Air Pollution Control District, and the California Department of Fish and Game no later than December 31 of each wildlife management year. The City of Los Angeles Department of Water and Power will be required to submit the wildlife area management plan to the State Lands Commission for approval by April 1, 2009. The approved wildlife area management plan shall be fully implemented by April 1, 2010. If after five years of reporting in 2015, the California State Lands Commission determines that the wildlife area management program is effective, then the reporting schedule shall phase out in the same time frame as shown in Table 3.2.5-1. However, the wildlife management practices shall be continuously implemented.</p>	July 1–7	July 8–14	July 15–21	July 22	~ 50% wetted area	~ 20% wetted area	~ 15% wetted area	Off	
July 1–7	July 8–14	July 15–21	July 22							
~ 50% wetted area	~ 20% wetted area	~ 15% wetted area	Off							
Cultural Resources										
<p>Implementation of the proposed project has the potential to result in 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.</p>	<p><i>Paleontological Resources</i></p> <p><i>Measure Cultural-1, Paleontological Resources Construction Monitoring</i></p> <p>The impacts to cultural resources related directly or indirectly to the destruction of a unique paleontological resource that has the potential to be present in older Pleistocene and late Holocene portions of geological units in the eastern and southern Owens Lake playa shall be reduced to below the level of significance through construction monitoring of ground-disturbing activities and salvage of paleontological resources. Ground-disturbing activities include, but are not limited to, drilling,</p>	<p>Implementation of mitigation measures Cultural-1 through Cultural-3 would reduce impacts to cultural resources related to an adverse change in the significance of a paleontological resource, an archaeological resource, an historical resource, or human remains to below the level of significance.</p>								

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>excavation, trenching, and grading. Where any such activity is anticipated in older Pleistocene and late Holocene portions of geological units in the eastern and southern Owens Lake playa in conjunction with the construction of dust control measures, the Great Basin Unified Air Pollution Control District shall require construction monitoring. The Great Basin Unified Air Pollution Control District shall require that construction monitoring, salvage, and recovery of unique paleontological resources be consistent with standards for such recovery established by the Society of Vertebrate Paleontology:</p> <ul style="list-style-type: none"> • A qualified paleontologist shall be retained to provide professional paleontological services. The paleontologist shall be responsible for implementation of the mitigation plan and maintenance of professional standards of work. • Shallow Flooding without any excavation does not require mitigation. However, planned grading, trenching, and excavation activities associated with Moat & Row (or flooding areas associated with older Pleistocene and Late Holocene portions of geological units in the eastern and southern Owens Lake playa) shall be monitored. Sediments located near the surface are recent and are not anticipated to be paleontologically sensitive. However, those sediments located approximately 4 feet or more below the surface may contain paleontological resources and shall be monitored. This measure may be modified by the qualified paleontologist for specific locations as the depth of recent sediments varies across the project area. In conjunction with the subsurface work, the monitor shall inspect exposed sediments, including microscopic examination of matrix, to determine if fossils are present. In addition, the qualified paleontologist shall be available on call to respond to unanticipated discoveries. • The monitor may be a qualified paleontological monitor or a cross-trained archaeologist, biologist, or geologist working under the supervision of a qualified principal paleontologist. The function of the monitor is to identify potential resources and recover them with appropriate scientific data. • Paleontological Resources Sensitivity Training is required for all project personnel if the monitor will not be present full-time. This 15 minute field training reviews what fossils are, what fossils might potentially be found, and the appropriate procedures to follow if fossils are found. • Discovery of fossil-producing localities shall require that stratigraphic columns be measured and that geologic samples be taken for analysis. • If fossil localities are discovered, the paleontologist shall collect controlled samples for processing. All fossils recovered shall be prepared, identified, and cataloged before donation to the accredited repository designated by the lead agency. The qualified paleontologist shall be required to secure a written agreement with a recognized repository, regarding the final disposition, permanent storage, and maintenance of any significant fossil remains and associated specimen data and corresponding geologic and geographic site data that might be recovered as a result of the specified monitoring program. The written agreement shall specify the level of treatment (i.e., preparation, identification, curation, cataloging, etc.) required before the fossil collection would be accepted for storage. In addition, a technical report shall be completed. The final disposition of paleontological resources recovered on State lands must be approved by the California State Lands Commission. • Within 90 days of the completion of the paleontological monitoring, the qualified paleontologist shall prepare a final mitigation report to be submitted to the Great Basin Unified Air Pollution Control District and the California State Lands Commission with an appended, itemized inventory of the specimens. The report shall include a list of specimens recovered, documentation of each locality, interpretation of fossils recovered, and any technical or specialist's reports as appendices. The report and inventory, when submitted to the Great Basin Unified Air Pollution Control District, shall signify the completion of the program to mitigate impacts to paleontological resources. 	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p><i>Archaeological and Historical Resources</i></p> <p>The direct and indirect impacts to cultural resources related to substantial adverse changes to the significance of archaeological and historical resources resulting from implementation of the proposed project would be reduced to below the level of significance through the implementation of mitigation measures Cultural-2 and -3, which are in accordance with Section 15126.4 (b)(3) of the State CEQA Guidelines.</p> <p><i>Measure Cultural-2, Cultural Resources Investigations</i></p> <p>The Great Basin Unified Air Pollution Control District shall ensure that potentially impacted prehistoric and historic archaeological sites be assessed for significance, as defined by Public Resources Code Section 21083.2 or State of California Environmental Quality Act Guidelines Section 15064.5(a), through the implementation of Phase II investigations. Impacts to those sites found to be significant shall be mitigated to below the level of significance through a Phase III data recovery program. Resources found to be not significant shall not require mitigation.</p> <p>Coordination with the California State Lands Commission shall be undertaken to mitigate impacts consistent with California State Lands Commission practices for the mitigation of archaeological sites that occur on lands under the jurisdiction of the California State Lands Commission, including California State Lands Commission approval and issuance of a permit for Phase II testing and Phase III data recovery program. The Great Basin Unified Air Pollution Control District shall consult with the State Historic Preservation Officer as required by 15064.5 (b) (5) of the State of California Environmental Quality Act Guidelines for state-owned historical resources. Construction shall not occur on state property until concurrence from the State Historic Preservation Officer is obtained concerning determinations of eligibility and that mitigation has reduced the impact to cultural resources to a less than significant level. In addition, coordination with interested Native American tribes identified by the Native American Heritage Commission shall be undertaken. Local tribes shall be contacted by the qualified archaeologist specified for the project, and a Native American monitor(s) shall be retained to be present on site during all ground-disturbing activities, including but not limited to archaeological evaluation, excavation, Phase II investigations and Phase III data recovery (if needed), and construction activities. The Native American monitor(s) shall coordinate with the qualified project archaeologist, the Great Basin Unified Air Pollution Control District, and the City of Los Angeles Department of Water and Power to ensure responsible remediation of Native American sites and sacred materials. Should human remains be discovered, the California State Lands Commission shall be notified within 24 hours.</p> <p><u>Phase II</u></p> <p>Five (5) newly recorded prehistoric archaeological sites (OL Sites 1, 2, 5, 6, and 7), five (5) newly recorded historic archaeological sites (OL Sites 3H, 4H, 8H, 10H, and 11H), and any additional prehistoric or historic archaeological sites located on the 9,664-acre proposed project site shall be assessed for significance as defined by the State of California Environmental Quality Act through the implementation of Phase II investigations prior to the initiation of construction activities in those areas where the sites are located:</p> <ul style="list-style-type: none"> • Development of a research design that guides assessments of site significance and scientific potential. This design will be an update, expansion, and refinement of research designs that have guided previous Phase II evaluations in the study area. • Mapping and systematic collection of a representative sample of surface artifacts • Subsurface investigation through shovel test pits, surface scrapes, or 1 by 1 meter excavation units; a combination of such methods; or equivalent methods • Analysis of recovered material to determine significance pursuant to the State of California Environmental Quality Act • Preparation of a report, including evaluation of site significance and recommendations for mitigation if appropriate 	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<ul style="list-style-type: none"> • Transmittal of report to the Eastern Information Center at the University of California, Riverside • Curation of artifact collection. The final disposition of collected artifacts from State lands is subject to approval by the California State Lands Commission <p><u>Phase III</u></p> <p>A Phase III data recovery effort, in accordance with the State of California Environmental Quality Act (Section 21083.2 (d)), shall be implemented by the Great Basin Unified Air Pollution Control District for those sites determined to be significant, pursuant to the State of California Environmental Quality Act, through Phase II testing and evaluation. The Great Basin Unified Air Pollution Control District shall ensure that data recovery has been completed prior to the issuance of a construction permit for any area containing a site determined to be significant and for which it can be demonstrated that consequential scientific information can be recovered. The Phase III data recovery program shall include:</p> <ul style="list-style-type: none"> • Development of a comprehensive research design to answer questions addressed during the Phase II on a broader regional level and to provide a procedural framework for the collection of data at sites determined to be significant. • Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size • Subsurface investigation through methods, such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When applicable, other techniques, such as geophysical testing methods may also be used • Analysis of recovered material through visual inspection, and chemical analysis when applicable • Preparation of a report • Transmittal of report to involved parties and Eastern Information Center at the University of California, Riverside • Curation of artifact collection. The final disposition of collected artifacts from State lands is subject to approval by the California State Lands Commission <p><i>Measure Cultural-3, Cultural Resources Monitoring Program</i></p> <p>Impacts to surface and subsurface cultural resources not identified during the Phase I (survey), Phase II (testing and evaluation), or Phase III (data recovery) shall be mitigated through the implementation of a monitoring program during construction or any ground-disturbing activities. Native American consultation shall be undertaken as part of this mitigation measure. Previous monitoring efforts have demonstrated that there is a high potential for the unanticipated discovery of cultural resources during construction on the Owens Lake bed, even in those areas that have been previously surveyed. This is a consequence of the movement of sediment by wind and/or water across the lake bed, which results in the exposure and covering of cultural materials on the surface of the lake bed on a regular basis. Monitoring shall be required only during initial grading and earthmoving activities. The Great Basin Unified Air Pollution Control District shall require that the following program be implemented and that the requirement be duly noted in the plans and specifications:</p> <ul style="list-style-type: none"> • Retain a Qualified Archaeologist. A qualified archaeologist shall be retained to implement a monitoring and recovery program in any area identified as having the potential to contain unique archaeological resources as defined by Public Resources Code Section 21083.2 or historical resources as defined by the State of California Environmental Quality Act Guidelines Section 15064.5(a). • Agreement for Disposition of Recovered Artifacts. The selected archaeologist shall be required to secure a written agreement with a recognized museum repository, such as the University of California, Davis and the San Bernardino County Museum, regarding the final disposition and permanent storage and maintenance of any unique archaeological resources or historical resources recovered as a result of the archaeological 	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>monitoring, as well as corresponding geographic site data that might be recovered as a result of the specified monitoring program. The written agreement shall specify the level of treatment (i.e, preparation, identification, curation, cataloging, etc.) required before the collection would be accepted for storage.</p> <p>The ultimate decision regarding the disposition of artifacts collected during Phase I (survey), Phase II (testing and evaluation), Phase III (data recovery), or monitoring efforts on lands administered by the California State Lands Commission shall be made by the California State Lands Commission. Artifacts collected during past efforts on California State Lands Commission lands have been sent to the University of California, Davis, if they had been recovered from a site that was eligible for the National Register of Historic Places or the California Register of Historical Resources. The California State Lands Commission has indicated that those artifacts collected from sites that were not eligible for the National Register of Historic Places or the California Register of Historical Resources will be returned to the tribes. The final disposition of artifacts recovered from lands administered by other agencies (e.g. BLM) shall be determined in accordance with the policies of those agencies.</p> <ul style="list-style-type: none"> • Preconstruction Briefing. The selected archaeologist, or an equally qualified designee, shall attend a preconstruction briefing to provide information regarding regulatory requirements for the protection of unique archaeological resources, historical resources, and human remains. Construction personnel shall be briefed on procedures to be followed in the event that a unique archaeological resource, historical resource, or human remains are encountered during construction. An information package shall be provided for construction personnel not present at the initial preconstruction briefing. The archaeologist(s) shall be required to provide a telephone number where they can be reached by the construction contractor, as necessary. • Unanticipated Discovery of Human Remains on State Lands (Public Resources Code 5097). The archaeologists shall ensure that all construction personnel shall be informed of the requirement to notify the coroner of the County within 24 hours of the discovery of human remains on state lands. Upon discovery of human remains, there shall be no further excavation or disturbance of the site or any that are reasonably suspected to overlie adjacent human remains until the following conditions are met: <ul style="list-style-type: none"> ▪ The Inyo County Coroner has been informed and has determined that no investigation of the cause of death is required, and if the remains are of Native American origin, the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. • Unanticipated Discovery of Human Remains on Federal Lands (Native American Graves Protection and Repatriation Act). Whenever any person inadvertently discovers human remains on public lands, including lands administered by the Bureau of Land Management, 43 Code of Federal Regulations 10.4 requires the individual to notify the land manager in writing of such discovery. If the discovery occurs in connection with an authorized use, the activity that caused the discovery is to cease and the materials are to be protected until the land manager can respond to the situation. Upon receipt of written confirmation of the discovery, 43 Code of Federal Regulations 10.4 requires the manager to do the following: (1) certify receipt of the notification; (2) take immediate steps, if necessary to further protect the materials; (3) notify by telephone, with written confirmation, the tribes likely to be culturally affiliated with the materials; and (4) initiate consultation with such tribes. If, after consultation with tribes, the manager determines that the material will be adequately protected in situ, without the need to excavate or remove the material from the area of discovery, then the requirements under the Native American Graves Protection and Repatriation Act have been completed. The materials remain in federal ownership, adequately protected by the manager as provided for in the law. If, after consultation with tribes, the manager determines that the circumstances 	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>warrant intentional excavation or removal of the materials from the area of discovery, then 43 Code of Federal Regulations 10.3 applies, and the manager must complete the steps outlined therein for intentional excavations.</p> <ul style="list-style-type: none"> • Construction Monitoring. A qualified archaeologist shall monitor earthmoving activities in areas that are likely to contain unique archaeological resources or historical resources. The archaeologist shall be authorized to halt construction, if necessary, in the immediate area where buried cultural remains are encountered. Prior to the resumption of grading activities in the immediate vicinity of the cultural remains, the project proponent shall provide the archaeologist with the necessary resources to identify and implement a program for the appropriate disposition (as specified by Section 15064.5 (e) of the State of California Environmental Quality Act Guidelines). • Monitoring Report. The monitor shall maintain daily monitoring logs that shall be submitted quarterly to the Great Basin Unified Air Pollution Control District. A complete set of the daily monitoring logs shall be kept on site throughout the earthmoving activities and be available for inspection. The daily monitoring log shall be keyed to a location map to indicate the area monitored, the date, assigned personnel, and the results of monitoring, including the recovery of archaeological material, sketches of recovered materials, and associated geographic site data. Within 90 days of the completion of the archaeological monitoring, a monitoring report shall be submitted to the Great Basin Unified Air Pollution Control District, the City of Los Angeles Department of Water and Power, the California State Lands Commission, and to the Eastern Information Center at the University of California, Riverside. The report, when submitted to the Great Basin Unified Air Pollution Control District, shall signify the completion of the program to mitigate impacts to unique archaeological resources or historical resources. <p>Human Remains</p> <p>Implementation of the proposed project has the potential to result in direct impacts to unknown burial sites. Mitigation measure Cultural-2, which requires Phase II and Phase III archaeological investigations and Native American monitoring, and Cultural-3, which requires monitoring of all other ground-disturbing activities and specifies the statutory procedures to be followed in the event of the discovery of human remains, would mitigate impacts to unknown locations of human remains to a less than significant level.</p>	
Hazards and Hazardous Materials		
<p>Implementation of the proposed project has the potential to result in impacts to hazards and hazardous materials.</p>	<p>Measure Hazards-1, Hazardous Materials Transport</p> <p>To minimize impacts related to the unauthorized release of hazardous materials during routine transport, use, or disposal of hazardous materials, prior to construction work specified in the Revised 2008 State Implementation Plan, the City of Los Angeles Department of Water and Power shall ensure through its construction permitting process, or through enforcement of contractual obligations for its own projects, that all contractors transport, store, and handle construction-required hazardous materials in a manner consistent with relevant regulations and guidelines established by the California Code of Regulations (Title 13, Division 2, Chapter 6); the California Department of Transportation; and the California Regional Water Quality Control Board, Lahontan Region, prior to construction. The City of Los Angeles Department of Water and Power shall submit proof of incorporation of this requirement in all construction contracts related to work specified in the Revised 2003 State Implementation Plan to the Great Basin Unified Air Pollution Control District and Inyo County. The City of Los Angeles Department of Water and Power shall submit an Operation Plan for the routine transport, use, storage, handling, and disposal of hazardous materials to the Great Basin Unified Air Pollution Control District and Inyo County prior to the operation of dust control measures specified in the Revised 2003 State Implementation Plan. The City of Los Angeles Department of Water and Power shall provide to the Great Basin Unified Air Pollution Control District and Inyo County an annual update as required for the transport, use, storage, handling, and disposal of hazardous materials.</p>	<p>Implementation of mitigation measure Hazards-1 through Hazards-4 would reduce significant impacts related to hazards and hazardous materials to below the level of significance.</p>

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>Measure Hazards-2, Spill Prevention Control and Countermeasure Program</p> <p>To minimize impacts related to the unauthorized release of hazardous materials into the environment, the City of Los Angeles Department of Water and Power shall prepare a Spill Prevention Control and Countermeasure program applicable to all statutes and regulations. The the City of Los Angeles Department of Water and Power shall submit a Spill Prevention Control and Countermeasure to Inyo County for review and approval. The City of Los Angeles Department of Water and Power shall demonstrate approval of the Spill Prevention Control and Countermeasure by Inyo County to the Great Basin Unified Air Pollution Control District prior to the use, storage, and handling of hazardous materials in conjunction with construction or operation of work specified in the Revised 2008 State Implementation Plan. The Spill Prevention Control and Countermeasure shall address all above-ground storage tanks within the fertilizer injection and water treatment systems in accordance with all federal, state, and local laws and regulations. The City of Los Angeles Department of Water and Power shall enclose all the fertilizer injection and water treatment systems with a minimum 6-foot-high, barb-wire-topped, chain-link fence or equivalent enclosure and locked gate to prevent unauthorized access. The City of Los Angeles Department of Water and Power shall amend its existing lease with the State Lands Commission to allow for the improvement specified in this measure. The Spill Prevention Control and Countermeasure shall be in place throughout construction, operation, and maintenance of work specified in the Revised 2008 State Implementation Plan.</p> <p>Measure Hazards-3, Emergency Response Business Plan</p> <p>To minimize impacts related to the unauthorized release of hazardous materials into the environment, the City of Los Angeles Department of Water and Power shall develop a business plan for emergency response for the routine transport, use, storage, handling, and disposal of hazardous materials. The business plan for emergency response shall address preparation for possible emergencies involving hazardous materials. The City of Los Angeles Department of Water and Power shall provide copies of the approved business plan for emergency response to the Great Basin Unified Air Pollution Control District and Inyo County. The City of Los Angeles Department of Water and Power shall provide to the Great Basin Unified Air Pollution Control District and Inyo County an annual update to the approved business plan as required for the transport, use, storage, handling, and disposal of hazardous materials.</p> <p>Measure Hazards-4, Fire Protection Services</p> <p>To minimize the direct, indirect, and cumulative impacts related to the occurrence of wildland fires during construction and operation of work specified in the Revised 2008 State Implementation Plan, the City of Los Angeles Department of Water and Power shall provide for fire protection services for all dust control areas to the satisfaction of Inyo County. Fire protection services shall be provided prior to any further construction on the lake bed. Fire protection services shall include provision of adequate equipment and personnel as determined by Inyo County. Proof of compliance with this mitigation measure shall be submitted by the City of Los Angeles to Inyo County and the Great Basin Unified Air Pollution Control District prior to construction of any additional dust control measures.</p>	
<p>Hydrology and Water Quality</p> <p>Implementation of the proposed project has the potential to result in impacts to hydrology and water quality.</p>	<p>Measure Hydrology-1, Acquire and Adhere to National Pollution Discharge Elimination System General Permit</p> <p>To mitigate for direct, indirect, and cumulative surface water quality impacts caused by construction pollutants contacting storm water, products of erosion moving off site into receiving waters, and unauthorized non-storm water discharges, the City of Los Angeles Department of Water and Power shall obtain and adhere to the requirements of the National Pollution Discharge Elimination System General Permit for the 15.1 square miles of new work area specified in the 2008 State Implementation Plan. This includes the development and implementation of a Storm Water Pollution Prevention Plan, which specifies best management practices that shall prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving off site into receiving waters; the elimination or reduction of unauthorized non-storm water discharges; and inspections of best management practices. The Storm Water Pollution Prevention Plan shall also identify best management practices for controlling temporary construction dewatering discharges</p>	<p>Implementation of mitigation measures Hydrology-1 through Hydrology-5 would be expected to reduce impacts to surface water quality and groundwater quality and levels to below the level of significance.</p>

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>and may include temporary sediment control measures such as the addition of low-flow dispersal methods for minimizing erosion. The City of Los Angeles Department of Water and Power shall also be required to comply with the Guidelines for Erosion Control as listed in the Water Quality Control Plan for the Lahontan Region. The City of Los Angeles Department of Water and Power shall submit the final Storm Water Pollution Prevention Plan to the Great Basin Unified Air Pollution Control District and the California State Lands Commission after its approval by the Regional Water Quality Control Board for the Lahontan Region.</p> <p>Measure Hydrology-2, Water Quality Monitoring and Reporting Program</p> <p>The City of Los Angeles Department of Water and Power, prior to issuing any Notices to Proceed for construction of work in the areas specified in the 2008 State Implementation Plan, shall implement a Water Quality Monitoring and Reporting Program to ensure that there is no substantial degradation of water quality and to mitigate direct, indirect, and cumulative impacts to surface and groundwater quality and off-site groundwater levels. The Water Quality Monitoring and Reporting Program shall monitor operational water volumes and flows, and analyze the quality of project surface waters and groundwater. The monitoring program shall ensure that the project is operating within the quality limitations specified by the waste discharge requirements (Board Order No. R6V-2006-0036, WDID No. 6B14000903) adopted by the Regional Water Quality Control Board for Revised Waste Discharge Requirements for the Southern Zones Dust Control Project at Owens Lake.¹³ The monitoring program shall be submitted to the Great Basin Unified Air Pollution Control District and the California State Lands Commission prior to the start of construction in the areas designated for dust control in the 2008 State Implementation Plan. All chemical analyses shall be performed by a laboratory with National Environmental Laboratory Accreditation Program certification.</p> <p>Monitoring reports shall be completed and submitted to the Great Basin Unified Air Pollution Control District, the California State Lands Commission, and the Regional Water Quality Control Board within 60 days of the end of the monitoring period as described in Table 3.5.5-1, <i>Hydrology Monitoring and Reporting Schedule</i>. The reports shall include a summary of monitoring results and any corrective actions proposed or undertaken for any observed violations of water quality limitations or impacts to off-site groundwater levels. The water quality limitations are defined as a substantial (statistically significant based on a statistical analysis of current and baseline data) variation from the long-term baseline water data collected by the Great Basin Unified Air Pollution Control District for surface and groundwater quality and groundwater levels.¹⁴ The Great Basin Unified Air Pollution Control District will continue to collect this baseline water data during project construction and operation. Periodic reductions in monitoring and reporting requirements, when justified by a documented review and evaluation of monitoring results, shall be implemented as authorized by the Regional Water Quality Control Board. Until monitoring results justify a reduction in monitoring requirements, monitoring shall be completed as follows:</p> <ul style="list-style-type: none"> • Flow rates and total volumes of flow to all dust control measure areas shall be monitored for each day and month for the first five years of work specified in the 2008 State Implementation Plan and thereafter as specified in Table 3.5.5-1. • Surface water monitoring of Shallow Flood, Moat & Row, Managed Vegetation areas and groundwater monitoring of perimeter project observation wells shall be completed as described in Table 3.5.5-1 for total dissolved solids (TDS), chloride, chlorine, dissolved oxygen (DO), pH, electrical conductivity (EC), ammonia, aluminum, arsenic, barium, boron, cadmium, calcium, iron, lead, magnesium, manganese, nitrate, nitrite, potassium, selenium, sodium, carbonate, bicarbonate, phosphate, sulfate, vanadium, total alkalinity, total organic carbon (TOC), copper, chromium, zinc, bromide, Treflan (or Trifluralin), and sulfur. 	

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation																																																															
	<p align="center">TABLE 3.5.5-1 HYDROLOGY MONITORING AND REPORTING SCHEDULE</p> <table border="1"> <thead> <tr> <th data-bbox="826 445 1003 493">Description</th> <th colspan="8" data-bbox="1448 459 1681 487">Monitoring Schedule</th> </tr> <tr> <th></th> <th data-bbox="1013 506 1143 534">2010</th> <th data-bbox="1153 506 1283 534">2011</th> <th data-bbox="1292 506 1423 534">2012</th> <th data-bbox="1432 506 1563 534">2013</th> <th data-bbox="1572 506 1703 534">2014</th> <th data-bbox="1712 506 1843 534">2016</th> <th data-bbox="1852 506 1982 534">2018</th> <th data-bbox="1992 506 2122 534">2023</th> </tr> </thead> <tbody> <tr> <td data-bbox="826 560 1003 709">Flow rates and total volumes of flow to all DCM areas</td> <td data-bbox="1013 588 1143 673">Daily (report monthly)</td> <td data-bbox="1153 588 1283 673">Daily (report monthly)</td> <td data-bbox="1292 588 1423 673">Daily (report monthly)</td> <td data-bbox="1432 588 1563 673">Daily (report monthly)</td> <td data-bbox="1572 588 1703 673">Daily (report monthly)</td> <td data-bbox="1712 588 1843 673">Daily (report monthly)</td> <td data-bbox="1852 588 1982 673">Daily (report monthly)</td> <td data-bbox="1992 588 2122 673">Daily (report monthly)</td> </tr> <tr> <td data-bbox="826 735 1003 844">Surface water quality of Shallow Flood areas</td> <td data-bbox="1013 772 1143 800">Quarterly</td> <td data-bbox="1153 772 1283 800">Quarterly</td> <td data-bbox="1292 772 1423 800">Quarterly</td> <td data-bbox="1432 772 1563 800">Quarterly</td> <td data-bbox="1572 772 1703 800">Quarterly</td> <td data-bbox="1712 727 1843 848">Annually (during DCM operation)</td> <td data-bbox="1852 727 1982 848">Annually (during DCM operation)</td> <td data-bbox="1992 727 2122 848">Annually (during DCM operation)</td> </tr> <tr> <td data-bbox="826 870 1003 1020">Surface water quality of Managed Vegetation areas</td> <td data-bbox="1013 923 1143 951">Quarterly</td> <td data-bbox="1153 923 1283 951">Quarterly</td> <td data-bbox="1292 923 1423 951">Quarterly</td> <td data-bbox="1432 923 1563 951">Quarterly</td> <td data-bbox="1572 923 1703 951">Quarterly</td> <td data-bbox="1712 885 1843 1005">Annually (during DCM operation)</td> <td data-bbox="1852 885 1982 1005">Annually (during DCM operation)</td> <td data-bbox="1992 885 2122 1005">Annually (during DCM operation)</td> </tr> <tr> <td data-bbox="826 1046 1003 1155">Surface water quality of Moat and Row areas</td> <td data-bbox="1013 1082 1143 1110">Quarterly</td> <td data-bbox="1153 1082 1283 1110">Quarterly</td> <td data-bbox="1292 1082 1423 1110">Quarterly</td> <td data-bbox="1432 1082 1563 1110">Quarterly</td> <td data-bbox="1572 1082 1703 1110">Quarterly</td> <td data-bbox="1712 1042 1843 1163">Annually (during DCM operation)</td> <td data-bbox="1852 1042 1982 1163">Annually (during DCM operation)</td> <td data-bbox="1992 1042 2122 1163">Annually (during DCM operation)</td> </tr> <tr> <td data-bbox="826 1181 1003 1358">Groundwater monitoring of perimeter project observation wells</td> <td data-bbox="1013 1253 1143 1282">Quarterly</td> <td data-bbox="1153 1253 1283 1282">Quarterly</td> <td data-bbox="1292 1253 1423 1282">Quarterly</td> <td data-bbox="1432 1253 1563 1282">Quarterly</td> <td data-bbox="1572 1253 1703 1282">Quarterly</td> <td data-bbox="1712 1213 1843 1334">Annually (during DCM operation)</td> <td data-bbox="1852 1213 1982 1334">Annually (during DCM operation)</td> <td data-bbox="1992 1213 2122 1334">Annually (during DCM operation)</td> </tr> </tbody> </table> <p>KEY: DCM = dust control measures</p> <p>Measure Hydrology-3, Berm Failure Prevention</p> <p>The City of Los Angeles Department of Power and Water shall require soil berms to be constructed along the down-gradient and side boundaries of each Shallow Flooding irrigation block to prevent leakage and any increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. These berms will be keyed into the core of the lake bed and will be used to collect excess surface water along the downslope borders of each irrigation block. Design of flood protection berms is subject to approval by the California State Lands Commission, the Great Basin Unified Air Pollution Control District, and the Lahontan Regional Water Quality Control Board.</p> <p>Measure Hydrology-4, Reduction of Flash Flood Potential</p> <p>The City of Los Angeles Department of Power and Water shall require the use of sediment traps, road/berms with clay core, or parallel alignment of the moats and rows to the mineral lease for the Moat & Row dust control measure, to reduce the</p>	Description	Monitoring Schedule									2010	2011	2012	2013	2014	2016	2018	2023	Flow rates and total volumes of flow to all DCM areas	Daily (report monthly)	Daily (report monthly)	Daily (report monthly)	Daily (report monthly)	Daily (report monthly)	Daily (report monthly)	Daily (report monthly)	Daily (report monthly)	Surface water quality of Shallow Flood areas	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Annually (during DCM operation)	Annually (during DCM operation)	Annually (during DCM operation)	Surface water quality of Managed Vegetation areas	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Annually (during DCM operation)	Annually (during DCM operation)	Annually (during DCM operation)	Surface water quality of Moat and Row areas	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Annually (during DCM operation)	Annually (during DCM operation)	Annually (during DCM operation)	Groundwater monitoring of perimeter project observation wells	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Annually (during DCM operation)	Annually (during DCM operation)	Annually (during DCM operation)	
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**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>increased flash flood potential from the channelization of water and sediment toward the mineral lease. The Moat & Row design should ensure that there is no increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. Design of Moat & Row to avoid potential increase in flash flood impacts to the mineral lease is subject to approval by the California State Lands Commission, the Great Basin Unified Air Pollution Control District, and the Lahontan Regional Water Quality Control Board.</p> <p>Measure Hydrology-5, Berm Failure Emergency Management Plan</p> <p>The City of Los Angeles Department of Water and Power shall implement a emergency management plan for potential berm failures. This plan shall include the immediate notification of the down gradient trona mineral extraction operation on the lake to ensure the safety to personnel and equipment at the facility. In addition, the plan will include a notification of the California State Lands Commission, the Great Basin Unified Air Pollution Control District following the failure of a berm to ensure dust control efficiency. The emergency management plan shall be reviewed and approved by the California State Lands Commission and the trona mineral extraction operator prior to operation of the dust control measures, which may affect the mineral extraction operation.</p>	
Land Use and Planning		
<p>Implementation of the proposed project would not result in significant impacts to land use and planning. However, in order to continue to lessen and/or alleviate the potential impacts related to land use and planning, as found in the 2003 SIP, that would occur if the proposed project were implemented, the following measure(s) would be required.</p>	<p>Implementation of the proposed project would not result in significant impacts to land use and planning. However, in order to continue to lessen and/or alleviate the potential impacts related to land use and planning, as found in the 2003 SIP, that would occur if the proposed project were implemented, the following measure(s) would be required.</p> <p>Measure Land Use and Planning-1, Resident Insect Control Program</p> <p>Due to increased areas of potential standing water, to minimize potential impacts to local residents from a potential increase in mosquitoes and other biting insects as a result of dust control measure construction from the proposed project, the City of Los Angeles shall institute a program for nearby resident whereby windows of affected residences will be screened or other insect control devices will be provided to residents to reduce nuisance insect populations in the vicinity of their residence. Residents shall provide proof of residence in identified, potentially affected areas prior to the issuance of screening or insect control devices. In addition, the City of Los Angeles Department of Water and Power shall continue to pay for Inyo County Vector Control treatments on the dust control measure areas as required.</p>	<p>Incorporation of mitigation measure Land Use and Planning-1 would reduce the impacts related to land use and planning to below the level of significance.</p>
Mineral Resources		
<p>Implementation of the proposed project has the potential to result in impacts to mineral resources.</p>	<p>The mineral resources impacts identified in this section may be reduced to below the level of significance through the adoption of mitigation measure Minerals-1 and mitigation measures Hydrology-3 and Hydrology-4 from Section 3.9.6, <i>Hydrology, Mitigation Measures</i>. The measures listed below may mitigate impacts to mineral resources by protecting the mineral lease areas.</p> <p>Measure Minerals-1, Borax Lease Area Approval and Compensation</p> <p>The City of Los Angeles Department of Water and Power shall be required to obtain approval from the California State Lands Commission prior to working in the areas that overlap with the areas leased to U.S. Borax Owens Lake Soda Ash Company. In addition, the City of Los Angeles Department of Water and Power shall be required to compensate the California State Lands Commission for associated staff time to prepare the legal description for any transfers of mineral lease areas to dust control areas.</p> <p>Measure Hydrology-3, Berm Failure Prevention</p> <p>The City of Los Angeles Department of Water and Power shall require soil berms to be constructed along the down-gradient and side boundaries of each Shallow Flood irrigation block to prevent leakage and any increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. These berms will be keyed into the core of the lake</p>	<p>Implementation of mitigation measures Minerals-1, Hydrology-3, and Hydrology-4 would reduce significant impacts related to mineral resources to below the level of significance.</p>

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>bed and will be used to collect excess surface water along the downslope borders of each irrigation block. Design of flood protection berms is subject to approval by the California State Lands Commission and the Great Basin Unified Air Pollution Control District.</p> <p>Measure Hydrology-4, Reduction of Flash Flood Potential</p> <p>The City of Los Angeles Department of Water and Power shall require the use of sediment traps, road/berms with clay core, or parallel alignment of the moats and rows to the mineral lease for Moat & Row dust control measures, to reduce the increased flash flood potential from the channelization of water and sediment toward the mineral lease. The Moat & Row design should ensure that there is no increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. Design of the Moat & Row to avoid potential increase in flash flood impacts to the mineral lease is subject to approval by the California State Lands Commission and the Great Basin Unified Air Pollution Control District.</p>	
Transportation and Traffic		
<p>Implementation of the proposed project has the potential to result in impacts to transportation and traffic.</p>	<p>Measure Traffic-1, Traffic Work Safety Plan</p> <p>The City of Los Angeles Department of Water and Power shall work with the State of California Department of Transportation to determine the necessity for traffic safety equipment to be installed and maintained on U.S. Highway 395, State Route 136, and State Route 190 in order to ensure traffic safety during construction of the proposed project by developing a Traffic Work Safety Plan. The Traffic Work Safety Plan shall specify the measures to be implemented and maintained by the City of Los Angeles Department of Water and Power on each location on U.S. Highway 395, State Route 136, and State Route 190 that would be affected by the construction phase of the project to ensure traffic safety. The plan should include measures such as signage to warn oncoming motorists of large slow-moving trucks ahead and flag persons to warn motorists of large slow-moving trucks ahead during peak periods and times of large load deliveries. The City of Los Angeles Department of Water and Power shall document to the Great Basin Unified Air Pollution Control District and California State Lands Commission that State of California Department of Transportation has approved the Traffic Work Safety Plan prior to the initiation of construction work specified by the 2008 Revised State Implementation Plan, or related transportation and staging of equipment and materials.</p> <p>Measure Traffic-2, Traffic Work Safety Plan Conformance</p> <p>The City of Los Angeles Department of Water and Power shall be responsible for funding, installing, and conforming to the measures specified in the approved Traffic Work Safety Plan prior to the use of U.S. Highway 395, State Route 136, and State Route 190 for gravel hauling or other heavy truck trips such as the delivery of materials, heavy equipment, and construction vehicles to the proposed project site to ensure traffic safety during the construction operations. The City of Los Angeles Department of Water and Power shall demonstrate conformance with the measures specified in the approved Traffic Work Safety Plan by submitting quarterly compliance reports to the Great Basin Unified Air Pollution Control District, California State Lands Commission, and State of California Department of Transportation throughout the duration of the construction work specified by the 2008 Revised State Implementation Plan, and related transportation and staging.</p> <p>Measure Traffic-3, Regional Transportation Network Damage Repair</p> <p>The City of Los Angeles Department of Water and Power shall be required to repair damage to the regional transportation network (U.S. Highway 395, State Route 136, and State Route 190) from construction activities required for the 2008 Revised State Implementation Plan to pre-project conditions. Prior to initiating construction of work specified by the 2008 Revised State Implementation Plan, or related transportation and staging of equipment and materials, the City of Los Angeles Department of Water and Power shall retain a qualified pavement consultant engineer to document the existing condition of all regional transportation network roadways used for access, egress, and haul routes by the construction activities required for the 2008 Revised State Implementation Plan. Following the completion of construction activities, the City of Los Angeles Department of Water and Power shall retain a qualified pavement consultant engineer to revisit the documented roadway</p>	<p>Implementation of mitigation measures Traffic-1 through Traffic-3 would reduce significant impacts related to transportation and traffic to below the level of significance.</p>

**TABLE ES.6-1
SUMMARY OF SIGNIFICANT IMPACTS, Continued**

Impact	Mitigation Measure	Level of Significance After Mitigation
	<p>sections and delineate physical damages that are directly attributed to construction activities required for the 2008 Revised State Implementation Plan. The City of Los Angeles Department of Water and Power shall provide in lieu fees for remediation of construction-generated impacts on the regional transportation network. Within 12 months after construction activities for the 2008 Revised State Implementation Plan is completed, the City of Los Angeles Department of Water and Power shall provide written documentation to the Great Basin Unified Air Pollution Control District, California State Lands Commission and State of California Department of Transportation demonstrating that damage to the regional transportation network that resulted from the construction activities has been repaired.</p>	
Utilities and Service Systems		
<p>Implementation of the proposed project has the potential to result in impacts to utilities and service systems.</p>	<p>The utility impacts as identified in this section (specifically, impacts to the storm drain system on the lake) may be reduced to below the level of significance through the adoption of mitigation measures Hydrology-3 and Hydrology-4.</p> <p>Measure Hydrology-3, Soil Berm Construction</p> <p>The City of Los Angeles Department of Water and Power shall require soil berms to be constructed along the down-gradient and side boundaries of each Shallow Flood irrigation block to prevent leakage and any increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. These berms will be keyed into the core of the lake bed and will be used to collect excess surface water along the downslope borders of each irrigation block. Design of flood protection berms is subject to approval by the California State Lands Commission, the Great Basin Unified Air Pollution Control District, and the Lahontan Regional Water Quality Control Board.</p> <p>Measure Hydrology-4, Reduction of Flash Flood Potential</p> <p>The City of Los Angeles Department of Water and Power shall require the use of sediment traps, road/berms with clay core, or parallel alignment of the moats and rows to the mineral lease for Moat & Row dust control measures, to reduce the increased flash flood potential from the channelization of water and sediment toward the mineral lease. The Moat & Row design should ensure that there is no increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. Design of the Moat & Row to avoid potential increase in flash flood impacts to the mineral lease is subject to approval by the California State Lands Commission, the Great Basin Unified Air Pollution Control District, and the Lahontan Regional Water Quality Control Board.</p>	<p>Implementation of mitigation measure Hydrology-3 and Hydrology-4 would reduce significant impacts related to utilities and service systems to below the level of significance.</p>

ES.7 PROJECT ALTERNATIVES

As a result of the project formulation process, the District explored alternatives to the proposed project to assess their ability to meet most of the objectives of the project and to reduce significant effects of the proposed project. Alternative projects recommended by the scoping process were evaluated in relation to the project objectives and their ability to reduce significant impacts as described in Section 4.0, *Alternatives to the Proposed Project*, of this Subsequent EIR. Four project alternatives required under CEQA have been carried forward for detailed analysis in this Subsequent EIR:

- Alternative 1, No Project Alternative
- Alternative 2, All Shallow Flooding
- Alternative 3, All Managed Vegetation
- Alternative 4, Gravel Application

These alternatives are described and analyzed in Section 4.0 of this Subsequent EIR.

ES.8 UNAVOIDABLE IMPACTS

Analysis for potentially significant unavoidable environmental impacts resulting from implementation of the proposed project were performed considering the anticipated direct, indirect, and cumulative impact, and are presented in Section 5.0, *Unavoidable Impacts*, of this EIR. The conclusion of this analysis is that the proposed project would not result in any significant unavoidable impacts except regarding air quality and the release of green house gas emissions.

ES.9 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Analyses for significant irreversible environmental change resulting from implementation of the proposed project are presented in Section 6.0, *Significant Irreversible Environmental Changes Related to Implementation of the Proposed Project*, of this EIR. While there would be some permanent loss of vegetation community in and around the perimeter of the project area, the loss would be small and not significant considering the amount of habitat that would remain and be newly created. The implementation of the proposed project would be expected to result in less than significant irreversible environmental changes.

ES.10 GROWTH-INDUCING IMPACTS

The proposed project would not result in a significant growth inducing impact as analyzed in Section 7.0, *Growth-Inducing Impacts*, of this EIR. The proposed project would provide as many as 200 new short-term jobs and 75 permanent jobs. No infrastructure is proposed to support future growth. Air quality in all communities in the Owens Valley would improve dramatically, removing an existing barrier to growth. However, this growth is expected to be minor and would not constitute a significant impact.

