CALENDAR ITEM
C33

A	34	06/28/10
		PRC 8079.9
S	17	C. Connor

CONSIDER APPLICATION FOR AMENDMENT OF GENERAL LEASE – PUBLIC AGENCY USE

APPLICANT:
City of Los Angeles, Department of Water and Power
William Van Wagoner
111 North Hope Street, Room 1468
Los Angeles, CA 90012

AREA, LAND TYPE, AND LOCATION:
Sovereign lands in Owens Lake, Inyo County.

AUTHORIZED USE:
Research and monitoring at the South Sand Sheet, implementation of shallow flooding and monitoring at the North Sand Sheet, and the construction and operation of the South Zone Dust Control Project. Construction, installation, operation, and monitoring of shallow flooding dust control measures (DCMs) associated with Phases IV, V, and VII of the Owens Lake Dust Control Project. Construction, installation, operation, and monitoring of 0.5 square mile of channel area improvements; and construction of sand fence and vegetation enhancement in Cell T1A-1, in support of the Phase VII Owens Lake Dust Control Project.

LEASE TERM:
20 years, beginning May 1, 1999.

CONSIDERATION:
The public health and safety; with the State reserving the right at any time to set a monetary rent if the State Lands Commission (Commission) finds such action to be in the State's best interest.

PROPOSED AMENDMENT:
The **Land Use or Purpose** of Section 1 of the Lease would be amended to authorize the construction, use, and maintenance of two access roads and

implementation of soil tillage for dust control purposes on 3.12 square miles of emissive sites within the Phase VII Owens Lake Dust Control Project.

The **Term** provision of Section 1 of the Lease, only as it pertains to the Authorized Improvements described below, would be amended to be for a period of three years, commencing on the effective date of the Amendment, or one year after a master plan for the entire lakebed is approved by the State Lands Commission, whichever occurs first. The amendment may be terminated sooner as provided under the Lease.

The **Authorized Improvements** provision of Section 1 of the Lease would be amended to include the following: Construction, use, and maintenance of two access roads (one access road to cell T37-1, and one access road to cell T37-2); Implementation of soil tillage totaling 3.12 square miles on dust control cell areas T1A-3, T1A-4, T12-1, T32-1, T37-1, and T37-2.

Section 2, Special Provisions of the Lease would be amended to include, but not be limited to, the following:

1) 1:1 mitigation within Owens Lake for impacts to biological resources resulting from implementation of soil tillage and agreement to participate in a long-term conservation plan with legally binding requirements to designate an appropriate acreage of shallow flood for the term of the lease or until a master plan is approved by the Department of Fish and Game and the State Lands Commission
2) A requirement that the City would design and submit to the Commission a plan for a public trail system for viewing Owens Lake with interpretive signs and free public parking. Following written approval of the plan by Commission staff, Lessee shall submit an application for a lease amendment to construct the parking lot and trail system.
3) Lessee shall provide written documentation of the Great Basin Unified Air Pollution Control District (District) Air Pollution Control Officer's (APCO) approval of Lessee's plans to implement soil tillage prior to any ground disturbing activities.

Section 3, Description of Lease Premises, would be amended to include areas for construction of two access roads and implementation of 3.12 square miles of soil tillage for dust control purposes on the lands shown on the attached Exhibit A (for reference purposes only) and described in the attached Exhibit B.

All other terms and conditions of Lease PRC 8079.9, as amended, would remain in full force and effect.

DESCRIPTION OF SOIL TILLAGE:

Tillage is a process whereby the surface of the soil is roughened or made uneven to make it more resistant to wind erosion. The roughness reduces wind velocity along the surface and provides furrows to catch windblown soil particles. Benefits of tillage include (a) relatively quick implementation with immediate effectiveness; (b) no infrastructure is required; (c) has a low profile that does not obstruct views; and (d) does not use water.

Soil tillage at Owens Lake would be implemented by the use of a bulldozer equipped with a tilted blade or other conventional agricultural equipment that would, depending upon the specific soil type, cut through to a depth of up to 24 inches below the native surface. Tillage passes would be spaced in such a way that resultant soil rows would be 18 to 36 inches high. Spacing between the tilled ridges would depend on soil type. Spacing of 1 to 3 feet is proposed for sandy soils and 8 to 14 feet for clay soils. Re-tilling of the soils would be permitted for maintenance purposes as needed. Due to differences in soil types, maintenance of the tilled areas and the determination as to the effectiveness of the tillage shall be determined by the District's APCO. The primary direction of tillage would be perpendicular to prevailing winds, but the tillage rows shall be curved up to 30 degrees in either direction to avoid long straight rows and provide a more natural-looking pattern. This pattern would also help avoid wind jetting down long straight rows. Gaps in the tillage, both transverse and longitudinal to the direction of construction equipment travel, would be provided approximately every 1,000 feet for access and monitoring purposes. The size of the gaps would be at least 10 to 20 feet wide. Tillage is intended to be a temporary method of dust control until a long-term solution is developed and presented to the Commission for consideration.

The City previously implemented tillage as a temporary DCM in some Shallow Flood construction areas between October 1, 2009, and April 1, 2010. Tillage is not a Best Available Control Measure (BACM) approved by the District, and implementation of tillage will require prior review and approval by the District's APCO, as well as all other applicable regulatory approvals.

The City, in coordination with Commission staff and other responsible agencies and interested parties, is engaged in a lake-wide master planning process to identify additional DCMs, locations of permanent wildlife habitat areas, and areas for potential solar energy development. The master plan is expected to be available for public review within the next 12 months.

BACKGROUND:

One hundred twenty-five years ago, the water of Owens Lake covered 110 square miles and was over 50 feet deep. A steamboat carried cargo across its broad expanse. Early settlers diverted water from the Owens River to grow crops and irrigate pasture for livestock. Wildlife, waterfowl, and local residents depended on and benefited from Owens Lake. This lake was an important feeding and resting stop for millions of waterfowl each year. After the City began operating the Los Angeles Aqueduct in 1913, the lake level rapidly declined. Within approximately 25 years, only a small brine pool remained of the original 110 square mile lake. Today, dust storms may carry away as much as four million tons (3.6 million metric tons) of dust from the lakebed each year, causing respiratory problems for residents in the Owens Valley.

The United States Environmental Protection Agency (U.S. EPA) has designated the southern part of the Owens Valley as a Serious Non-Attainment Area for PM_{10}. PM_{10} is an abbreviated reference for suspended particulate matter (dust) less than or equal to ten microns in mean aerodynamic diameter (approximately 1/10 the diameter of a human hair). Great Basin subsequently designated the Non-Attainment area as the "Owens Valley PM_{10} Planning Area."

Great Basin has determined that dust emissions from the dry lakebed of Owens Lake are responsible for causing the air in the Owens Valley PM_{10} Planning Area to exceed the PM_{10} national ambient air quality standards and that water diversions by the City have caused Owens Lake to become dry and the lakebed to be in a condition that produces dust.

On June 14, 1999, the Commission authorized the issuance of PRC 8079.9 to the city of Los Angeles for a period of 20 years, for the Owens Lake South Sand Sheet Air Quality and Sand Fence Effectiveness Monitoring System. Since that time, the Commission has authorized eight amendments to this lease for the construction, operation, and maintenance of additional components of dust control.

On April 6, 2010, the Commission denied an application by the City of Los Angeles Department of Water and Power for a lease amendment to allow the construction of the moat and row dust control design on the remaining Phase VII emissive sites. The moat and row design was denied because it was inconsistent with the Public Trust needs, resources, and values of Owens Lake, and was not in the best interest of the State.

OTHER PERTINENT INFORMATION:

1. Great Basin, acting as Lead Agency under CEQA, certified the Final Subsequent Environmental Impact Report for the 2008 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation

Plan (2008 SIP FSEIR) (SCH No. 2007021127) and adopted a Mitigation Monitoring Program in early 2008. The 2008 SIP FSEIR evaluated the implementation of 15.1 square miles of DCMs for Owens Lake, including 3.5 square miles of moat and row DCMs.

2. Revisions to the proposed moat and row DCM design necessitated additional CEQA review. The City, acting as Lead Agency under CEQA, certified the Final Supplemental Environmental Impact Report for the Owens Lake Revised Moat and Row Dust Control Measures (2009 Moat and Row FSEIR) (SCH No. 2008121074) and adopted a Mitigation Monitoring Program in September 2009. The 2009 Moat and Row FSEIR tiered off the 2008 SIP FSEIR.

3. At its December 17, 2009, meeting, the Commission approved a portion of the project evaluated in the 2009 Moat and Row FSEIR, consisting of sand fences and vegetation enhancement in Cell T1A-1. As part of its approval, the Commission adopted CEQA Findings, adopted a Mitigation Monitoring Program, and adopted a Statement of Overriding Considerations (Exhibits F, H, and G, respectively, to Calendar Item 41, on file in the Sacramento Office of the Commission).

4. The City's application to construct moat and row in the six remaining emissive areas in Phase VII was denied by the Commission on April 6, 2010. To reduce PM_{10} emissions as required by Great Basin on the remaining areas, the City proposes to implement tillage as a temporary measure on 3.12 square miles previously evaluated for moat and row DCMs. In May 2010, the City prepared an addendum to the 2009 Moat and Row FSEIR, "Owens Lake Revised Moat and Row Dust Control Measures Addendum No. 1 to the 2009 Supplemental Environmental Impact Report" (Addendum) (Exhibit C), to address changes in the project since the 2009 Moat and Row FSEIR was certified.

5. The environmental analysis contained in the Addendum concluded that the impacts and mitigation requirements identified in the 2009 Moat and Row FSEIR remain substantively unchanged by the modification of the project description to implement tillage. The City found that tillage does not raise any new issues and does not exceed the level of impacts identified in the previous 2009 Moat and Row FSEIR.

6. The Commission's staff has reviewed the above documents and Mitigation Monitoring and Reporting Program for the proposed project and concurs with the City's Addendum. The CEQA Findings made by the Commission at its December 17, 2009, meeting apply to the proposed project to

implement tillage. The Mitigation Monitoring Program adopted by the Commission at its December 17, 2009, meeting, applies to the proposed project to implement tillage, except for measures identified in section 4.0 of the Addendum pertaining to fences, fence posts, and standing water that will not be part of the tillage project (see attached Exhibit C).

7. A revised Statement of Overriding Considerations made in conformance with Title 14, California Code of Regulations, section 15093 and 15096(h) is attached as Exhibit D.

8. This activity involves lands which have NOT been identified as possessing significant environmental values pursuant to Public Resources Code sections 6370, et. seq. However, the Commission has declared that all lands are "significant" by nature of their public ownership (as opposed to "environmentally significant"). Since such declaration of significance is not based upon the requirements and criteria of Public Resources Code sections 6370, et. seq., use classifications for such lands have not been designated. Therefore, the finding of the project's consistency with the use classification as required by Title 2, California Code of Regulations, section 2954 is not applicable.

APPROVALS REQUIRED:

California Department of Fish and Game

EXHIBITS:

A. Site/Location Map
B. Land Description
C. CEQA Addendum
D. Statement of Overriding Considerations

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Find that a Final Subsequent Environmental Impact Report for the 2008 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (2008 SIP FSEIR) (SCH No. 2007021127) was prepared and certified by the Great Basin Unified Air Pollution Control District on or about January 28, 2008, for Phase VII that included moat and row dust control measures, and that the Commission has reviewed and considered the information contained therein.

Find that a Final Supplemental Environmental Impact Report for the Owens Lake Revised Moat and Row Dust Control Measures (2009 Moat and Row FSEIR) (SCH No. 2008121074) was prepared and certified by the City of Los Angeles, Department of Water and Power, on September 15, 2009, and that the Commission has reviewed and considered the information contained therein.

Find that the City of Los Angeles, Department of Water and Power prepared the "Owens Lake Revised Moat and Row Dust Control Measures Addendum No. 1 to the 2009 Supplemental Environmental Impact Report" (Addendum) (Exhibit C, attached hereto), in May 2010, to address changes in the project since the 2009 Moat and Row FSEIR was certified, and that the Commission has reviewed and considered the information contained therein.

Adopt the Mitigation Monitoring and Reporting Program, as contained on file in the Sacramento Office of the Commission as Exhibit H to Calendar Item 41, December 17, 2009, as modified by the Addendum, section 4.0.

Adopt the Findings made in conformance with Title 14, California Code of Regulations, sections 15091 and 15096(h), as contained on file in the Sacramento Office of the Commission as Exhibit F to Calendar Item 41, December 17, 2009.

Adopt the revised Statement of Overriding Considerations made in conformance with Title 14, California Code of Regulations, sections 15093 and 15096(h) as contained in Exhibit D, attached hereto.

AUTHORIZATION:

Authorize the Amendment of Lease No. PRC 8079.9, a General Lease – Public Agency Use, to amend the Land Use or Purpose, the Term, the Authorized Improvements, the Special Provisions, and the Land Description as described herein to authorize the construction of two access roads and the implementation and maintenance of soil tillage on 3.12 square miles of lands shown on Exhibit A (for reference purposes only) and described on Exhibit B attached and by this reference made a part hereof; consideration being the public health and safety with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest; all other terms and conditions of the lease as previously amended will remain in effect without amendment.

NO SCALE

SITE

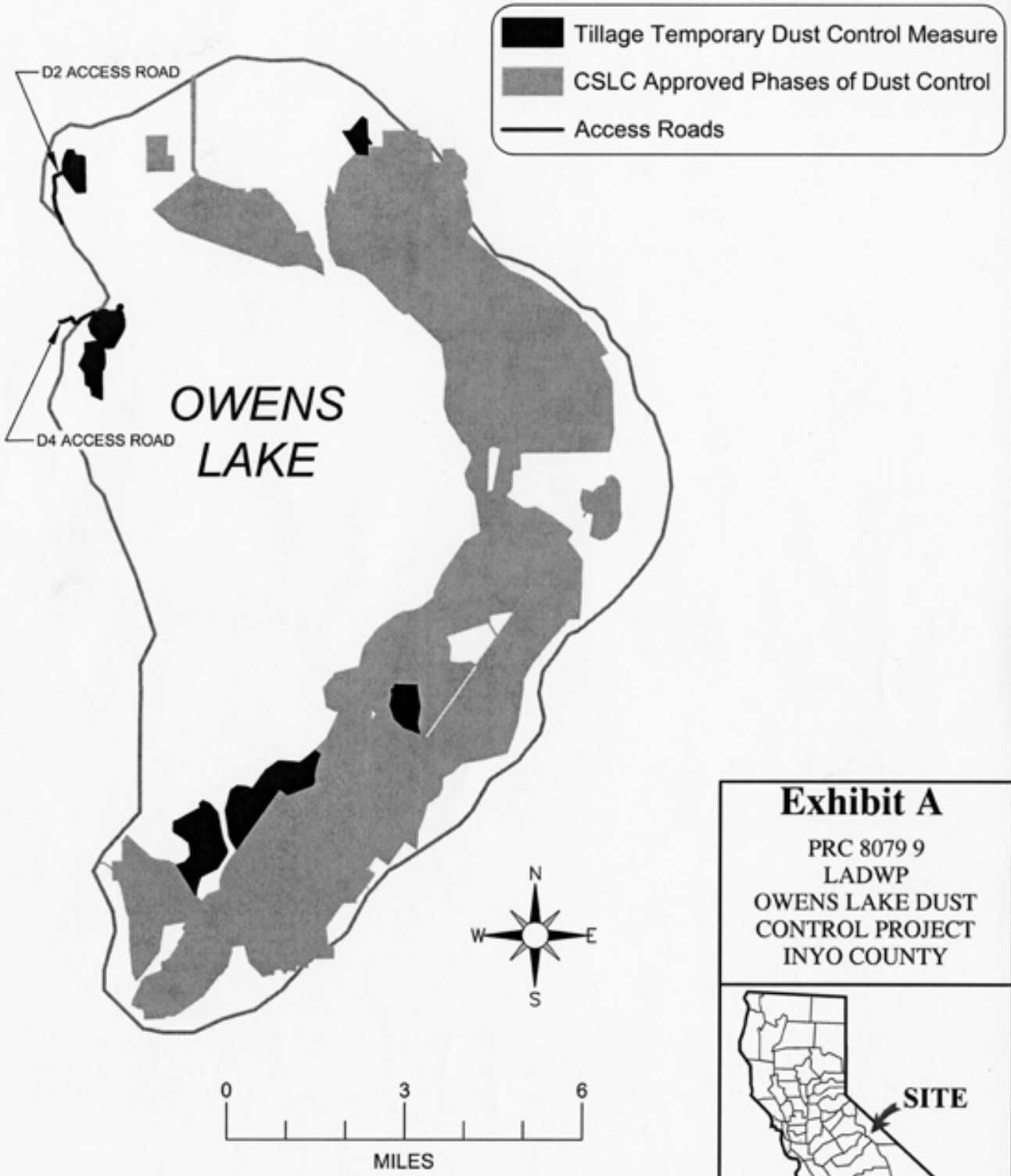

Exhibit A

PRC 8079 9
LADWP
OWENS LAKE DUST
CONTROL PROJECT
INYO COUNTY

JAK 06/10

This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property

Exhibit B. Legal Descriptions
Tillage Temporary Dust Control Measure
(Formerly Moat and Row Areas)

Six parcels of State-owned sovereign land in the bed of Owens Lake in the County of Inyo, State of California, being more particularly described as follows:

Parcel D1 (Moat and Row Area T32-01)

BEGINNING at a point from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears South 56°13′23″ East, a distance of 19,843.86 feet; thence along the following described courses:

North 00°00′04″ West, 921.76 feet;
North 56°00′00″ East, 160.14 feet;
North 90°00′00″ East, 214.00 feet;
North 34°00′00″ West, 659.04 feet;
North 01°36′27″ West, 581.88 feet;
North 02°39′10″ West, 1,085.30 feet;
North 59°21′15″ West, 564.61 feet;
South 39°10′00″ West, 1,676.80 feet;
South 89°01′38″ West, 707.86 feet;
South 31°28′10″ East, 2,445.22 feet;
South 83°44′15″ East, 157.42 feet;
South 83°56′06″ East, 913.01 feet to the point of BEGINNING.

Parcel D2 (Moat and Row Area T37-01)

BEGINNING at a point from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears South 79°29′01″ East, a distance of 42,250.51 feet; thence along the following described courses:

North 01°18′25″ West, 3,187.58 feet;
North 58°21′11″ West, 350.46 feet;
North 87°49′03″ West, 566.68 feet;
North 22°39′27″ West, 514.64 feet;
North 88°56′25″ West, 586.22 feet;
South 26°35′47″ West, 517.06 feet;
South 16°53′46″ West, 786.89 feet;
South 01°28′53″ West, 916.31 feet;
South 35°38′36″ East, 2,170.14 feet;
North 88°58′17″ East, 941.09 feet to the point of BEGINNING.

TOGETHER WITH: Access Road to Parcel D2 (Moat and Row Area T37-01)

An access roadway in, on, over, under, and across State-owned sovereign land in the bed of Owens Lake, and in Section 26, Township 16 South, Range 36 East, Mt. Diablo Meridian, in the County of Inyo, State of California, within a strip of land 20.00 feet wide, lying 10.00 feet on each side of the following described center line:

BEGINNING at an angle point in the westerly boundary of Parcel D2, as described in Exhibit A, Legal Descriptions Owens Lake Dust Mitigation Program Phase VII PRC 8079.9, from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears South 77°48′01″ East, a distance of 44,757.14 feet; thence
South 64°15′14″ West, 712.91 feet to the beginning of a tangent curve, concave to the southeast, with a radius of 30.00 feet, and a central angle of 66°42′50″; thence southwesterly along the arc of said curve 34.93 feet; thence South 2°27′36″ East, 373.59 feet to the beginning of a tangent curve, concave to the northeast, with a radius of 875.00 feet, and a central angle of 13°23′05″; thence southeasterly along the arc of said curve 204.40 feet; thence
South 15°50′41″ East, 91.04 feet to the beginning of a tangent curve, concave to the southwest, with a radius of 1100.00 feet, and a central angle of 21°13′32″; thence southwesterly along the arc of said curve 407.50 feet; thence South 5°22′52″ West, 266.56 feet to the beginning of a tangent curve, concave to the northwest, with a radius of 700.00 feet, and a central angle of 13°10′48″; thence southwesterly along the arc of said curve 161.03 feet; thence

South 18°33'40" West, 208.95 feet to the beginning of a tangent curve, concave to the southeast, with a radius of 200.00 feet, and a central angle of 29°55'06"; thence southerly along the arc of said curve 104.43 feet; thence South 11°21'26" East, 495.51 feet to the beginning of a tangent curve, concave to the southwest, with a radius of 3000.00 feet, and a central angle of 4°39'23"; thence southeasterly along the arc of said curve 243.81 feet; thence South 6°42'03" East, 95.95 feet to the beginning of a tangent curve, concave to the northeast, with a radius of 1500.00 feet, and a central angle of 16°41'20"; thence southeasterly along the arc of said curve 436.91 feet; thence South 23°23'22" East, 73.80 feet to the beginning of a tangent curve, concave to the northeast, with a radius of 300.00 feet, and a central angle of 22°07'11"; thence southeasterly along the arc of said curve 115.82 feet; thence South 45°30'34" East, 43.23 feet to the beginning of a tangent curve, concave to the southwest, with a radius of 525.00 feet, and a central angle of 27°02'04"; thence southeasterly along the arc of said curve 247.72 feet; thence South 18°28'29" East, 421.36; thence South 13°53'51" East, 257.31 feet, more or less, to the Owens Lake Meander Line, and the END of this described center line.

The side lines of this described center line are to be lengthened or shortened to terminate at the westerly boundary of said Parcel D2, and said Meander Line.

Parcel D4 (Moat and Row Area T37-02)

BEGINNING at a point from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears North 74°50'14" East, a distance of 41,465.61 feet; thence along the following described courses:

North 00°18'06" West, 2,614.28 feet;
North 39°50'13" East, 217.60 feet;
North 13°10'58" East, 525.07 feet;
North 02°13'40" West, 874.35 feet;
North 15°58'15" West, 216.87 feet;
North 07°13'23" West, 316.55 feet

South 79°04′18″ East, 322.19 feet;
North 82°10′36″ East, 609.15 feet;
North 28°04′58″ East, 969.50 feet;
North 30°55′54″ East, 469.11 feet;
North 23°04′23″ East, 603.46 feet;
North 00°50′55″ West, 760.41 feet;
North 28°23′34″ West, 166.47 feet;
North 03°48′24″ West, 333.40 feet;
North 30°06′07″ West, 341.24 feet;
North 33°56′23″ East, 270.98 feet;
North 06°23′18″ West, 243.90 feet;
North 55°23′07″ West, 214.95 feet;
South 89°51′34″ West, 211.22 feet;
South 52°29′45″ West, 267.82 feet;
South 07°14′09″ West, 391.31 feet;
South 85°30′54″ West, 647.01 feet;
North 54°06′37″ West, 234.20 feet;
North 82°41′43″ West, 322.67 feet;
South 74°33′11″ West, 271.77 feet;
South 55°13′47″ West, 782.12 feet;
South 33°16′48″ West, 467.25 feet;
South 22°23′57″ West, 572.51 feet;
South 17°22′05″ East, 796.53 feet;
South 42°56′27″ East, 870.06 feet;
South 79°06′12″ West, 1,140.14 feet;
South 02°18′39″ East, 786.67 feet;
South 24°51′33″ West, 1,354.49 feet;
South 36°31′58″ East, 901.38 feet;
South 04°28′04″ East, 1,041.37 feet;
South 62°29′22″ East, 457.09 feet;
South 12°26′53″ East, 786.61 feet;
South 67°39′32″ East, 1,093.65 feet to the point of BEGINNING.

TOGETHER WITH: Access Road to Parcel D4 (Moat and Row Area T37-02)

An access roadway in, on, over, under, and across State-owned sovereign land in, and adjacent to the bed of Owens Lake, in Section 1, Township 17 South, Range 36 East, Mt. Diablo Meridian, in the County of Inyo, State of California, within a strip of land 20.00 feet wide, lying 10.00 feet on each side of the following described center line:

COMMENCING at a point in the northerly boundary of Parcel D4, as described in Exhibit A, Legal Descriptions Owens Lake Dust Mitigation Program Phase VII PRC 8079.9, from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears North 86°10'22" East, a distance of 40,372.50 feet; thence along said northerly boundary South 55°13'47" West, 680.20 feet to the TRUE POINT OF BEGINNING; thence North 05°20'11" West, 94.91 feet to the beginning of a tangent curve, concave to the southwest, with a radius of 30.00 feet, and a central angle of 112°54'24"; thence northwesterly along the arc of said curve 59.12 feet; thence South 61°45'25" West, 917.25 feet; thence South 54°23'24" West, 146.48 feet; thence South 75°03'06" West, 78.85 feet; thence South 59°34'33" West, 205.16 feet to the beginning of a tangent curve, concave to the southeast, with a radius of 150.00 feet, and a central angle of 39°40'14"; thence southwesterly along the arc of said curve 103.86 feet; thence South 19°54'19" West, 170.49 feet to the beginning of a tangent curve, concave to the northwest, with a radius of 50.00 feet, and a central angle of 69°29'31"; thence southwesterly along the arc of said curve 60.64; thence South 89°23'50" West, 338.97 feet to the beginning of a tangent curve, concave to the northeast, with a radius of 30.00 feet, and a central angle of 83°00'53"; thence northwesterly along the arc of said curve 43.47 feet; thence North 07°35'17" West, 111.30 feet to the beginning of a tangent curve, concave to the southwest, with a radius of 275.00 feet, and a central angle of 27°47'04"; thence southwesterly along the arc of said curve 133.36 feet; thence North 35°22'21" West, 106.21 feet; thence North 41°06'13" West, 120.78 feet to the beginning of a tangent curve, concave to the south, with a radius of 50.00 feet, and a central angle of 87°41'51"; thence westerly along the arc of said curve 76.53 feet; thence South 51°11'56" West, 147.73 feet; thence South 60°23'59" West, 105.33 feet; thence South 70°18'53" West, 121.75 feet; thence South 64°54'02" West, 91.94 feet; thence South 76°44'42" West, 93.74 feet; thence South 61°43'09" West, 212.37 feet; thence North 89°57'53" West, 302.67 feet, more or less, to the westerly line of the 200-foot-wide Southern Pacific Rail Road right-of-way as shown on Parcel Map No. 70, recorded in Book 1, page 46, Official Records of said County, and the END of this described center line.

The side lines of this described center line are to be extended or shortened so that this described strip of land wholly terminates contiguous with said Rail Road right-of-way, and said boundary of Parcel D4.

Portion of Parcel D11 (Moat and Row Area T12-01)

BEGINNING at a point from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears North 21°15'03" East, a distance of 38,799.68 feet; thence along the following described courses:

South 12°09'20" West, 410.48 feet;
South 77°55'55" West, 240.65 feet;
South 11°58'29" East, 536.83 feet;
South 12°09'20" West, 931.15 feet;
South 18°52'08" East, 1,266.84 feet ;
South 47°14'45" East, 1,095.27 feet;
South 68°24'16" East, 1,560.27 feet;
North 09°41'22" West, 932.79 feet;
North 08°42'12" East, 1,475.80 feet;
North 09°43'54" West, 1,866.76 feet;
North 35°08'09" East, 143.76 feet;
North 88°08'36" West, 2,092.84 feet to the point of BEGINNING.

Portion of Parcel D14 (Moat and Row T1A-04)

BEGINNING at a point from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears North 26°36'43" East, a distance of 47,071.74 feet; thence along the following described courses:

South 47°38'42" West, 772.98 feet;
South 52°55'57" West, 854.83 feet;
South 77°14'00" West, 164.04 feet;
North 83°34'24" West, 472.42 feet;
North 86°12'43" West, 1,326.39 feet;
South 54°07'42" West, 1,418.58 feet;
South 35°26'10" West, 2,009.33 feet;

North 74°04′06″ West, 652.11 feet;
North 86°03′19″ West, 743.20 feet;
South 55°42′30″ West, 680.91 feet;
South 15°06′27″ West, 1,870.39 feet;
South 08°10′34″ East, 2,348.88 feet;
South 23°09′41″ East, 598.62 feet;
South 35°46′42″ East, 743.19 feet;
North 35°16′20″ East, 6,600.40 feet;
South 54°42′18″ East, 872.02 feet;
North 68°17′05″ East, 2,416.31 feet;
North 35°07′45″ East, 306.00 feet;
North 06°23′02″ West, 576.66 feet;
North 06°39′47″ East, 625.10 feet;
North 17°50′29″ East, 1,087.74 feet;
North 35°16′06″ East, 270.39 feet;
North 54°43′24″ West, 620.60 feet to the point of BEGINNING.

Portion of Parcel D19 (Moat and Row or Shallow Flooding Area T1A-03)

BEGINNING at a point from whence Mineral Monument No. 58, a white marble stone monument with a metal plate cross stamped "MM #58", as said monument is shown on that map filed in Book 11, of Record of Surveys at page 7, Official Records of the County of Inyo, State of California, bears North 32°28′57″ East, a distance of 62,053.79 feet; thence along the following described courses:

South 31°52′53″ East, 3,235.32 feet;
North 00°32′20″ East, 447.42 feet;
North 18°05′12″ East, 1,317.48 feet;
North 63°55′29″ East, 1,648.26 feet;
North 32°51′44″ East, 1,185.89 feet;
North 26°32′53″ East, 581.71 feet;
North 20°58′04″ West, 1,261.67 feet;
North 11°27′16″ West, 2,381.94 feet;
North 41°36′38″ West, 1,090.21 feet;
North 65°32′52″ West, 619.05 feet;
South 44°28′02″ West, 446.82 feet;
South 22°15′54″ East, 340.51 feet;
South 61°25′00″ West, 2,371.53 feet;
South 68°20′00″ West, 382.59 feet;

South 00°56'42" West, 875.61 feet;
South 57°01'27" East, 1,046.56 feet;
South 51°02'18" East, 670.72 feet;
South 07°45'16" East, 1,163.39 feet;
South 38°46'20" West, 736.08 feet;
South 69°59'41" West, 801.34 feet to the point of BEGINNING.

The Bearings used in this description are on the California Coordinate System, NAD83, (CCS83/92), Zone 4. The Coordinate values, in U.S. Survey Feet, of said Mineral Monument No. 58, also known as Triangulation Station "Keeler" are: Northing 2,064,076.37, Easting 6,890,187.91. All distances shown herein are grid distances in U.S. Survey Feet. To obtain ground surface distances, multiply the distances shown by 1.000228742.

END OF DESCRIPTION

LICENSED LAND SURVEYOR
PATRICK R. MADDOCK
No 7381
Exp. 12-31-11
STATE OF CALIFORNIA

6-16-10

EXHIBIT C

Owens Lake Revised Moat and Row Dust Control Measures Addendum No. 1 to the 2009 Supplemental Environmental Impact Report

May 2010

1.0 INTRODUCTION

The City of Los Angeles Department of Water and Power (LADWP) is currently implementing a dust control program on Owens Lake in order to eliminate exceedences of the federal particulate (PM10) air quality standard. LADWP constructs and operates dust control measures (DCMs) on the lake in compliance with Agreements with the Great Basin Unified Air Pollution Control District (GBUAPCD), lease agreements for use of state lands (administered by the California State Lands Commission (CSLC)), and other regulatory approvals. As an element of Phase 7 of the dust control program, seven parcels on 3.5 square miles of Owens Lake were proposed to be altered by the construction of moats and rows. A lease from CSLC for one of the seven parcels (area T1A-1) was granted in December 2009 for the installation of sand fences; construction is on-going. However, a lease to construct the moat and row facilities was not approved in April 2010, and therefore LADWP is proposing a temporary DCM for the remaining locations.

LADWP is currently proposing to amend the project description for the Phase 7 moat and row project to implement tillage on a portion of the project area as an interim dust control measure. Tillage is an adaptive solution that would be implemented until approval of a permanent dust control solution for the moat and row areas is developed through a stakeholder lake-wide master planning process, permitted, and approved.

1.1 CEQA HISTORY

1997 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (SIP) Final Environmental Impact Report. This document evaluated implementation of DCMs (shallow flooding, managed vegetation, and application of gravel) for approximately 19.4 square miles within the Owens Lake Planning Area.

1998 Owens Valley PM10 Planning Area Demonstration of Attainment SIP Addendum No. 1 to the Final Environmental Impact Report. This document addressed changes to the 1997 SIP project description approved in a Memorandum of Agreement (MOA) (July 28, 1998) between GBUAPCD and City of Los Angeles. No new or expanded dust control areas (DCAs) were approved.

2003 Owens Valley PM10 Planning Area Demonstration of Attainment SIP Integrated Environmental Impact Report. This document was prepared in response to monitoring data on the effectiveness of DCMs implemented as part of the 1997 SIP. The EIR evaluated implementation of an additional 10.4 square miles of DCMs (i.e., shallow

flooding, managed vegetation), mainline and drainline water pipeline connections, subsurface drainage system improvements, power supply and control facilities, fertilizer and water treatment injection systems, utility corridors, power cables and access roads, and construction corridors. A total of 10.4 square miles of DCMs were approved with this project, bringing the total area of DCMs approved to 29.8 square miles (19.4 square miles approved with the 1997 SIP).

2004 Environmental Impact Report Addendum No. 1 to the 2003 Owens Valley PM10 Planning Area Demonstration of Attainment SIP. This document evaluated the exchange of 1.3 square miles of DCAs originally designated for managed vegetation to shallow flooding and the addition of 223 acres of shallow flooding outside the area analyzed in the 2003 SIP EIR.

Final Subsequent Environmental Impact Report for the 2008 Owens Valley PM10 Planning Area Demonstration of Attainment State Implementation Plan (2008 SIP FSEIR) (State Clearinghouse #2007021127). Adopted by GBUAPCD in February 2008, the SIP FSEIR evaluated the implementation of 15.1 square miles of DCMs in the Owens Lake Planning Area. DCMs evaluated and approved included shallow flooding, moat and row elements, gravel blanket, and application of gravel as riprap (a loose assemblage of broken stones) on berms in shallow flooding ponds or as a cap on rows in moat and row elements. Approximately 3.5 square miles of moat and row DCMs were evaluated and approved for the project.

Final Supplemental Environmental Impact Report for the Owens Lake Revised Moat and Row Dust Control Measures (2009 Moat and Row FSEIR) (State Clearinghouse #2008121074). LADWP, as CEQA lead agency, adopted the Moat and Row FSEIR in September 2009. The revised moat and row project was a component of the larger, previously approved 2008 State Implementation Plan (SIP). The FSEIR tiered-off the 2008 SIP FSEIR to address changes to the design and operation and maintenance plan for the moat and row DCMs.

1.2 PRESENT DOCUMENT/PROJECT

2010 Addendum No. 1 to the 2009 Moat and Row FSEIR. This Addendum serves as CEQA compliance for the modification of the Phase 7 moat and row project to implement tillage as an interim measure. This document is an Addendum to the 2009 Final Supplemental Environmental Impact Report for the Owens Lake Revised Moat and Row Dust Control Measures to address changes in the project since adoption of the FSEIR.

LADWP has determined that tillage differs from the moat and row DCMs evaluated in the 2009 Moat and Row FSEIR such that, in accordance with Section 15164 of the State CEQA Guidelines, minor modifications and clarifications to the EIR warrant preparation of an addendum to the 2009 Moat and Row FSEIR. Environmental analysis presented in this Addendum demonstrates that the impacts and mitigation requirements identified in the 2009 Moat and Row FSEIR remain substantively unchanged by the modification of

the project description to implement tillage. This supports the finding that the proposed modification does not raise any new issues and does not exceed the level of impacts identified in the previous 2009 Moat and Row FSEIR.

2.0 TILLAGE DESCRIPTION

2.1 Objective

In 2009, a lease application for use of state lands for the Phase 7 moat and row project was submitted to the CSLC. Since this application has not been granted, and since LADWP is required to implement dust controls on the Phase 7 parcels by October 2010 under orders issued by the GBUAPCD, the project description for the moat and row DCM is proposed to be amended to implement tillage of 3.1 square miles of the moat and row parcels as an interim measure. The objective of the modified project description is to reduce the frequency and intensity of dust emissions on 3.1 square miles of Owens Lake.

2.2 Location of Areas to be Tilled

The 110 square-mile dry Owens Lake is located in Inyo County, California, approximately 5 miles south of the community of Lone Pine and approximately 61 miles south of the city of Bishop. LADWP is proposing to till 3.1 square miles within six parcels on Owens Lake playa (**Figure 1**) as an interim dust control measure on areas previously designated for moat and row.

2.3 Tillage Overview

Tillage is a widely used method for wind erosion control in agricultural and arid regions around the world. It works by roughening the soil surface, rendering it more resistant to wind erosion. Surface roughness reduces the wind velocity at the surface and provides traps to catch windblown soil particles. Benefits of tillage include:

1. Can be implemented quickly with immediate effectiveness
2. No infrastructure requirements (or associated impacts)
3. Roughens surfaces but is otherwise lower profile than rows and does not obstruct views
4. Can be implemented in arid regions where access to water resources is limited

Literature describing tillage application and effectiveness for reducing wind erosion is cited in **Attachment A**.

Tillage was previously applied on the Owens playa for temporary dust control in some Shallow Flood construction areas between October 1, 2009 and April 1, 2010 (**Figure 2**). This tillage notably reduced the frequency and intensity of observed emissions within these areas, even when wind erosion occurred within untilled areas immediately adjacent.

A refined version of tillage is proposed for use on the playa dust control areas formerly designated for moat and row. Tillage would be conducted in swaths of tilled ridges with spacing between swaths allowing for monitoring access. There are two tillage configurations, corresponding to fine and coarse textured soils.

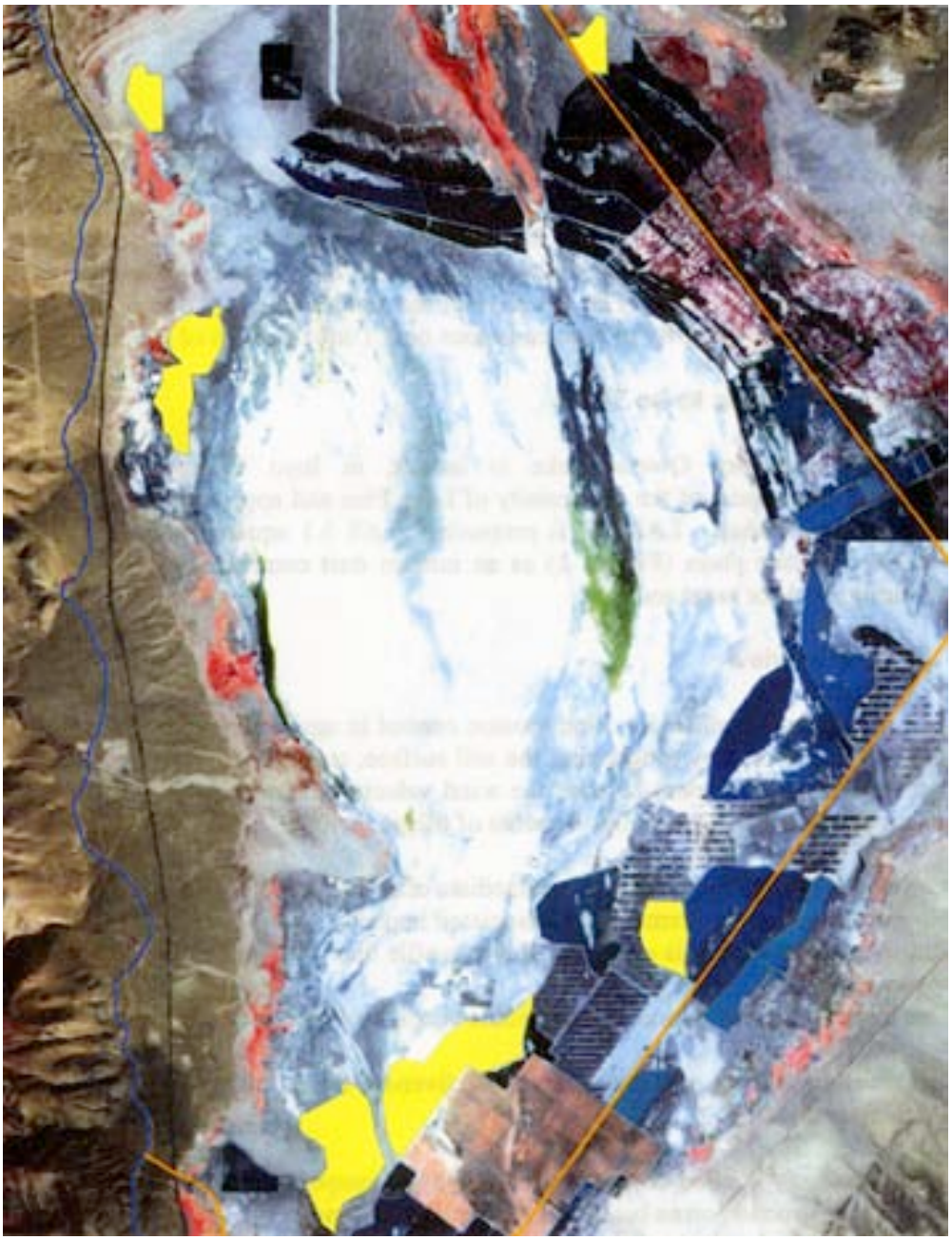

Figure 1. Proposed Tillage Areas and Estimated Average Soil Textural Category (to be field verified)

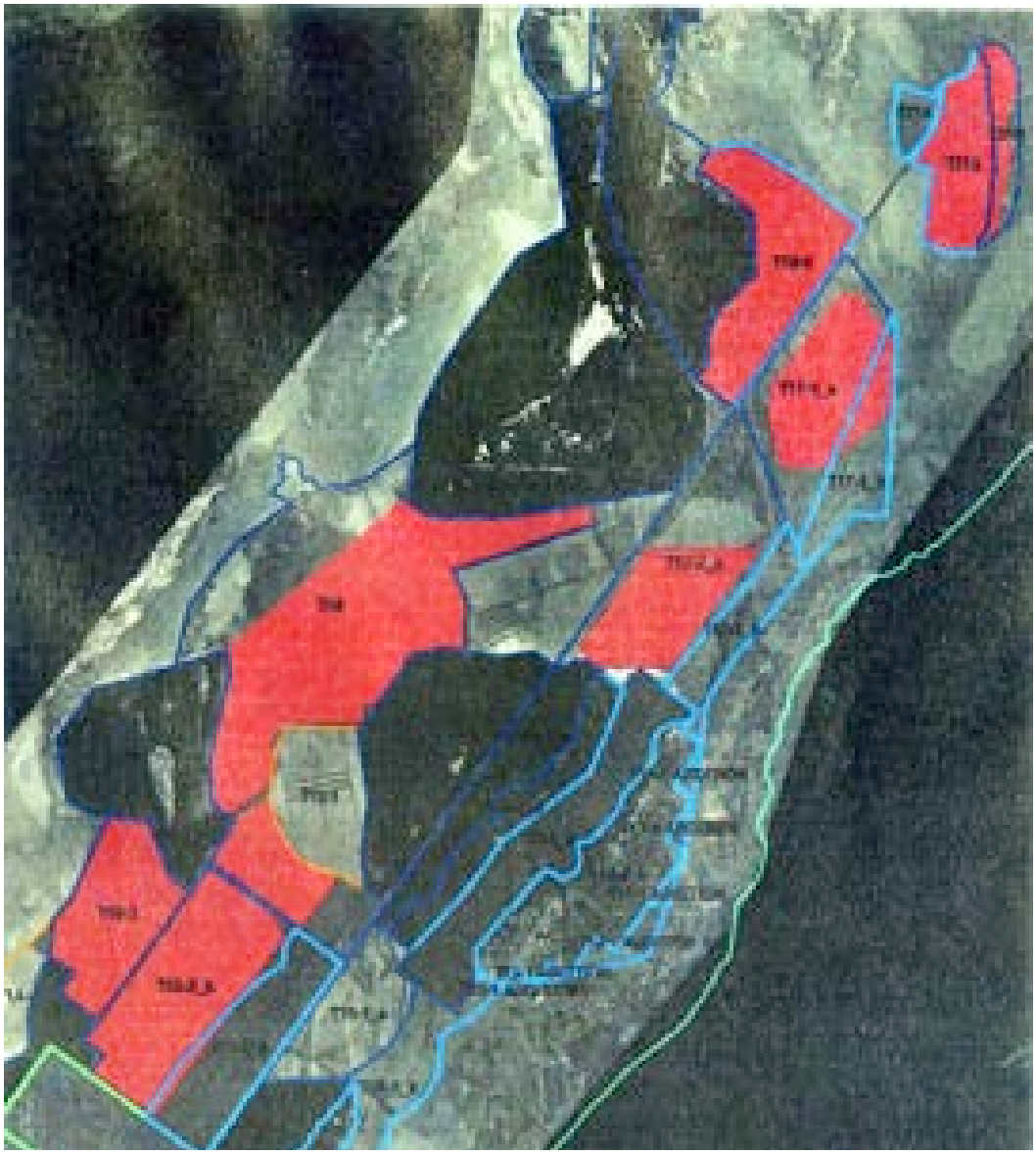

Figure 2. Temporary Tillage Areas (red) within Phase 7 Shallow Flood Construction Areas (Temporary tillage was in place from October 1, 2009 to April 1, 2010.)

The criteria considered in the establishment of these refined tillage configurations are:

- Prevailing winds
- Soil conditions
- Visible effects
- Monitoring access

Prevailing winds dictate the primary tillage direction. In practice, erosion control tillage ridges are formed approximately at right angles to prevailing winds to maximize friction and velocity reduction afforded by the tillage. Tillage direction would be determined for each area based on historic wind events, as recorded at monitoring stations on the lake. **Figure 3** shows an example of a wind rose showing prevailing north or north-northwest and south or south-southwest winds at a station. East-west tillage would be roughly perpendicular to these winds.

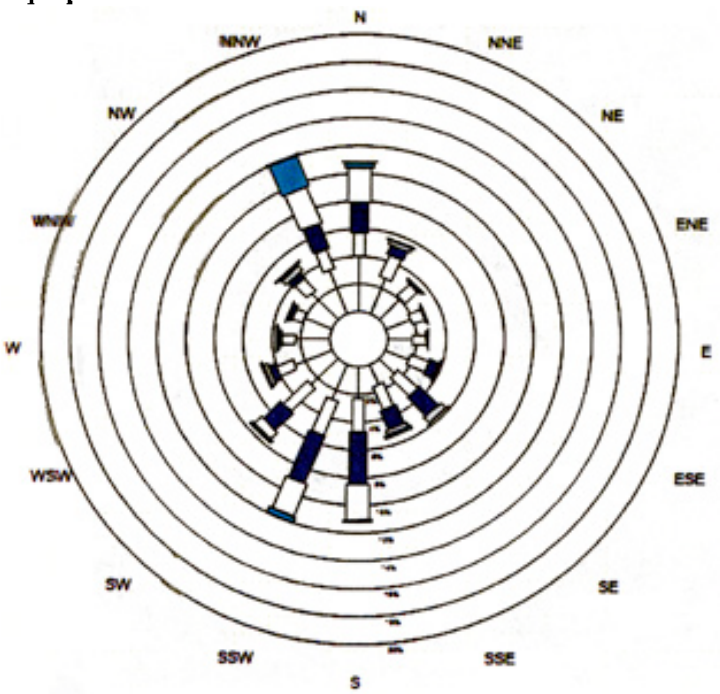

Figure 3. Wind Rose Showing 2007-2008 Winds for the B-Tower Met Station

Soil conditions influence the depth and spacing of tillage. Soil textures within the area of interest range from sands to silty clays. In clay soils, higher soil cohesion produces larger soil clods and more resistant tilled ridges. Because clays produce higher, stronger ridges, ridge spacing can be wider. In these areas tillage may persist for multiple seasons before re-tillage is necessary. In sandy soils, tillage may be shallower and produce lower relief. In these cases, tilled ridges are more closely spaced. Sands also are less cohesive and therefore may need to be re-tilled more frequently within a season to maintain surface roughness.

Two tillage configurations are proposed. They are similar except for the width between tilled ridges, which is wider in clay textured soils and narrower in sandy soils. **Figure 4** shows the general configuration and provides ridge spacings for both. **Figure 1** shows estimated average soil textural categories for the six proposed tillage areas.

Gaps in tilled areas, both transverse and longitudinal to the direction of bulldozer travel, are included for ease of potential monitoring needs (**Figure 4**). Gaps would be spaced at approximately 1,000 feet. The size of the gaps, ranging from 15 to 20 feet, is limited to avoid wind jetting and unprotected playa areas, but large enough for vehicular passage should it be necessary.

Visible effects were considered in the configuration of tillage rows and row curvature. While the primary direction of tillage will be perpendicular to prevailing winds, some departure (up to approximately 30 degrees in either direction, see **Figure 5**) from this direction will avoid long, straight rows and allow for curving, more natural-looking tillage lines. Curved tillage rows also provide some protection from off-primary wind directions and help to avoid jetting of winds down straight rows.

2.4 Construction

Soil texture information in the tillage areas will be confirmed with field mapping to inform final configuration selection prior to tillage installation. Tillage on fine textured (clayey) soil areas will be completed with a bulldozer equipped with a tilted blade corner to cut through soil to a depth of 12 to 24 inches below the native surface, with an approximate average depth of 18 inches. Tillage passes will be spaced such that resultant soil rows are 18 to 36 inches high and spaced at 8 to 14 feet, creating rough ridges similar to those built in shallow flood construction areas before April 1, 2010 flooding operations began (**Figure 6**). This very rough tillage provides effective wind erosion control and relatively durable tillage structure that is likely to remain effective for longer periods, reducing the need for re-tilling.

Tillage on coarse textured (sandy) areas will likely be completed with conventional agricultural equipment such as a moldboard plow, one-way disk or other surface roughening implement. These implements will till to a depth of 6 to 18 inches below native surface and will produce closer, smaller ridges or divots (approximately 12 to 36 inches apart) with a height of 4 to 18 inches. These sandy soil ridges or divots will produce more temporary erosion control and will likely require re-tilling one or more times within the dust season.

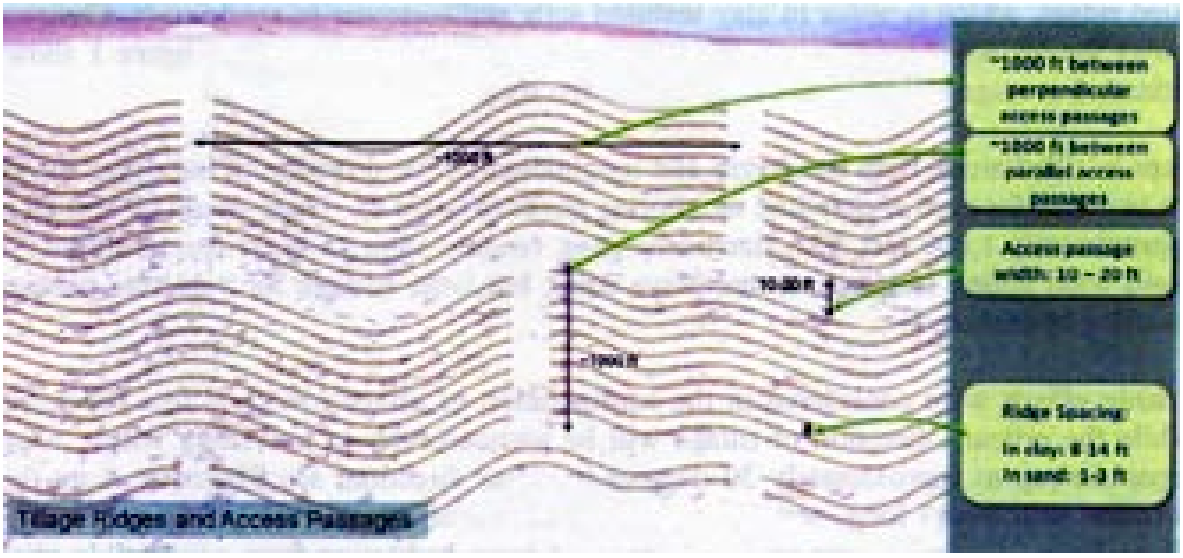

Figure 4. Conceptual Tillage Configuration (clay and sand spacing listed)
(not to scale)

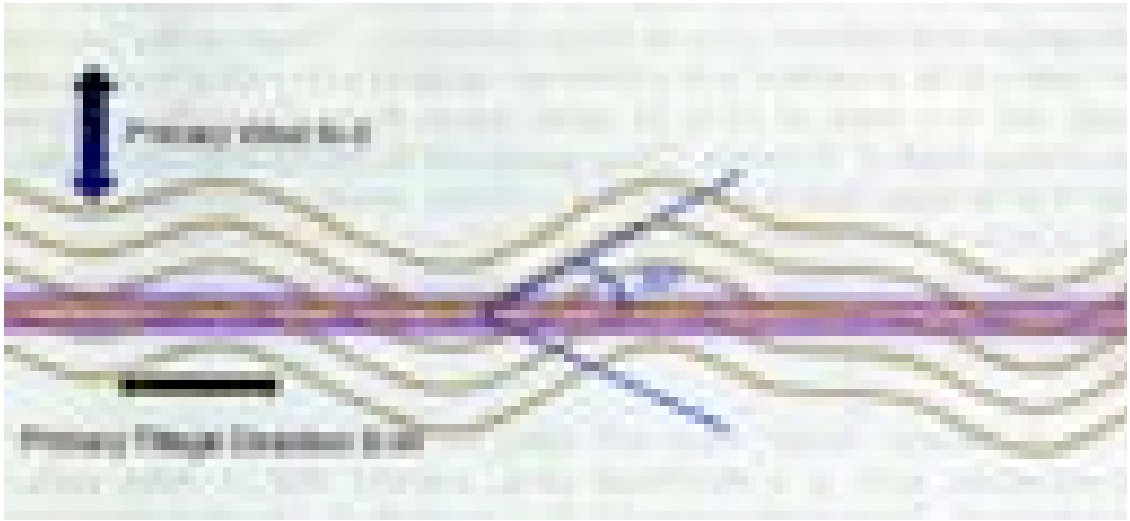

Figure 5. Curving Configuration of Tillage Rows Vary by up to 30 Degrees in either Direction from Primary Tillage Direction

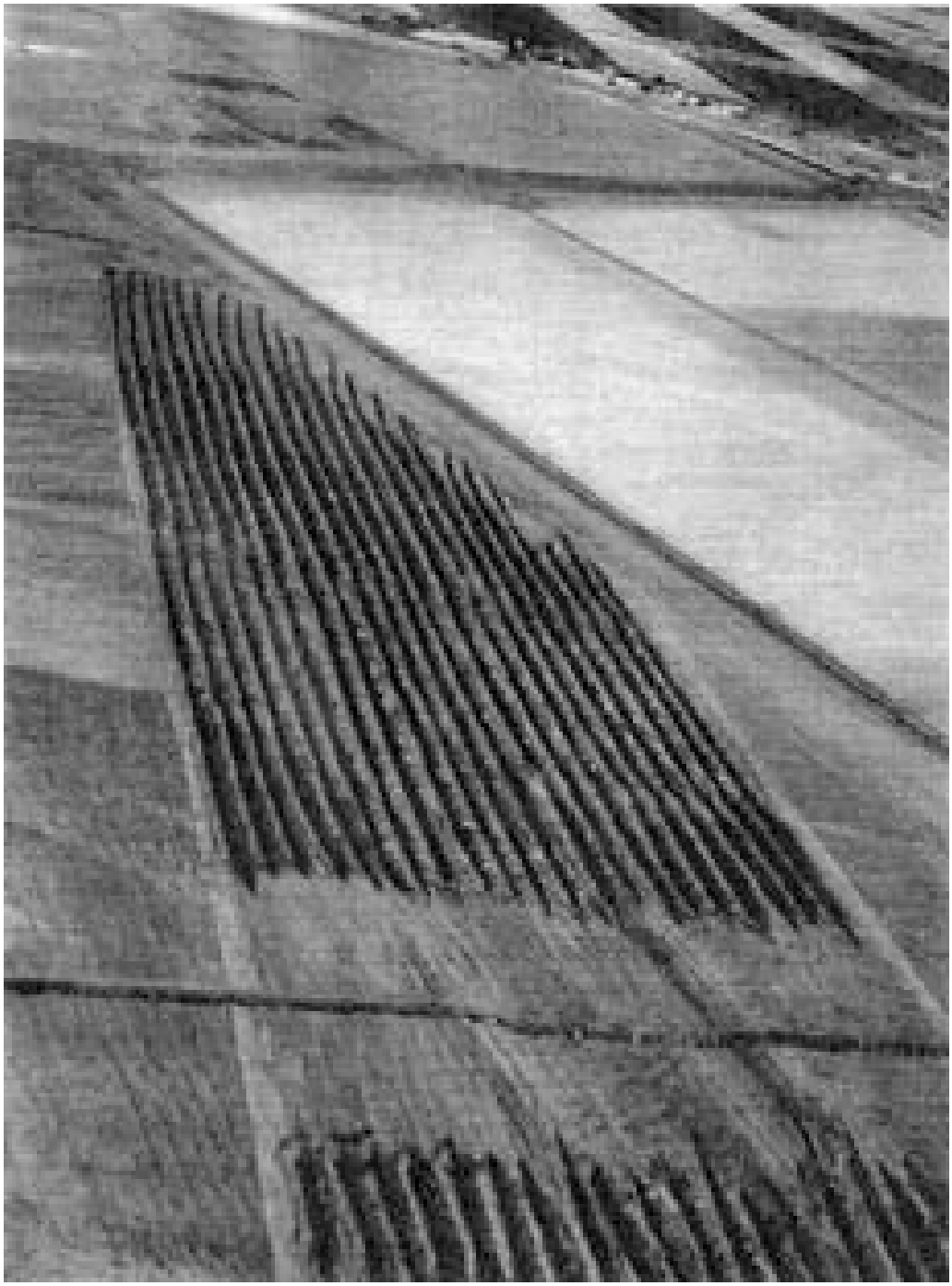

Figure 6. Aerial View of Tillage on Owens Lake – 2009.

Coarse textured areas that are underlain by fine textured soil within a depth of 8 inches will be considered for clay-type tillage configuration. In these cases the fine material that would be turned up by tillage will help to sustain larger, more resistant ridges. A field survey of sandy tillage areas will be conducted to confirm estimated soil textures and to identify areas with fine subsurface textures and potential for the clay-type tillage configuration.

Tilling will be conducted in daylight hours without use of artificial lighting. Estimated construction personnel and equipment are noted in **Table 1**.

Table 1
Anticipated Construction Activities, Equipment, and Crews for Tilage

Construction Activity	Activity Duration (approximate workdays)	Equipment	Crew Members
Tillage	40	D6 bulldozer (6)	9
Survey	30 (10 days precede start of tillage, 20 days concurrent)	Pickup/ATV	2
Equipment Movement	5 (preceding tillage)	Tractor/Low Boy Trailer	1
Construction Support	40 (concurrent with tillage)	Fuel Truck	1
Total	**Approximately 50**	**Approximately 10**	**Approximately 13**

To minimize dust emissions during construction, areas will be tilled during low wind periods (approximately 7.5 meters per second (hourly wind speed) or less). To the extent feasible, installation will occur in the summer season when winds are relatively lower and high temperatures and low relative humidity reduce surface soil erodability.

The estimated construction personnel and equipment for the previously proposed moat and row facilities, as identified in the 2009 Moat and Row FSEIR, are noted in **Table 2**. As is evident from the two tables, tillage has a shorter construction duration and requires fewer pieces of equipment in comparison with the construction of moat and row facilities.

Table 2
Anticipated Construction Activities, Equipment, and Crews for Construction of the Moat and Row DCAs

Construction Activity	Activity Length (Estimate)	Equipment	Total Crew Members
Site Preparation: clearing site of vegetation and debris, leveling of site	30 days	1 bulldozer 1 front-end loader 1 grader 2 dump trucks 1 scraper	One crew consisting of 11 crew members
Earthmoving: excavation, grading for drainage, and ripping	60 days	2 bulldozers with disc plow 1 scraper	Two crews consisting of 4 crew members (8 total personnel)
Stormwater control berms: construction of earthen berms along perimeter of site; includes excavation, backfill, grading, and compaction	30 days	Up to 2–3 excavators 1 front-end loader 1 compactor 1 water truck 1 job pick-up truck 1 scraper 2 haul trucks	One crew consisting of 12 members
Dewatering: dewatering and discharge of on-site groundwater within construction areas	150 days	2 job pick-up trucks Pumps	One crew consisting of 2 members
Turnout mainline pipelines: excavation, pipeline delivery, pipeline excavation, installation, backfilling	60 days	Up to 2–3 tracked excavators/ trencher w/ conveyor 1 tracked chain machine trencher 1 bulldozer 1 front-end loader 1 crane/pipe layer 1 compactor 3 pipe delivery trucks 3 job pick-up trucks	One crew consisting of 12 members
Road Construction: construction of elevated roads on berms by using native materials, placement of soils, compaction, grading, and gravel placement	75 days	Up to 2–3 excavators 2 compactors 2 graders 3 haul trucks 1 job pick-up truck 1 scraper	One crew consisting of 13 members
Management activities: construction management and field inspection	312 days	10 job vehicles	One crew consisting of 15 members
Environmental mitigation crews: conduct surveys and mitigation monitoring activities	Ongoing	All-terrain vehicles 4-wheel drive vehicles	Seven crews consisting of 2–6 members each (total of 14 to 42 members)

Source: GBUAPCD 2008 SIP FSEIR

2.5 Operation

Tillage is a temporary measure and therefore periodic maintenance of tilled surfaces may be necessary. The frequency of re-tilling depends on soil conditions, primarily soil cohesion. All tillage areas will be monitored throughout the dust season to determine where maintenance is required. Re-tilling will be conducted on both coarse and fine textures areas as needed to maintain ridging.

Approximately 35 percent of the tillage areas will be fine textured and are not expected to require maintenance within the first dust season (October 2010 through June 2011). However, some maintenance within small fine-textured zones may occur if necessary. Approximately 65 percent of the tillage areas will be sandy textured and will likely require maintenance within the dust season. It is expected that maintenance will occur in portions of these areas from one to three times during the first dust season. The time required for maintenance per unit area is expected to be similar to the rate of initial installation. Maintenance timing and frequency will depend on observations of tillage area ridge structures and dust emissions. Wind and weather conditions will also be considered in order to reduce dust emissions to the extent feasible.

3.0 ENVIRONMENTAL ASSESSMENT

Based on the analysis presented in the 2008 SIP FSEIR, an Initial Study using the checklist presented in Appendix G of the State CEQA Guidelines was prepared for the Phase 7 moat and row project (available at http://www.ladwp.com/envnotices). For all environmental topics except three, the moat and row DCMs were found to have no impact, a less than significant impact, or a significant impact already addressed in the 2008 SIP FSEIR. Biological resources, air quality, and visual resources were found to have potentially significant impacts not already addressed and additional information was presented in the 2009 Moat and Row FSEIR. The FSEIR concluded that impacts to visual resources were less than significant, impacts to biological resources were less than significant with mitigation incorporated, and impacts to air quality were significant and unavoidable.

Tillage is proposed for 3.1 square miles of the 3.5-square mile Phase 7 moat and row parcels; no new project locations are proposed for modification. Tillage is constructed and operated without the use of water or the necessity to install water transmission pipelines (although, as is existing practice, water for dust control on access roads would continue to be used as necessary). Fences, fence posts, lighting features, or moats are not proposed as part of tillage. Construction activity would be limited to approximately 13 workers and 10 trucks and D6 bulldozers over approximately 50 work days.

The following summarizes the impact assessment presented in the 2009 Moat and Row FSEIR and then presents the evaluation of tillage for the 17 environmental topics contained in the checklist from Appendix G of the State CEQA Guidelines.

3.1 AESTHETICS

FSEIR Impact Summary. Construction activities at the project site would result in a change in the existing visual character of Owens Lake. However, changes to views of individual moat and row cells from construction would be temporary. Since no new lighting features are proposed, construction of moat and row DCMs on the proposed parcels would not introduce new sources of light or glare or adversely affect nighttime views in the area. Views of the Sierra Nevada and Inyo Mountains would not be blocked or otherwise altered by the project. The FSEIR found that views of moat and row elements at the project site would be indistinguishable, barely perceptible, or would not change the dramatic backdrop or natural feel of the overall landscape of Owens Lake because of their distance from the viewer, the size of the features in relation to the elevation of the viewpoints and surrounding mountains, and the predominant natural features of the surrounding landscape would be retained. Therefore, construction of moat and row elements at the project site would not result in substantial degradation of the viewshed as viewed by motorists traveling along U.S. 395, SR 190, or SR 136 or by visitors to the lakebed. Therefore, the FSEIR found that impacts on visual resources would be less than significant.

Impact Assessment with Modification to Implement Tillage. Construction of the tilled areas would result in a change in the existing visual character of Owens Lake. However, tillage will require a small number of workers and equipment (approximately 13 people and 10 trucks and D6 bulldozers) and be completed over approximately 50 work days. Visual impacts during construction would therefore be less than those for moat and row installation. Tillage as an interim dust control measure on the moat and row parcels would not include new sources of lighting; there would be no impacts on light, glare, or nighttime views.

Once constructed, views of the tilled areas would be of curved rows from 1 to 14 feet apart. Since it has a lower profile and a curved design, tillage would not obstruct views from around the playa and would be less obtrusive than the previously proposed moat and row facilities. In addition, tilled soil surface color is generally cohesive with the surrounding playa environment. Therefore, impacts on visual resources would be less than significant with alteration of the moat and row project description to implement tillage as an interim dust control measure.

3.2 AGRICULTURAL AND FOREST RESOURCES

FSEIR Impact Summary. There are no agricultural or forest resources, or designated agricultural land uses, located in the Owens Lake Planning area. Therefore, the FSEIR found that there would be no impact on agricultural resources from implementation of the moat and row project.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim measure on the proposed parcels would have no impact on agricultural or forest resources, as none are present on the project sites.

3.3 AIR QUALITY

FSEIR Impact Summary. The closest sensitive receptors to the project site are located in Cartago, 0.5 mile west of T1A-1 (the southernmost Moat and Row dust control area). Due to this distance, the moat and row project would have a less than significant air quality, including objectionable odors, impact on sensitive receptors.

Implementing the previously proposed project would not result in the generation of short-term construction emissions beyond the level analyzed in the 2008 SIP FSEIR, because the proposed modifications would not require additional daily land disturbance, heavy-duty equipment use, or construction personnel beyond the levels previously evaluated. However, construction of the moat and row elements would cause a delay beyond the time frame specified for DCMs in the 2008 SIP. Thus, implementation of the moat and row project would technically conflict with the applicable air quality plan, resulting in a slight potential for an increase in the number of days when violations of the NAAQS and exposure of sensitive receptors would occur. Therefore, the FSEIR found that the impact would be significant and unavoidable.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim measure on the proposed parcels would result in fewer construction-related emissions than moat and row, since fewer pieces of construction equipment are used and the construction period is shorter. Therefore, peak-day air pollutant emissions from tillage would be less than peak-day construction emissions for moat and row. Emissions of air pollutants during operation of tillage would result when periodic re-tilling is required. To minimize dust emissions during re-tilling, areas will be tilled during low wind periods (approximately 7.5 meters per second (hourly wind speed) or less). To the extent feasible, re-tilling will occur in the summer season when winds are relatively lower and high temperatures and low relative humidity reduce surface soil erodability.

Tillage is relatively easily implemented; it represents an efficient method to quickly reduce dust emissions from 3.1 square miles of Owens Lake. The impact over existing conditions would be beneficial for air quality. However, tillage would not eliminate the delay in implementation of the DCMs per the time frame specified in the SIP. Therefore, consistent with the impact assessment presented in the 2009 Moat and Row FSEIR, impacts on the applicable air quality plan would be significant and unavoidable with alteration of the moat and row project description to implement tillage as an interim measure.

3.4 BIOLOGICAL RESOURCES

FSEIR Impact Summary. The FSEIR found no riparian habitat present on the moat and row project sites; therefore, there would be no impact on riparian habitat or other sensitive natural community from implementation of the moat and row project.

The project site is dominated by barren alkali playa and does not provide suitable habitat for most wildlife species. None of the cells are located within, or required for travel between, important foraging or breeding habitats for any wildlife species; they do not impose movements barriers between high-suitability habitats for any species. Therefore, any potential effects on wildlife movements would be less than significant.

Implementation of the moat and row DCMs would result in the loss of up to 1,503.8 acres of suitable habitat for western snowy plover. Under mitigation measure Biology-14 (Long-term Habitat Management Plan) of the 2008 SIP FSEIR, LADWP committed to managing 1,000 acres of shorebird and snowy plover habitat, and maintaining an additional 523 or more acres of habitat specifically for snowy plover, in perpetuity. These long-term habitat benefits for snowy plover would compensate for habitat impacts within moat and row cells. The loss of suitable snowy plover habitat within moat and row cells would be less than significant. Additionally, implementation of previously-approved Phase 7 shallow flood DCAs would result in the creation of 3,177 acres of additional snowy plover habitat.

Other potential direct and indirect impacts of the project include potential loss of snowy plover individuals as a result of construction and operations and maintenance activities; isolation and loss of plover broods within fence grids; entrapment within moats; and increased predation by corvid species as a result of fence construction and additional corvid perch opportunities near plover nesting habitat. These potential impacts to individuals and brood movements would result in potentially significant adverse effects on western snowy plover. In addition to the mitigation to protect biological resources identified in the 2008 FSEIR, the 2009 Moat and Row FSEIR included replacement, revised, and new mitigation measures to reduce impacts on biology to less than significant levels.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim measure on the proposed parcels would not alter the area location, nor increase impacts to biological resources. Since no riparian habitat is present on the project sites, tillage as an interim measure would have no impact on riparian habitat or other sensitive natural community. Since no fences, moats or fence posts would be constructed, tillage would not result in biological resources impacts related to sand fences impeding wildlife movement, moat entrapment, or increased shorebird predation by corvids. Note that gaps in tilled areas, both transverse and longitudinal to the direction of D6 bulldozer travel, are included approximately every 1,000 feet.

With implementation of the previously identified mitigation measures to protect snowy plovers, impacts would be consistent with the assessment presented in the 2009 Moat and Row FSEIR. Impacts on biological resources would be less than significant with alteration of the moat and row project description to implement tillage as an interim dust control measure.

3.5 CULTURAL RESOURCES

FSEIR Impact Summary. The 2008 SIP SEIR documented that there are previously recorded historic and prehistoric archaeological sites located in and adjacent to moat and row DCM areas. Impacts from implementation of the moat and row DCMs were reduced to a less than significant level with adoption of mitigation to perform subsequent investigations and a detailed recovery program.

The moat and row DCMs are located within a 1-mile monitoring area for paleontological resources. Impacts from implementation of the moat and row DCMs were reduced to a less than significant level by adoption of mitigation to monitor ground disturbing activities within the 1-mile monitoring area and in early Pleistocene to late Holocene soil units.

Implementation of the moat and row DCMs would have the potential to directly or indirectly disturb human remains, including those interred outside formal cemeteries. The FSEIR found that requirements for subsequent investigations, a detailed recovery program, and Native American consultation mitigated impacts to a less than significant level.

Impact Assessment with Modification to Implement Tillage. Cultural resources assessment for the parcels identified for tillage (6 areas totaling 3.1 square miles) was conducted for the 2009 Moat and Row FSEIR. Implementation of tillage as an interim measure would not involve construction disturbance on any additional areas of Owens Lake. Additionally, the earthwork required for tillage will be limited to approximately the top 2 feet of soils. Therefore, with implementation of the adopted mitigation measures, impacts on cultural resources would be less than significant with alteration of the moat and row project description to implement tillage as an interim measure.

3.6 GEOLOGY AND SOILS

FSEIR Impact Summary. There would be no impacts from implementation of the moat and row DCMs related to seismic hazards, including liquefaction and landslides. Since no habitable structures are proposed, no impacts were identified related to soils with the exception of soil erosion. The FSEIR found that impacts related to soil erosion were beneficial during project operation and less than significant with implementation of construction Best Management Practices (BMPs) defined in the required Stormwater Pollution Prevention Plan (SWPPP).

Impact Assessment with Modification to Implement Tillage. As with the originally proposed project, tillage as an interim measure would not include construction of habitable structures at the project site; no additional impacts related to seismic hazards would occur. Soil erosion impacts related to tillage would be reduced over the grading, trenching, and other earthwork required for construction of the moat and row facilities.

With implementation of BMPs outlined in the construction SWPPP for the project, implementation of tillage would have a less than significant impact on soil erosion.

3.7 GREENHOUSE GAS EMISSIONS

FSEIR Impact Summary. Construction activity would result in emissions of greenhouse gases (GHG) and mitigation measures were defined to reduce emissions. However, since the amount of reduction is unknown, the 2008 FSEIR concluded that the project's contribution to GHG levels would be a significant unavoidable contribution to the cumulative condition. In the 2009 Moat and Row FSEIR, impacts related to GHG emissions were found to be cumulatively significant and unavoidable.

Impact Assessment with Modification to Implement Tillage. Construction activity necessary to till the moat and row parcels will result in emissions of GHGs. However, due to the limited number of trucks and other equipment necessary (approximately 10 vehicles over 50 workdays), emissions would be less than those related to moat and row construction. However, these emissions would be a significant unavoidable contribution to the cumulative condition. Consistent with the impact assessment presented in the 2009 Moat and Row FSEIR, impacts on GHGs would be cumulatively significant and unavoidable with alteration of the moat and row project description to implement tillage as an interim measure.

3.8 HAZARDS AND HAZARDOUS MATERIALS

FSEIR Impact Summary. Implementation of the moat and row DCMs would not involve the use, generation, or disposal of hazardous materials, or the emission of acutely hazardous materials or substances within ¼ mile of an existing or proposed school. The moat and row DCMs would not be located on a hazardous materials (Cortese list) site. Since the Owens Lake Planning area is not designated as an emergency staging area, the moat and row project would not be anticipated to interfere with local emergency response or evacuation routes. These impacts related to hazardous materials would be less than significant.

Implementation of the moat and row DCMs would involve the transport, use, and storage of hazardous materials such as diesel and gasoline during project construction. The FSEIR found that with compliance with relevant regulations and guidelines, preparation and submission of an operations plan, and preparation and approval of a Spill Prevention Control and Countermeasures Program, impacts related to hazardous materials and creation of public hazard would be less than significant.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim dust control measure on the proposed parcels would not alter the area location, nor increase impacts related to hazardous materials. Since the fuel use for tilling would be less than that required for moat and row implementation, tillage would have less of a potential to result in impacts related to hazardous materials transport, use and storage than the previously proposed moat and row facilities. As mitigated, impacts related to

hazardous materials would be less than significant with alteration of the moat and row project description to implement tillage as an interim measure.

3.9 HYDROLOGY AND WATER QUALITY

FSEIR Impact Summary. Groundwater could be encountered during construction of the moat and row DCMs. Mitigation was identified (Construction SWPPP and Water Quality Monitoring and Reporting Program) to reduce impacts on water quality to less than significant levels. Groundwater levels would not substantially change as a result of implementing moat and row DCMs. However, moat and row DCMs would substantially affect drainage patterns on the project site by channeling stormwater flows that result in an increase in flash flood potential by directing water and sediment loads toward the mineral lease areas of the lake bed. The FSEIR found that with implementation of sediment traps, road/berms with clay core, or parallel alignment of moat and row DCMs, impacts would be mitigated to a less than significant level.

The project site is within a designated flood hazard area. However, the project does not include habitable structures, and workers would be able to promptly vacate the area should a flood hazard occur. The FSEIR found that impacts on mining operations related to berm failure would be mitigated to less than significant levels by development of an emergency management plan.

Due to the distance from the ocean and other bodies of water and the low relief of the Owens Lake Planning Area, the FSEIR found that the project would have no impacts related to inundation by seiche, tsunami, or mudflow.

Impact Assessment with Modification to Implement Tillage. Soils will be tilled to a depth of up to approximately 2 feet, limiting the chance for encountering groundwater. The low profile of the tilled areas would have less potential to channel stormwater than moat and row DCMs. Tillage as an interim dust control measure does not include habitable structures or berms that could be subject to failure. Therefore, impacts on hydrology and water quality would be less than significant with alteration of the moat and row project description to implement tillage as an interim measure.

3.10 LAND USE AND PLANNING

FSEIR Impact Summary. The FSEIR found that implementation of the moat and row DCMs would not physically divide an established community since the closest towns (Keeler, Cartago, and Lone Pine) are located outside of the historic shoreline of Owens Lake.

Implementation of the moat and row DCMs would have the potential to increase the numbers of biting insects and mosquitoes in the region, due to the increased areas of standing water in moats. The FSEIR found that this potential nuisance and land use conflict would be mitigated to a less than significant level by development and implementation of a vector-control program.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim measure on the proposed parcels would not alter the project location, nor increase land use impacts. Vector control related to water-based DCMs would not apply to tillage, which is constructed and operated without water addition. Impacts on land use would be less than significant with alteration of the moat and row project description to implement tillage as an interim dust control measure.

3.11 MINERAL RESOURCES

FSEIR Impact Summary. There are known mineral resources of statewide or regional importance located within the historic Owens lake bed. Existing mining operations are extracting crystalline trona ore within areas adjacent to the brine pool. However, there are no known mineral resource recovery sites of local importance located within moat and row DCAs. The FSEIR found that the potential conflict with mining operations related to increases in flash flood hazard would be mitigated to a less than significant level by requiring LADWP to obtain approval from the CSLC prior to working in areas that overlap with the areas leased to U.S. Borax and to implement measures identified for potential drainage impacts.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim measure on the proposed parcels would not alter the project location. Potential conflicts with mining related to flash flood hazard are not relevant to tillage since berms would not be constructed. Impacts on mineral resources would be less than significant with alteration of the moat and row project description to implement tillage as an interim dust control measure.

3.12 NOISE

FSEIR Impact Summary. The project site is in a remote area of the upper Mojave Desert with the closest sensitive noise receptors located over 1 mile away. The project site is not within 2 miles of an existing airport; therefore, there would be no impacts to airports or private airstrips. Construction equipment necessary to implement the moat and row DCMs (back hoes, dump trucks, and excavators) would elevate ambient noise levels temporarily. However, due to the distance to the nearest receptors, the FSEIR found that noise generated during construction and infrequent maintenance activity would be less than significant.

Impact Assessment with Modification to Implement Tillage. Tilling on the moat and row parcels would require the use of heavy equipment (trucks and D6 bulldozers). This equipment generates similar noise levels as the back hoes, dump trucks and excavators considered for moat and row construction. Additionally, the location of the parcels to be tilled is more than 1 mile from sensitive receptors. Therefore, impacts on noise would be less than significant with alteration of the moat and row project description to implement tillage as an interim dust control measure.

3.13 POPULATION AND HOUSING

FSEIR Impact Summary. Since construction and operation of the moat and row DCMs would not require a substantial number of new workers, the project would have a less than significant impact on population growth. No homes would be displaced by the project and therefore no people would require replacement housing. Therefore, the FSEIR found that impacts on population and housing would be less than significant.

Impact Assessment with Modification to Implement Tillage. Tilling on the moat and row parcels would require approximately 13 workers over approximately 50 workdays using LADWP's existing workforce; fewer than required for moat and row construction. Therefore, impacts on population and housing would be less than significant with alteration of the moat and row project description to implement tillage as an interim measure.

3.14 PUBLIC SERVICES

FSEIR Impact Summary. Since no new homes, structures, or population growth are related to the previously proposed project, construction and operation of the moat and row DCMs would not increase demand for fire, police, schools, parks, or other public facilities. Therefore, the FSEIR found that the project would have no impact on public services.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim measure on the moat and row parcels would not involve new homes, structures or population growth. Therefore, there would be no impact on public services with alteration of the moat and row project description to implement tillage as an interim dust control measure.

3.15 RECREATION

FSEIR Impact Summary. Since no new homes, structures, or population growth are related to the previously proposed project, construction and operation of the moat and row DCMs would not increase demand for recreational facilities. The project would have no impact on neighborhood and regional parks or other recreational facilities. However, the Owens Lake bed is openly accessible to the public for recreational activities. Public access to the moat and row DCAs would generally be allowed unless those activities would interfere or conflict with LADWP's construction or maintenance activities. Therefore, the FSEIR found that with installation of signs to caution the public, the impact would be less than significant.

Impact Assessment with Modification to Implement Tillage. Tillage as an interim measure on the proposed parcels would not alter the project area, nor increase recreation impacts. Signs will be installed to protect public safety. Impacts on recreation would be less than significant with alteration of the moat and row project description to implement tillage as an interim measure.

3.16 TRANSPORTATION AND TRAFFIC

FSEIR Impact Summary. Due to the limited number of construction workers and equipment needed, traffic generated by construction of the moat and row DCMs would not substantially degrade existing levels of service on area roadways; the impact would be less than significant. Since high structures or other air space obstructions are not proposed, the project would have less than significant impacts on air traffic patterns. Implementation of the moat and row DCMs would not require any changes to existing emergency access points; the impact is less than significant. The FSEIR found that due to the limited number of construction and operations personnel required to implement the project, the impact on parking would be less than significant.

Since no existing or planned transportation facilities would be removed or prevented from being constructed, the FSEIR found that the project would have no impact on alternative transportation plans.

Heavy equipment used for moat and row DCMs construction could result in a one-time, temporary, short-term significant traffic safety impact for oncoming or turning vehicles on Highway 395, SR 136, and SR 190. The FSEIR found that with development of a Traffic Work Safety Plan, impacts related to traffic hazards would be less than significant.

Impact Assessment with Modification to Implement Tillage. Tilling on the moat and row parcels would require approximately 13 workers and approximately 10 pieces of heavy equipment (bulldozers, pickup truck, ATV, fuel truck). The equipment required is less than that necessary for construction of the moat and row DCMs. Therefore, with development of a Traffic Work Safety Plan, impacts on transportation and traffic would be less than significant with alteration of the moat and row project description to implement tillage as an interim measure.

3.17 UTILITIES AND SERVICE SYSTEMS

FSEIR Impact Summary. Due to the limited number of construction personnel required, implementation of the moat and row DCMs would not substantially increase the demand (or alter existing facilities) for wastewater, potable water or solid waste disposal services. Construction or expansion of water, wastewater, or solid waste facilities would not be required.

Moat and row DCMs could channel storm water flows that result in an increase in flash flood potential by directing water and sediment loads toward the mineral lease areas of the lake bed. The FSEIR found that with implementation of sediment traps, road/berms with clay core, or parallel alignment of moat and row DCMs, impacts would be mitigated to a less than significant level.

Implementation of the moat and row DCMs would not change how water is delivered to the DCAs or increase demand for water supplies as compared to the assessment in the 2008 SIP FSEIR. Therefore, the FSEIR found that the project would have a less than significant impact on water supplies and entitlements.

Impact Assessment with Modification to Implement Tillage. Tilling on the moat and row parcels would require approximately 13 workers, fewer than required for moat and row construction. Tilling will not require water (aside from water used for dust control on access roads) or change how water is delivered to the DCAs. Tilling will be lower profile than the moat and row DCMs, and therefore have less potential to channel stormwater. Therefore, impacts on utilities and service systems would be less than significant with alteration of the moat and row project description to implement tillage as an interim measure.

4.0 MITIGATION MONITORING AND REPORTING PROGRAM

Except where not applicable, the mitigation measures and the Mitigation Monitoring and Reporting Program adopted for the Owens Lake Revised Moat and Row Dust Control Measures would be implemented during construction and operation of tillage as an interim measure (**Attachment B**).

Mitigation measures identified as not applicable to tillage are:

Mitigation Number (see Attachment B)	**Reason not Applicable to Tillage**
3.1-10	Tillage does not include fences.
3.1-11	Tillage does not include fences or fence posts.
3.1-12	Tillage does not include moats.
Land Use and Planning – 1 in 2008 SIP FSEIR	Tillage does not create standing water conditions that could result in creation of mosquito habitat.

5.0 DETERMINATION THAT AN ADDENDUM IS APPROPRIATE FOR THIS PROJECT

CEQA Guidelines §15164(a) allows a lead agency to prepare an Addendum to a Final EIR if all of the following conditions outlined in CEQA Guidelines §15162 (in *italics* below) are met.

- *Substantial changes with respect to the circumstances under which the project is undertaken do not require major revisions to the previous Final EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

  Since adoption of the 2009 Moat and Row FSEIR, tillage has been identified as an interim dust control measure. Based on the environmental assessment presented in this Addendum, new significant environmental effects will not result

from this modification of the project description. As noted above, for many impact areas, construction and operation of tillage will have lesser impacts on the environment than the previously proposed moat and row facilities. There will be no substantial increase in the severity of previously identified significant effects with modification of the project description.

- *No new information becomes available which shows new significant effects, significant effects substantially more severe than previously discussed, or additional or modified mitigation measures.*

  There will be no new significant effects or substantial increase in the severity of previously identified significant effects with modification of the project description to include tillage. No new or revised mitigation measures would be required to reduce the environmental impacts of the project. Except where not applicable, the mitigation measures and the Mitigation Monitoring and Reporting Program adopted for the Owens Lake Revised Moat and Row Dust Control Measures would be implemented during construction and operation of tillage as an interim measure.

- *Only minor technical changes or additions are necessary to make the Final EIR under consideration adequate under CEQA.*

  Description of tillage as an interim dust control measure is the only addition necessary to the make the 2009 Moat and Row FSEIR adequate under CEQA.

- *The changes to the Final EIR made by the Addendum do not raise important new issues about the significant effects on the environment.*

  Tillage would be implemented on 3.1 square miles of the 3.5-square mile moat and row project area. No new areas would be disturbed and in general, tillage would have lesser impacts to the environment than moat and row elements. Therefore, this Addendum to the 2009 Moat and Row FSEIR does not raise important new issues about the significance effects on the environment.

Based on review of the 2009 Moat and Row FSEIR and the environmental assessment presented in this Addendum, LADWP has determined not to prepare a subsequent EIR or negative declaration for this project. LADWP has determined that no new significant environmental effects would result from modification of the project description to implement tillage. There will be no substantial increase in the severity of previously identified significant effects with modification of the project description to include tillage. Therefore, LADWP has determined that an addendum is the appropriate CEQA document for the modification of the Owens Lake Revised Moat and Row Dust Control Measures project description to include tillage.

Attachment A

SELECTION OF LITERATURE ON WIND EROSION CONTROL BY TILLAGE

Durland, B. 2002. *Wind and emergency erosion control.* College of Agriculture & Biological Sciences. South Dakota State University/USDA.
This publication notes that in agricultural systems, if no soil cover is present, emergency tillage that leaves a cloddy, roughened surfaces reduces the surface wind velocity and traps windblown particles.

Salem, B.B. *Prevention and control of wind erosion in arid regions.* FAO Paper - Unasylva- No. 164- Watershed management.
This paper notes that rough soil structure, especially at the surface, effectively reduces the movement of soil particles The main purpose of erosion control tillage practices is to create soil roughness and reduce the length of fetch to decrease the momentum of the wind. Clods and ridges perpendicular to the prevailing wind direction limit erosion at the soil surface.

Hofman, V. and Franzen, D. 1997. *Emergency tillage to control wind erosion.* North Dakota State University Extension Service.
This agriculture-focused publication indicates that emergency tillage in agricultural practices provides a roughened, cloddy surface that is resistant to wind erosion. The ridges that are created at right angles to the wind direction reduce surface wind velocity and provide traps to catch the windblown particles. Loose, sandy soils require more drastic or more frequent measures and the resulting surface roughness can be shorter lived. Tractor speed and tillage depth can be varied to bring clods to the surface and adjust ridges height for more protection.

Liu, M., Wang, J., Yan, P., Liu, L., Ge, Y., Li, X., Hu, X., Song, Y., and Wang, L. 2006. *Wind tunnel simulation of ridge-tillage effects on soil erosion from cropland.* Soil and Tillage Research. Vol 90, Issues 1-2. Pp 242-249.
This paper notes that in the arid and semi-arid regions, ridge tillage was often used as an alternative practice for wind erosion control. The author summarizes a wind tunnel experiment in which wind erosion rate and vertical mass flux profile of blown sand under the simulated conditions of ridge tillage and flat tillage were studied. Ridge tillage decreased the wind erosion and sand transport near the soil surface in semi-arid regions and resulted in 20-60 percent less wind erosion than soil under flat tillage. Average wind erosion rate decreased with increasing height of ridges and increasing ratio between the height of ridge and the width of furrow.

Phipps, Bobby J. and Michael Milam. Prevention and Control of Damage from Wind Erosion in Cotton. Missouri State University Extension Service.
This publication highlights a tillage implement termed a sandfighter that makes divots several inches apart in the soil surface but leaves the area between the divots intact. It provided lighter tillage for temporary purposes. A sandfighter can take 12 to 25 rows in a pass and, with a tractor running at 15 miles per hour or faster, can cover as much as an acre per minute. It has been successful in avoiding agricultural replanting due to wind erosion in Texas and Oklahoma for nearly 50 years.

Smith, J.A. and Lyon, D.J. 2006. *Emergency wind erosion control.* University of Nebraska- Lincoln Extension, Institute of Agriculture and Natural Resources.
This paper notes that the purpose of tillage against wind erosion is to create a rough, ridged, cloddy surface, more resistant to wind erosion. Where possible, emergency tillage should be completed before the wind erosion begins because soil erodes more quickly with wind that contains abrasive soil particles. Tillage should begin with areas that are most prone to erosion.

Attachment B

Mitigation Monitoring and Reporting Program

(Next page)

Owens Lake Revised Moat and Row Dust Control Measures
Mitigation Monitoring and Reporting Program
Summary Table

Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
						Source	Signature/Date
3.1 Biological Resources							
3.1-1	**Measure Biology-1 in 2008 FSEIR: Lake Bed Worker Education Program (2008 SIP MMP, Table III-1)** To minimize potential direct impacts to western snowy plover from construction activities to below the level of significance, the LADWP shall continue the lake bed worker education program consistent with the previous approach and per DFG recommendations. The program shall mirror the program instituted for workers for the 1997 EIR and shall focus on western snowy plover identification, basic biology and natural history, alarm behavior of the snowy plover, and applicable mitigation procedures required of the LADWP and construction personnel. The program shall be conducted by a biologist familiar with the biology of the western snowy plover at Owens Lake and familiar with special status plant and wildlife species of the Owens Lake basin. The biologist shall be approved by the GBUAPCD prior to implementation of the education program. The qualifications of the biologist shall be submitted to the DFG for review. The education program shall be based on the 1997 program EIR and shall include relevant updates by the biologist. The education program shall explain the need for the speed limit in the snowy plover buffer areas and the identification and meaning of buffer markers. All construction, operation, and maintenance personnel working within the project area shall complete the program prior to their working on the lake bed. A list of existing personnel who have completed the program shall be submitted to the GBUAPCD prior to the start of any work on the lake bed. A list of new personnel who have participated and completed the education program shall be submitted monthly to the GBUAPCD. A copy of the worker education program shall be provided to the DFG and CSLC.	LADWP	Construction	GBUAPCD	GBUAPCD DFG	Worker Education Program Summary Report and Monthly Worker Education Program Reports for newly trained personnel	_____ (Signature/Date of Monitoring Agency)
3.1-2	**Measure Biology-2 in 2008 FSEIR: Preconstruction Surveys for Western Snowy Plover (2008 SIP MMP, Table III-1)** To minimize potential direct impacts to western snowy plover within the project area due to construction activities, the LADWP shall conduct a preconstruction survey for western snowy plover in all potential snowy plover habitat prior to any construction activity that is performed during the snowy plover breeding season (March 15 to August 15). Preconstruction surveys shall be performed no more than seven days prior to the start of ground-disturbing activities. The LADWP shall place a 200-foot buffer around all active snowy plover nests that are discovered within the construction area. This buffer shall protect the plover nest from both destruction and construction noise. Green-colored stakes of less than 60 inches in height with yellow flagging shall be used to mark buffer edges, with stakes spaced at eight approximately equidistant locations. The location of the nest (global positioning system coordinates) and current status of the nest shall be reported within 24 hours of discovery to the GBUAPCD. Maps of snowy plover nest locations shall be posted at the construction office and made available to all site personnel and GBUAPCD staff. The activity of the nest shall be monitored by a biological monitor approved by the GBUAPCD, as per existing guidelines for the North Sand Sheet and Southern Zones dust control projects and any revisions to the monitoring protocol that have been approved by the DFG. Active snowy plover nests shall be monitored at least weekly. The qualifications of the biological monitor shall be submitted to the DFG for review. The nest buffer shall remain in place until such time as the biological monitor determines that the nest is no longer active and that fledglings are no longer in danger from proposed construction activities in the area. Buffers shall be more densely marked where they intersect project-maintained roads. Vehicles shall be allowed to pass through nest buffers on maintained roads at speeds less than 15 miles per hour, but shall not be allowed to stop or park within active nest buffers. Permitted activity within the nest buffer shall be limited to foot crews working with hand tools and shall be limited to 15-minute intervals, at least one hour apart, within a nest buffer at any one time. Compliance with this mitigation measure shall be confirmed by the GBUAPCD through issuance of a weekly written report by the LADWP to the GBUAPCD.	LADWP	Construction	GBUAPCD	GBUAPCD DFG	Weekly Monitoring Reports (provided until construction is complete)	_____ (Signature/Date of Monitoring Agency
3.1-3	**Measure Biology-3 in 2008 FSEIR: Snowy Plover Nest Speed Limit (2008 SIP MMP, Table III-1)** To minimize potential direct and cumulative impacts to western snowy plover and other sensitive biological resources from vehicles construction activities, the LADWP shall implement a speed limit of 30 miles per hour within all active construction areas on Owens Lake during construction of DCMs. Speed limits shall be 15 miles per hour within active snowy plover nest buffers. Designated speed limits for other construction areas outside of active nest buffers shall be maintained at 30 miles per hour where it is determined to be safe according to vehicle capabilities, weather conditions,	LADWP	Construction	GBUAPCD	GBUAPCD DFG	Compliance Summary Report (provided within 30 days of completion of education seminar and	_____ (Signature/Date of Monitoring Agency

Owens Lake Revised Moat and Row Dust Control Measures
Mitigation Monitoring and Reporting Program
Summary Table

Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
						Source	Signature/Date
	and road conditions. Site personnel and GBUAPCD staff shall be informed daily of locations where active nest buffers overlap with roads in the construction area. Signs shall be posted that clearly state required speed limits. Speed limit signs shall be posted at all entry points to the lake. The number of speed limit signs shall be kept at a minimum near active snowy plover nest areas to reduce potential perches for raptors and other snowy plover predators and shall be outfitted with Nixalite or the functional equivalent if greater than 72 inches (increased from the original 60 inches) in height at entry points to the lake and 60 inches in height by active snowy plover nest areas. Compliance with this mitigation measure shall be confirmed by the GBUAPCD through issuance of a summary written report by the LADWP to the GBUAPCD after posting of speed limits. A copy of the summary report shall be provided to the DFG.					installation of speed-limit signs)	
3.1-4	**Measure Biology-4 in 2008 FSEIR: Lighting Best Management Practices (2008 SIP MMP, Table III-1)** To minimize indirect impacts to nesting bird species associated with project lighting during construction activities, the LADWP shall institute all best management practices to minimize lighting impacts on nocturnal wildlife consistent with previous requirements and DFG recommendations. Best management practices include those listed below, and are included in the Project Description of the 2008 State Implementation Plan (SIP) Environmental Impact Report. Previous construction has occurred during nighttime hours to complete construction schedules and to prevent personnel from working during times of high temperatures. If night work is deemed necessary, then construction crews shall make every effort to shield lighting on equipment downward and away from natural vegetation communities or playa areas, and especially away from known nesting areas for snowy plovers during the nesting season (March to August). All lighting, in particular any permanent lighting, on newly built facilities shall be minimized to the greatest extent possible, while still being in compliance with all applicable safety requirements. Required lighting shall be shielded so that light is directed downward and away from vegetation or playa areas. Proof of compliance with this mitigation measure shall be confirmed by the GBUAPCD, and a copy of the compliance record shall be provided to the DFG	LADWP	Construction	GBUAPCD	GBUAPCD DFG	Compliance Summary Report (provided until construction is complete)	(Signature/Date of Monitoring Agency
3.1-5	**Measure Biology-7 in 2008 FSEIR: Toxicity Monitoring Program (2008 SIP MMP, Table III-1)** To avoid direct and cumulative impacts to native wildlife communities that may potentially result from bioaccumulation of toxic substances resulting from naturally occurring heavy metals and other potential toxins in lake bed deposits to below the level of significance, the LADWP shall implement a toxicity monitoring program to investigate the potential of bioaccumulation of heavy metals and other potential toxins in wildlife from feeding in dust control areas throughout the Owens Lake bed. A copy of the long-term monitoring program shall be submitted to the CSLC and GBUAPCD for review and comment at least 60 days prior to the start of operation of new water-based DCMs. Monitoring shall take place in all dust control areas within the Owens Lake as well as at all spring and outflow areas within 500 feet of the construction boundaries. The purpose of the monitoring program shall be to determine if bioaccumulation of toxins is occurring within native wildlife populations attributable to the Dust Control Mitigation Program. Procedures for bioaccumulation monitoring shall follow existing permits issued by the Lahontan Water Quality Control Board (Lahontan Water Quality Control Board) and any subsequent water quality monitoring requirements deemed necessary by the Lahontan Water Quality Control Board. All monitoring shall be conducted by individuals familiar with the native wildlife species of the Owens Lake bed. Monitoring personnel shall be approved by the GBUAPCD prior to implementation of the long-term monitoring. The monitoring plan shall include adaptive management procedures and mitigation procedures to follow in the instance that signs of toxicity do develop in native wildlife populations that are attributable to the Dust Control Mitigation Program. Management procedures would be implemented depending on the type and extent of impact that was observed and could potentially, but not necessarily, include covering of dust control areas to prevent wildlife utilization, hazing of wildlife to prevent utilization of dust control areas, or any other appropriate measures. Any adaptive management measures that would potentially be implemented shall be approved by the GBUAPCD and the DFG prior to implementation. The monitoring shall be conducted as described in Table 3.2.5-1, Biology-7, Postconstruction Bioaccumulation Monitoring Schedule. In order to have the 2003 SIP and 2008 SIP monitoring schedules coincide, the final year for monitoring in 2003 SIP areas has been moved from 2020 to 2023. Monitoring shall be conducted on a semi-annual basis (summer and winter) during each year that monitoring is conducted. If, after the completion of the 14-year	LADWP	Operation	GBUAPCD DFG	GBUAPCD DFG CSLC RWQCB	Long Term Toxicity Monitoring Program (provided to the Great Basin Unified Air Pollution Control District prior to the start of construction) and Annual Bioaccumulation Monitoring Reports	(Signature/Date of Monitoring Agency

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Summary Table

Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
						Source	Signature/Date
	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 GBUAPCD, the DFG, Lahontan Water Quality Control Board, and the CSLC by the approved biological monitor within four months following the end of the monitoring year. Any changes in the existing monitoring requirements by the Regional Water Quality Control Board shall be included into this mitigation measure. **Table 3.2.5-1** **Biology-7, Postconstruction Bioaccumulation Monitoring Schedule** 2003 SIP Areas Only: 2008 2003 SIP Areas Only: 2009 Year 1 Monitoring Event*: 2010 Year 2 Monitoring Event*: 2011 Year 3 Monitoring Event**: 2012 Year 4 Monitoring Event*: 2013 Year 5 Monitoring Event**: 2014 Year 6 Monitoring Event*: 2015 Year 9 Monitoring Event**: 2018 Year 14 Monitoring Event*: 2023 NOTE: *2003 and 2008 SIP areas monitored ** 2008 SIP areas only						
3.1-6	**Measure Biology-9 in 2008 FSEIR: Plover Identification Training (2008 SIP MMP, Table III-1)** 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 DFG for review. Maintenance crews shall utilize hand tools and ATVs only to conduct maintenance activities during this time period in Shallow Flooding panels where snowy plovers may be present. Crews shall minimize time within the Shallow Flooding and playa areas to the greatest extent possible. In the event that a crew discovers an active nest, a biologist shall be contacted to mark the nest buffer. If crews are working within an active nest buffer, they shall be limited to 15 minutes out of every hour within the buffer. If an unanticipated take to western snowy plovers or an active snowy plover nest occurs during any maintenance activities, a project biologist shall document the impact and report the incident to the GBUAPCD and the DFG within 48 hours of the event. A take in this case would be defined as mortality to adults, chicks, or fledglings, or a modification in adults' behavior due to human pressure that results in a loss of a nest and its contents. Proof of compliance with this mitigation measure shall be verified by submitting copies of any incident reports to the GBUAPCD, the CSLC, and the DFG. Emergency repair activities are exempt from the requirements of this provision. An emergency is defined in the State of California Environmental Quality Act Guidelines, Section 15269, as "a sudden, unexpected occurrence that presents a clear and imminent danger, demanding action to prevent or mitigate loss of or damage to life, health, property, or essential public services." Emergency repairs as defined under the 2003 SIP revision and the 1998 SIP are further defined as those repairs that must be completed immediately to protect human health and safety, ensure the project is in compliance with required air quality standards, or protect project infrastructure from significant and immediate damage that could result in the failure of a DCM to maintain compliance with required air quality standards. In the	LADWP	Operation	GBUAPCD DFG CSLC	GBUAPCD DFG CSLC	Subsequent Incident Reports and Emergency Repair Activities Report	(Signature/Date of Monitoring Agency

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Summary Table

Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
						Source	Signature/Date
	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 GBUAPCD and the DFG shall be notified within 24 hours of the start of all emergency repair activities. A copy of the biological monitor's written report shall be provided to the GBUAPCD and the DFG within 48 hours of completion of the emergency repair activity. Any appropriate mitigation that may be required from impacts to western snowy plovers shall be negotiated between LADWP and the DFG based on the report provided by the biological monitor. A copy of the resultant mitigation that is negotiated between LADWP and the DFG shall be provided to the GBUAPCD and CSLC						
3.1-7	**Measure Biology-10 in 2008 FSEIR: Long-Term Monitoring Program for Western Snowy Plover (2008 SIP MMP, Table III-1)** To minimize potential direct, indirect, and cumulative impacts resulting from operation and maintenance of DCMs to western snowy plover, the LADWP shall implement a long-term snowy plover population monitoring program for the entire Owens Lake bed. Long-term monitoring is required due to long-term implementation of the proposed project. Long-term population monitoring allows for the distinction between natural population fluctuations and human-induced population changes. Postconstruction surveys implemented under the 2003 SIP shall be continued under the 2008 SIP 1, 2, 3, 4, 5, 7, 9, and 14 years after project implementation. The final western snowy plover monitoring schedule for all DCMs on Owens Lake bed shall be coordinated so that long-term monitoring for all DCMs covered within this document, as well as for preceding environmental documents, are conducted simultaneously. The long term monitoring shall begin in 2010 or at such time that full build-out is completed. The goals of the monitoring are to confirm that overall numbers of snowy plovers within the dust control areas do not decrease due to implementation of the 2008 SIP relative to baseline plover population numbers prior to implementation of the 2003 SIP as shown by the 2002 plover report for Owens Lake, which found the population to be 272 plovers. Monitoring shall be conducted during the months of May and June by a qualified biologist familiar with the natural history and habitat requirements of western snowy plovers within the Owens Lake basin. The qualifications of the biological monitor shall be submitted to the DFG for review. The monitoring methodology shall be consistent with the methodology used for the Owens Lake 2002 plover surveys. Annual summary reports for the monitoring efforts shall be filed with the GBUAPCD, the CSLC, and the DFG by December 31 of each monitoring year. The GBUAPCD shall require adaptive management changes to operation and maintenance of DCMs if it determines that a decline in snowy plover numbers is occurring that is directly attributable to operation or maintenance procedures of the Owens Lake Dust Mitigation Program. The GBUAPCD shall consult with the LADWP, CSLC, and the DFG prior to requiring adaptive management changes. Monitoring shall continue for a minimum of five years after implementation of adaptive management procedures to ensure that the procedures are having the desired effect on the lake-wide snowy plover population. If after the Year 5 monitoring event it is determined that no adverse impacts to the western snowy plover population at Owens Lake are occurring as a result of the project, then the long-term monitoring program and subsequent reporting may be discontinued. Specified calendar years for conducting lake-wide plover population surveys are provided in Table 3.2.5-2, Biology-10, Postconstruction Lake-wide Plover Population Monitoring Schedule. Lake-wide surveys in 2008 and 2009 shall be conducted per the 2003 SIP. Beginning in 2010, lake-wide surveys shall conform to the 2008 SIP schedule. Proof of compliance with this mitigation measure shall be through issuance of a written monitoring summary report for each monitoring year specified in Table 3.2.5-2. Reports shall be submitted to the GBUAPCD by December 31 of each monitoring year. The report shall document survey locations and dates, the number of plovers observed, and an estimate of the total plover population. A copy of the yearly summary reports shall be provided to the DFG and the CSLC. **Table 3.2.5-2** **Biology-10, Postconstruction Lake-wide Plover Population Monitoring Schedule** Year 1 Monitoring Event | Year 2 Monitoring Event | Year 3 Monitoring Event | Year 4 Monitoring Event	LADWP	Operation and Maintenance	GBUAPCD	GBUAPCD DFG CSLC	Annual Monitoring Summary Reports (for years 1 to 5, 7, 9, 14, and thereafter until determined to be unnecessary by the GBUAPCD)	(Signature/Date of Monitoring Agency

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	2010 / Year 5 Monitoring Event / 2014 2011 / Year 7 Monitoring Event / 2016 2012 / Year 9 Monitoring Event / 2018 2013 / Year 14 Monitoring Event / 2023						
3.1-8	**Measure Biology-12 in 2008 FSEIR: Habitat Management Program for Nesting Snowy Plovers (2008 SIP MMP, Table III-1, as revised by 2008 FSEIR Clarification Sheet, dated January 23, 2008)** 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 LADWP on all Owens Lake bed Shallow Flooding areas to mimic the natural summer drying of seeps and springs in the area. Each year Shallow Flooding shall be slowly turned off from July 1 to July 21 to allow snowy plover broods to complete their nesting cycle. Consult Figure 3.2.5-1, Conceptual Owens Lake Operational Calendar, and Figure 3.2.5-2, Shallow Flooding Management for the Month of July, for a conceptual picture of Shallow Flooding panel operation. The schedule for decreasing the percentage of wetness in Shallow Flooding areas shall follow Table 3.2.5-3, Biology-12, Schedule of Percent Surface Area Wetted Required to Achieve Level of Control Efficiency After June 30. The LADWP has the option of surveying within 0.5 mile of Shallow Flooding areas for snowy plovers, and if active snowy plover nests or young are not present on or within a 0.5-mile radius of Shallow Flooding areas, then the habitat flows described above would not be needed in those areas and those Shallow Flooding panels may be shut down as the LADWP determines necessary. Surveying shall be conducted by a qualified biologist familiar with the natural history and habitat requirements of western snowy plovers within the Owens Lake basin and must be conducted within seven calendar days of planned shut down. The qualifications of the biologist who conducts the snowy plover surveys shall be submitted to the DFG for review. A final operations plan detailing the drying operations shall be submitted to the GBUAPCD for approval, and a copy shall be provided to the DFG prior to startup of new Shallow Flooding operations. Any changes made to the operations plan related to the drying of Shallow Flooding areas at the end of the dust season must be submitted in writing to the GBUAPCD for approval one week prior to implementation, and a copy of the changes shall be provided to the DFG **Table 3.2.5-3** **Biology-12, Schedule of Percent Surface Area Wetted Required to Achieve Level of Control Efficiency After June 30** July 1–7: ~ 50% wetted area July 8–14: ~ 20% wetted area July 15–21: ~ 15% wetted area July 22: Off	LADWP	Operation	GBUAPCD	GBUAPCD DFG	Final Operations Plan / Habitat Management Program	(Signature/Date of Monitoring Agency

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3.1-9	**Measure Biology-14 in 2008 FSEIR: Long-Term Habitat Management Plan (2008 FSEIR Clarification Sheet, dated January 23, 2008)** To avoid direct and cumulative impacts to native wildlife communities that may result from the proposed project, a Long-term Habitat Management Plan shall be prepared, pursuant to the DFG requirements, by a qualified biologist familiar with the habitats and species present at Owens Lake and knowledgeable of wildlife management techniques. The qualifications of the biologist shall be submitted to the DFG for review. The Long-term Habitat Management Plan shall be submitted to both the DFG and the CSLC for comment, with final approval by the DFG. The Long-term Habitat Management Plan shall have final approval and be fully implemented by April 1, 2010. The Long-term Habitat Management Plan area shall encompass all emissive areas subject to dust control measures on lands owned by the CSLC and lands owned by the LADWP. In recognition of the public trust values related to resident and migratory wildlife resources at Owens dry lake, DFG and CSLC have acknowledged the benefit of a Long-term Habitat Management Plan as a tool for ensuring compatibility between the construction, maintenance, and operation of the State Implementation Plan and the protection of public trust values. The plan shall include, at a minimum, the following objectives: ► Within the Environmental Impact Report analysis areas for 2008 State Implementation Plan dust controls (Figure 2.1-3), achieve no net loss of riparian or aquatic baseline habitat functions and values or total acres of these habitats (refer to Table 3.2.2-1 for type and amount plant communities) ► Manage 1,000 acres in perpetuity for shorebirds and snowy plovers in Zone II, in consultation with DFG ► Pursuant to Condition No. 16 of the 2001 Streambed Alteration Agreement (Agreement No. R6-2001-060, Page 5), the project was expected to adversely impact 63 acres of shorebird foraging habitat at Dirty Socks Spring. Therefore, LADWP was required to create 145 acres of Habitat Shallow Flood suitable for shorebird foraging. LADWP has currently created 152 acres. If LADWP proposes to discontinue using the 145 acres or any portion thereof the Habitat Shallow Flood for shorebird foraging habitat, the LADWP shall provide shorebird foraging habitat of equivalent quality at a ratio of 1:1 to 2:1 as determined through coordination between the DFG and LADWP. ► In consultation with DFG, develop a specification for an appropriate amount of deep-water habitat and then develop and manage that deepwater habitat in perpetuity in order to support focal migratory water birds determined to be present during 1995–1997 baseline surveys in support of the 1998 State Implementation Plan. This shall include a variety of water birds that use Owens Lake as a temporary stopover habitat during spring and autumn migration; water birds that are adapted to saline conditions such as eared grebe (*Podiceps nigricollis*), Wilson's phalarope (*Phalaropus tricolor*), and California gull (*Larus californicus*); and other water birds including waterfowl that can tolerate saline or brackish conditions such as gadwall (*Anas strepera*) and lesser scaup (*Aythya affinis*), among other species. ► Maintain a baseline population of 272 snowy plovers. ► In addition to the 1,000 acres of shorebird and snowy plover habitat in Zone II, LADWP shall maintain a minimum of 523 acres of habitat specifically for snowy plovers in perpetuity at Owens Lake in consultation with the DFG. Suitability of Shallow Flooding habitat for western snowy plover consists of a mix of exposed sandy or gravelly substrate suitable for nesting in close proximity to standing water equal to or less than 12 inches in depth. ► Ensure that the approximately 17.5 acres of proposed dust control measures that are within DFG Cartago Springs Wildlife Area is compatible with the designated land use. DFG has determined that Habitat Shallow Flood or habitat restoration would be compatible with the Cartago Springs Wildlife Area's designated use (Figure 3.2.5-3, Cartago Springs Wildlife Area).	LADWP	Operation and Maintenance	DFG	GBUAPCD DFG California State Lands	Habitat Management Plan and Annual Monitoring Summary Reports	_____ (Signature/Date of Monitoring Agency

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	fence perimeter length. Gaps shall be maintained throughout the snowy plover breeding season (March 15–August 15). The same fence-gap inspection and maintenance procedures (conducted before and during the core breeding season [March 15-August 15]) described for Option 1 shall be implemented under Option 2. Although the minimum size and spacing of fence gaps to facilitate movement by snowy plovers is not known, Page (pers. comm., 2008) estimated that approximately 1-foot-wide gaps placed every 10 feet along fence rows could potentially allow for unimpeded movements. For developing a range of feasible options to meet this mitigation measure, it is assumed that these guidelines for gap size and frequency can generally be extrapolated as follows: based on 1 foot of gap within a 10-foot segment (i.e., a gap occupies 10% of the fence perimeter), all fence gaps shall total a minimum of 10% of the total fence perimeter (e.g., over a 500-foot fence perimeter, a minimum total of 50 feet within a gap condition would be required). Therefore, based on 1 foot of gap within a 10-foot segment (i.e., a gap occupies 10% of the fence length), all fence gaps shall total a minimum of 10% of the total fence perimeter length (e.g., over a 500-foot fence perimeter, a total of 50 feet within a gap condition shall be required). The ability of broods to visually locate horizontal gaps is probably affected by the relationship between gap frequency and size; as the spacing between gaps increases (and distance from a plover at a given location to a gap increases), the size of individual gaps required for visual detection from a given location increases. Therefore, in addition to maintaining a minimum of 10% of total fence perimeter within a gap condition, gaps shall be spaced regularly and no more than 100 feet apart. It is assumed that this maximum spacing of gaps would allow for sufficient opportunity for broods to meet their daily movement requirements.						
3.1-11	**Revised Measure Biology-11 in 2008 FSEIR: Corvid Management Plan (2008 SIP MMP, Table III-1, as revised by 2008 FSEIR Clarification Sheet, dated January 23, 2008)** To reduce potential direct and cumulative impacts to western snowy plover and other migratory shorebirds within the project area due to increased predation on shorebird young and eggs from potential corvid population increases on Owens Lake resulting from construction of DCMs, the LADWP shall continue to implement the corvid management plan resulting from the 2003 SIP with an extension of one year within the project area, or comparable corvid control measures, to the satisfaction of the DFG, that are capable of achieving the same performance standard of no substantial net increase in corvid predation of native nesting shorebirds (including eggs). The corvid management plan was implemented in 2005 and may conclude in 2011 depending on success. Components of the corvid management plan include lake bed trash management procedures associated with DCMs, utilization of Nixalite or the functional equivalent on all structures greater than 72 inches in height (increased from the original 60 inches in height) to minimize perching of corvids and raptor species on dust control equipment where they can easily observe shorebirds during the nesting season, burial of power and communication lines on all lake bed areas below the elevation of 3,600 feet, and use of harassment techniques for corvids in specific instances where corvids are proving to be particularly harmful to nesting shorebirds. Specifically in conjunction with the Moat & Row dust control measure, the corvid management techniques shall be expanded to specify that the sand fence fabric and fence posts shall be designed to prevent perching by corvids, within 0.25 mile of occupied nesting shorebird habitat. Occupied nesting shorebird habitat will be evaluated on an annual basis, in collaboration with DFG, to identify areas requiring perch deterrents. The annual habitat evaluation will attempt to identify potential shifts in occupied nesting habitat over time. The use of sand fencing on top of rows within the Moat & Row areas will be considered under this mitigation measure as exceeding the height of 72 inches. Sand fence design to deter perching by corvids shall include the installation of: (1) Nixalite or the functional equivalent on the tops of fence posts; and (2) monofilament line or the functional equivalent along and above the sand fence fabric. To avoid a potential avian collision hazard, monofilament or other line shall be installed no greater than two inches above the top of sand fence fabric. Within 30 days prior to the breeding season (March 15–August 15) each year, the perch deterrent structures shall be inspected. If a structure has been damaged or otherwise needs maintenance, it shall be repaired at that time. The corvid management plan shall be implemented by a wildlife biologist familiar with the sensitive shorebird populations within the project area and familiar with corvid management techniques. The qualifications of the wildlife	LADWP	Operation	GBUAPCD DFG	GBUAPCD DFG	Corvid Management Plan and Annual Monitoring Summary Reports (for five years and thereafter until deemed unnecessary by the GBUAPCD)	(Signature/Date of Monitoring Agency

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	biologist shall be submitted to the DFG for review. Lethal methods of corvid control such as shooting or poisoning shall not be implemented initially due to public and government agency concerns in the project region for such control methods and to prevent putting workers at risk from such control measures. If it is later determined that corvids are having a significant impact on shorebird populations within the project area and direct removal of corvids is a viable alternative, proposed control methods would be presented to the GBUAPCD and the DFG for approval prior to implementation of the additional control measures. The corvid management plan includes a yearly written report estimating the lake bed nesting and foraging corvid population size, documenting the results of the corvid management techniques, documenting the observed effectiveness of the techniques in minimizing corvid impacts on shorebirds within the lake bed, and suggesting improvements for corvid management within the lake bed. Effectiveness may be determined based on the corvid population size on the lake bed. Copies of the yearly reports shall be submitted to the GBUAPCD and the DFG no later than December 31 of each corvid management year. If after the sixth year of reporting in 2011, the GBUAPCD determines that the corvid management program is effective and that corvids are not impacting snowy plover populations, then the reporting schedule shall phase out in the same time frame as shown in Table 3.2.5-1 (of the 2008 FSEIR). However, the corvid management practices shall be continuously implemented						
3.1-12	**Mitigation Measure 3.1-12: Monitoring and Adaptive Management for Moat Entrapment of Snowy Plover** To minimize or avoid potential moat entrapment of western snowy plovers, LADWP shall develop and implement a moat monitoring and adaptive management strategy. Although entrapment of snowy plovers within moats is assumed to be infrequent, in the absence of empirical data or other observations, there is reasonable uncertainty about this assumption. Therefore, this monitoring and adaptive monitoring approach is recommended to address this uncertainty, identify specific incidences of plover entrapment or mortality, and mitigate for significant effects **Monitoring and Adaptive Management Purpose and Guidelines** The purpose of the monitoring and adaptive management strategy is to (1) determine whether moat entrapment or loss of plovers occurs due to moat design or other elements (e.g., side slope angle, presence of water), (2) identify and implement site-specific corrective actions that would minimize or avoid any additional impact; and (3) identify whether compensatory measures for significant losses or entrapment are required. This analysis assumes that repeated and regular observations of plover entrapment or mortality would indicate a potentially significant adverse effect. Specific adaptive management response thresholds are discussed below under "4. Response Triggers." The moat monitoring and adaptive management strategy shall: ▸ be developed in consultation with DFG, CSLC, and GBUAPCD, and will be subject to the approval of DFG; ▸ be completed prior to initiating moat construction; and ▸ where appropriate, maintain consistency with and tier from existing monitoring programs, such as the Toxicity Monitoring Program (2008 FSEIR Measure Biology-7), and the Long-Term Monitoring Program for Western Snowy Plover (2008 FSEIR Measure Biology-10) **Monitoring and Adaptive Management Components** The moat monitoring and adaptive management strategy shall include the following components: ▸ a monitoring schedule, including the timing and frequency of monitoring; ▸ a description of monitoring locations and procedures; ▸ selection of indicators for identifying the type and extent of impacts to snowy plover due to moat entrapment; ▸ specific quantitative response triggers to indicate thresholds requiring management action; ▸ a list of corrective management actions appropriate for each type and extent of impact; and ▸ documentation and reporting requirements Guidelines for developing these six elements are summarized below.	LADWP	Operation and Maintenance	DFG	GBUAPCD DFG CSLC	Final Monitoring and Adaptive Management Strategy. Summary monitoring reports within 60 days of completing each monitoring season. After completing the second year of monitoring, annual reports summarizing the cumulative results of monitoring efforts.	(Signature/Date of Monitoring Agency

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	1. Implementation Schedule, Timing, and Frequency Moat monitoring shall be conducted during the snowy plover brooding season (March 15–August 15) for a minimum of two full brooding seasons after completion of project construction. Until the end of the first full brooding season after project construction, monitoring shall be conducted twice per week. If no entrapments (defined in "3. Entrapment Indicator," below) are observed during this initial period, the frequency of monitoring may be reduced to once per week for the second complete brooding season. Monitoring shall commence immediately after construction of any perimeter moat is complete, if during the snowy plover brooding season. Otherwise, monitoring shall commence at the start of the following brooding season. If after two full brooding seasons of monitoring, it is determined that there is no evidence of significant moat entrapment or mortality, this monitoring requirement may be discontinued. However, if at any point within the monitoring period corrective management actions are required (i.e., response triggers or thresholds are met), monitoring shall be continued for an additional two full brooding seasons after corrective actions are implemented to ensure effectiveness of the action. This monitoring cycle shall be repeated until significant mortality or entrapment ceases to occur during a two-year cycle. *2. Monitoring Locations and Procedures* Monitoring surveys shall be conducted at all moats forming the perimeter of moat and row cells identified as high or moderate risk of interacting with snowy plover individuals or broods (T37-1, T37-2, and T1A-3). In the event that any entrapment of snowy plover is observed in moats, moats forming the perimeter of moat and row cells identified as low risk of interacting with snowy plover (T32-1, T12-1, and T1A-4) shall be added to this monitoring and adaptive management program. All monitoring shall be conducted by wildlife biologists familiar with snowy plover identification, movement patterns, and life history requirements. Monitoring protocols shall be developed to determine the presence and condition of plovers in moats, and to document existing moat conditions where entrapment is observed. Key information collected during monitoring shall include, but is not limited to: ▸ specific locations of all areas surveyed; ▸ locations of all snowy plovers detected inside or within 100 feet of moats (using global positioning system [GPS]); ▸ age or life stage (juvenile, adult), behavior, and condition of individuals of snowy plover and all other wildlife species found within moats (including injury, death, and the identified cause of adverse condition, if possible). ▸ moat side-slope measurements where plovers are found, and within 200 feet of these locations; ▸ presence, depth, and quality (including salinity) of water in moats, where plovers are found (water quality data collection will follow that described for surface water monitoring of moat and row cells in the 2008 FSEIR Mitigation Measure Hydrology-2); and ▸ incidental observations of snowy plovers and other wildlife species made during monitoring surveys Any live shorebird found within a moat shall be observed at a distance for a minimum of 15 minutes, or until it exits the moat. *3. Entrapment Indicator* Moat entrapment shall be indicated and quantified by the number of plover mortalities or other observed entrapments within a moat per breeding season. In addition to mortality, "entrapment" shall include an incidence of a live bird that: (1) visibly attempts but is unable to exit the moat for 15 minutes or more, (2) is caught within the moat's substrate (e.g., mud), or (3) does not attempt to exit the moat and appears injured or in otherwise poor condition to do so. Any observed mortality or entrapment will be reported to DFG within 48 hours of documenting the incident. (This timeframe is consistent with reporting standards for observed avian mortalities established in Mitigation Measure Biology-9 of the 2008 FSEIR [GBUAPCD 2008].) *4. Response Triggers* The threshold for requiring corrective actions is three or more snowy plover moat entrapments per DCA per calendar						

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	year. (The maximum number of observed entrapments per year that could occur without requiring corrective actions under this measure would range from two birds at any one DCA to six birds across the three monitored DCAs [T37-1, T37-2, and T1A-3].) If three or more entrapments at any DCA are observed, corrective adaptive management actions shall be required within the moat(s) where entrapments were detected It is assumed that a loss of plovers up to this threshold would not significantly increase juvenile or adult mortality rates above existing levels or substantially affect the overall snowy plover population size, due to the following factors: ▸ The threshold number is small relative to the overall snowy plover population size and productivity. In 2008, 478 adults and 39 broods were counted over a portion of Owens Lake; during the period of 2003–2008, the number of broods counted annually ranged from 18 to 52 (PRBO 2008). These counts include only the broods and adults observed during one-week lake-wide surveys conducted in late May to early June. Because adults often initiate multiple nesting attempts (sometimes up to three) and produce multiple broods during a breeding season, these numbers represent only a proportion of the broods produced at Owens Lake during a breeding season. Also, not all areas of suitable habitat were included in all years of the lake-wide surveys. ▸ The Owens Lake population appears viable, based on reproductive success metrics and an increasing population trend. Although juvenile or adult survival rates for the Owens Lake population have not been estimated, the number of nests and nest success rates have been relatively high. The most complete lake-wide nesting data are from 2002 and 2003. In 2002, when 272 adults were counted, 128 nests were located; and the average nest hatching rate was 82.5%. In 2003, when 401 adults were counted, 199 nests were located; and the average hatching rate was 80%. ▸ Multiple nesting attempts, particularly those initiated by a pair after a nest or brood has failed, would compensate for some loss during the breeding season. 5. *Corrective Adaptive Management Actions* If the response threshold is met, LADWP shall notify DFG as soon as possible and within 48 hours of the incident. Notification shall be sent to the designated personnel at DFG. In coordination with DFG, CSLC, and GBUAPCD, LADWP shall implement corrective management actions as appropriate depending on the cause of moat entrapment (e.g., slope, presence of water, or other). Appropriate corrective actions for entrapment due to moat side-slopes could include one or more of the following: ▸ add escape ramps every 100 feet within the identified problem moat; ▸ add rip-rap to side-slopes, and ▸ reduce side slopes within the identified problem moat, to the maximum extent feasible without substantially compromising overall dust control effectiveness. Appropriate corrective actions for entrapment due to the presence of water in moats could include one or more of the following: ▸ add rip-rap to bottoms of moats, so that the top of rip-rap exceeds the maximum water and mud level observed in moats during the breeding season; and ▸ reduce side slopes within the identified problem moat, to the maximum extent feasible without substantially compromising overall dust control effectiveness. If the monitoring and adaptive management process indicates that corrective actions are not effective, or if actions are determined to not be feasible, then LADWP shall work collaboratively with DFG, CSLC, and GBUAPCD to develop a revised action or provide on- or off-site habitat enhancement and protection as compensation. Revised corrective actions or habitat enhancement shall require approval by DFG 6. *Reporting Requirements* LADWP shall provide summaries of monitoring methods and results to DFG, CSLC, and GBUACD within 60 days of						

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	completing each monitoring season. Reports shall include summaries of all detections of snowy plover or other shorebirds in and around moats; their behavior, state or condition when detected, side-slopes and water depths measured in association with each detection; and whether any mortalities or other entrapments were observed. After completing the second year of monitoring, annual reports that summarize the cumulative results of monitoring efforts shall also be submitted to DFG, CSLC, and GBUACD. **Integration with Existing Snowy Plover Monitoring and Management** The specific monitoring and adaptive management program for moat entrapment could be incorporated directly into existing plover monitoring and management commitments as appropriate, including as an element of the Long-term Monitoring Program for Western Snowy Plover (Mitigation Measure 3.1-8; Measure Biology-10 in the 2008 FSEIR) or the Long-term Habitat Management Plan (Mitigation Measure 3.1-9, Measure Biology-14 in the 2008 FSEIR)						
3.2 Air Quality							
3.2-1	**Measure Air-1 in 2008 FSEIR: Construction Activities Fugitive Dust Emissions Control and Minimization (2008 SIP MMP, Table III-1)** Fugitive dust emissions during construction shall be controlled and minimized, to comply with GBUAPCD Rules 400 and 401 (EPA 1992), through the LADWP's application of best available control measures during construction activities from unpaved roads and areas affected by the construction work specified in this 2008 Revised SIP, or related transportation and staging of equipment and materials. This may include, but would not be limited to, the use of, surface coverings, windbreaks, water trucks, and water sprays twice a day, or comparable measures that prevent visible dust from occurring. At a minimum, active operations shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type that is part of the active operation. The LADWP shall demonstrate compliance with this measure through the preparation of a project construction dust control plan to be prepared by the LADWP and approved by the GBUAPCD prior to the start of construction and the submission of weekly monitoring reports to the GBUAPCD and the CSLC. The GBUAPCD shall monitor the application of best available control measures at least once a week on an ongoing basis during the construction phase of the proposed project, and maintain a monitoring log on file	LADWP	Construction	GBUAPCD	GBUAPCD	Weekly Monitoring Reports	(Signature/Date of Monitoring Agency
	Measure Air-2 in 2008 FSEIR: Construction Equipment Low-emissions Tune-ups Schedule (2008 SIP MMP, Table III-1) To mitigate the air quality impact related to greenhouse gas emissions, the LADWP shall develop a schedule of low-emissions tune-ups for all equipment operating on site for more than 10 working days, and maintain a log of required tune-ups and submit a monthly copy to the GBUAPCD during the project's construction phase. Prior to implementation of the schedule, the LADWP shall submit the schedule to the GBUAPCD and the CSLC. The GBUAPCD shall ensure conformance of the equipment operation with the approved schedule.	LADWP	Preconstruction and Construction	GBUAPCD	GBUAPCD	Final Plans and Specifications	(Signature/Date of Monitoring Agency
	Measure Air-3 in 2008 FSEIR: Low-emission Construction Equipment Utilization (2008 SIP MMP, Table III-1) To mitigate the air quality impact related to greenhouse gas emissions, the LADWP shall apply best available control measures during construction by utilizing low-emission equipment/mobile construction equipment for the proposed project site, unless the LADWP submits documentation and consults with the GBUAPCD and the CSLC that use of such equipment is not practical, feasible, or available. The GBUAPCD should monitor the application of low-emission equipment/mobile construction equipment, or other approved equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase.	LADWP	Construction	GBUAPCD	GBUAPCD	Weekly Monitoring Reports	(Signature/Date of Monitoring Agency
	Measure Air-4 in 2008 FSEIR: Low-sulfur Fuel Utilization during Construction (2008 SIP MMP, Table III-1) To mitigate the air quality impact related to greenhouse gas emissions, the LADWP shall apply best available control measures during construction by utilizing low-sulfur and/or alternative fuels for on-site stationary equipment.	LADWP	Construction	GBUAPCD	GBUAPCD	Weekly Monitoring	

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	Stationary sources of air emissions, such as pumps, compressors, and generators shall be line-powered, unless the LADWP submits documentation and consults with the GBUAPCD and the CSLC that the use of such equipment is not practical, feasible, or available. The GBUAPCD should monitor the application of low-sulfur and/or alternative fuels for on-site stationary equipment, or other approved on-site stationary equipment at least once a week on an ongoing basis during the project's construction phase and should maintain a monitoring log on file during this phase					Reports	(Signature/Date of Monitoring Agency
	Measure Air-5 in 2008 FSEIR: Low-emission Mobile Vehicle Utilization during Construction (2008 SIP MMP, Table III-1) 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 LADWP submits documentation and consults with the GBUAPCD and the CSLC that use of such equipment is not practical, feasible, or available. In addition, carpooling of construction workers should be considered and encouraged by the LADWP to reduce vehicular emissions.	LADWP	Construction	GBUAPCD	GBUAPCD CSLC	Final Plans and Specifications	(Signature/Date of Monitoring Agency
	Measure Air-6 in 2008 FSEIR: Low-emission Mobile Vehicle Utilization during Operation (2008 SIP MMP, Table III-1) 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 LADWP submits documentation and consults with the GBUAPCD and the CSLC that use of such equipment is not practical, feasible, or available. The LADWP shall provide the GBUAPCD with its purchasing policy procedures that shall provide provisions that encourage the use of low-emission or alternative-fueled mobile vehicles before operation of the project. In addition, carpooling of operations and maintenance workers should be considered and encouraged by the LADWP to reduce vehicular greenhouse gas emissions.	LADWP	Operation	GBUAPCD	GBUAPCD CSLC	Final Plans and Specifications	(Signature/Date of Monitoring Agency

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Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
						Source	Signature/Date
Cultural Resources							
	Measure Cultural-1 in 2008 FSEIR: Paleontological Resources Construction Monitoring (2008 SIP MMP, Table III-1) 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, 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 DCMs, the GBUAPCD shall require construction monitoring. The GBUAPCD 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: ▸ 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, cataloguing, 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 CSLC. ▸ Within 90 days of the completion of the paleontological monitoring, the qualified paleontologist shall prepare a final mitigation report to be submitted to the GBUAPCD and the CSLC 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 GBUAPCD, shall signify the completion of the program to mitigate impacts to	LADWP GBUAPCD	Construction	GBUAPCD CSLC	GBUAPCD CSLC	Monitoring Reports and Recovered Fossils Technical Report (submitted to the GBUAPCD within 90 days of completion of paleontological monitoring	(Signature/Date of Monitoring Agency

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						Source	Signature/Date
	paleontological resources.						
	Measure Cultural-2 in 2008 FSEIR: Cultural Resources Investigations (2008 SIP MMP, Table III-1) ▸ The GBUAPCD 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. Coordination with the CSLC shall be undertaken to mitigate impacts consistent with CSLC practices for the mitigation of archaeological sites that occur on lands under their jurisdiction. This coordination shall include the issuance of permits for Phase II testing and Phase III data recovery programs, and reviews and comments, when appropriate. The GBUAPCD 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 below the level of significance. 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 GBUAPCD, and the LADWP to ensure responsible remediation of Native American sites and sacred materials. Should human remains be discovered, the Inyo County Coroner shall be notified within 24 hours. *Phase II* A total of 12 newly recorded prehistoric archaeological sites (OL Sites 1, 2, 5, 6, 7, 12, 14, 15, 16, 17, 20, and 21), one previously recorded prehistoric site (CA-INY-6375), 12 newly recorded historic archaeological sites (OL Sites 3H, 4H, 8H, 10H, 11H, 18H, 19H, 22H, 23H, 24H, 25H, and 26H), 2 previously recorded historic sites (P14-8141 and CA-INY-6375H), and any additional prehistoric or historic archaeological sites located on the 9,684-acre proposed project site, including those sites recorded by Jones & Stokes (JS Site 1 and 2), shall be assessed for significance as defined by the California Environmental Quality Act prior to the initiation of construction activities in those areas where the sites are located. This requires the following measures: ▸ Development of a research design that guides assessments of site significance and scientific potential. This design shall 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 ▸ 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 CSLC. *Phase III* A Phase III data recovery effort, in accordance with the State of California Environmental Quality Act [Section	LADWP GBUAPCD	Construction	GBUAPCD	CSLC GBUAPCD Native American Heritage Commission	Permits for Phase II and Phase III, comprehensive research designs for Phase II and Phase III, and final reports	(Signature/Date of Monitoring Agency

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	21083.2 (d)], shall be implemented by the GBUAPCD for those sites determined to be significant, pursuant to the State of California Environmental Quality Act, through Phase II testing and evaluation. The GBUAPCD 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 ▸ 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 CSLC.						
	Measure Cultural-3 in 2008 FSEIR: Cultural Resources Monitoring Program (2008 SIP MMP, Table III-1) 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 GBUAPCD shall require that the following program be implemented and that the requirement be duly noted in the plans and specifications. ▸ 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 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. 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 CSLC shall be made by the CSLC. Artifacts collected during past efforts on CSLC 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 CSLC 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	LADWP	Preconstruction and Construction	GBUAPCD	CSLC GBUAPCD Native American Heritage Commission	Daily Monitoring Logs, Quarterly Monitoring Reports, and Final Monitoring Report	(Signature/Date of Monitoring Agency

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	determined in accordance with the policies of those agencies. ▸ 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: • 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 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. ▸ **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 GBUAPCD. 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 GBUAPCD, the LADWP, the CSLC, and to the Eastern Information Center at the University of California, Riverside. The report,						

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						Source	Signature/Date
	when submitted to the GBUAPCD, shall signify the completion of the program to mitigate impacts to unique archaeological resources or historical resources.						
Hazards and Hazardous Materials							
	Measure Hazards-1 in 2008 FSEIR: Hazardous Materials Transport (2008 SIP MMP, Table III-1) 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 SIP, the LADWP 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 LADWP shall submit proof of incorporation of this requirement in all construction contracts related to work specified in the Revised 2003 SIP to the GBUAPCD and Inyo County. The LADWP shall submit an Operation Plan for the routine transport, use, storage, handling, and disposal of hazardous materials to the GBUAPCD and Inyo County prior to the operation of DCMs specified in the Revised 2003 SIP. The LADWP shall provide to the GBUAPCD and Inyo County an annual update as required for the transport, use, storage, handling, and disposal of hazardous materials.	LADWP	Construction	Inyo County	CSLC GBUAPCD Inyo County	Operations Plan Report and Annual Updates	_____ (Signature/Date of Monitoring Agency
	Measure Hazards-2 in 2008 FSEIR: Spill Prevention Control and Countermeasure Program (2008 SIP MMP, Table III-1) To minimize impacts related to the unauthorized release of hazardous materials into the environment, the LADWP shall prepare a Spill Prevention Control and Countermeasure program applicable to all statutes and regulations. The LADWP shall submit a Spill Prevention Control and Countermeasure to Inyo County for review and approval. The LADWP shall demonstrate approval of the Spill Prevention Control and Countermeasure by Inyo County to the GBUAPCD prior to the use, storage, and handling of hazardous materials in conjunction with construction or operation of work specified in the Revised 2008 SIP. 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 LADWP shall enclose all the fertilizer injection and water treatment systems with a minimum 6-foot-high, barb-wiretopped, chain-link fence or equivalent enclosure and locked gate to prevent unauthorized access. The LADWP 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 SIP.	LADWP	Construction, Operation, and Maintenance	CSLC	CSLC GBUAPCD Inyo County	Spill Prevention Control and Countermeasure Program	_____ (Signature/Date of Monitoring Agency
	Measure Hazards-3 in 2008 FSEIR: Emergency Response Business Plan (2008 SIP MMP, Table III-1) To minimize impacts related to the unauthorized release of hazardous materials into the environment, the LADWP 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 LADWP shall provide copies of the approved business plan for emergency response to the GBUAPCD and Inyo County. The LADWP shall provide to the GBUAPCD and Inyo County an annual update to the approved business plan as required for the transport, use, storage, handling, and disposal of hazardous materials.	LADWP	Construction and Operation	CSLC	CSLC GBUAPCD Inyo County	Business Plan for Emergency Response and Annual Updates	_____ (Signature/Date of Monitoring Agency

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Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
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	Measure Hazards-4 in 2008 FSEIR: Fire Protection Services (2008 SIP MMP, Table III-1) 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 SIP, the LADWP 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 GBUAPCD prior to construction of any additional DCMs.	LADWP	Construction	Inyo County	GBUAPCD Inyo County	Fire Protection Services Compliance Report	(Signature/Date of Monitoring Agency
Hydrology and Water Quality							
	Measure Hydrology-1 in 2008 FSEIR: Acquire and Adhere to National Pollution Discharge Elimination System General Permit (2008 SIP MMP, Table III-1) 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 LADWP 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 SIP. 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 and may include temporary sediment control measures such as the addition of low-flow dispersal methods for minimizing erosion. The LADWP 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 LADWP shall submit the final Storm Water Pollution Prevention Plan to the GBUAPCD and the CSLC after its approval by the Regional Water Quality Control Board for the Lahontan Region.	LADWP	Construction	GBUAPCD	CSLC GBUAPCD RWQCB	Storm Water Pollution Prevention Plan and National Pollution Discharge Elimination System General Permit	(Signature/Date of Monitoring Agency
	Measure Hydrology-2 in 2008 FSEIR: Water Quality Monitoring and Reporting Program (2008 SIP MMP, Table III-1) The LADWP, prior to issuing any Notices to Proceed for construction of work in the areas specified in the 2008 SIP, 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. This shall also include the existing but newly exposed groundwater in Moat & Row areas. The Water Quality Monitoring and Reporting Program shall include a monitoring plan of surface water and groundwater, along with an evaluation of the monitoring data and a plan for corrective actions should impacts be observed to ensure that the proposed project is operating within the quality limitations specified by the waste discharge requirements (Board Order No. R6V-2006-0036, WDID No. 6B140000903) adopted by the Regional Water Quality Control Board for Revised Waste Discharge Requirements for the Southern Zones Dust Control Project at Owens Lake. The monitoring program shall be submitted to the GBUAPCD and the CSLC prior to the start of construction in the areas designated for dust control in the 2008 SIP. All chemical analyses shall be performed by a laboratory with National Environmental Laboratory Accreditation Program certification. Monitoring reports shall be completed and submitted to the GBUAPCD, the CSLC, 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, *Hydrology Monitoring and Reporting Schedule*. 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 GBUAPCD for surface and groundwater quality and groundwater levels. The GBUAPCD shall continue to collect this	LADWP	Operation	GBUAPCD	CSLC GBUAPCD RWQCB	Water Quality Monitoring Reports (submitted to the GBUAPCD and RWQCB within 60 days of end of monitoring period, and monitoring and reporting continued until monitoring completion in 2023 unless deemed unnecessary by the GBUAPCD)	(Signature/Date of Monitoring Agency

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	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: ▸ Flow rates and total volumes of flow to all DCM areas shall be monitored for each day and month for the first five years of work specified in the 2008 SIP and thereafter as specified in Table 3.5.5-1 ▸ Surface water monitoring of Shallow Flood, Moat & Row, and 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, potassium, selenium, sodium, carbonate, bicarbonate, phosphate, sulfate, vanadium, total alkalinity, total organic carbon (TOC), copper, chromium, zinc, bromide, Treflan (or Trifluralin), and sulfur.						

Table 3.5.5-1
Hydrology Monitoring and Reporting Schedule

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, if any	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Annually (during DCM operation)	Annually (during DCM operation)	Annually (during DCM operation)
Quality of groundwater that becomes exposed in 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 well	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Annually (during DCM operation)	Annually (during DCM operation)	Annually (during DCM operation)

	Measure Hydrology-4 in 2008 FSEIR: Reduction of Flash Flood Potential (2008 SIP MMP, Table III-1) LADWP 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 DCM, 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 Moat & Row to avoid potential increase in flash flood impacts to the mineral lease is subject to approval by the CSLC, the GBUAPCD, and the RWQCB.	LADWP	Operation	GBUAPCD	CSLC GBUAPCD RWQCB	Final Plans and Specifications	(Signature/Date of Monitoring Agency

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Land Use and Planning							
	Measure Land Use and Planning–1 in 2008 FSEIR: Resident Insect Control Program (2008 FSEIR Clarification Sheet, dated January 23, 2008) 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 and operation from the proposed project, the LADWP shall institute a program for existing nearby residents whereby windows of existing residences in the potentially impacted communities of Swansea, Keeler, Cartago, and Olancha that are within three (3) miles of a water-based dust control measure shall be screened or other insect control devices shall 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 LADWP shall make arrangements for vector control treatments on the dust control measure areas and within the above-mentioned impacted communities as required to control mosquitoes and other biting insects. A study shall be required to evaluate the cause of insects in the adjacent communities and to require continued support of treatment methods, or by other means, if the dust control measures are found to cause insect pest problems. This study shall be conducted by the LADWP, approved by Inyo County, and implemented before April 1, 2010.	LADWP	Operation	Inyo County	Inyo County GBUAPCD	Insect Control Program, Final Study Report, and Final Plans and Specifications	(Signature/Date of Monitoring Agency
Minerals							
	Measures Minerals – 1 in 2008 FSEIR: U.S. Borax Lease Area Approval and Compensation (2008 FSEIR Clarification Sheet, dated January 23, 2008) The LADWP shall be required to obtain approval from the CSLC prior to working in the areas that overlap areas leased to U.S. Borax. This includes areas requiring rerouting of access roads under mineral leases PRC 5464.1 and PRC 3511.10.	LADWP	Operation	CSLC	CSLC	Final Plans and Specifications	(Signature/Date of Monitoring Agency
	Measure Hydrology-4 in 2008 FSEIR: Reduction of Flash Flood and Alluvial Sediment Damage Potential (2008 SIP MMP, Table III-1) The LADWP 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 DCM, 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 Moat & Row to avoid potential increase in flash flood impacts to the mineral lease is subject to approval by the CSLC, the GBUAPCD, and the RWQCB.	LADWP	Operation	GBUAPCD	CSLC GBUAPCD RWQCB	Final Plans and Specifications	
Transportation and Traffic							
	Measure Traffic-1 in 2008 FSEIR: Traffic Work Safety Plan (2008 SIP MMP, Table III-1) The LADWP 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 LADWP for 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 LADWP shall document to the GBUAPCD and CSLC 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 SIP, or related transportation and staging of equipment and materials. Operation and maintenance of the approach known as Willow Dip from U.S. Highway 395 to the lake bed is subject to a permit issued by the California Department of Transportation to U.S. Borax. Should the LADWP wish to share the	LADWP	Construction and Operation	GBUAPCD	CSLC GBUAPCD Caltrans	Final Traffic Work Safety Plan	(Signature/Date of Monitoring Agency

Owens Lake Revised Moat and Row Dust Control Measures
Mitigation Monitoring and Reporting Program
Summary Table

Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
						Source	Signature/Date
	Willow Dip access with U.S. Borax, the California Department of Transportation would require that a new permit be issued for the road connection/maintenance in both names. Use of the paved access at U.S. Highway 395, Post Miles 50.52 and 53.27 and any required improvements by the LADWP would be subject to an encroachment permit from the California Department of Transportation. Use of the paved access at State Route 190, Post Mile 14.58, Dirty Socks Springs Road requires the assignment of a county road number if it is not a county road, and use of the road and any required improvements by the LADWP would be subject to an encroachment permit from the California Department of Transportation.						
	Measure Traffic-2 in 2008 FSEIR: Traffic Work Safety Plan Conformance (2008 SIP MMP, Table III-1) The LADWP 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 LADWP shall demonstrate conformance with the measures specified in the approved Traffic Work Safety Plan by submitting quarterly compliance reports to the GBUAPCD, CSLC, and State of California Department of Transportation throughout the duration of the construction work specified by the 2008 Revised SIP, and related transportation and staging.	LADWP	Construction	GBUAPCD	CSLC GBUAPCD Caltrans	Final Traffic Work Safety Plan and Quarterly Compliance Reports (submitted until construction is complete)	
	Measure Traffic-3 in 2008 FSEIR: Regional Transportation Network Damage Repair (2008 SIP MMP, Table III-1) The LADWP 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 SIP to pre-project conditions. Prior to initiating construction of work specified by the 2008 Revised SIP, or related transportation and staging of equipment and materials, the LADWP 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 SIP. A California Department of Transportation representative shall participate with the qualified pavement consultant engineer. The LADWP or its contractor must be on-call to revisit the documented roadway sections and delineate physical damages that are directly attributed to construction activities required for the 2008 Revised SIP and repair any damage immediately or in short term, or as specified by California Department of Transportation. The LADWP shall provide in-lieu fees for remediation of construction-generated impacts on the regional transportation network, or a comparable measure to the mutual satisfaction of the LADWP, Inyo County, and the California Department of Transportation, demonstrating that damage to the regional transportation network that resulted from the construction activities has been repaired. Within 12 months after construction activities for the 2008 Revised SIP is completed, the LADWP shall provide written documentation to the GBUAPCD, CSLC and State of California Department of Transportation demonstrating that damage to the regional transportation network that resulted from the construction activities has been repaired. The California Department of Transportation has specified the requirement that construction monitoring be undertaken at six intersections within the regional roadway system. ▸ U.S. Highway 395, Post Mile 39.7, Willow Dip ▸ U.S. Highway 395, Post Mile 48.94, Bartlett Road ▸ U.S. Highway 395, Post Mile 50.52 ▸ U.S. Highway 395, Post Mile 53.27, Boulder Creek RV Park ▸ State Route 136, Post Mile 14.44 ▸ State Route 190, Post Mile 14.58, Dirty Socks Springs Road	LADWP	Construction	GBUAPCD	CSLC GBUAPCD Caltrans	Final Plans and Specifications and Final Compliance Report (within 12 months of completing construction)	(Signature/Date of Monitoring Agency
Utilities and Service Systems							
	Measure Hydrology-4 in 2008 FSEIR: Reduction of Flash Flood and Alluvial Sediment Damage Potential						

Owens Lake Revised Moat and Row Dust Control Measures
Mitigation Monitoring and Reporting Program
Summary Table

Mitigation Number	Mitigation Measure	Responsible Implementation Party	Monitoring Period	Enforcement Agency	Monitoring Agency	Documentation of Compliance	
						Source	Signature/Date
	(2008 SIP MMP, Table III-1) The LADWP 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 DCM, 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 Moat & Row to avoid potential increase in flash flood impacts to the mineral lease is subject to approval by the CSLC, the GBUAPCD, and the RWQCB	LADWP	Operation	GBUAPCD	CSLC GBUAPCD RWQCB	Final Plans and Specifications	(Signature/Date of Monitoring Agency

EXHIBIT D

Owens Lake Revised Moat and Row Dust Control Measures

STATEMENT OF OVERRIDING CONSIDERATIONS

June 28, 2010

The California State Lands Commission (Commission), acting as a responsible agency, adopts the Statement of Overriding Considerations made by the City of Los Angeles, Department of Water and Power (City), acting as lead agency, as re-stated or modified herein.

The California Environmental Quality Act (CEQA) requires a public agency to balance the benefits of a proposed project against its unavoidable environmental risks in determining whether to approve the project (Public Resources Code section 21081 and CEQA Guidelines section 15093). The *2008 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan Final Subsequent Environmental Impact Report* (2008 SIP FSEIR) and 2009 *Final Supplemental Environmental Impact Report, Owens Lake Revised Moat and Row Dust Control Measures* (2009 Moat and Row FSEIR) identify and discuss unavoidable significant effects that would occur as a result of the proposed Project.

Since certification of the 2009 FSEIR, the City has modified its project description to consist of implementing soil tillage and associated access roads as a temporary measure on 3.12 square miles previously evaluated for moat and row dust control measures (DCMs). In May 2010, the City prepared an addendum to the 2009 Moat and Row FSEIR, "Owens Lake Revised Moat and Row Dust Control Measures Addendum No. 1 to the 2009 Supplemental Environmental Impact Report" (Addendum), to address changes in the project since the 2009 Moat and Row FSEIR was certified.

The environmental analysis contained in the Addendum concluded that the impacts and mitigation requirements identified in the 2009 Moat and Row FSEIR remain substantively unchanged by the modification of the project description to implement tillage. The City found that tillage does not raise any new issues and does not exceed the level of impacts identified in the previous 2009 Moat and Row FSEIR.

The Mitigation Monitoring and Reporting Program (MMPRP) adopted by the Commission at its December 17, 2009, meeting, as part of its approval for sand fences and vegetation enhancement in Cell T1A-1, applies to the proposed project to implement tillage, except for measures identified in section 4.0 of the Addendum pertaining to fences, fence posts, and standing water that will not be part of the tillage project.

With the implementation of the MMPRP adopted by the Commission, which includes changes to the Project to mitigate or avoid significant effects on the environment, most of the significant environmental impacts can be mitigated to less-than-significant levels. The 2009 Moat and Row FSEIR determined that the Project is expected to result in significant unavoidable impacts related to construction-generated emissions of criteria air pollutants and precursors and Project-generated greenhouse gases (GHG).

The Commission proposes to approve the Owens Lake Revised Moat and Row Dust Control Measures as modified to implement tillage as an interim dust control measure despite these significant unavoidable adverse impacts.

SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Air Quality

Project-Generated Emissions of Criteria Air Pollutants and Precursors (Impact 3.2-1) (Project and Cumulative)

The 2009 Moat and Row FSEIR identified and discussed significant effects that would occur as a result of the proposed Project. The proposed Project involves implementation of tillage as an interim measure to reduce dust emissions from the dry Owens Lake bed without the addition of supplemental water and to reduce exceedances of the federal particulate matter (PM_{10}) standard. The 6-month or more delay in implementation of 3.12 square miles of DCMs, due to the revised design and additional CEQA analysis (the 2009 Moat and Row FSEIR and subsequent Addendum) would conflict with implementation of the applicable air quality plan. The Project could contribute to the potential for additional violations of the National Ambient Air Quality Standard (NAAQS) and exposure of sensitive receptors to substantial pollutant concentrations. With the implementation of the mitigation measures described in the 2008 SIP FSEIR and 2009 Moat and Row FSEIR, most significant effects can be mitigated to less-than-significant levels. However, there are no measures reasonably available to reduce the potential impacts resulting from this conflict and it would be a significant and unavoidable impact.

Project-Generated Greenhouse Gas Emissions (Cumulative)

The 2008 SIP FSEIR determined that the Project is expected to result in significant and unavoidable impacts to air quality. Implementation of the adopted 2008 SIP FSEIR mitigation measures would reduce impacts on air quality to below the level of significance, with the exception of GHG emissions, which would have the potential to add to the overall global GHG emissions during construction, thus causing potential impacts on global climate change.

The GHG emissions quantified in the 2008 SIP FSEIR were found to be cumulatively significant and unavoidable. The emissions generated by the proposed revised Project would be the same as the amount generated by the Project evaluated in the 2008 SIP FSEIR. Therefore, although there would be no net change in GHG emissions (from the 2008 SIP FSEIR analysis) as a result of the proposed implementation of tillage as an

interim DCM, this impact would remain the same as described in the 2008 SIP FSEIR: cumulatively significant and unavoidable.

OVERRIDING CONSIDERATIONS

Having reduced the effects of the proposed Project by adopting mitigation measures in the MMPRP, and balanced the benefits of the proposed Project against the Project's potential unavoidable adverse impacts, the Commission hereby determines that the specific overriding economic, legal, social, technological, or other benefits of the proposed Project outweigh the potential unavoidable adverse effects on the environment, and that the unavoidable adverse effects are therefore acceptable, based on the following overriding considerations, which are sufficient to outweigh the Project's unavoidable adverse effects:

- Achievement of the Project objectives requires construction of DCMs to reduce the largest single source of particulate matter (PM_{10}) in the United States. Such improvements require the use of heavy construction equipment that generates emissions of criteria air pollutants and precursors and GHG emissions. Incorporation of the adopted mitigation measures substantially reduces emissions during construction. The benefit of the reduction of PM_{10} from the Owens Lake bed outweighs the effects from short-term emissions of criteria air pollutants and precursors and GHG emissions resulting from implementation of the Project.
- The improvements achieved through the construction of the Project DCMs will provide reduced fugitive dust emissions to over 17,000 Inyo County residents, which overrides the short-term construction impacts on air quality.
- Achievement of PM_{10} reduction would have a widespread benefit to property and open space recreational areas and parks in close proximity to Owens Lake. Sites such as the Golden Trout Wilderness within the Inyo National Forest, Sequoia National Park, and Death Valley National Park would have better overall air quality for their recreational users, thereby enhancing the recreational availability and experience of these areas for visitors and nearby residents.
- Implementation of tillage would allow for the sparing use of water needed for existing municipal and industrial use.
- In conjunction with approval of this Project, the City has committed to the long-term reduction of PM_{10} emissions for the entire Owens Valley and will continue to coordinate efforts to ensure that the overall air quality of the area is greatly improved.