

# CEQA Final Environmental Impact Report

## Owens Lake Phase 7a Dust Control Measures

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# Section 1

## Introduction

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### 1.1 INTRODUCTION TO THE FINAL ENVIRONMENTAL IMPACT REPORT

This document, together with the separately bound Draft Environmental Impact Report (DEIR), constitute the Final EIR for the Owens Lake Phase 7a Dust Control Measures Project. The City of Los Angeles Department of Water and Power (LADWP, Department) is currently implementing the Owens Lake Dust Mitigation Program (OLDMP) on Owens Lake in order to reduce exceedances of the state and federal particulate matter (PM<sub>10</sub>) air quality standards. 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) under the authority of California Health & Safety Code Sec. 42316, legal settlement agreements with GBUAPCD, lease agreements for use of state lands (administered by the California State Lands Commission (CSLC)), and other regulatory approvals. LADWP proposes to expand the OLDMP by construction and operation of the Owens Lake Phase 7a Dust Control Measures project (proposed project) in response to GBUAPCD Board Order 110317-01, dated March 17, 2011 (Order 110317-01, the Abatement Order).

This document is organized as follows:

- **Section 1** provides an Introduction to the Final EIR and a summary of the CEQA Process for the project.
- **Section 2** provides additions and corrections to the Draft EIR. Additions include the current Phase 7a construction schedule, reference information on the Habitat Suitability Model (HSM) for the project, broad bed design details, additional cultural resources background information, a summary of pre- and post-project water demand, description of construction sand fences, additional species information and additional references cited. Corrections to the Draft EIR include corrections to minor errors, updates, or amplifications of statements in the Draft EIR.
- **Section 3** includes a summary of oral comments received on the Draft EIR at the public meeting for the project, a list of commenters who provided written comments, copies of written comments, and responses to comments.
- **Appendix A** is a technical memorandum on the HSM used to assess the impacts of the proposed project on biological resources.
- **Appendix B** is the State of California Air Resources Board First Procedural Order dated January 17, 2012.
- **Appendix C** includes Owens Lake Audubon Big Day Bird Count Data, April 2011.

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- **Appendix D** includes correspondence from the Native American Heritage Commission and the Lone Pine Paiute-Shoshone Reservation.

### 1.2 CEQA PROCESS

#### 1.2.1 Notice of Preparation

In May 2011 a CEQA Initial Study was prepared by LADWP based on State CEQA Guidelines Appendix G, to determine whether construction and operation of the proposed project would result in significant effects on the environment. Since potentially significant effects were identified, LADWP determined that an EIR was needed to analyze those effects. A Notice of Preparation (NOP) of the EIR, along with the Initial Study, was prepared and filed with the State Clearinghouse on May 23, 2011. The NOP/Initial Study was distributed to 39 entities, including potential responsible and trustee agencies, and interested organizations and individuals including 13 Native American tribal representatives. An additional 23 interested parties received a Notice of Availability (NOA) of the NOP/Initial Study. Reference copies were available at LADWP offices in Los Angeles and Bishop, at four libraries in Inyo County, and via a link on the LADWP website.

A copy of the NOP/Initial Study is included in Appendix A of the Draft EIR. Comments on the scope and content of the EIR were received on the NOP from five regulatory agencies (Appendix B of the Draft EIR).

#### 1.2.2 Public Meeting on the Notice of Preparation of an EIR

A public scoping meeting for the Phase 7a project was held on June 7, 2011 at the LADWP office in Keeler, California. Notice of the meeting was provided in the NOP and the NOA. Additionally, a notice of the meeting was published in the Inyo Register on May 26, 2011, and in the Mammoth Times on May 27, 2011. Approximately 10 representatives of regulatory agencies, local industry, Native American tribes and members of the public attended the meeting. Comments received focused on clarification of the project description (including identification of the Transition Areas, type of gravel proposed for use, plant species to be used for Managed Vegetation), cultural resources, biological resources and the schedule for both Phase 7a and Phase 8.

#### 1.2.3 Draft Environmental Impact Report

A Draft EIR was prepared and distributed for public review on February 1, 2013. Fifteen copies of the document were distributed through the State Clearinghouse. The document was also directly distributed to 28 agencies, Native American tribes, and organizations. At the beginning of the public review period, the document was made available for review at LADWP offices in Los Angeles and Bishop, and at five public libraries in the project area (Bishop, Lone Pine, Big Pine, Independence and Cerro Coso Community College). A NOA of the Draft EIR was distributed to 35 agencies and organizations. The close of the public review period was March 18, 2013.

### 1.2.4 Public Meeting on the Draft Environmental Impact Report

Notice of a public meeting on the Phase 7a Project was provided in the NOA of the Draft EIR. Additionally, a notice of the meeting was published in the Inyo Register on January 31, 2013 and February 7, 2013. The public meeting was held at 5:00 p.m. on February 26, 2013 at the LADWP office in Keeler, California. LADWP staff presented the project background, project description, CEQA process, environmental topics analyzed in the Draft EIR, project alternatives, and the alternative identified as environmentally superior. In addition to staff from LADWP and MWH, representatives from GBUAPCD, CSLC and Native American tribes attended the meeting. Comments received at the public meeting are summarized in Section 2 of this document.

### 1.2.5 Adoption of the Phase 7a Project

Analysis of the impacts of the Phase 7a project as originally proposed is presented in the Draft EIR. Significant impacts of the original proposed project that could not be mitigated to less than significant levels were identified for cultural resources. All other impacts were found to be beneficial, less than significant or less than significant as mitigated. Several alternatives to the proposed project were defined with a focus on avoidance of significant impacts to cultural resources: No Project, Avoidance Alternative, Expanded Avoidance Alternative and Avoidance Alternative with Soil Binder. Based on the analysis presented in the Draft EIR, the Avoidance Alternative was identified as the environmentally superior alternative.

LADWP's determination of the environmentally superior alternative, which includes avoidance on approximately 350 acres, recognizes the importance of protecting cultural resources and complying with the Abatement Order. The Avoidance Alternative was identified as the environmentally superior alternative since it would reduce impacts on significant cultural resources to less than significant while providing dust control on approximately 2.3 square miles of Owens Lake that are currently uncontrolled, and at the Tillage BACM test area in T12-1 on approximately 0.3 square miles. This area is considered the maximum dust control area feasible with avoidance of the known significant cultural resources.

Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Board will consider the Draft EIR, comments on the Draft EIR and responses to those comments prior to adopting the Phase 7a project as originally proposed or an alternative to the Phase 7a project. The Phase 7a project as originally proposed was found to have significant impacts on cultural resources. A Phase III data recovery investigation was considered as mitigation for these impacts but was found to not reduce impacts on cultural resources to less than significant levels. If the Board adopts the originally proposed project, Phase III data recovery will be implemented for significant cultural resources sites that will be disturbed by project construction, however, the impact on cultural resources will still be significant with implementation of feasible mitigation. The Board will also consider, and may potentially adopt, an alternative to the proposed project,

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or a combination of elements described in the project alternatives. If the Board adopts the Soil Binder Alternative (for the significant cultural resources areas or a portion of those areas), then the additional mitigation measures identified in Draft EIR Section 5.6.3 would also be adopted. The Board may condition its project approval on GBUAPCD's approval of a petition to modify the Abatement Order.



# Section 2

## Additions and Corrections

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The following section summarizes additions and corrections to the Draft EIR including additional information on the construction schedule and the Habitat Suitability Mode (HSM) for the project. The additions and corrections clarify and amplify information presented in the Draft EIR.

### 2.1 ADDITIONS

Based on comments received on the Draft EIR (see Section 3), the following additions are made to the document.

#### 2.1.1 Phase 7a Construction Schedule

Based on assumed dates for EIR certification and permit acquisition, the first phase of construction is estimated to be from September 2013 to April 2015. Specific construction schedules by DCA have not been specified and the sequence of construction activity will be determined by the Construction Contractor. The figure attached at the end of this section summarizes the approximate construction schedule for both non-culturally sensitive project areas (construction phase #1) and culturally sensitive project areas (construction phase #2). Construction phase #2 would occur if the original Phase 7a project is adopted and implemented.

#### 2.1.2 Habitat Suitability Model

As part of the Master Planning process, baseline habitat values were quantified using a collaboratively developed Habitat Suitability Model (HSM). Pre-project habitat value in Phase 7a project areas were compared to post-project habitat values using the HSM. The habitat value of the potential alternatives was also analyzed. Final EIR Appendix A is the Owens Lake Phase 7a Dust Control Measures Project Habitat Value report.

#### 2.1.3 Broad Bed Design

As described in Draft EIR Section 3.1.5, broad beds and furrows will be incorporated into some the DCAs providing topographic variations and enhancing natural drainage. The following board bed schedule describes the approximate dimensions of the proposed broad beds.

**Broad Bed Schedule**

Site	Soil Type	Broad Bed Width	Furrow Width	Furrow Depth	Center Spacing for Irrigation Device
T1A-2a	Sandy	24'	6'	18"	60'X40'
T36-1b	Sandy	24'	6'	18"	60'X40'
T32-1	Sandy	39'	6'	18"	45'
T37-2	--	39'	6'	--	45'
T28N/S	--	22'	6'	16"	45'

Note: Furrows that start of end nearest to berm/road culverts or spillways will be lined with non-woven geotextile and 4" thick, 3" Gravel Cover.  
 --- information pending

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### 2.1.4 Air Quality Data

In response to comments received on the Draft EIR (see comment letter #9), the following additional air quality data are added to Draft EIR Table 4.2-3.

**Table 4.2-3 (Addition)  
Particulate Matter (PM<sub>10</sub>) Data for the Owens Lake Area (2007-2011)**

Station	Units	2007	2008	2009	2010	2011
<u>Olancha</u>						
24-hour values	ug/m3	114	357	650	577	779
Days above state standard	50 ug/m3	2	*	*	*	*
Days above federal standard	150 ug/m3	0	5	2	7	4
Annual average	ug/m3	21.7	22.3	19.6	23.1	23.3
<u>Ash Point</u>						
24-hour values	ug/m3	104	198	1506	285	277
Days above state standard	50 ug/m3	*	*	*	*	*
Days above federal standard	150 ug/m3	0	1	5	1	2
Annual average	ug/m3	13.8	15.3	24	15.9	16.8
<u>Dirty Socks</u>						
24-hour values	ug/m3	497	499	556	1437	914
Days above state standard	50 ug/m3	10	*	*	*	*
Days above federal standard	150 ug/m3	2	9	7	13	8
Annual average	ug/m3	14.1	25.7	25	37.6	23.6
<u>Shell Cut</u>						
24-hour values	ug/m3	136	693	397	842	393
Days above state standard	50 ug/m3	2	*	*	*	*
Days above federal standard	150 ug/m3	0	5	3	4	4
Annual average	ug/m3	9.1	18.8	15.5	18.2	16.1
<u>Flat Rock (a)</u>						
24-hour values	ug/m3	727	532	389	871	424
Days above state standard	50 ug/m3	5	*	*	*	*
Days above federal standard	150 ug/m3	1	3	5	3	4
Annual average	ug/m3	12.2	20	20.9	18.3	24.8
<u>Lizard Tail</u>						
24-hour values	ug/m3	*	633	395	4570	3444
Days above state standard	50 ug/m3	*	*	*	*	*
Days above federal standard	150 ug/m3	*	2	6	16	7
Annual average	ug/m3	*	18.7	16.8	54.4	29.7
<u>North Beach</u>						
24-hour values	ug/m3	*	40	1406	2067	937
Days above state standard	50 ug/m3	*	*	*	*	*
Days above federal standard	150 ug/m3	*	0	9	8	10
Annual average	ug/m3	*	10.3	30.2	35.2	28.5

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Station	Units	2007	2008	2009	2010	2011
<u>Lone Pine (Great Basin)</u>						
24-hour values	ug/m3	66	399	264	142	134
Days above state standard	50 ug/m3	1	*	*	*	*
Days above federal standard	150 ug/m3	0	1	2	0	0
Annual average	ug/m3	14	19.6	17.3	17.3	17.6

a) Flat Rock discontinued May 2011

(\*) Insufficient data available to determine the value

All averages expressed in micrograms per cubic meter

Data compiled from CARB iADAM: Air Quality Data Statistics

<http://www.arb.ca.gov/adam/>

### 2.1.5 Cultural Resources Background Information

In response to commenters received on the Draft EIR (see Comment Letter #3), the following text is added to Draft EIR Section 4.4.7 The Los Angeles Aqueduct (1904-present).

The population of Los Angeles rapidly increased around the turn of the century. By 1904, city managers identified the need for an additional source of water supply. At least five different alternatives were being studied when the City of Los Angeles, and specifically William Mulholland, decided to pursue water from the Owens River. The federal government approved an aqueduct project in 1906. The following year, citizens of Los Angeles approved a bond to purchase more than 135,000 acres of land for water rights, reservoirs, and rights of way (City of Los Angeles, 1916). Approximately 24.5 million dollars in bonds were authorized to pay for the project (Hundley, 2001).

Aqueduct construction began in 1908, and was operational by the end of 1913. Originally, four reservoirs, including Haiwee, Fairmont, Dry Canyon, and San Fernando, were completed as part of the first Los Angeles Aqueduct (LAA1) to help regulate the flow of water, as well as store, aerate, and control sediment. Not only did the aqueduct bring water to Los Angeles, the aqueduct also provided opportunities to generate hydroelectric power. Four principal areas were identified, and in 1910 another bond was passed to raise money for hydroelectric plants: San Francisquito 1 (1914) and 2 (1920, rebuilt in 1928), Haiwee (1927), and San Fernando. Hydroelectric power plants were also installed at Cottonwood Creek and Division Creeks 1 & 2 (1908-1909) to generate electricity for aqueduct construction.

Owens Lake is not static and has historically fluctuated and undergone dramatic change over the last millennia, primarily in response to climate and geomorphic conditions. In the early 1920s, several years of drought reduced the flow of the Owens River and decreased available water supply to Los Angeles. The City of Los Angeles also purchased a majority of the water-bearing parcels in the valley (see Chalfant (1933), Nadeau (1997), and Sauder (1994)) and leased these properties to the original owners for continued agricultural and ranching operations in order to stabilize and support the economy (Jones and Stokes, 2007).

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In 1912, multiple Executive Orders established reservations for the Paiute and Shoshone populations in Owens Valley. Executive Order 5843 removed these lands from trust status in 1932. The U. S. Congress approved an exchange of 3126 acres owned by the federal government for 1511 acres of land owned by the City of Los Angeles on April 20, 1937. Many believe the exchange served to concentrate the Paiute and Shoshone populations on three reservations at Bishop, Big Pine, and Lone Pine as opposed to allowing the tribes to live on scattered parcels (Owens Valley Indian Water Commission, 2011). In 1939, formation of the current 237-acre federally recognized Lone Pine Paiute-Shoshone Reservation occurred through another cooperative land swap between the City of Los Angeles and the U.S. Department of the Interior. The Lone Pine Paiute-Shoshone Reservation has a current population of about 350 residents. (Velarde Tiller, 1996).

### 2.1.6 Water Demand

As part of the Master Planning process, habitat value and water demand changes as a result of Phase 7a implementation were calculated based on the HSM and historical water demands by dust control measures (DCMs) on Owens Lake. The conclusion of the analysis is that Phase 7a will avoid increases in water use while maintaining habitat value. Existing average water use for the OLDMP (through Phase 7) is approximately 88,694 afy; projected average water use for the OLDMP with Phase 7a is estimated at 87,958 afy. Under existing conditions, water demand can go up to 95,877 afy (or 108 percent of average annual) during a dry year. Therefore, with Phase 7a, demand is anticipated to be up to approximately 95,000 afy, the maximum volume of water allotted to the OLDMP per the Board of Water and Power Commissioners Resolution 010 063. Resolution 010 063 (Owens Lake Water Use Policy) requires that the OLDMP be implemented with water conservation measures on Owens Lake to reduce LAA diversions below 95,000 afy for existing and future dust control projects.

### 2.1.7 Sand Fences

Sand fences may be temporarily installed during construction in order to limit the movement of sand from construction zones to adjacent areas of the lake bed. Sand fences were previously used during construction for Phase 7 of the OLDMP.

**Design.** Recommendations for sand fence installation during construction are currently under review. At this time, it is envisioned that the Construction Contractor will install a temporary sand fence 5 working days prior to the start of construction activities around the perimeter of T37-2. Use of sand fencing around other construction areas (up to approximately 15 miles of fence) would be optional. The sand fence would be black fabric with 50 percent porosity that is UV stabilized (Model SF-50 from U.S. Fence, or equivalent) and supported by steel T-posts (8 feet in height and driven into the ground to a depth of 4 feet, resulting in 4 feet of height for exposed post). Since the fence will not exceed 60 inches in height, wire or monofilament line across the top would not be necessary to reduce perching by predators (corvids).

**Maintenance.** The temporary sand fence will be maintained and then removed at the completion of construction activities. Sand fences that deteriorate and could potentially create litter on the lake bed will be repaired or removed.

**Impacts.** The impacts of ground disturbance necessary to install dust control on the Phase 7a DCAs are discussed throughout the Draft EIR. Except as noted for T30-1, impacts to biological and cultural resources from construction were assessed based on the assumption of complete ground disturbance of the entire DCA. In T30-1, the 43.5 acre created wetland will not be disturbed and other areas of the DCA will remain vegetated as under existing conditions. Temporary installation of sand fences during construction on the perimeter of the DCAs would not impact additional acreage that was not assessed in the Draft EIR. Under the Avoidance Alternative, sand fencing would not be installed within the boundaries of, or the buffer area associated with, significant cultural resources. Under the originally proposed project, Phase III Data Recovery would be conducted prior to construction activity (including installation of sand fences) in areas with significant cultural resources. Sand fences were previously used in T1A-1 in 2010 as part of Phase 7. Since wildlife does not move across areas with active construction, impacts to biological resources were not observed. Therefore, gaps in the fabric of sand fences to facilitate wildlife movement are not warranted.

### 2.1.8 Additional Bird Species Information

In response to comments received on the Draft EIR (see comment letters #8 and #9), the following text is added to Draft EIR Section 4.3.5.4.

**American White Pelican.** American White Pelicans use Owens Lake as a temporary stopover site in migration. Birds encountered are often seen sleeping or resting. American White Pelicans are limited ecologically by the availability of remote nesting sites and rich foraging habitats (Shuford and Gardali, 2008). The Owens Valley is not within the historic breeding range for this species and there is no available breeding habitat at Owens Lake. In addition, due to the lack of fish in the dust control ponds, the Project Area does not provide foraging habitat.

**Long-eared Owl.** The Long-eared Owl nests in dense woodlands adjacent to grasslands and meadows or shrublands that are used for foraging. No potential nesting habitat will be impacted by the project as no woodlands occur within the Project Area. At T37-2, a small stand of tamarisk and willows with adjacent meadow habitat occurs adjacent to the Project area. This tree stand and a majority of the meadow habitat are outside the project footprint. Of the existing 5.7 acres of meadow habitat, 1.5 acres will be replaced with managed vegetation of increased acreage, cover, and species diversity over existing conditions. Thus there is the potential for temporary disturbance to foraging habitat for this species, if present. Over the long-term, there will be a slight increase in meadow habitat acreage and quality.

**Black Swift.** Black Swifts have unique nesting habitats in that their nesting sites are associated with sheer cliff and waterfalls, often nesting behind waterfalls (Lowther and Collins, 2002). Black Swifts are aerial insectivores and range widely over forested and open areas in montane habitats when foraging (Lowther and Collins, 2002). No nesting habitat exists within or adjacent

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to the Project area. Black Swifts may occur as a rare migrant or occasional visitor in the Project area.

**Vaux's Swift.** In the summer, the Vaux's Swift is found in coastal California and most commonly in the redwood zone where they nest in tree cavities (Shuford and Gardali, 2008). During migration, they are found throughout California in a variety of habitats. Vaux's Swift occur regularly in Owens Valley during migration and have been observed over Owens Lake. There will be no impact to nesting habitat for this species as nesting does not occur in this area. Foraging opportunities for this species are abundant and widespread at Owens Lake, and impacts from the project are expected to be minimal.

**LeConte's Thrasher.** The Special Status for LeConte's Thrasher only applies to the population of Le Conte's Thrashers breeding in the San Joaquin Valley of California (DFG Special Animals List, 2011).

**Bank Swallow.** The Bank Swallow is an aerial insectivore that nests in the cavities along the banks of streams and rivers, and feeds over waterbodies, streams and fields (Garrison, 1999). The average height of nesting banks in California is 3.3 meters (Garrison, 1999). There is no nesting habitat for this species in the Project Area and no known colonies near Owens Lake. Bank Swallows occur as seasonal migrants at Owens Lake and as foraging opportunities for this species are abundant and widespread at Owens Lake, impacts from the project are expected to be minimal.

**Willow Flycatcher.** Willow Flycatcher is a riparian obligate species that inhabits riparian deciduous shrubs, particularly willow species (Grinnell and Miller, 1944). Willow Flycatchers are common migrants in the region, and habitats used in migration are generally similar to those used for breeding (Sedgwick, 2000). The Southwestern Willow Flycatcher (*E. t. extimus*) is the subspecies that breeds in Owens Valley and the minimum habitat patch size required is 1.98 acres (USFWS, 2002). There is no nesting or suitable migratory habitat for this species with the Project Area.

**American Peregrine Falcon.** The Peregrine Falcon is a cliff-nesting Fully Protected Species that forages in a wide variety of habitats, often in areas of high prey concentrations. There is no nesting habitat for the species in the Project Area. Peregrine Falcons are seen at Owens Lake somewhat regularly. As habitat value acres will be maintained, no long-term impact is anticipated to habitat of potential prey.

### 2.1.9 References

The following references are added to Draft EIR Section 8.1 References and Bibliography:

Garrison, Barrett A. 1999. Bank Swallow (*Riparia riparia*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Available: <http://bna.birds.cornell.edu/bna/species/414>.

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Jones and Stokes. 2007. Final Cultural Resources Inventory of Access Roads T37-1 and T37-2, Phase 7 of the Owens Lake Dust Mitigation Program, Inyo County, California. Prepared for CDM, Inc., Rancho Cucamonga, California.

LADWP. 2012. 2012 Owens Lake Biological Compliance Monitoring Report.

Lowther, Peter E. and Charles T. Collins. 2002. Black Swift (*Cypseloides niger*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/676>.

Owens Valley Indian Water Commission. 2011. History of Water Rights. Available: <http://www.oviwac.org/thecrusade.html>. Accessed April 16, 2013.

Parker, Patricia L., and Thomas F. King. 1998. Guidelines for Evaluating and Documenting Traditional Cultural Properties. National Park Bulletin 38. U.S. Department of the Interior, National Park Service, National Register, History and Education National Register of Historic Places.

Sedgwick, James A. 2000. Willow Flycatcher (*Empidonax traillii*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology. Retrieved from the Birds of North America Available: <http://bna.birds.cornell.edu/bna/species/533>.

Shuford, W. D. and Gardali. T. editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California and California Department of Fish and Game, Sacramento.

USFWS. 2002. Southwestern Willow Flycatcher Recovery Plan. Albuquerque, New Mexico. I-ix + 210pp. Appendices A-O.

Velarde Tiller, Veronica E. 1996. American Indian Reservations and Trust Areas. Economic Development Department Administration, U. S. Department of Commerce.

### 2.2 CORRECTIONS TO THE DRAFT EIR

The following text edits are corrections to minor errors, updates, or amplifications of statements in the Draft EIR. Text inserts are shown as underlined and deletions are shown in ~~strike through~~ format. Draft EIR section numbers and names are noted in [brackets].

#### [Draft EIR Section 2.2 Responsible and Trustee Agencies]

In response to Comment Letter #9 (see Section 3), the following text is added to Draft EIR Section 2.2.

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### California Department of Transportation

The Phase 7a project will require encroachment permits from the California Department of Transportation (Caltrans). As a permitting agency for the Phase 7a project, Caltrans is a Responsible Agency for the project.

#### [Draft EIR Section 3.1.1 Table 3-1]

Table 3-1 is revised to indicate that Seeded Alkali Meadow Managed Vegetation in T37-2 is 10-14 ~~18-28~~ acres; Total MV for T37-2 is 38 ~~24~~ acres.

#### [Draft EIR Section 4.1.4 Impacts]

In response to Comment Letter #7 (see Section 3), the following text revisions are made to Draft EIR Sections 4.1.4 and 4.1.4.1]

Once installed, views of the project site will be of 0.33 square miles of Tillage, approximately 2.5 square miles of Shallow Flooding, approximately 2.1 square miles of Managed Vegetation, and approximately 1.5 square miles of Gravel Cover (**Table 4.1-1**). If Tillage is not found to have sufficient dust control efficacy and Gravel Cover is installed in T12-1, the Phase 7a project areas will contain 1.8 square miles of Gravel Cover (and no tilled area). All areas will include access roadways and perimeter berms.

#### [4.1.4.1 Gravel Cover]

Based on detailed design, the total Gravel Cover area proposed under Phase 7a has been reduced as compared with the description in the NOP. A total of 1.5 square miles of Gravel Cover is now proposed including the entire area of T1A-3, approximately 70 percent of T37-1, approximately 20 percent each of T28N and T28S, and all of T35-1 and T35-2. However, if Tillage is not found to have sufficient dust control efficacy and Gravel Cover is installed in T12-1, the Phase 7a project areas will contain 1.8 square miles of Gravel Cover (and no tilled area). Gravel Cover areas will potentially use gravel from different sources.

At the distance from the roadway, post-project views of the Gravel Cover areas are predicted to be extremely similar to existing conditions and within the range of the lake bed's variable color palette. The existing views of the T35-1 and T35-2 ponds are of a man-made linear water feature clearly differentiated from the playa. Implementation of Gravel Cover in these two DCAs will remove these engineered, less natural looking features, a beneficial effect. Gravel Cover in the T35 DCAs and T37-1 will appear as an expansion of the Gravel Cover recently installed under Phase 8 (**Figure 4.1-5**). Overall, the Phase 7a DCAs in this area will equal a 20 percent expansion of the Gravel Cover area proposed under Phase 8 (0.4 square miles of Gravel Cover in T37-1, T35-1 and T35-2 plus 2 square miles of Gravel Cover in Phase 8). Gravel Cover, if implemented in T12-1 after Tillage, would be approximately 9,500 feet from the nearest off-lake roadway (SR 190). T12-1 is surrounded by existing Shallow Flooding. Therefore, views from adjacent SR 190 would not be significantly degraded as compared to views of the exiting Tillage. Gravel Cover using material reflecting the range of naturally occurring colors of the lake playa



## Section 2 – Additions and Corrections

will assist in preserving the visual continuity of the lake bed expanse. Additionally, 43 acres of sprinkler-irrigated shrub-dominated Managed Vegetation is proposed for T37-1. The vegetation will be along the northern and western perimeter of the DCA, visually blending with existing vegetation between the lake bed and Highway 395.

The proposed new Gravel Cover areas will not substantially alter the elevation of the affected DCAs. Gravel will be from local sources and the color will be within the range of existing lake bed color. Therefore, installation of a 4-inch layer of gravel on the Phase 7a Gravel Cover areas will alter, but will not substantially degrade the visual character of the site. The aesthetic impact of Gravel Cover on new DCAs T1A-3 and T37-1 and Transition Areas T35-1 and T35-2 (and T12-1 if implemented after Tillage) is therefore less than significant.

### [Draft EIR Section 4.3.1.1 Existing Biological Resources Setting]

In response to Comment Letter #9 (see Section 3), the following paragraph is added to Section 4.3.1.1:

The Bald and Golden Eagle Protection Act, originally passed in 1940, provides for the protection of the bald eagle and the golden eagle (as amended in 1962) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22).

### [Draft EIR Section 4.3.3.3 Existing Biological Resources Setting]

The last sentence of the Sensitive Species paragraph is revised as follows:

Additionally, the project area is outside the breeding range for the sensitive subspecies of California Horned Lark (*Eremophila alpestris actia*), Vaux’s Swift (*Chaetura vauxi*) and Tricolored Blackbird (*Agelaius tricolor*). Southern grasshopper mouse (*Onychomys torridus ramona*) and Bell’s Sage Sparrow (*Artemisiospiza belli belli*) are not present in the project area.

Table 4.3-1 has been revised to add existing wildlife observed during the 2011 survey.

**Table 4.3-1  
Summary of Existing Biological Resources Conditions – Phase 7a Project Areas**

Cell/Buffer		Existing Vegetation Conditions	<u>Existing Wildlife Conditions</u>
<b>New DCAs under Phase 7a</b>	<b>T37-1</b>	131 acres barren alkali playa, 6.4 acres saltbush scrub. Wetland delineation conducted where hydrophytic vegetation occurred. No wetlands were found within the project site.	<u>No wildlife observed during 2011 survey.</u>
	<b>T37-1 Buffer</b>	6.2 acres barren alkali playa, 2.1 acres saltbush scrub. Wetland delineation conducted where hydrophytic vegetation occurred. No wetlands were found within the project site.	<u>No wildlife observed during 2011 survey.</u>

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Cell/Buffer		Existing Vegetation Conditions	Existing Wildlife Conditions
	T37-2	371.5 acres barren alkali playa, 0.2 acres saltbush scrub, and 5.7 acres alkali meadow. Wetland delineation conducted where hydrophytic vegetation occurred. No wetlands were found within the project site.	<u>No wildlife observed during 2011 survey.</u>
	T37-2 Buffer	25 acres barren alkali playa, 0.2 acres saltbush scrub, 1.5 acres alkali meadow. Wetland delineation conducted where hydrophytic vegetation occurred. No wetlands were found within the project site.	<u>No wildlife observed during 2011 survey.</u>
	T1A-3	489.1 acres barren alkali playa and 13.2 acres saltbush scrub. No wetlands occur within the project site.	<u>No wildlife observed during 2011 survey.</u>
	T1A-3 Buffer	14.9 acres barren alkali playa.	<u>No wildlife observed during 2011 survey.</u>
	T1A-4	615.5 acres barren alkali playa.	<u>No wildlife observed during 2011 survey.</u>
	T1A-4 Buffer	13.3 acres barren alkali playa.	<u>No wildlife observed during 2011 survey.</u>
	T12-1	211.9 acres barren alkali playa. Moat and row test area removed in 2010. Previously completely disturbed (2007/2008). Tillage on-going as of 2012.	<u>No wildlife observed during 2011 survey.</u>
	T32-1	108.1 acres barren alkali playa; 6.6 acres saltbush scrub. Moat and row test area removed in 2010. Wetland delineation conducted where hydrophytic vegetation occurred. No wetlands were found within the project site.	<u>Two Common Ravens observed overhead during 2011 survey. No other wildlife use noted in survey area.</u>
Phase 7a Transition Areas	T1A-2_a	Shallow Flooding DCM was implemented in 2010 east of Mainline Road. The cell is inundated with no vegetation present. No DCM was implemented in the small portion of T1A-2_a (west of Mainline). Current conditions in this cell are identified as 218.2 acres barren alkali playa, 11 acres open water, 27.3 acres algae-dominated saturated soil, and 1.3 acres of dry alkali meadow. A wetland delineation was conducted in the alkali meadow portion where hydrophytic vegetation occurred, but no wetlands were identified within the project site.	<u>No wildlife observed during 2011 survey.</u>
	T28N	Shallow Flooding DCM was implemented in 2002. Current conditions are marked by 60.9 acres alkali meadow, 160.8 acres barren alkali playa, 52.8 acres open water, and 172.3 acres algae-dominated saturated soil. Wetland delineations were performed where hydrophytic vegetation occurred at greater than 5% cover. 56.7 acres of created wetlands are present in this cell.	<u>Red-winged Blackbirds and Savannah Sparrows using T28N Shallow Flooding area. Two ravens also present. Snowy plover nest found on road between T28N and S, but no plovers observed at time of survey.</u>
	T28S	Shallow Flooding DCM was implemented in 2002. This cell currently has 33.4 acres wet alkali meadow, 0.1 acres dry alkali meadow associated with spring mounds, 104.1 acres barren alkali playa, 45.9 acres open water, and 111.5 acres algae-dominated saturated soil. LADWP's 2011 survey confirmed the 33.4 acres of wet alkali meadow to be jurisdictional wetlands that are a result of LADWP's dust control operations.	<u>Three Red-winged Blackbirds, a Meadowlark, and a Great-tailed Grackle observed in T28S during surveys in 2011; Ravens also present. Snowy Plover nest found on road between T28N and S, but no plovers observed at time of survey. California Gulls and ducks using open water near horse corrals.</u>
	T30-1_a	Shallow Flooding DCM was implemented in 2002 and improved in 2005. This cell currently has 5.9 acres wet	<u>No wildlife observed during 2011 survey.</u>

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Cell/Buffer	Existing Vegetation Conditions	<u>Existing Wildlife Conditions</u>	
	alkali meadow, 0.2 alkali meadow, 6.6 acres barren alkali playa, 146.7 acres open water, and 9.2 acres algae-dominated saturated soil present within this cell. The 5.9 acres of wet alkali meadow qualify as created wetlands and are an extension of the created T30-1_b wetlands.		
<b>T30-1_b</b>	Shallow Flooding DCM was implemented in 2002 and improved in 2005. This cell currently has 350.8 acres wet alkali meadow, 123.7 acres barren alkali playa, 0.9 acres open water, and 47.8 acres algae-dominated saturated soil present within this cell. LADWP's 2011 survey confirmed 350.8 acres of man-induced jurisdictional wetlands within this cell.	<u>Red-winged Blackbirds observed perching in T30-1_b wetlands. Raven also observed flying over area and a Killdeer was noted in the area.</u>	
<b>T26, T28 N and S, T30-1_b Buffer</b>	This buffer is characterized as 1.2 acres wet alkali meadow, 1.7 acres alkali meadow, 13 acres barren alkali playa, and 1.5 acres algae-dominated saturated soil. The 1.2 acres of wet alkali meadow is a continuation of these communities in the adjacent shallow flood cells, and are characterized as wetlands.	<u>No avian activity noted during survey. Coyote tracks and scat onsite within buffer. Two side-blotched lizards also observed during survey of buffer. California Gull and ducks using open water near horse corrals.</u>	
<b>T36-1_b</b>	Shallow Flooding DCM was implemented in 2002 and improved in 2005. Current conditions within this cell are identified as 36.6 acres alkali meadow, 226.5 acres barren alkali playa, 7.5 acres open water, and 30.7 acres algae-dominated saturated soil. Wetland delineations were performed in areas where hydrophytic vegetation occurred at greater than 5% cover. 36.6 acres of created wetlands were confirmed in this cell as a result of LADWP's dust control operations.	<u>Red-winged Blackbirds and Black-necked Stilts observed foraging and perching in T36 wetlands. Ravens also observed in cell.</u>	
<b>T35-1</b>	Shallow Flooding DCM was implemented in 2002. Current conditions are 69 acres of saturated soils and open water.	<u>No data</u>	
<b>T35-2</b>	Shallow Flooding DCM was implemented in 2002. Current conditions are 95 acres of saturated soils and open water.	<u>No data</u>	
<b>Pipelines Corridors</b>	<b>Pipeline Option A (with buffer)</b>	Current conditions along this alignment are 0.1 acre saltbush scrub, 54.2 acres barren alkali playa, and 1.1 acres saturated playa. No wetland delineations were conducted along this alignment, as the only vegetated area had an average cover of 1%.	<u>No data</u>
	<b>Pipeline Option B (with buffer)</b>	This area currently has 0.3 acres saltbush scrub and 44.1 acres barren alkali playa. No wetlands occur along this alignment or associated buffer.	<u>Three black-tailed jackrabbits and side-blotched lizards observed in upland scrub habitat near south end of alignment.</u>
	<b>Pipeline Option C (with buffer)</b>	This area currently has 40 acres barren alkali playa. No wetlands occur along this alignment or associated buffer.	<u>No wildlife observed during 2011 survey.</u>

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Table 4.3-4, second page, the entry for Snowy Plover (*Charadrius nivosus*) is revised to indicate it is the inland breeding population.

### [Draft EIR Section 4.3.3.4 Avian Use of Project Vicinity]

The citation for the Owens Lake Habitat Management Plan is LADWP, 2010~~e~~ (2010~~b~~).

### [Draft EIR Section 4.3.5.1 Summary of Impacts to Vegetation Types]

Corrections to the summary table of predicted vegetation conditions with the project (Draft EIR Table 4.3-6) are provided below. Based on these corrections, the last paragraph of Draft EIR section 4.3.5.1 is also revised.

Once constructed, the Phase 7a project will provide approximately ~~1,400~~ 1,153 acres of Gravel Cover and tilled area (potentially all Gravel Cover if Tillage in T12-1 is not found to be effective), up to approximately ~~1,400~~ 1,132 acres of Managed Vegetation BACM, and approximately 1,600 acres of Shallow Flooding BACM. The Managed Vegetation area will have up to ~~330~~ 260 acres seeded with dry alkali meadow species dominated by shrubs, and up to ~~1,090~~ 872 acres seeded with alkali meadow species dominated by grasses. Shallow flooding will contain up to ~~347~~ 298 acres of ponded area, and up to ~~1,335~~ 1,306 acres of lateral shallow flooding (**Table 4.3-6**). Existing ponded area greater than 10 cm depth is present in T35-1, T35-2 and T30-1. With the project, this pond area in T35-1 and T35-2 will be removed, but two new ponds will be created in T28. Post-project, T30-1 will have similar pond depths, new habitat islands and a length of greater usable shoreline. These cover types have been designed to be distributed in a manner favorable as wildlife habitat. For example, gravel is placed in patches adjacent to water to provide potential nesting and loafing habitat for shorebirds and loafing habitat for waterfowl as opposed to large expanses of gravel BACM which currently exists on Owens Lake (e.g., Phase 8).

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**Table 4.3-2  
Summary of Existing Vegetation Conditions vs. Expected Conditions with the Phase 7a Project (acres)**

Summary of Existing Conditions (acres)					Summary of Anticipated Future Conditions (approximate acres)				
DCA	Barren Playa	Desert Saltbush Scrub	Alkali Meadow	Open Water and Saturated Soil	Unvegetated (Gravel and Tillage)	Vegetated - Shrub Dominated	Vegetated - Meadow	Open Water in Ponds	Lateral Shallow Flood (contains saturated soil and open water)
T1A-2_a	62.1		1.3	196.6			<del>200</del> 160		60
T28N	160.7		62.1	229.7	<del>80</del> 104	<del>60</del> 35	<del>460</del> 130	<del>60</del> 58	<del>400</del> 96
T28S	102.8		34.4	116.2	<del>620</del>	<del>20</del> 12	<del>40</del> 33	80	<del>400</del> 105
T30-1	129.8		357.0	204.9		<del>80</del> 65	<del>330</del> 294	160	120
T36-1_b	48.5		38.0	222.3		<del>30</del> 21	<del>270</del> 237		
T35-1	5.0			62.4	<del>70</del> 69				
T35-2	8.6			82.5	<del>90</del> 95				
T1A-3	489.2	13.2			<del>500</del> 518				
T1A-4	615.5			1.5					615
T12-1	211.9				<del>200</del> 211				
T32-1	95.6	5.9				90	<del>40</del> 6		
T37-1	131.0	6.4			<del>85</del> 94	<del>40</del> 28			
T37-2	371.5	0.2	5.7			<del>40</del> 9	<del>80</del> 12		<del>340</del> 260 (+50 MV transition)
<b>Total</b>	<b>2,432.2</b>	<b>25.7</b>	<b>498.5</b>	<b>1,116.1</b>	<b><del>1085</del> 1,153</b>	<b><del>330</del> 260</b>	<b><del>1090</del> 872</b>	<b><del>300</del> 298</b>	<b><del>1335</del> 1,306</b>

## Section 2 – Additions and Corrections

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### [Draft EIR Section 4.3.7 Mitigation Measures]

In response to Comment Letter #9 (see Section 3), the following revisions to Mitigation Measure BIO-5 are incorporated:

**BIO-5. Preconstruction Surveys for Nesting Birds.** If ~~tree or shrub~~ vegetation removal activities are scheduled to occur during the bird breeding season (January 15 to July 31), preconstruction surveys for bird nests shall be conducted no more than 7 days prior to the start of ground-disturbing activities. Surveys shall be conducted in areas of suitable nesting habitat that will be impacted by construction. Active nests will be marked at a safe distance with visible flagging and the construction crew supervisor will be made aware of these locations. Construction may commence in all areas without active bird nests. All bird nests will remain undisturbed while they are active. After a nest ceases to be active (fledges or fails), and the qualified biologist has made this determination, construction may proceed in the area. If construction is initiated in one breeding season and persists into subsequent breeding seasons, additional surveys are not necessary unless construction activities involve additional ~~tree or shrub~~ vegetation removal.

### [Draft EIR Section 4.4.8.5 Phase II Cultural Resources Evaluations]

Historical resources are resources listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Each archaeological resource was evaluated using California Register of Historical Resources criteria to determine if it qualified as an historical resource. To clarify this information, the following text is deleted from Draft EIR Section 4.4.8.5:

~~The following criteria qualify an archaeological site to be a unique resource eligible for listing in the CRHR (PRC Section 21083.2(g)):~~

- ~~1. Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.~~
- ~~2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.~~
- ~~3. Is directly associated with a scientifically recognized important or historic event or person.~~

### [Draft EIR Section 4.4.11.2 Mitigation Measures to be Included as part of the Phase 7a Project]

It is assumed that significant cultural resources are present adjacent to the access roadway proposed for improvement under the Phase 7a project. To address comments from the Bishop Tribal Council (Comment Letter #6, see Section 3) regarding cultural resources, Mitigation Measure CR-4 is revised as follows:

## Section 2 – Additions and Corrections

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**CR-4. Unevaluated Resources on the Access Roadway.** A qualified archaeologist shall compare the work area map for the access roadway with the locations of known cultural resources. Cultural resources sites adjacent to the exiting roadway that overlap with the work area map that cannot be avoided shall be evaluated as part of a Phase II archaeological investigation prior to ground disturbances in the area (CEQA Sections 21083.1 and 21083.2) avoided. If determined to qualify as CRHR-eligible sites, the roadway shall be re-designed to avoid the resources to the maximum extent feasible. Improvement of the road surface in areas adjacent to cultural resources shall be limited to the existing disturbed area of the roadway. A qualified archaeologist shall review the proposed roadway improvement design and, if warranted, make recommendations for installation of chemically inert geotextile over the existing roadway surface, which will then be capped with a layer of sterile fill soil to protect potentially present subsurface cultural resources. The thickness of the fill soil will be determined by the archaeologist in consultation with a geologist and project engineer to ensure artifacts are not warped or broken by the weight of fill or pressure by heavy equipment. The Lone Pine Paiute-Shoshone tribe shall be consulted during the re-design process final design of the roadway improvements. Where re-design is infeasible, a Phase III data recovery investigation, or other appropriate measures, for the portions of any CRHR-eligible sites that would be disturbed by roadway improvement shall be conducted (CEQA Section 21083.2).

Relevant archaeological investigation ~~and/or excavation~~ permits shall be obtained from the California State Lands Commission ~~prior to the start of Phase II and/or Phase III work.~~ The Lone Pine Paiute-Shoshone tribe shall be contacted prior to the start of archaeological investigations implementation of Phase II and/or Phase III work and qualified tribal monitors shall be afforded an opportunity to be present during cultural resources investigations for the access roadway.

### [Draft EIR Section 5.4 Avoidance Alternative]

Based on revisions to predicted vegetation conditions and Table 4.3-2, Draft EIR Table 5-2 is revised as shown below.

### [Draft EIR Appendix A Notice of Preparation and Initial Environmental Study]

Mitigation Measure Trans-2 was described in the Initial Study for the proposed project. Based on comments received from Caltrans (Comment Letter #1, see Section 3), Trans-2 has been revised as follows:

**Trans-2.** LADWP shall repair damage to SR 136 and SR 190 ~~in the areas near mines~~ where project related truck traffic ~~crosses SR 136~~ will travel on these roadways. Prior to the start of construction activity, existing conditions ~~at the crossings on SR 136 and SR 190~~ will be documented. After construction of Phase 7a is complete, physical damage documented ~~at the SR 136 crossings will~~ on the portions of SR 136 and SR 190 used for Phase 7a project construction shall be repaired. In addition, LADWP shall have its contractor install corrugated steel plates to reduce the possibility of trucks tracking dirt onto the highways. Any debris tracked onto the highways shall be removed in a timely manner.

## Section 2 – Additions and Corrections

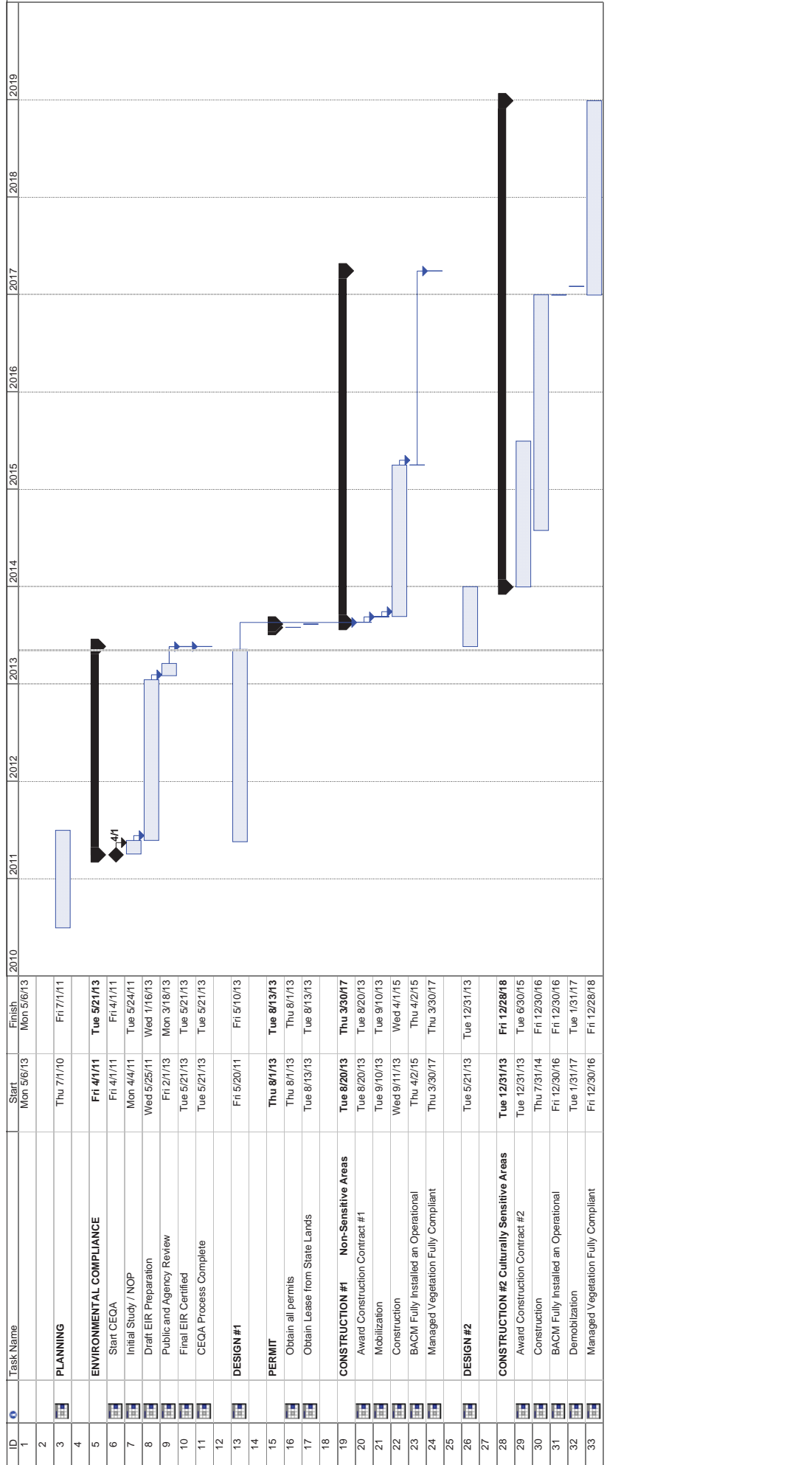
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**Table 5-2  
Phase 7a Avoidance Alternative BACM Summary**

DCA	Original Phase 7a Project	Phase 7a Avoidance Alternative Project (approximate acres)
T1A-3	<ul style="list-style-type: none"> <li>• 518 acres of Gravel Cover</li> </ul>	<ul style="list-style-type: none"> <li>• 324 acres of Gravel Cover</li> </ul>
T32-1	<ul style="list-style-type: none"> <li>• Up to 108 acres of Managed Vegetation</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 65 acres of Managed Vegetation</li> </ul>
T37-1	<ul style="list-style-type: none"> <li>• 43 acres Managed Vegetation</li> <li>• 94 acres Gravel Cover</li> </ul>	<ul style="list-style-type: none"> <li>• 60 acres Gravel Cover</li> </ul>
T37-2	<ul style="list-style-type: none"> <li>• <del>38</del> <u>24</u> acres Managed Vegetation</li> <li>• <del>340</del> <u>310</u> acres Shallow Flooding / Shallow Flooding Transition</li> </ul>	<ul style="list-style-type: none"> <li>• Up to <del>24</del> <u>18</u> acres of Managed Vegetation</li> <li>• <del>340</del> <u>306</u> acres Shallow Flooding / Shallow Flooding Transition</li> </ul>



# OWENS LAKE DUST MITIGATION PROGRAM - PHASE 7A



Project: Phase 7a - EIR  
Date: Mon 5/6/13

Task Split

Progress Milestone

Summary Project Summary

External Tasks External Milestone

Deadline

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# Section 3

## Responses to Comments on the Draft EIR

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### 3.1 ORAL COMMENTS RECEIVED AT THE PUBLIC MEETING AND RESPONSES TO COMMENTS

A public meeting for the Phase 7a Project was held at 5:00 p.m. on February 26, 2013 at LADWP’s office in Keeler, California. In addition to staff from LADWP and MWH, attendees included representatives of Native American tribes, GBUAPCD and CSLC. The meeting included a presentation to review the project background, project description, CEQA process, environmental topics analyzed in the Draft EIR, project alternatives, and the alternative identified as environmentally superior.

Comments made during the meeting and responses to comments are summarized in **Table 3-1**.

**Table 3-1  
Responses to Comments Received at the Public Meeting**

Oral Comments	Responses to Comments
<ul style="list-style-type: none"> <li>Related projects list in Section 1.6 is incomplete since related projects are only discussed where there is a positive impact. Related projects aren’t noted throughout for all environmental topics.</li> </ul>	<p>In addition to Draft EIR Section 1.6, please see Draft EIR Section 6.2 for a description of cumulative impacts with related projects. Cumulatively considerable (adverse) impacts on cultural resources are noted for the original Phase 7a project and the related projects.</p>
<ul style="list-style-type: none"> <li>A water use summary should be provided to compare existing and proposed water use for the dust control project.</li> </ul>	<p>Please see Section 2 of the Final EIR. Existing average OLDMP water use is approximately 88,694 afy; average water use with Phase 7a is estimated at 87,958 afy.</p>
<ul style="list-style-type: none"> <li>Which project is LADWP going to build?</li> </ul>	<p>Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project.</p>

## Section 3 – Responses to Comments on the Draft EIR

Oral Comments	Responses to Comments
<ul style="list-style-type: none"> <li>Will construction be split into phases, with Phase I focused on DCAs without significant cultural resources?</li> </ul>	<p>If the Board of Water and Power Commissioners adopts the original Phase 7a project, after acquisition of permits and the lease amendment, construction will begin in areas without significant cultural resources. If the Board of Water and Power Commissioners adopts the original Phase 7a project, Phase III data recovery will be required in the areas with significant cultural resources prior to the start of construction. Under this scenario, the overall process in the culturally sensitive areas would include data recovery, geotechnical investigation, finalization of design, and then construction.</p>
<ul style="list-style-type: none"> <li>The Avoidance Alternative will have reduced air quality benefit as compared with the proposed project. Identification of the environmentally superior alternative is focused only on the cultural resources assessment.</li> </ul>	<p>LADWP's determination of the environmentally superior alternative, which includes avoidance on approximately 350 acres, recognizes the importance of protecting cultural resources and complying with the Abatement Order. The Avoidance Alternative was identified as the environmentally superior alternative since it would reduce impacts on significant cultural resources to less than significant while providing dust control on approximately 2.3 square miles of Owens Lake that are currently uncontrolled, and at the Tillage BACM test area in T12-1 on approximately 0.3 square miles. This area is considered the maximum dust control area feasible with avoidance of the known significant cultural resources. Please also see responses to comment letter #9 from the GBUAPCD.</p>
<ul style="list-style-type: none"> <li>GBUAPCD stated that there is no provision for building less than 3.1 square miles of dust control.</li> </ul>	<p>The Abatement Order defines the Phase 7a dust control area and requires the implementation of BACM on 3.1 square miles and transition of BACM on 3.0 square miles (the Transition Areas). Implementation of the Avoidance Alternative would require modification of the Abatement Order to reflect the reduction in acreage of dust control. Please see also responses to comment letter #9 from the GBUAPCD.</p>
<ul style="list-style-type: none"> <li>Cultural resources will be subject to extreme weathering conditions under the Avoidance Alternative. There are resources that are exposed on the lake now that weren't visible in previous surveys.</li> </ul>	<p>The Avoidance Alternative would protect significant cultural resources from direct impacts from Phase 7a project construction and operations. As noted in Draft EIR Section 5.4.2, the sites would be subject to continued weathering by wind and water. This is a natural process and not an impact of the proposed project alternative. Please also see responses to comment letter #9 from the GBUAPCD, specifically, response 9-7.</p>
<ul style="list-style-type: none"> <li>What was the reason for the addition of the other 60 acres under the Expanded Avoidance</li> </ul>	<p>The Phase II archaeological investigation conducted for the project did not identify the 60 acres as within a significant cultural site. The additional 60 acres were identified by the acting THPO for the Lone Pine Paiute-Shoshone as a sensitive area with high potential for subsurface</p>

## Section 3 – Responses to Comments on the Draft EIR

Oral Comments	Responses to Comments
Alternative?	resources. Please see comment letter #10 from the Lone Pine Paiute-Shoshone Reservation.
<ul style="list-style-type: none"> <li>The types of cultural resources can be disclosed, but not where they are found?</li> </ul>	A general description of the types of cultural resources discovered on the project site is provided in the Draft EIR. However, the specific locations of resources are not disclosed to protect the sites from disturbance or looting.
<ul style="list-style-type: none"> <li>Why are the new DCAs not very hybrid looking, but the Transition Areas are very hybrid looking?</li> </ul>	Transition Areas were selected in coordination with the Owens Lake Master Plan Habitat Committee. Some of the Phase 7a DCAs (e.g., T1A-4 and T1A-3) do not have a lot of existing habitat value. T37-2 has some area where vegetation can likely be established; therefore, 38 acres of Managed Vegetation are proposed for this DCA (under the original Phase 7a project).
<ul style="list-style-type: none"> <li>The Abatement Order limits LADWP to transition of 3.0 square miles (not 3.4 as per the project). The Order could be modified to include 3.4 square miles.</li> </ul>	As noted in Draft EIR Section 3.1.8.1, the transition of 0.4 square miles of DCAs can be accomplished during the non-dust control season. Modification of the Abatement Order to allow the additional 0.4 square miles to be transitioned during the dust control season is not required. However, LADWP intends to submit a petition to modify the Abatement Order as suggested by GBUAPCD.
<ul style="list-style-type: none"> <li>The Owens Lake Master Plan is referenced in the Draft EIR. Does the Phase 7a Project include groundwater pumping as LADWP is proposing as part of the Master Plan?</li> </ul>	The Phase 7a Project is essentially water neutral. Existing average OLDMP water use is approximately 88,694 afy; average water use with Phase 7a is estimated at 87,958 afy. Please see Final EIR Section 2. No pumping of Owens Lake groundwater is included as part of the Phase 7a project.
<ul style="list-style-type: none"> <li>Has CSLC commented on the project?</li> </ul>	Please see comment letter #7 from the CSLC.

### 3.2 WRITTEN COMMENTS RECEIVED ON THE DRAFT EIR AND RESPONSES TO COMMENTS

Sixteen comment letters were received on the Draft EIR. Copies of the letters follow with responses to comments included after each letter. **Table 3-2** is a list of persons, organizations, and public agencies that provided written comments on the Draft EIR.

## Section 3 – Responses to Comments on the Draft EIR

**Table 3-2  
List of Persons, Organizations and Public Agencies  
Commenting in Writing on the Draft EIR**

<b>Comment Letter Number</b>	<b>Organization</b>	<b>Commenter</b>
1	California Department of Transportation	Gayle J. Rosander, IGR/CEQA Coordinator
2	Eastern Sierra Audubon Society	Andrea Jones, Director, Important Bird Areas Program and on behalf of, Pete Pumphrey President, Eastern Sierra Audubon Society Eastern Sierra Audubon Society
3	Lone Pine Paiute-Shoshone Reservation	Mary Wuester, Tribal Chairperson
4	Loyola Marymount University Students	Kyle Brown, Jill Dannis, Andrea Fisher, Spenser Hart, Natalie Hernandez, Dr. Mona Seymour (Supervisor)
5	Big Pine Paiute Tribe of the Owens Valley	Virgil Moose, Tribal Chairperson
6	Tribal Historic Preservation Officer Bishop Tribal Council	Raymond Andrews
7	California State Lands Commission	Cy. R. Oggins, Chief Division of Environmental Planning and Management
8	California Department of Fish and Wildlife	Bruce Kinney, Staff Environmental Scientist
9	Great Basin Unified Air Pollution Control District	Theodore D. Schade, P.E., Air Pollution Control Officer
10	Lone Pine Paiute-Shoshone Reservation	Katherine J. Bancroft Acting Tribal Historic Preservation Officer
11	Lone Pine Resident	Barbara Freund
12	Lone Pine Resident	Leonard Espinosa
13	Lone Pine Resident	Leslie Bellas
14	Mono Lake Kutzadika Tribe	Charlotte Lange, Chairperson
15	Lone Pine Resident	Thomas N. Jefferson
16	Lone Pine Paiute-Shoshone Reservation	Nancy J. Naylor, Cultural Resources Officer

**DEPARTMENT OF TRANSPORTATION**

DISTRICT 9

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Letter #1

February 28, 2013

Laura Hunter  
Los Angeles Department of Water and Power  
111 North Hope Street  
Los Angeles, California 90012

File: Iny-136-14.44  
DEIR  
SCH #: 2011051068

Dear Ms. Hunter:

**Owens Lake Phase 7A Dust Control Measure Project - Draft Environmental Impact Report (DEIR)**

The California Department of Transportation (Caltrans) District 9 appreciates the opportunity to review the Owens Lake Phase 7A DEIR. We have the following comments:

- 1-1 | • Thank you for including information regarding the vehicle equipment staging area, which accesses State Route (SR) 190 at Dirty Socks Springs Road, as requested in our June 3, 2011 Notice of Preparation letter.
- 1-2 | • Please also include SR 190 in Mitigation Measure Trans-2, which addresses highway damage and repair.
- 1-3 | • Stormwater management techniques and transport of overweight loads were not always optimal during previous construction for Phase 8. A new encroachment permit is required to better address these items during Phase 7A.
- 1-4 | • The Caltrans contact for permits and the project's Transportation and Traffic Mitigation Measures continues to be Mark Reistetter. He may be reached at (760) 872-0674 or [mark.reistetter@dot.ca.gov](mailto:mark.reistetter@dot.ca.gov).

We value our cooperative working relationship regarding project impacts upon State highways. Feel free to contact me at (760) 872-0785, with any questions.

Sincerely,

GAYLE J. ROSANDER  
IGR/CEQA Coordinator

c: State Clearinghouse  
Mark Reistetter, Caltrans

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #1

Gayle J. Rosander  
IGR/CEQA Coordinator  
California Department of Transportation, District 9  
500 South Main Street  
Bishop, California 93514

1-1 Comment noted. Draft EIR Figures 3-8 and 3-10 note the locations of the vehicle staging areas.

1-2 As noted in Section 2 of the Final EIR, Mitigation Measure Trans-2 has been revised per your comment.

**Trans-2.** LADWP shall repair damage to SR 136 and SR 190 where project related truck traffic will travel on these roadways. Prior to the start of construction activity, existing conditions on SR 136 and SR 190 will be documented. After construction of Phase 7a is complete, physical damage documented on the portions of SR 136 and SR 190 used for Phase 7a project construction shall be repaired. In addition, LADWP shall have its contractor install corrugated steel plates to reduce the possibility of trucks tracking dirt onto the highways. Any debris tracked onto the highways shall be removed in a timely manner.

1-3 LADWP's engineering staff will include additional language in the construction specifications to ensure that the contractor follows stormwater management techniques (Best Management Practices) and maximum weight limit requirements or face the possibility of penalties. An application for an encroachment permit will be submitted to Caltrans prior to the start of construction.

1-4 Comment noted. Permits and mitigation measures will be coordinated with Mr. Reistetter.



March 11, 2013

Letter #2

Los Angeles Department of Water and Power  
Attn: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

To Whom It May Concern:

On behalf of Audubon California's 100,000 members and supporters, and Eastern Sierra Audubon Society's 300 members, we are submitting comments on the **Owens Lake Phase 7a Dust Control Measures Draft Environmental Impact Report**, January 2013.

2-1

Thank you for the opportunity to read and comment on this DEIR. We particularly appreciated the design for habitat transition areas, which we hope will improve habitat conditions for wildlife while saving water and controlling dust. We are also supportive of the public access improvements to the habitat transition areas. Our specific comments are below and relate primarily to habitat transition areas and use of the Habitat Suitability Model (HSM) developed during the Owens Lake Master Plan process.

The project description in the DEIR is somewhat specific as to individual DCAs and changes proposed for each. These changes will alter the physical composition of each DCA, which means that there will be biological consequences in each location. The Habitat Suitability Index (HSI) criteria measurements, such as water depth and salinity, that were developed in the Draft Owens Lake Master Plan (December 2011) are not included as descriptors of the characteristics of the individual DCAs. Although we know that the HSI guild values have been calculated for each DCA, the only expressions of current biological "conditions" in the DEIR are either broad species listings or bird count totals from one survey year. Acres of various habitat types have been calculated but it is unclear if those measurements are based on the HSI or some other criteria to define habitat.

2-2

Without a measurement of the existing habitat vitality of the DCAs in HSI terms, we lose the benefit of the model as a tool for determining what habitat is being affected by the proposed project or how it should be replaced as a part of the Owens Lake project. Thus, there is no demonstrated commitment to "no net loss" of habitat based on current (2010) conditions as described in the Draft Master Plan, but rather a statement of less than significant biological impacts and an uncertain sense that there may be some undefined sort of mitigation if necessary.

Section 4.3.7.1 "General Approach to Mitigation" is not a description of the HSI/HSM process/tool as it was developed through the Habitat Sub-committee of the Master Plan Committee. During the Master Plan process, we discussed the utility of using the HSM for Phase 7a as a way to test and apply the HSM to ensure no net loss of habitat to any guild over current (2010) conditions but this DEIR does not express a commitment to that tool and its use.

2-3

We propose that a chart be included in the EIR that shows the current Habitat Values for each DCA (based upon the agreed upon habitat characteristics) and the predicted Habitat Values after construction/implementation of Phase 7a to each DCA. Furthermore, the DEIR does not specify how long each DCA will take to construct, how long it will take for habitat to be achieved as depicted in the DEIR, and if areas are going to be out of compliance in terms of dust or habitat value, how long that would be expected.

2-4 The HSM could also be used as the basis for monitoring habitat conditions during and after transition and should be contained in the discussions in Section 7 regarding biological impacts and mitigation. It is stated that the impact to biological resources will be less than significant but this is not demonstrated through measurements of habitat suitability and a means to monitor changes to habitat conditions over time, and make adjustments if habitat conditions or habitat suitability is not achieved in any area.

Additional comments:

- 2-5 • Public access trails should be monitored for the presence of nesting waterfowl or shorebirds during the breeding season, and trails should be closed as appropriate if disturbance is likely to disturb nesting birds. We recommend review of the following articles:
  - Trulio, Lynne A.; Sokale, Jana. 2008. Foraging Shorebird Response to Trail Use Around San Francisco Bay. Journal of Wildlife Management vol. 72 issue 8 November 2008. p. 1775-1780.
  - Lynne Trulioa, Heather Whiteb, Jana Sokalec, and Karine Tokatliand. 2012. Report on Waterfowl Response to Trail Use in the South Bay Salt Pond Restoration Project. San Jose State University; ICF/Jones and Stokes; Sokale Environmental Planning, San Francisco Bay Bird Observatory.  
<http://www.southbayrestoration.org/documents/technical/Final%20Waterfowl%20Report%20Revised%20July%202012.pdf>
  - Other reports and papers of interest: <http://www.southbayrestoration.org/documents/technical/>
- 2-6 • Gravel size – it is not clear what size gravel will be used in the habitat transition areas; the DEIR states that “Meandering edges and potentially variations in the rock and color size of the gravel will also be incorporated”. Placement of gravel near potential shorebird or waterfowl nesting areas should take into consideration the ability of chicks to traverse gravel before fledgling and it should be stated what sizes of gravel are appropriate.
- 2-7 • Because specific salinity gradients were not discussed, it is not clear whether nesting birds will have access to fresh water sources.
- 2-8 • Soil type for islands was not discussed – we presume it will not be comprised primarily of clay but if it is, we suggest seeking advice from U.S. Fish and Wildlife Service Don Edwards San Francisco Bay National Wildlife Refuge, where the South Bay Salt Pond restoration project use of locally available clay soil to make islands for shorebirds resulted in presumed chick mortality from large cracks forming in dried clay.
- 2-9 We look forward to continued discussions on using the Habitat Suitability Model in the Owens Lake Master Plan in Phase 7a and on future habitat transition areas.

Sincerely,



Andrea Jones  
Director, Important Bird Areas Program

(and on behalf of) Pete Pumphrey,  
President, Eastern Sierra Audubon Society

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #2

Andrea Jones  
Director, Important Bird Areas Program  
and on behalf of, Pete Pumphrey  
President, Eastern Sierra Audubon Society  
Eastern Sierra Audubon Society  
4225 Hollis Street  
Emeryville, California 94608

- 2-1 Audubon Society's support of the Transition Areas design and public access improvements is noted.
- 2-2 LADWP has designed the Phase 7a project with maintenance of habitat as a stated project objective (Draft EIR Section 2.5). As part of the Master Planning process, baseline habitat values were quantified using a collaboratively developed Habitat Suitability Model (HSM). Using the HSM, the Owens Lake Phase 7a Dust Control Measures Project Habitat Value report (Final EIR Appendix A) compares the pre-project habitat value in Phase 7a project areas to post-project habitat value. The habitat value of the potential alternatives is also analyzed.

Using the habitat parameters presented in the report, the habitat value was modeled for each guild in all phase 7a DCA's using the HSM. Average habitat value of each of the Owens Lake species guilds in May and November 2010 within Project DCAs was calculated and compared to projections after completion of the project. Habitat value-acres for each guild are the product of the habitat suitability model output value and the acreage of the DCA. Net changes show maintenance or enhancement of habitat value for all guilds by Phase 7a. Shallow flooding habitat value will come on line quickly after the start of project operations; Managed Vegetation will likely take two growing seasons.

Monitoring of biological resources on Owens Lake is on-going and will continue under Phase 7a. The annual monitoring program includes surveys for: birds, vegetative cover and plant species (including exotic plants) and salinity. After two growing seasons for areas of Managed Vegetation, monitoring data will be used to run the HSM. The habitat suitability analysis protocol will be similar to the baseline analysis for pre-project habitat values presented in FEIR Appendix A. Where observed habitat values for each guild after 2 years are below pre-project habitat value, a remediation plan will be developed. Below pre-project conditions is defined as greater than 10 percent below total pre-project habitat value. Note that the habitat values for each guild are the performance standards. The

## Section 3 – Responses to Comments on the Draft EIR

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remediation plan will include operational changes (alterations to pond elevation, timing, vegetation planting, etc.) to be implemented to enhance habitat values for specific guilds where values are observed below the pre-project baseline. The remediation plan cannot be prepared now since it is not known what, or even if, variables are going to not meet projections. The assessment of the operational changes will include re-running the HSM one growing season after incorporation of the changes. LADWP is committed to maintaining existing habitat values on Phase 7a DCAs and the results of the monitoring and HSM analysis will be coordinated with stakeholders.

- 2-3 Please see Section 2 of the Final EIR for information on the construction schedule for the Phase 7a project. Based on assumed dates for EIR certification and permit acquisition, the construction period for construction Phase #1 is estimated to be from September 2013 to April 2015. Specific construction schedules by DCA have not been specified and the sequence of construction activity will be determined by the Construction Contractor.

As described in Draft EIR Section 3.1.8.1, the Abatement Order provides that during construction of the Transition Areas, up to 3.0 square miles of the Transition Areas may not be compliant at all times with BACM requirements, with newly vegetated areas likely taking the longest before compliance is re-established. The Transition Areas will not be operational during construction; however wildlife will still have access to over 30 square miles of shallow flooding habitat still in operation. The shifting of use by waterbirds was identified when the T30 and T29 turnouts were being reconstructed and under a variance in 2012 which amounted to approximately 2,300 acres of shallow flooding not being in operation. This acreage not in operation amounted to more than the entire transition area in Phase 7a. Waterbird counts during the Snowy Plover survey that year remained similar to previous years due to increased wildlife use of other operational areas as documented in the 2012 Owens Lake Biological Compliance monitoring report (LADWP, 2012). Areas of Managed Vegetation are anticipated to be compliant with dust control requirements by the end of March 2017. However, the only area currently with substantial alkali meadow habitat value will be maintained during construction; therefore temporary decreases in alkali meadow will be minimal and substantially increase after one growing season. The Abatement Order does not include minimum habitat values for Transition Areas.

- 2-4 Please see Appendix A of the Final EIR for information on the HSM.

- 2-5 The OLDMP is an actively managed project. Birds using the area are subjected to continual low level disturbance from maintenance activities including vehicular traffic, heavy equipment use, and various work by hand crews. With implementation of current measures these activities have not been found to impact wildlife. The trails proposed as part of the Phase 7a project are not expected to add significantly to the level of disturbance. However, public use of the trails will be monitored opportunistically and if

### Section 3 – Responses to Comments on the Draft EIR

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patterns of bird use and nesting change, trail closure will be considered based on guidelines in the Owens Lake Habitat Management Plan.

- 2-6 Gravel size will be similar to what has been utilized on the rest of the OLDMP which has not been shown to hamper chick movement. These areas will provide additional potential dry nesting area with high topographic relief, which Snowy Plover have been documented to use for nesting.
- 2-7 Salinity of the transition areas should be similar to pre-project conditions. For new DCMs, freshwater will be applied to previously barren and emissive playa thereby increasing the amount of freshwater available.
- 2-8 Soil type used for islands will be native soil that is typically sandy in the transition areas with some sandy clay loam in the substratum.
- 2-9 LADWP will continue to coordinate with Audubon Society as part of the Owens Lake Master Plan process.

## Lone Pine Paiute-Shoshone Reservation

P.O. Box 747 • 1103 South Main Street  
 Lone Pine, CA 93545  
 (760) 876-1034 Fax (760) 876-8302  
 Web Site: [www.lppsr.org](http://www.lppsr.org)

March 13, 2013

Letter #3

Los Angeles Department of Water and Power  
 Attention: Ms. Laura Hunter  
 111 North Hope Street, Room 1044  
 Los Angeles, CA 90012

**Subject: Draft Environmental Impact Report for the Owens Lake Phase 7a Dust Control Measures Project (SCH#2011051068)**

The Lone Pine Paiute-Shoshone Reservation (LPPSR) appreciates the opportunity the Los Angeles Department of Water and Power (LADWP) has given to comment and provide input on the Draft Environmental Impact Report (DEIR) for the Owens Lake Phase 7a Dust Control Measures Project.

LPPSR appreciates LADWP's continued commitment to bring the Owens Valley Planning Area into attainment for the National Ambient Air Quality Standards (NAAQS) for PM10. After thorough review of the DEIR, LPPSR has several comments regarding this lengthy document.

General comments throughout this document:

- 3-1 • Change all references of *Owens Dry Lake* to *Owens Lake bed*.
- 3-2 • Remove all references to *The Master Plan*. This document does not exist, and is unlikely to exist in the future. LADWP Board of Commissioners is currently requiring a list of conditions to be incorporated that violates current Orders, federal and state laws, 2008 SIP and various agency/entity jurisdictional authorities regarding dust mitigation efforts. References should be to the HSM (Habitat Suitability Model), and not the disputed Master Plan.
- 3-3 • The CEQA Initial Study for The Owens Dry Lake Phase 7a Dust Control Measures contained a project milestone table (Section 1, Table 3) with December 2013 as the Project completion date. SOA 110317-01 requires completion of mitigation measures (other than BACM test site) of December 31, 2013. This DEIR contains no specific schedule. LADWP challenged the project dates in its quarterly report ending December 31, 2012 and mailed January 30, 2013 just as the DEIR was released to the public. This document must have a valid production schedule included. This project is behind schedule by 3 years. Extensions have been provided, where reasonable, by GBUAPCD. Los Angeles has a moral and legal responsibility to mitigate pollution from Owens Lake bed. Future PM10 exceedances due to continued stalling tactics are unacceptable.

3-4 Pg1-1, section 1: *...in order to **reduce** exceedances of the state and federal particulate matter (PM10) air quality standards*

Should be "...in order to comply with state and federal particulate matter (PM10) air quality standards"

3-5 Pg1-1, section 1.1: *...as **nonattainment** for the NAAQS for PM10.*

Should be "...as serious nonattainment for the NAAQS for PM10."

3-6 *The 1997 SIP and associated Board Order 070297-04 to the City of Los Angeles (City) mandated specific particulate matter controls to reduce dust emission from Owens Lake.*

Should be "...reduce dust emissions to federal and state ambient air quality standards..."

3-7 Pg1-3, section 1.4: *LADWP has identified an environmentally superior alternative (Avoidance Alternative, Section 5) in order to reduce impacts on significant cultural resources to less than significant levels, and to reduce dust to the maximum extent feasible.*

"Avoidance" will reduce impacts on cultural resources, but does not "reduce dust to the maximum extent feasible".

3-8 Pg1-17, Table 1.2: *Environmental Topic – Transportation and Traffic: under **Impact Discussion**, add description of mud/silt buildup on vehicles which are then driven off the lake bed to populated sites (businesses and homes). Under **Mitigation Measures**, add requirement to remove mud/silt buildup prior to leaving the lake bed.*

3-9 Pg1-18, section 1.6: This section is incomplete and inconsistent. Eight possible related projects are listed. For example, under each heading those same related projects are not consistently addressed with respect to impacts...

**Air Quality:** There is no mention of **Avoidance Alternative** and the affect on cumulative impacts for air quality. However, **Avoidance Alternative** is mentioned under Cultural Resources heading. It should be included in both, as the negative impact for Air Quality may be significant.

3-10 **Biological Resources:** *Similarly, the Owens Lake Groundwater Evaluation Project (OLGEP) is focused on defining groundwater pumping alternatives for dust control that are protective of existing habitat.* OLGEP studies are incomplete. It is too soon to state that this potential project would contribute to positive ("protective") impacts on biological resources. The Bottling Plant expansion is not addressed here. Yet, both or either could have negative impacts on biological resources.

**Hydrology and Water Quality:** *The proposed Phase 7a project is essentially water neutral and will not have any adverse impact on groundwater. Overall, the combined groundwater impact of the proposed project and the related projects is*

3-10

***less than cumulatively considerable.*** This heading does not address OLGEP, which is listed as a related project. However, OLGEP is mentioned under Biological Resources as "protective". If anything, water neutrality combined with groundwater pumping on the west side (Cabin Bar) of Owens Lake bed and on it (OGLEP) may have considerable impact.

**Pg1-20, section 1.7: *The Avoidance Alternative would protect significant cultural resources...***

3-11

Avoidance will not "protect" the cultural resources, as they will be exposed indefinitely to erosion and weathering. Expanded Avoidance Alternative will have the same affects.

**Pg1-21, section 1.10 and Pg2-10, section 2.5: *The objective of the project is to implement dust control measures on Owens Lake to meet regulatory dust control requirements without increasing water commitments.***

3-12

The objective is to mitigate dust to regulatory levels. Mitigation with minimum water use is a goal.

**Pg2-8, section 2.4.1: *Therefore, LADWP has committed to controlling dust on approximately 45 square miles of Owens Lake, 2 square miles more than was required in the 2008 SIP for the OVPA to reach attainment.***

3-13

The commitment is to meet air quality standards in emissive areas caused by LADWP's water exportation; not limited to an arbitrary or estimated area.

**Pg4.4-8 through Pg4.4-23: *The Los Angeles Aqueduct (1904-present) The population of Los Angeles rapidly increased around the turn of the century. By 1904, city managers identified the need for an additional source of water supply. At least five different alternatives were being studied when the City of Los Angeles, and specifically William Mulholland, decided to pursue water from the Owens River. The federal government approved an aqueduct project in 1906. The following year, citizens of Los Angeles approved a bond to purchase more than 135,000 acres of land for water rights, reservoirs, and rights of way (City of Los Angeles, 1916). Approximately 24.5 million dollars in bonds were authorized to pay for the project (Hundley, 2001). Aqueduct construction began in 1908, and by 1913, Owens River water was available in the San Fernando Valley. Originally, four reservoirs, including Haiwee, Fairmont, Dry Canyon, and San Fernando, were completed as part of the first Los Angeles Aqueduct (LAA) to help regulate the flow of water, as well as store, aerate, and control sediment. Not only did the aqueduct bring water to Los Angeles, but it also provided opportunities to generate hydroelectric power. Four principal areas were identified, and in 1910 another bond was passed to raise money for hydroelectric plants: San Francisquito 1 (1914) and 2 (1920, rebuilt in 1928), Haiwee (1927), and San Fernando. Hydroelectric power plants were also installed at Cottonwood Creek and Division Creeks 1 & 2 (1908-1909) to generate electricity for aqueduct construction.***

3-14



- 3-14 This section is sorrowfully incomplete. Fourteen pages are dedicated to Cultural Resources context. Within those, are minute details of Paiute and Shoshone traditions, food, ceremonies and cultural practices. Pages of details with dates and names concerning ranching and mining and building and transportation. Only the above paragraph is dedicated to the Los Angeles Department of Water and Power's entry into the Owens Valley and subsequent impacts. This summary slightly touches upon LA's historic presence from 1904 –1913. This is 100 years shy of "present", as the heading states. The dates and locations of power plants are less significant to the context of cultural resources than are the subjects left out: the City's design of three Indian Reservations to solve LADWP's "Indian Problem" and the desiccation of a 110 square mile lake that is the focus of this DEIR. The placement of the Lone Pine Paiute-Shoshone Reservation within 5 miles of the Owens Lake bed after it and the lower Owens River were converted to a dust bowl are crucial historic events that must be included in this section. These and subsequent water diversions and pumping are socially, culturally, politically and significant to the State of California.
- Pg4.5-2, section 4.5.2: ***The regulatory shoreline is used for analysis, but does not reflect the actual Owens Lake shoreline absent LADWP water gathering activities.***
- 3-15 The "regulatory shoreline" was independently determined to be the level at which Owens Lake would be at the beginning of regulation had not LADWP's water gathering activities diverted flows. (see evaluation by Desert Research Institute).
- Pg 5-4, Table 5-1 **Energy Requirements and CO2 Emissions Associated with Los Angeles Water Supplies (2005):**
- 3-16 Data sources for this table are unclear. The comparisons cannot be made without a realistic definition of how energy is used for the entire process for each option. Also, much of the water in the LAA is gained from groundwater pumping. This process and all the related exploration, maintenance and continued diversions generate CO2 and other GHG emissions. Zero CO2 for water conveyed by LAA does not cover the whole process.
- Pg5-7, section 5.4.1 ***Preserving the site...***
- 3-17 Avoidance does not "preserve" the site or artifacts. Recent surveys revealed cultural remains because the layers of silt above them had blown away over time. Weather and sand continue to erode the ground and scour the artifacts. The area is dynamic, so "preservation" is inaccurate in terms of impacts to the cultural resources.
- Pg5-8, section 5.4.1: ***The overall emissions reductions as a result of the existing OLDMP, together with Phase 8 and the Avoidance Alternative, are expected to be greater than the dust reductions identified in the 2008 SIP. Therefore, the Avoidance Alternative is consistent with the applicable air quality plan for the project area and impacts on the air quality plan will be less than significant. If this alternative is adopted as the proposed action by the Board of Water and Power Commissioners, modification of relevant GBUAPCD Orders may be necessary.***
- 3-18

3-18 LADWP is required to reduce PM10 emissions from below the regulatory shoreline to meet NAAQS and CAAQS regardless of anticipated or estimated mitigation plans. LADWP's responsibility is to the people and environment of the area affected by their water diversions. If the "avoidance" area continues to emit above the standards, the impact on air quality will not be "less than significant".

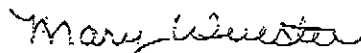
Pg5-11, **section 5.5.2:** (same comment as noted for 5.4.1)

3-19 Pg6-2, **section 6.1.3:** the Owens Lake Master Plan is no longer "broadly supported" due to required inclusions by LADWP of conditions that are neither legal nor environmentally approved. This section should be removed from the Phase 7a EIR.

3-20 Pg6-2 thru 6-7, **section 6.2 Cumulative Impacts:** This section is incomplete, as noted in comments of the summary (section 1). It does not properly evaluate the related projects. The Master Plan cannot be considered a separate project because, if approved, the Plan will include elements demanded by LADWP that are contradictory to this DEIR and cannot be legally authorized by the Planning Committee: Owens Lake groundwater pumping, an end to LADWP's dust mitigation efforts, and a required limit to water use on the lake bed to a specific amount (<50% of current budget). Therefore, potential dust emissions would likely be significant due to an incomplete mitigation to meet NAAQS and CAAQS. The Master Plan is not mentioned under **Air Quality**, but is positively noted under **Biological Resources**. This DEIR does not address OLGEP for impacts under **Hydrology and Water Quality** because it is "not a specific project that has been adopted by LADWP". Possible significant impacts on hydrology due to groundwater pumping with potential for subsidence, reduced spring flow and surrounding well drawdown are not considered. And yet, the OLGEP is noted as having beneficial impact under **Biological Resources** even though it is "not a specific project that has been adopted by LADWP". The Master Plan is not a specific project adopted by LADWP, either, yet LADWP considers groundwater pumping to be a required element of the Master Plan. Water use limitations (<50% of budget) could have significant negative impact on **Biological Resources** if estimated water needs are not adaptable to potential increases as determined by actual habitat health. The Avoidance Alternative is not in the list of related projects, yet it is noted under **Cultural Resources** as "applicable by future related projects" and with positive affects. However, the Avoidance Alternative is not evaluated under **Air Quality** where there may be significant negative impact.

Once again, LPPSR appreciates the opportunity to comment and provide input on the Draft Environmental Impact Report (DEIR) for the Owens Lake Phase 7a Dust Control Measures Project.

Sincerely,



Mary Wuester, Tribal Chairperson  
Lone Pine Paiute-Shoshone Reservation

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #3

Mary Wuester, Tribal Chairperson  
Lone Pine Paiute-Shoshone Reservation  
P.O. Box 747  
Lone Pine, California 93545

- 3-1 References to “Owens Dry Lake” are synonymous with “Owens Lake” or “Owens Lake bed.”
- 3-2 A Planning Committee review draft of the Owens Lake Master Plan has been prepared (December, 2011). Although the document has not been finalized and approved, discussion of the Master Plan is included as a project related to Phase 7a since the concepts contained in the Master Plan are illustrated by the design of Phase 7a (e.g., recreation elements, habitat enhancements, protection of cultural resources, etc.). LADWP incorporated comments received during the Master Plan process into the design of Phase 7a. The HSM (Final EIR Appendix A) was developed in collaboration with the Master Plan Habitat Committee. Future efforts on the Master Plan would not be in violation of current Orders, federal and state laws, the 2008 SIP or agency/entity jurisdictional authorities regarding dust mitigation efforts.
- Please also see responses to comment letter #2 from Audubon Society, specifically response 2-2.
- 3-3 Please see Section 2 of the Final EIR for the current Phase 7a construction schedule. The dates presented are contingent upon approval of the project by the Board of Water and Power Commissioners, receipt of a lease amendment from CSLC, and receipt of permits from other agencies. Based on assumed dates for EIR certification and permit acquisition, the construction period for construction phase #1 is estimated to be from September 2013 to April 2015. Please see Draft EIR Section 2.4.2 for information about the background of the Phase 7a project and delay resulting from circumstances outside of LADWP’s control, specifically, weather and the unexpected discovery of significant cultural resources. Please also see responses to comment letter #9 from GBUAPCD, specifically responses 9-1 and 9-2 regarding delays to the project resulting from CSLC denial of a lease for the former moat and row project, which is now the Phase 7a area.
- 3-4 The regional OVPA, not the Phase 7a project, must attain the NAAQS. Please also see responses to comment letter #9 from the GBUAPCD, specifically, responses 9-2, 9-14, 9-21, 9-23, 9-59, and 9-60.

## Section 3 – Responses to Comments on the Draft EIR

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- 3-5 Please see Draft EIR Sections 4.2.2.1 and 4.2.3.2 regarding classification of the Owens Valley Planning Area as serious nonattainment for PM<sub>10</sub>.
- 3-6 The regional OVPA, not the Phase 7a project, must attain the NAAQS. Please also see responses to comment letter #9 from the GBUAPCD, specifically, responses 9-2, 9-14, 9-21, 9-23, 9-59, and 9-60.
- 3-7 The Avoidance Alternative was identified as the environmentally superior alternative since it would reduce impacts on significant cultural resources to less than significant while providing dust control on approximately 2.3 square miles of Owens Lake that are currently uncontrolled, and at the Tillage BACM test area in T12-1 on approximately 0.3 square miles. This area is considered the maximum dust control area feasible with avoidance of the known significant cultural resources. Please also see responses to comment letter #9 from the GBUAPCD, specifically, responses 9-2 and 9-3.
- 3-8 Stormwater management during construction of the Phase 7a project will require implementation of Best Management Practices identified in a Stormwater Pollution Prevention Plan (SWPPP). Draft EIR Table 4.5-2 includes a summary of anticipated BMPs, including:

- Stabilize construction entrances and exits to control sediment – inspect ingress and egress points daily, and maintain as necessary.

With implementation of the required SWPPP BMPs during construction, mud/silt buildup on construction vehicles driven off the lake will be managed. Please also see revisions to Mitigation Measure Trans-2 (Final EIR Section 2) which will require the construction contractor to install corrugated steel plates to reduce the possibility of trucks tracking dirt onto the highways. Additionally, any debris tracked onto the highways shall be removed in a timely manner.

- 3-9 Draft EIR Section 1.6 provides a summary of the related projects and cumulative impacts considered for the proposed project. Additional detail is provided in Draft EIR Section 6. As noted in Draft EIR Section 5.4.2, the Avoidance Alternative would not include dust control on approximately 350 acres of the Phase 7a area, and these areas could potentially emit fugitive dust. The Draft EIR contains qualitative information regarding the relative PM<sub>10</sub> reductions expected to occur with respect to the Project and each of the designated alternatives. LADWP based its analysis upon the attainment strategy in the 2008 SIP and the GBUAPCD Order No. 101206-01 wherein GBUAPCD determined the installation of dust controls on the 2.03 square miles of the Phase 8 area sufficiently offset PM<sub>10</sub> emissions from the Phase 7a project. The 2.03 square miles exceeds the potential avoided area in each of the alternatives, and therefore, adequately covers the emission potential of leaving the avoided areas in their natural state. The emissions reductions originally

## Section 3 – Responses to Comments on the Draft EIR

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expected in the 2008 SIP can still be achieved if the significant cultural resources sites are avoided.

- 3-10 As noted by the commenter, the OLGEP studies are in progress. Draft EIR Section 6.2.3 states that the OLGEP is focused on defining groundwater pumping alternatives for dust control that area protective of existing habitat. Impact assessment (on groundwater, surface water and/or biological resources) of groundwater pumping alternatives has yet to be completed, however, the focus of OLGEP is accurately stated. Since the Phase 7a project is essentially water neutral and will not have any adverse impact on groundwater, the Phase 7a project does not contribute cumulatively to adverse groundwater impacts, if any, from OLGEP or the Crystal Geysers Roxane Cabin Bar Ranch Water Bottling Plant Project. Note that the Draft EIR for the Bottling Plant Project did not identify any significant and unavoidable environmental impacts. An Owens Lake groundwater development project identified as part of the OLGEP is not part of the Phase 7a project. At this time, Owens Lake groundwater will not be used for the Phase 7a project. In the future, if a groundwater development project is approved, Owens Lake groundwater may replace water supply for Phase 7a and other areas of dust control.
- 3-11 The Avoidance Alternative would protect significant cultural resources from direct impacts from Phase 7a project construction and operations. As noted in Draft EIR Section 5.4.2, the sites would be subject to continued weathering by wind and water. This is a natural process and not an impact of the proposed project alternative. Please also see responses to comment letter #9 from the GBUAPCD, specifically, response 9-7.
- 3-12 As Lead Agency under CEQA for the proposed project, LADWP has defined the project objectives as stated in Draft EIR Section 2.5. Please also see responses to comment letter #9 from the GBUAPCD, specifically, response 9-2.
- 3-13 The regional OVPA, not the Phase 7a project, must attain the NAAQS. Please also see responses to comment letter #9 from the GBUAPCD, specifically, responses 9-2, 9-14, 9-21, 9-23, 9-59, and 9-60.
- 3-14 Please see additional information on Owens Lake history included in Section 2 of the Final EIR.
- 3-15 GBUAPCD has used a regulatory shoreline of 3,600 feet above mean sea level in order to impose dust control requirements on LADWP. LADWP does not agree with Desert Research Institute's conclusion that this elevation is the level at which Owens Lake would be if LADWP's water gathering activities had not diverted flows. Owens Lake's elevation has never been static and the presence of cultural resources below 3,600 shows that these areas were exposed due to natural events.

## Section 3 – Responses to Comments on the Draft EIR

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- 3-16 The data presented in Table 5-1 are based on calculations completed by LADWP staff; therefore the source reference is to LADWP file data. Water conveyance through the Los Angeles Aqueduct is considered to have zero energy requirement since hydro-electric power generated in the system more than offsets energy requirements for groundwater pumping of water into the Aqueduct. The power generated at the hydro-electric plants which is used for groundwater pumping does not generate CO<sub>2</sub> or GHG emissions aside from the emissions from the original construction of the facilities and minor emissions generated by maintenance vehicles and equipment.
- 3-17 Please see response to comment 3-11.
- 3-18 The regional OVPA, not the Phase 7a project, must attain the NAAQS. Please also see response to GBUAPCD comments 9-2, 9-3, 9-14, 9-21, 9-23, 9-59, and 9-60. LADWP's obligations are set forth by Health and Safety Code section 42316, which does not require LADWP to reduce PM<sub>10</sub> emissions from below the regulatory shoreline to meet NAAQS and CAAQS regardless of anticipated or estimated mitigation plans.

Please note that neither the proposed project nor the Avoidance Alternative would be the cause of fugitive dust emissions. The scale of the Phase 7a project would, however, impact the magnitude of the dust control benefit.

- 3-19 Please see response to comment 3-2. The description of the plan as “a document that identifies a vision, broadly supported goals, objectives, actions, and projects to enhance the Owens Lakebed, including dust mitigation, habitat and wildlife, water efficiency, renewable energy resources, and economic interests” is included in the Planning Committee Review draft (Owens Lakebed Planning Committee Charter, Appendix A of the draft Master Plan, page A-2, December 2011).
- 3-20 Per Section 15355 of the CEQA Guidelines, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. The discussion of cumulative impacts focuses on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. Since the Phase 7a project would not have any adverse impact on groundwater (the project is essentially water neutral), detailed assessment of cumulative impacts on groundwater from OLGEP or other groundwater pumping projects has not been conducted for the Phase 7a EIR.

Regarding biological resources, OLGEP is described in the Draft EIR as being focused on defining groundwater pumping alternatives that are protective of existing habitat. That is a stated focus of the OLGEP study, not an assessment that the impacts of the project will be beneficial for biological resources. Environmental assessment of the OLGEP

## Section 3 – Responses to Comments on the Draft EIR

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project would be conducted after definition of the proposed pumping alternatives and prior to construction or implementation of a groundwater pumping program.

The Avoidance Alternative is not a related project; it is an alternative to the originally proposed project as described in Section 3 of the Draft EIR. Since the Avoidance Alternative would prevent direct construction impacts to known significant cultural resources and since there are no significant cultural resources impacts known for the related projects, the cumulative impact of the Avoidance Alternative and the related projects was determined to be less than cumulative considerable. For the projects where cultural resources impacts have yet to be assessed (e.g., OLDMP – Keeler Dunes), it is assumed that cultural resources impacts, if significant, would be mitigated to less than significant levels. Please also see response to comments 3-2, 9-2 and 9-3.

March 14, 2013

Letter #4

Laura Hunter  
Los Angeles Department of Water and Power  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

Dear Ms. Hunter:

4-1 As a group of environmentally concerned students of Loyola Marymount University, we agree with the objective of the Owens Lake Phase 7a project to implement dust control measures on Owens Lake. We commend LADWP for its mitigation efforts. We believe the project will meet regulatory dust control requirements and be beneficial to the communities impacted by the existing air pollution. We also agree with LADWP that the impact on cultural resources after incorporation of feasible mitigation is significant, and that an alternative excluding acreage from the original 3.1 square mile Phase 7a project area is necessary. In the following comment we will present concerns with mitigation measures for impacts to cultural resources and with the Avoidance Alternative with Soil Binder. We will then recommend the implementation of the Expanded Avoidance Alternative.

**Concerns and Questions about Mitigation Measures for Impacts on Cultural Resources:**

4-2 After analyzing the DEIR document we have various concerns and questions regarding the original Phase 7a project. The main concern focuses on the mitigation measures of the proposed project in regards to cultural resources. Mitigation measure CR-1 under section 4.4 (Cultural Resources) states that archaeological sites containing sensitive cultural resource items will be protected by a 100-foot buffer (4.4-42). *How was the size of this buffer determined to be the adequate safeguard distance? Is this buffer an actual physical barrier, as well as depicted on the map? If so, in what form?* Moreover, the DEIR document states that a qualified archaeologist shall prepare maps depicting this buffer and these shall be made available to construction crews (4.4-42). *What will be done to ensure the construction crews read and utilize these maps?* Furthermore, training is set to be provided by a qualified archaeologist, where construction personnel will be “briefed” on procedures in the event of encountering a sensitive resource (4.4-43). *Will this briefing be taking place in the field? Will any kind of simulation training be provided to prepare construction crews for potential discovery of unique resources?*

**Concerns about the Avoidance Alternative with Soil Binder:**

4-3 If an alternative to the proposed project is to be implemented, we have severe reservations about the Avoidance Alternative with Soil Binder. There is insufficient information on soil binder technology to make this alternative a viable option. With limited information on the impacts of soil binders on biological resources (5-20), the risk of implementation is too high without further research. Installing soil binders would require the transportation of heavy equipment over eighteen acres of roadways (5-17), which leaves a significant ecological footprint. This transportation of equipment, as well as road construction over such a large span of land, could



4-3

have significant damaging effects on cultural resources. Cultural resources could also be put at risk as potential looters would be able to easily determine the location of cultural artifacts (5-18). In addition, the required upkeep for soil binders is unknown. The range of temperatures at the lake and heavy rains are predicted to frequently alter the effectiveness of the binders (5-15). Section 5.6.1 states that soil binders will only, “temporarily reduce wind and water-induced erosion of exposed soils” (5-13). This language indicates that soil binders would require unknown amounts of re-application at later times, leading to possibly more negative environmental impacts. For the reasons stated above, we suggest this alternative be removed from consideration.

**Support for the Expanded Avoidance Alternative:**

Our group has concluded that the best solution for dust control on Owens Lake is the Expanded Avoidance Alternative, which removes 410 acres from the original Phase 7a project area. As LADWP states, even with mitigation measures, the proposed Phase 7a project will significantly impact cultural resources in the Owens Valley (1-21). The Expanded Avoidance Alternative achieves the goals of air quality attainment set by the 2008 SIP and represents the best alternative for reducing construction emissions and avoiding the disturbance of biological and cultural resources (5-11 - 5-12).

4-4

Under the Expanded Avoidance Alternative, construction air pollutant emissions (and greenhouse gas emissions) associated with worker travel, construction equipment, and gravel haul trucks would be reduced compared to the original proposed project (5-11). The Expanded Avoidance Alternative would cut emissions by approximately 10 percent (5-11). This reduction is 2 percent higher than that associated with the Avoidance Alternative (5-8). Furthermore, there would be a decreased disturbance to existing biological resources (5-11). For instance, construction activity may impact wildlife through direct disturbance or indirectly through noise pollution (4.3-33). Therefore, we find the Expanded Avoidance Alternative environmentally sound when considering construction emissions and impacts on biological resources.

According to LADWP, the Lone Pine Paiute-Shoshone tribe identified an additional 60 acres (past the 350 acres established in the Avoidance Alternative) as culturally sensitive (5-10). The Expanded Avoidance Alternative was identified in response to Native American concerns that the recent discovery of cultural resource sites on Owens Lake is very important to their people and heritage, and therefore, are worth saving. According to Lone Pine Paiute-Shoshone Cultural Resources Officer K. Bancroft, “This lake has so much history and much of it is already gone, as the lake is being further mitigated, our heritage is being destroyed. Enough is enough” (5-10). Projects in Los Angeles County, such as the Playa Vista Development near Loyola Marymount University, have overlooked the significance of cultural resources, which has been viewed by native tribes as disrespectful. In Playa Vista, the largest cemetery of the Gabrielino-Tongva Native Americans was unexpectedly dug up and removed without formal consultation of the descendents of the tribe (Gibson & King, 2004). Incidences such as this should not be repeated.

We understand that the Expanded Avoidance Alternative was not presented as the environmentally superior alternative, compared to the Avoidance Alternative, because it would achieve less of the air quality control objective of the Phase 7a project (5-23). However, in

4-4

contrast to the Avoidance Alternative, the additional 60 acres of undisturbed area would lead to the further preservation of both biological and cultural resources, as well as the further reduction of construction emissions. Notably, the Expanded Avoidance Alternative accomplishes these goals while still meeting the emissions reductions identified in the 2008 SIP — the central objective of the original Phase 7a project.

We thank you for taking the time to read our comment and answer our questions. We look forward to your response.

Sincerely,  
Kyle Brown  
Jill Dannis  
Andrea Fisher  
Spenser Hart  
Natalie Hernandez  
Dr. Mona Seymour (Supervisor)

Sources Cited:

Gibson, William J., and Chester King. "Skeletons in Playa Vista's Closet." *Los Angeles Times* 20 06 2004, n. pag. Web. 14 Mar. 2013. <<http://articles.latimes.com/2004/jun/20/opinion/op-gibson20>>.

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #4

Kyle Brown, Jill Dannis, Andrea Fisher, Spenser Hart, Natalie Hernandez, Dr. Mona Seymour  
Loyola Marymount University  
University Hall, 4328  
1 LMU Drive  
Los Angeles, California 90045-2659

- 4-1 The students' support for the dust control program and concurrence with LADWP's cultural resources impact assessment are noted.
- 4-2 A buffer area of 100 feet is specified by Mitigation Measure CR-1 in order to prevent inadvertent disturbance to significant cultural resources during project construction. The size of the buffer is an industry standard based on the area of disturbance from construction vehicles and equipment, including turning radius for these vehicles. The location of the buffer will be noted in the field through survey and a marking system. To avoid identifying the locations of significant cultural resources to the public, no physical barriers will be erected. Construction personnel will receive cultural resources awareness training (Mitigation Measure CR-2). The location and field markings related to the environmentally sensitive areas will be reviewed during this training. The training will take place at the LADWP office in Keeler and at the project site on Owens Lake. Construction personnel will be briefed on procedures to be followed in the event that a unique archaeological resource, historical resource, or human remains are encountered during construction. Compliance with Mitigation Measures adopted as part of the Phase 7a project will be enforced by the LADWP Construction Manager.
- 4-3 The students' concerns about the Avoidance Alternative with Soil Binder are noted. Although not part of the Phase 7a project, LADWP is conducting a pilot study to evaluate the dust control efficacy and impacts of soil binders on Owens Lake.
- 4-4 The students' support of the Expanded Avoidance Alternative is noted.



**BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY**

*Big Pine Paiute Indian Reservation*

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(760) 938-2003 · fax (760) 938-2942

www.bigpinepaiute.org

March 18, 2013

Letter #5

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

RE: Draft Environmental Impact Report (DEIR) for the Owens Lake Phase 7a Dust Control Measures Project, prepared by Los Angeles Department of Water and Power (LADWP)

Dear Ms. Hunter:

The Big Pine Paiute Tribe of the Owens Valley (Tribe), a federally recognized Tribe, is submitting these comments on the Draft Environmental Impact Report (DEIR) for the Owens Lake Phase 7a Dust Control Measures Project.

**Overall Comment:**

5-1

The *Avoidance Alternative* and *Expanded Avoidance Alternative* need further analysis. The protection of Cultural Resources and meeting air quality standards to protect the health of Owens Valley residents should not be played against each other; both are equally important. When the significant cultural resources documented by Garcia and Associates as well as the Lone Pine Paiute Shoshone Reservation were discovered, LADWP and Great Basin Unified Air Pollution Control District (GBUAPCD) should have worked together in developing an Environmentally Preferable Alternative which took into account the protection of cultural resources eligible for the California Register of Historical Resources (CRHR) and state and federal particulate matter (PM<sub>10</sub>) air quality standards. The Tribe believes that many of the cultural sites around Owens Lake should be nominated as a Traditional Cultural Property following National Register Bulletin 38, *Guidelines For Evaluating And Documenting Traditional Cultural Properties*, revised, 1998.

5-2

Instead of analysis, there are vague pronouncements in the DEIR such as, "*the Expanded Avoidance Alternative is consistent with the applicable air quality plan for the project area and impacts on the air quality plan will be less than significant*" (p. 5-11) and "*Therefore, the Avoidance Alternative is consistent with the applicable air quality plan for the project area and impacts on the air quality plan will be less than significant. If this alternative is adopted as the proposed action by the Board of Water and Power Commissioners, modification of relevant*

5-2 | *GBUAPCD Orders may be necessary"* (p. 5-8). It is not clear to the Tribe what is meant by, "*modification of relevant GBUAPCD Orders may be necessary*".

5-3 | It is stated on p. 5-11: "*The overall emissions reductions as a result of the existing OLDMP, together with Phase 8 and the Expanded Avoidance Alternative, are expected to be greater than the dust reductions identified in the 2008 SIP. Therefore, the Expanded Avoidance Alternative is consistent with the applicable air quality plan for the project area and impacts on the air quality plan will be less than significant.*" This paragraph needs more explanation because it seems to contradict GBUAPCD orders for dust abatement.

5-4 | The Tribe recommends LADWP analyze the Expanded Avoidance Alternative in combination with specific plans for meeting GBUAPCD's orders for dust mitigation. The results of the analysis should be released for public review in accordance with CEQA.

**Specific Comments:**

5-5 | Other Air Quality concerns. LADWP has stalled in its dust mitigation for the Phase 7a area. The DEIR is unclear with regard to a schedule for this project, but it is apparent there are no actions that will be taken to compensate for the time lag in treating the areas which are currently emissive. The Tribe asserts Los Angeles has a moral and legal responsibility to mitigate pollution from Owens Lake bed. Continued PM<sub>10</sub> exceedances from the Phase 7a and other areas due to continued stalling tactics are unacceptable.

5-6 | There is language in the DEIR, for example p. 1-1, section 1 and p. 1-3, section 1.4, implying LADWP need only "reduce" emissions or exceedances. This language should be changed to reflect the fact that LADWP must manage to comply with federal and state air quality standards. Also, p. 1-21, section 1.10 and p. 2-10, section 2.5 state, "*The objective of the project is to implement dust control measures on Owens Lake to meet regulatory dust control requirements without increasing water commitments.*" The objective is to mitigate dust to regulatory levels. It is not required that water commitments not increase.

5-7 | Page 4.5-3: It is poignant historical irony to note that LADWP water diversions, totaling approximately 30 million acre-feet during the past century, caused Owens Lake to desiccate, yet LADWP leaders have passed a resolution preventing steps that could heal the lake, such as filling it or parts of it, with water.

5-8 | Owens Lake Master Plan. The Owens Lake Master Plan draft as of December 2011 is referenced in this DEIR. It should be noted that the Tribe, Planning Committee members, and others submitted extensive comments on the draft, which, to date, have not been addressed. (The Tribe is not a member of the Planning Committee.) In fact, as of this writing, it appears that the Master Plan is in jeopardy, because LADWP on January 28, 2013, submitted to the Planning Committee a list of items it will require in a final Master Plan. Some of the items ask participating parties to agree to allow LADWP to break laws. Some would allow projects to move forward even if by themselves, or in combination with Phase 7a, significant impacts may result. For example, a requirement for groundwater pumping under or near the lake could lock in a pumping program that subsequently causes land subsidence, adversely affects springs, seeps, private wells, and groundwater dependent vegetation, and results in increased dust emissions

5-8 | from new areas affected by LADWP's water gathering activities. LADWP should reconsider references in this EIR to the Master Plan.

5-9 | Solar Demo Project. The DEIR makes reference to a future five acre, one megawatt solar energy generation demonstration project (Solar Demo) to be placed on gravel on a northeast portion of the Phase 8 area. The Tribe is unfamiliar with this project, and respectfully requests to be informed as soon as feasible.

5-10 | Southern Owens Valley Solar Ranch. The DEIR makes reference to a future large-scale, 200 megawatt solar energy generating facility to be located on approximately five square miles of land in southern Owens Valley. Although a specific site has not yet been identified, the DEIR presents three possible locations. Each of these areas is highly likely to contain sensitive biological and cultural resources, and a project in any of these areas would significantly mar the cultural landscape. Would LADWP propose strict avoidance for their solar ranch project, when such resource issues are encountered or suspected to occur? Regardless, the Tribe opposes large scale power station development in Owens Valley, because rooftop/distributed solar power generation in or near the place of use should be the first priority for utilities that need to meet renewable energy requirements.

5-11 | History and context. This is a lengthy section in the DEIR (pp. 4.4-8 through p. 4.4-23), with details ... until the last 100 years! How can this section claim to justify itself when it does not mention the reason for the lake drying up in a short timeframe due to LADWP's water diversions?

5-12 | **Conclusion:**  
Given the Tribe's position that more alternatives need to be explored in order to accomplish protection of cultural resources and compliance with air quality standards, the Tribe suggests the DEIR be revised and re-circulated once these evaluations are accomplished.

Thank you for consideration of these comments.

Sincerely,



Virgil Moose  
Tribal Chairperson

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #5

Virgil Moose, Tribal Chairperson  
Big Pine Paiute Tribe of the Owens Valley  
P.O. Box 700  
Big Pine, California 93513

5-1 LADWP is required under GBUAPCD Governing Board Order 080128-01 and Governing Board Order 110317-01 (the Abatement Order) to act as lead agency under CEQA for the Phase 7a project. LADWP's determination of the environmentally superior alternative, which includes avoidance on approximately 350 acres, recognizes the importance of protecting cultural resources and complying with the Abatement Order. LADWP has provided GBUAPCD with extensive information about its unexpected discovery of cultural resources during the development and environmental assessment of the Phase 7a project. LADWP expects that it will approve the Phase 7a project contingent on GBUAPCD's approval of a petition to modify the Abatement Order. GBUAPCD has not stated that it is willing to work with LADWP to develop an Environmentally Preferable Alternative. To the contrary, GBUAPCD has indicated that it will consider any project that includes avoidance of the control area identified in the Abatement Order to be in a violation of the Abatement Order. Please see comment letter #9 from the GBUAPCD. LADWP has reviewed alternatives such as soil binders with the goal of maximizing dust control while avoiding significant impacts to known cultural resources. Please see also responses to comment letter #9 from the GBUAPCD, specifically 9-2 and 9-3.

LADWP understands that the tribe may nominate sites as traditional cultural properties.

5-2 The Abatement Order defines the Phase 7a dust control area and requires the implementation of BACM on 3.1 square miles and transition of BACM on 3.0 square miles (the Transition Areas). Implementation of the Avoidance Alternative would require modification of the Abatement Order to reflect the reduction in acreage of dust control. Please see also responses to comment letter #9 from the GBUAPCD, specifically 9-2 and 9-3.

5-3 Please see responses to comment letter #9 from the GBUAPCD, specifically 9-3, 9-5, and 9-60.

5-4 The environmental impacts of the originally proposed project and alternatives (including the Expanded Avoidance Alternative) were analyzed in the Draft EIR that was released for public review. As noted in Draft EIR Section 5.5.2, the Expanded Avoidance Alternative would not include dust control on approximately 410 acres of the Phase 7a

## Section 3 – Responses to Comments on the Draft EIR

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area, and these areas could potentially emit fugitive dust. The Draft EIR contains qualitative information regarding the relative PM<sub>10</sub> reductions expected to occur with respect to the Project and each of the designated alternatives. LADWP based its analysis upon the attainment strategy in the 2008 SIP and the GBUAPCD Order No. 101206-01 wherein GBUAPCD determined the installation of dust controls on the 2.03 square miles of the Phase 8 area sufficiently offset PM<sub>10</sub> emissions from the Phase 7a project. The 2.03 square miles exceeds the potential avoided area in each of the alternatives, and therefore, adequately covers the emission potential of leaving the avoided areas in their natural state. The emissions reductions originally expected in the 2008 SIP can still be achieved if the significant cultural resources sites are avoided.

- 5-5 LADWP is responsible for complying with lawful orders issued by GBUAPCD pursuant to Health and Safety Code section 42316. LADWP has not stalled in its efforts to comply with Phase 7a and the Abatement Order. The Abatement Order provides that LADWP is not in violation of the Abatement Order if it is acting in good faith to comply with the Order but is impeded or delayed as a result of circumstances outside of LADWP's control. LADWP has been actively analyzing the environmental impacts of the Phase 7a project since early 2011. Development of the HSM has been on-going for several years. The discovery of numerous cultural resources within the Phase 7a DCAs has led to detailed investigations, determinations of significance, and review of potential mitigation measures and project alternatives to avoid significant impacts. These investigations were completed to protect resources in compliance with relevant legal requirements. Please see also response to Comment 9-1.

Please see Section 2 of the Final EIR for the current Phase 7a construction schedule. Based on assumed dates for EIR certification and permit acquisition, the construction period for construction phase #1 is estimated to be from September 2013 to April 2015. Please also see responses to comment letter #9 from the GBUAPCD, specifically response 9-2.

- 5-6 The regional OVPA, not the Phase 7a project, must attain the NAAQS. Please also see responses to comment letter #9 from the GBUAPCD, specifically responses 9-2, 9-14, 9-21, 9-23, 9-59, and 9-60.

As Lead Agency under CEQA for the proposed project, LADWP has defined the project objectives as stated in Draft EIR Section 2.5.

- 5-7 LADWP has committed to controlling 45 square miles of Owens Lake, and a cost of over \$2 billion dollars. LADWP has a duty to its ratepayers in addition to its responsibility to comply with lawful orders issued under Health and Safety Code section 42316. LADWP is currently applying approximately 88,694 afy (average) and up to 95,877 afy (dry year) of water to Owens Lake. Phase 7a has been designed to balance the regulatory dust



## Section 3 – Responses to Comments on the Draft EIR

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control requirements without increasing water commitments while maintaining existing habitat, improving aesthetics, providing safe limited public access, preserving cultural resources, and utilizing existing infrastructure and vegetation.

- 5-8 A Planning Committee review draft of the Owens Lake Master Plan has been prepared (December, 2011). Although the document has not been finalized and approved, discussion of the Master Plan is included as a project related to Phase 7a since the concepts contained in the Master Plan are illustrated by the design of Phase 7a (e.g., recreation elements, habitat enhancements, protection of cultural resources, etc.). LADWP incorporated comments received during the Master Plan process into the design of Phase 7a. The HSM (Final EIR Appendix A) was developed in collaboration with the Master Plan Habitat Committee. Future efforts on the Master Plan would not be in violation of any laws.

Regarding groundwater pumping, the OLGEP studies are in progress. Impact assessment (on groundwater, surface water and/or biological resources) of groundwater pumping alternatives has yet to be completed. An Owens Lake groundwater development project identified as part of the OLGEP is not part of the Phase 7a project. Since the Phase 7a project is essentially water neutral and will not have any adverse impact on groundwater, the Phase 7a project does not contribute cumulatively to adverse groundwater impacts, if any, from OLGEP or other groundwater development projects (e.g., Crystal Geyser Roxane Cabin Bar Ranch Water Bottling Plant). Environmental assessment of the OLGEP project would be conducted after definition of the proposed pumping alternatives and prior to construction or implementation of a groundwater pumping program. In the future, if a groundwater development project is approved, Owens Lake groundwater may replace water supply for Phase 7a and other areas of dust control.

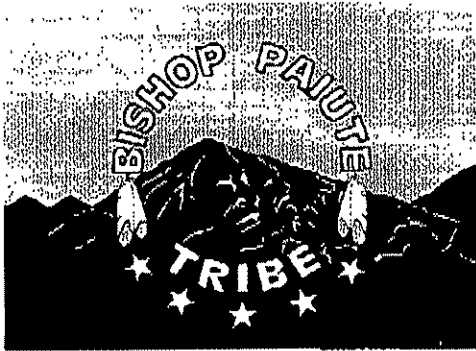
- 5-9 An Initial Study for the Owens Lake Solar Demonstration Project was distributed for public review on March 27, 2013. The Big Pine Paiute Tribe of the Owens Valley was mailed a copy of the document. The document is also available at: [www.ladwp.com/envnotices](http://www.ladwp.com/envnotices).
- 5-10 The northern most location (northeast of Lone Pine) is the currently proposed project site for the Solar Ranch. The specific site plan has been reconfigured to avoid the majority of the known cultural resources. Additional information will be available in the Draft EIR for this project (expected to be released for public review in summer 2013).
- 5-11 Please see additional information on Owens Lake history included in Section 2 of the Final EIR. Please see also response to Comment 3-14.

## Section 3 – Responses to Comments on the Draft EIR

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5-12 No new alternatives were suggested. Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. The Commissioners may adopt the proposed project or one of the project alternatives.

The Final EIR includes additional information to clarify and amplify statements made in the Draft EIR, including additional detail on the HSM. However, since the Final EIR does not identify new significant environmental impacts, add new mitigation measures, or describe new feasible project alternatives, recirculation of the EIR is not required.



# BISHOP TRIBAL COUNCIL

Letter #6

March 18, 2013

Los Angeles Department of Water and Power  
 Attention: Laura Hunter  
 111 North Hope Street, Room 1044  
 Los Angeles, CA 90012

**Subject: Owens Lake Phase 7a Dust Control Measures Draft EIR**

Dear Ms. Hunter,

Thank you for the opportunity for the Bishop Paiute Tribe to submit comments regarding the Owens Valley Phase 7a Dust Control Measures Draft Environmental Impact Report (EIR).

The Bishop Paiute Tribe is concerned with the adverse effects this proposed project will have on the nonrenewable and irreplaceable cultural resources. And the blatant disrespect and disregard toward the local indigenous peoples of the area in particular the Lone Pine Paiute-Shoshone peoples whom have close relatives on both sides of the Sierra Nevada. Furthermore, the Bishop Paiute Tribe is in support of clean air but not at the desecration and damage of nonrenewable and irreplaceable cultural resources.

Review of the Draft EIR and subsequent field trip for further assessment of the proposed project added further clarification.

The Bishop Paiute Tribe is addressing the following concerns/issues. And will seek further clarification with various components of the proposed project. Recommendation to alternative supported.

**Summary 1 - Page 1-11**

Cultural awareness training does not replace the qualified archaeologist or Tribal Cultural Monitors being on site during any and all ground breaking activities. Construction personnel are just construction personnel. A Cultural Resources Monitoring Plan is mentioned where can this Plan be found in its entirety?

- **Recommendation:** Provide Cultural Resources Monitoring Plan.
- **Recommendation:** Tribal Cultural Monitors be on site during any and all ground breaking activities and during the construction of the proposed project.
- **Recommendation:** Ensure that a qualified archaeologist and paleontologist be on site during any and all ground breaking activities and during the construction of the proposed project.

**California Register of Historical Places and National Register of Historical Places:**

The Bishop Paiute Tribe recommends that the sacred sites, tradition cultural properties and cultural artifacts be treated as eligible until such time they are determined ineligible for listing.

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**Summary 1 - Page 1-221.11 AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED****1.11.1 Gravel Cover**

Gravel cover is one of three BACM identified by GBUAPCD as approved for dust control on the lake.

The mines mentioned are the F.W. Aggregate Dolomite Mine and the LADWP Shale Pit.

What are the adverse and visual effects of the area where the gravel is being mined?

Aren't these two quarry sites producing dust also?

Please provide such documentation in reference to the above.

**Recommendation:** Please clarify if these two quarry sites are not adding to the dust control issues and are not causing adverse and visual effects.

The Owens Valley Tribes have experienced desecration and damage to sacred sites, burials, by this the Bishop Paiute Tribe is working closely with legislators regarding sacred sites, burials, spiritual sites and cultural site protected and preserved. It is quite disturbing to see site location numbers incorporated within this document /report.

**Recommendation:** Please reference the numbers of sites being impacted thus removing any and all reference to site by their site number.

After reviewing the Alternatives to the Proposed Project

- No Project
- Avoidance Alternative
- Expanded Avoidance Alternative
- Avoidance Alternative with Soil Binder

The Bishop Paiute Tribe is in support of the Expanded Avoidance Alternative. The 10 known significant cultural resources sites (approximately 350 acres) would not be damaged or destroyed by the construction of this proposed project.

An additional 60 acres would not be damaged or destroyed by the construction of this proposed project.

Should you have any questions or comments please do not hesitate to contact me at the address below or email: [Raymond.andrews@Bishoppaiute.org](mailto:Raymond.andrews@Bishoppaiute.org)

Sincerely,



Raymond Andrews, THPO  
Bishop Paiute Tribe

Cc: Dale "Chad" Delgado, Jr., Chairman Bishop Paiute Tribe  
William Vega, Vice-Chairman Bishop Paiute Tribe  
Anita BigMann, Tribal Administrator  
THPO Files 2013

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #6

Raymond Andrews  
Tribal Historic Preservation Officer  
Bishop Tribal Council  
Paiute Professional Building  
50 Tu Su Lane  
Bishop, California 93514

6-1 The Draft EIR Avoidance Alternative is intended to address the concerns noted by the Bishop Paiute Tribe.

6-2 Mitigation Measure CR-2 requires that cultural resources monitoring will be conducted during construction of Phase 7a, and specifies how the monitoring will be conducted (Draft EIR Section 4.4.11.2). Measure CR-2 requires monitoring by a qualified archaeologist and contact with the Lone Pine Paiute-Shoshone tribe. The measure is standard for construction projects on Owens Lake. Mitigation Measure CR-2 includes:

- The Lone Pine Paiute-Shoshone tribe shall be contacted prior to the start of project construction. Qualified Lone Pine Paiute-Shoshone cultural resources monitors shall be afforded an opportunity to be present during earthwork and excavation activities associated with construction of the Phase 7a project.
- The qualified archaeologist shall monitor ground-disturbing activities, including trenching, grading, and other earth-moving activities, in T1A-3, T1A-4, T32-1, T37-1, and T37-2, as well as in the Phase 8 project area for installation of the water supply pipeline to T37-2. Monitors will move among construction locations as directed by the cultural resources manager and in consultation with the Construction Contractor. Backfilling and removal of previously constructed berms composed of previously disturbed soils will not require monitoring. DCA parcel T12-1 and the Transition Areas (T1A-2\_a, T28N, T28S, T30-1, T36-1\_b, T35-1, and T35-2) were previously disturbed for prior phases of the dust control project. In those areas, it will be up to the discretion of the archaeological monitor, to determine which areas will require monitoring and how frequently. The archaeologist shall coordinate with the construction manager to divert work around the discovery of any potentially significant archaeological resource, if any are encountered. If the resource is determined to be significant, the qualified archaeologist shall prepare and implement a treatment plan in consultation with LADWP. Construction will not recommence in the area until authorized to do so by LADWP and the qualified archaeologist.

## Section 3 – Responses to Comments on the Draft EIR

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Paleontological monitoring is specified by Mitigation Measure CR-6 (Draft EIR Section 4.4.11.2).

Once prepared, the Cultural Resources Monitoring Plan will be distributed to all interested tribal representatives. Additionally, prior to the start of construction, a field meeting will be held at the project site. Native American representatives will be notified and invited to attend the field meeting.

- 6-3 Phase II evaluations and determination of significance of cultural resources known for the Phase 7a DCAs has been completed (Draft EIR Section 4.4.8.5). For the area of project construction disturbance where Phase II evaluation has not been completed, the Access Roadway, artifacts will be treated as eligible until such time as they are determined ineligible for listing. Since design of the improvements for the Access Roadway has not been finalized, the area of construction disturbance and therefore the area of potential impact to cultural resources is unknown. However, as a worst-case assessment, it is assumed that significant cultural resources are present adjacent to the roadway and would be impacted by construction to improve the road. Therefore, to address the Bishop Tribal Council's comment, Mitigation Measure CR-4 is revised as follows:

**CR-4. Unevaluated Resources on the Access Roadway.** A qualified archaeologist shall compare the work area map for the access roadway with the locations of known cultural resources. Cultural resources sites adjacent to the existing roadway that overlap with the work area map shall be avoided. Improvement of the road surface in areas adjacent to cultural resources shall be limited to the existing disturbed area of the roadway. A qualified archaeologist shall review the proposed roadway improvement design and, if warranted, make recommendations for installation of chemically inert geotextile over the existing roadway surface, which will then be capped with a layer of sterile fill soil to protect potentially present subsurface cultural resources. The thickness of the fill soil will be determined by the archaeologist in consultation with a geologist and project engineer to ensure artifacts are not warped or broken by the weight of fill or pressure by heavy equipment. The Lone Pine Paiute-Shoshone tribe shall be consulted during final design of the roadway improvements.

Relevant archaeological investigation permits shall be obtained from the California State Lands Commission. The Lone Pine Paiute-Shoshone tribe shall be contacted prior to the start of archaeological investigations and qualified tribal monitors shall be afforded an opportunity to be present during cultural resources investigations for the access roadway.

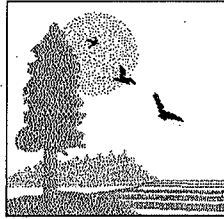
### Section 3 – Responses to Comments on the Draft EIR

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- 6-4 The F.W. Aggregate Dolomite Mine and the LADWP Shale Pit are currently active and permitted mines. The Phase 7a project does not include expansion of these mines or other changes in their current operation. Impacts on air quality and aesthetics from mining operations are reviewed as part of their SMARA permits. Dust regulations of the GBUAPCD would also apply.
- 6-5 Trinomial site numbers for cultural resources are assigned as part of the recordation of sites on California Department of Parks and Recreation (DPR 523) forms. Access to confidential information, which includes site maps and locational information, is restricted to qualified archaeologists, Native American Heritage Commission representatives, and property owners who show proof of ownership. Site location information is not disclosed by listings of numbers as is contained in the Draft EIR.
- 6-6 The Bishop Paiute Tribe's support of the Expanded Avoidance Alternative is noted and will be considered by the LADWP Board of Commissioners as part of the CEQA process before approving any project.

**CALIFORNIA STATE LANDS COMMISSION**

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March 18, 2013

File Ref: SCH #2011051068

PRC 8079.9

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

**Letter #7**

**Subject: Comments on the Draft Environmental Impact Report (EIR) for the Owens Lake Phase 7a Dust Control Measures, Inyo County**

Dear Ms. Hunter:

7-1

The California State Lands Commission (CSLC) staff has reviewed the subject Draft EIR for the Owens Lake Phase 7a Dust Control Measures (Project), which is being prepared by the Los Angeles Department of Water and Power (LADWP). The LADWP, as a public agency proposing to carry out a project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The CSLC is a trustee agency because of its trust responsibility for projects that could directly or indirectly affect sovereign lands, their accompanying Public Trust resources or uses, and the public easement in navigable waters. Additionally, because the Project involves work on sovereign lands, the CSLC will act as a responsible agency.

### CSLC Jurisdiction and Public Trust Lands

7-2

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways (Pub. Resources Code, § 6301). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On navigable non-tidal waterways, including lakes, the State holds fee ownership of the bed of the waterway landward to the ordinary low water mark and a Public Trust easement landward to the ordinary high water mark except where the



boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

7-2

The proposed Project involves the historic bed of Owens Lake, which is State sovereign land under the jurisdiction of the CSLC. In 1999, the CSLC authorized Lease No. PRC 8079.9 to LADWP for construction and operation of dust control measures on the bed of Owens Lake. The lease has since been amended 12 times to allow for dust control measures on more areas of the lake bed. Because the Project is located on sovereign land, CSLC authorization in the form of a lease amendment will be required.

On January 27, 2011, LADWP submitted an application to amend Lease No. PRC 8079.9 for the proposed Phase 7a Dust Control Project. CSLC staff deemed the application incomplete on February 25 and April 12, 2011. Although the submittal of a new lease application is not required, please submit a revised Part II (Project Specific Information) of the lease application to reflect the Project as proposed in the Draft EIR.

### **Project Description**

The LADWP proposes to install dust control measures on 3.1 square miles of the Owens Lake bed and convert 3.4 square miles of existing shallow flood to a hybrid of different dust control measures. According to the Draft EIR, the Project aims to meet the agency's objective to meet regulatory dust control requirements without increasing water commitments while maintaining existing habitat, improving aesthetics, providing safe limited public access, preserving cultural resources, and utilizing existing infrastructure and vegetation.

From the Project Description, CSLC staff understands the Project would include the following components:

- **New Dust Control Areas (DCAs)**. 3.1 square miles of dust control in six DCAs, including:
  - Shallow Flooding in T1A-4 and a portion of T37-2;
  - Managed Vegetation in T32-1 and portions of T37-1 and T37-2;
  - Gravel Cover in T1A-3 and a portion of T37-1; and
  - Tillage Best Available Control Measures (BACM) test in T12-1.
- **Transition Areas**. Conversion of 3.4 square miles of existing dust control in seven DCAs, including:
  - Conversion of approximately 3.2 square miles of existing Shallow Flooding to a hybrid of BACM including Managed Vegetation, Gravel Cover and Shallow Flooding in T1A-2\_a, T28N, T28S, T30-1\_a, T30-1\_b and T36-1\_b; and
  - Conversion of existing Shallow Flooding areas in T35-1 and T35-2 to Gravel Cover

The Draft EIR identifies the Avoidance Alternative, which would avoid constructing dust control measures in areas with identified significant cultural resources, as the Environmentally Superior Alternative.

## Environmental Review

CSLC staff requests that LADWP consider the following comments on the Project's Draft EIR.

### Aesthetics

- 7-3
1. Gravel Cover: Although the Draft EIR identifies aesthetic impacts as "not having the potential to significantly impact the aesthetics of Owens Lake," this is not certain. The aerial photograph of the Phase 8 Gravel Cover on p. 4.1-7 shows a noticeable visual difference between the graveled area and the surrounding terrain. If authorized by the CSLC, final approval of the gravel specifications including color and appearance would be required for the gravel to be placed in Phase 7a.

7-4

The Draft EIR identifies a total of approximately 1.5 square miles of new Gravel Cover (228 acres less under the Avoidance Alternative) in Phase 7a. In the description of the Tillage component, however, the Draft EIR states the 211-acre Tillage area in T12-1 may be treated with Gravel Cover following the 3-year BACM test (p. 3-25). This potential Gravel Cover area should be included in the analysis in addition to the 1.5 square miles or should be eliminated from the project description.

### Air Quality

2. Sand Fences: To reduce dust emissions from construction of the Project, Mitigation Measure Air-1 requires LADWP to prepare a Dust Control Plan (Plan) that specifies best available control measures to implement during Project construction and provides examples of measures that may be included; however, without more specific information on the minimum requirements of the Plan, it is not clear that:
    - (a) The mitigation is sufficient to reduce Air Quality impacts to less than significant; and
    - (b) Whether or not the mitigation itself could have significant impacts on the lake bed.
- 7-5

Pursuant to the State CEQA Guidelines,<sup>1</sup> "formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way" (§ 15126.4, subd. (a)(1)(B)). The Guidelines further require that "if a mitigation measure would cause one or more significant effects...the effects of the mitigation measure shall be discussed..." (State CEQA Guidelines § 15126.4, subd. (a)(1)(D).)

Mitigation Measure Air-1 lacks specific criteria to ensure the Plan, when developed, will be stringent enough to avoid PM-10 emissions that exceed air quality

<sup>1</sup> The State "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

7-5

thresholds. LADWP should identify the criteria the Plan will meet (e.g., implementation of specific best available control measures in specific circumstances, meeting established Great Basin Unified Air Pollution Control District [GBUAPCD] requirements, etc.) to ensure implementation of the Plan would be adequate mitigation for construction impacts.

7-6

In addition to ensuring the Plan provides sufficient mitigation, Air-1 should clarify how LADWP will ensure the Plan's best available control measures, such as sand fencing, do not have unintended significant environmental consequences themselves. More specifically, the EIR should provide information on the design, maintenance and removal, maximum extent and duration, and effects on wildlife movement, cultural resources and scenic vistas. Without restrictions in place, measures such as placement of sand fencing or construction of tillage may disturb identified or undiscovered cultural resources, impact wildlife by impeding movement, or, in the case of sand fences, degrade and become a source of litter on the Lake bed. Details on height and location restrictions, design components and standard practices used to minimize environmental disturbance could assist in this analysis.

### Biological Resources

7-7

3. Prior Amendments to Lease No. PRC 8079.9: Based on CSLC records, it appears there may be prior amendments of LADWP's lease that are conditioned on LADWP maintaining a minimum amount of shallow flood habitat and "buffer areas" in the vicinity of the proposed transition DCAs (formerly, the lake was "zoned" and these areas appear to be in the former "Zone 2"). Also associated with these lease amendments are Lake or Streambed Alteration Agreements (LSAA) with the California Department of Fish and Wildlife. In order for the CSLC staff to consider the EIR's analysis complete, LADWP needs to identify and discuss whether the areas pertaining to these prior commitments will be impacted or compromised by the current Project, and if so, how the proposed Project will compensate for losing and/or altering these areas. CSLC staff further suggests LADWP determine and discuss in the EIR the effects on its LSAA.

7-8

4. Habitat Suitability Analysis: CSLC staff appreciates the considerable effort by LADWP and the Owens Lake Master Plan (OLMP) Habitat Workgroup in designing and refining the Habitat Suitability Model (HSM) to be integrated into the OLMP. As described in the current draft of the OLMP, the HSM "was developed to identify baseline habitat values [expressed as "value-acres"] in the plan area for six habitat guilds: breeding and migrating shorebirds, breeding and migrating waterfowl, diving birds, and meadow species. The HSM is expected to be used during implementation of the Master Plan to assess, plan, and manage existing areas and new projects in order to maintain baseline habitat value over time for the target guilds" (December 2011 Draft OLMP, p. 6-1). Additionally, LADWP staff repeatedly expressed to Master Plan participants the HSM would be applied in Phase 7a to demonstrate the HSM's usefulness in achieving protection and/or enhancement of habitat for the guilds as LADWP implements water conservation and transitions. CSLC staff is concerned, however, that the Draft EIR in its current form, while

providing passing reference to the HSM, does not appear to actually use the HSM's quantitative tools to characterize the relative impacts to the guilds from Phase 7a, nor to demonstrate that habitat values/value-acres will be preserved after completion of Phase 7a.

Discussion in the Biological Resources section of the Draft EIR asserts that Project design features for various of the new DCAs and transitions areas will generally maintain or improve lake-wide habitat for the six species guilds discussed; improvements such as sinuous pond shorelines, habitat islands, salinity control, and increased vegetative cover and diversity, according to the Draft EIR, will make up for any habitat lost from diverting water from and physically altering the seven transition areas. Total shallow flood acres, for example, will be reduced by almost 600 acres, from approximately 2,180 acres to approximately 1,624 acres (from Table 1-1); however, the Draft EIR asserts "the suitability of the habitat for breeding shorebirds, breeding waterfowl, migrating shorebirds, migrating waterfowl, and diving waterbirds will increase (p. 4.3-38). The Draft EIR does not adequately demonstrate whether or how this positive outcome would actually be achieved, measured, monitored, or enforced. These concerns are described in more detail below.

7-8

Although highly technical or specialized analyses and data need not be included in the body of an EIR, the supporting information must be provided for agency and public review as appendices (State CEQA Guidelines, § 15147). Without the ability to consult the underlying basis for LADWP's post-Project habitat value assertions in the body of the EIR, it is difficult to compare transition area bird counts from 2010 with descriptions and areal extents of proposed DCA features that would promote each guild's habitat. The summaries do not provide enough detail to rigorously compare the expected effectiveness of the Project improvements to make up for habitat losses elsewhere in the Project area.

Given the importance of the habitat maintenance objective for a number of responsible agencies and other Owens Lake stakeholders, and given the potential for the Project to provide a case study for the HSM's use in the OLMP, staff requests that LADWP provide more detailed information explaining the basis for the habitat impact analysis. The existing habitat value-acres for the proposed transition DCAs were calculated as part of the HSM, so it appears feasible the anticipated or "committed to" habitat value-acres post-Project could likewise be calculated and presented in the EIR. Without such a technical report or other, more detailed discussion of the expected habitat needs criteria for each guild, and estimated gains and losses from Project implementation, including a clear chart or table illustrating the "before" and "after" value-acres in each cell for each guild, the EIR provides insufficient evidence to conclude the Project would actually attain its stated objectives, including "maintaining existing habitat" (p. 1-2).

7-9

5. "Less Than Significant" Conclusions: Because the Draft EIR does not provide a complete and accurate description of the possible significant effects that could occur to biological resources as a result of the proposed Project, the less than significant conclusion in the Draft EIR for biological resources generally, and for

habitat/guilds specifically, appears unsupported by a clear and logical chain of evidence. As a first step, CSLC staff recommends revising the significance criteria to include specific thresholds related to habitat values; i.e., what amount of loss of habitat value would result in a significant effect that must be mitigated? Framing the significance threshold in this way would facilitate a more robust analysis and provide a specific target against which to measure the anticipated impacts. Additionally, the Draft EIR lacks specific performance standards for such factors as diversity and density of eventual vegetative cover (apart from the necessary minimum density for dust control) and *demonstrated* habitat suitability of transition areas for certain species (as measured by averaged post-construction bird counts or other quantitative means). CSLC staff is particularly concerned about:

- The extensive use of existing wetlands and other habitat in the transition areas for birds migrating along the Pacific Flyway, snowy plover and other wildlife and the Lake's designation by the Audubon Society as an Important Bird Area;
- The significant changes proposed to and removal of existing habitat areas without a comparison of the HSM values to show the before and after conditions; and
- The absence of performance standards for habitat success with built-in contingency measures.

7-9

CEQA requires lead agencies to prepare fact-based, reasoned analyses of all potentially significant effects, and to support their significance conclusions with substantial evidence. There appears to be too much uncertainty and insufficient evidence in the impact analysis to conclude the Project will have less than significant impacts on wetlands and sensitive natural communities and the guilds that those habitats support (also see Comment #4). Although the Project design incorporates habitat features that have been linked with habitat attracting certain species, such as larger ponds attracting diving waterbirds, it is not self-evident from the Draft EIR whether the analysis accounts for *all* of the more influential factors determining habitat suitability, such as habitat connectivity, water salinity, water depth, and interactions among species guilds. These objective, measurable criteria were deemed by the OLMP Habitat Workgroup to be the characteristics of most influence in determining habitat suitability in the HSM; presenting them in the Draft EIR would help improve the analysis and justification for the EIR's conclusions.

With the addition of mitigation measures that detail specific performance criteria for new habitat and steps to be taken in the event the criteria are not met, it is possible that impacts to natural communities could be mitigated to less than significant. Without incorporating such measures as specific, enforceable, feasible mitigation measures, however, impacts to wildlife habitat and guilds are potentially significant. In order to more fully comply with CEQA, this impact should be identified as "potentially significant," add the appropriate mitigation measures and conditions (see e.g., the suggestions below) to Section 4.3.7, Mitigation Measures, and then

analyze whether, if the EIR is conditioned upon the incorporation of those measures, there is substantial evidence to conclude the impact would be less than significant.

To ensure the CSLC in its role as a responsible agency with broad public trust responsibilities can rely on the EIR for consideration of the issuance of a lease, please add an analysis of habitat impacts (as described below). Without such additional information, CSLC staff may be unable to recommend approval of a lease amendment to the CSLC absent supplemental environmental documentation in compliance with CEQA.

7-9

The EIR's analysis of habitat impacts should include a clear and factually-based discussion that demonstrates exactly how the Project will preserve the habitat values for each guild, how success will be defined, measured, and enforced, and what remedial actions will be taken if initial efforts are unsuccessful. Additionally, the EIR should identify and discuss how long it would be until the transition areas are expected to be fully functional, and whether those temporal effects are, or contribute to, a significant effect.

CSLC staff requests that LADWP include in the EIR, as a means to supply the necessary justification for the less than significant conclusion, a table or chart that shows the following:

- Current habitat values (based on the appropriate HSM measurements or indices for the agreed on habitat characteristics) for each DCA;
- Predicted habitat values after construction/implementation of the Project for each DCA; and
- Specific mitigation measures to ensure the habitat functions as predicted/anticipated (e.g., a time horizon for implementation, a monitoring protocol, a commitment to creation/maintenance of a certain number of value-acres for each guild, and an adaptive management/remediation plan).

6. Appendix Reference: Table 4.3-4, on p. 4.3-15, Snowy Plover, far right column refers to Appendix E for additional information on snowy plover; however, Appendix E concerns vegetation. Please include the referenced information in the Final EIR.

Cultural Resources

7-10

7. Unique Archaeological Resources: Although it appears that archaeological resources were first evaluated using the California Register of Historical Resources criteria, the statement on p. 4.4-32 regarding "unique" archaeological resources is confusing. It correctly lists the criteria for a "unique archaeological resource" under CEQA; however the State CEQA Guidelines, section 15064.5 subdivision (c), requires that a lead agency shall *first* determine whether an archaeological site is an "historical resource" for the purposes of CEQA. (*Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 52, 58 (footnote 16) (hereafter

7-10 | *Madera*.) If a site does not qualify as an historical resource, it is then *secondarily* evaluated to determine whether it may be a “unique archaeological resource.” Mitigation requirements for unique archaeological resources are less rigorous than the requirements for archaeological sites that are historical resources.

7-11 | 8. Artifact Curation: Please note the written approval of the CSLC is required for the permanent curation of archaeological and paleontological artifacts from lands under the jurisdiction of the CSLC. Written requests should be submitted to CSLC staff as specified in the applicable permits.

7-12 | 9. Roadway Surveys: Mitigation Measure CR-4, Unevaluated Resources on the Access Roadway, p. 4.4-44 appears to improperly defer the evaluation of these sites. The determination whether the resources are historical resources is mandatory under CEQA and “must be made sometime before the final EIR is certified. (*Madera, supra*, 199 Cal.App.4th at page 53.) It is unclear why these sites have not been evaluated and the results presented in this draft EIR.

### Land Use and Planning

10. Public Trust: Owens Lake is State sovereign land held in trust for the people of the State under the Public Trust Doctrine. This common law doctrine ensures the public’s right to use California’s waterways for navigation, fishing, boating, and other water-oriented activities. Preservation of lands in their natural state to protect scenic and wildlife habitat values is also an appropriate Public Trust use. (*Marks v. Whitney* (1971) 6 Cal.3d 251.) Uses that do not protect or promote Public Trust values, are not water dependent or oriented, and exclude rather than facilitate public access and use are not consistent with the Public Trust Doctrine. The Commission has the responsibility to manage Owens Lake on behalf of the public to protect these rights and values.

7-13 | CSLC staff has expressed its concerns about the use of gravel on the Owens lake bed for over 20 years. It continues to be the CSLC’s position that placement of Gravel Cover on the lake bed does not protect or promote the Public Trust uses and values of Owens Lake (Tenth Amendment of Lease No. PRC 8079.9, section 2(k), 2011); moreover, it precludes future enhancement of public trust values on sovereign lands more permanently than other BACM. As LADWP acknowledged in the lease agreement with CSLC for the Phase 8 Gravel Cover, there is no assurance that future use of Gravel Cover will be allowed (Tenth Amendment of Lease No. PRC 8079.9, section 2(k)).

In addition to the aesthetic impacts discussed above, CSLC staff has repeatedly commented that gravel has “...little or no value in restoring or protecting wildlife habitat...” and “...would eliminate wildlife habitat.” (CSLC Letter to GBUAPCD, dated September 20, 1994; Calendar Item 50, 12/10/10 CSLC meeting, respectively). Gravel Cover also does not facilitate public access and use for public trust purposes.

7-13 The CSLC allowed the placement of 2.03 square miles of Gravel Cover in Phase 8 conditioned on mitigation to offset the loss of public trust enhancement opportunities in the Phase 8 area by depositing funds in the Kapiloff Land Bank Fund to be used "for the acquisition, management, maintenance and improvement of real property located adjacent or within the bed of Owens Lake for the Public Trust purposes of ecological preservation, open space, wildlife habitat and public access" (Calendar Item 50, 12/10/10 CSLC Meeting). The use of Gravel Cover in Phase 7a will be subject to a similar evaluation by CSLC, taking into account all relevant factors, including other components of the Project that may enhance Public Trust uses and values.

While CSLC staff readily acknowledge that reduction in air pollutant emissions from implementation of dust controls will result in an improvement to public health and safety, staff cautions LADWP against asserting the use of Gravel Cover as a dust control measure that results in a "public trust benefit" (Draft EIR Section 4.6.4.1, Public Trust); only the State Lands Commission can make this determination.

### Alternatives Analysis

7-14 11. Comparative Air Quality Impacts: In describing and analyzing the relative impacts of the Avoidance Alternative compared with the proposed Project, the Draft EIR states "the overall emissions reductions as a result of the existing [Owens Lake Dust Mitigation Program (OLDMP)], together with Phase 8 and the Avoidance Alternative, are expected to be greater than the dust reductions identified in the 2008 [State Implementation Plan (SIP)]" (p.5-8). Similarly, in its consideration of the Expanded Avoidance Alternative, the EIR contends that dust control from this Alternative, combined with Phase 8, would also exceed reductions originally identified in the 2008 SIP, but "would not achieve as much of the dust control objective as the original Project or the Avoidance Alternative" (p. 5-12). However, none of the alternatives discussions attempt to otherwise qualify or quantify the difference in particulate matter (PM10) reduction expected from the alternatives as compared with the proposed Project.

Although the differences in expected PM10 reduction among the Project and alternatives may not relate to potentially significant Project impacts, per se, the information is relevant information for a document aiming to disclose the environmental implications of approving a project. It is also consistent with the State CEQA Guidelines, which require that an EIR "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project" (State CEQA Guidelines, § 15126.6, subd. (d)). Without revealing confidential information on the areas to be avoided for each alternative, the Draft EIR should include a table describing the relative level of PM10 reduction each alternative would provide in comparison with the proposed Project.

7-15 12. Comparative Habitat Values: According to the Draft EIR's Alternatives Analysis, the Avoidance Alternative and its variations would have less than significant effects on biological resources, even though the alternatives would result in 100 fewer acres of managed vegetation than the Project. The analysis notes the alternatives would



avoid disturbance of approximately 9 acres of existing desert saltbrush scrub and 4 acres of alkali meadow in the new DCAs, and the Project's habitat improvements in the transition areas would still be constructed; however, the discussion does not explicitly consider how well the alternatives would meet the project objective to maintain existing habitat, particularly when the transition area improvements still contemplate conversion of 330 acres of existing shallow flood to gravel (Table 1-1).

7-15

As discussed above in Comment #4, the transparency of the analysis would benefit from more detailed data on the habitat values the 100 acres of "lost" managed vegetation would likely provide; this information would help reviewers and decision-makers evaluate how well the alternatives attain the stated objectives as compared with the proposed Project (State CEQA Guidelines, § 15126.6, subd. (d)). If it appears upon closer analysis that any of the alternatives would not maintain existing habitat, the Draft EIR should consider whether there are adjustments that can be made in the transition areas, using water intended for the 100 acres of vegetation, to make up for some of the overall habitat loss.

7-16

13. T37-1 Vegetative Buffer: As described in the Section 5 – Alternatives of the Draft EIR, under the Avoidance Alternative, the Expanded Avoidance Alternative and Avoidance Alternative with Soil Binder, none of the 43 acres of Managed Vegetation along the outer perimeter of T37-1 would be established. In meetings last year between CSLC staff and LADWP on the design of the Project, the planned vegetative border was described as providing a visual buffer between public viewers driving along U.S. Route 395 and the extensive area of existing and proposed gravel in the remainder of T37-1, Area A (Phase 8 area), T35-1 and T35-2. As any of the three alternatives would result in unimpeded views of approximately 2.38 square miles of solid gravel expanse from the Route 395, as compared with the Project's proposed buffer, the Alternatives Analysis should consider the relative impacts to the lake bed's aesthetic values if the Managed Vegetation component in T37-1 is removed from the Project. Please also see Comment #1, above.

7-17

14. Soil Binder Option: The Draft EIR concludes the Avoidance Alternative with Soil Binder would not be environmentally superior to the Avoidance Alternative, due to impacts to cultural resources from the construction of supporting roads and potential direct impacts to cultural resources from the soil binder chemicals themselves. The description of soil binder application assumes a spray distance of 100 feet from a fire hose or high pressure cannon attached to a tanker truck, necessitating construction of a network of access roads for complete treatment of the areas. CSLC staff agrees that construction of access roads on five percent of the avoidance area would likely have more intensive impacts on cultural resources than the Avoidance Alternative; however, staff asks that LADWP evaluate the feasibility of a partial-coverage soil binder alternative, in which soil binders are sprayed on the avoidance areas only from existing roads.

Although this would not achieve the level of dust control of the Avoidance Alternative with Soil Binder described in the Draft EIR, it would likely control more than the Avoidance Alternative, without the secondary impacts from construction of new access roads. Moreover, assuming the borders of the avoidance area were

7-17

designed with a buffer between construction activities and cultural resource sites, there would be a reduced likelihood of the binder chemicals contacting and impacting the resources directly. CSLC staff continues to be open to further discussion and investigation into the use of soil binders on the lakebed as an alternative to gravel; even a more limited soil binder alternative may provide valuable data on the effectiveness and impacts of soil binders, which in turn may inform future proposals for use of soil binders. If such an alternative were found feasible, it could provide the impact avoidance advantages of the Avoidance Alternative while better attaining the Project objective to meet regulatory dust requirements.

### Cumulative Impacts

7-18

15. Phase 9: In our comment letter on the Notice of Preparation for the Project, staff requested the EIR "address the potentially significant cumulative impacts of the Project in conjunction with other projects in the area, including, but not limited to, future dust control projects (*Phase 9* and the 'Watch Areas')" (CSLC staff June 24, 2011 Comment Letter, Comment #16, emphasis added). On January 14, 2013, LADWP submitted a Remedial Action Plan (RAP) to GBUAPCD for dust control in the Phase 9 areas which proposes, among other BACM, an additional 3.5 square miles of gravel placement on the Owens Lake bed which, combined with Phase 8 and Phase 7a, would make for more than 7 square miles of gravel. The Cumulative Impacts section of the Draft EIR, however, includes no mention of the Phase 9 project, nor does the discussion consider the potential cumulatively considerable impacts to aesthetics, biological resources, and public trust values that may result from the considerable total acreage of gravel that would be placed in the Phase 7a, Phase 8, and Phase 9 area under current proposals. As it is clear the Phase 9 project is well enough formed to meet the State CEQA Guidelines criterion of "past, present and probable future projects" (State CEQA Guidelines, § 15130, subd. (b)(1)(A)), the Phase 9 project needs to be factored into the Draft EIR's cumulative impacts analysis in determining whether any of the Project's incremental impacts could become cumulatively considerable.

7-19

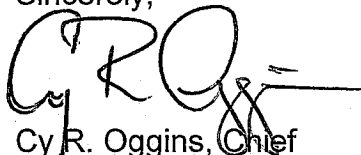
16. Gravel and GHGs: The Draft EIR evaluates the potential significance of the Project's GHG emissions by combining the estimated annual construction emissions (amortized over 30 years) with those associated with maintenance, which assumes annual replacement of 2 percent of the total Project gravel. The EIR then compares this total (1,196 metric tons CO<sub>2</sub> equivalent) with interim or recommended thresholds for industrial projects from both the South Coast Air Quality Management District (SCAQMD) (10,000 metric tons/year) and the California Air Resources Board (CARB) (7,000 metric tons/year). Although the projected amortized emissions from the Phase 7a Project are below both thresholds, the cumulative impacts analysis makes no mention of GHGs or the potential significance of construction and maintenance emissions from multiple, gravel-heavy projects on the Lake bed built within several years of one another. Particularly because the 2010 Mitigated Negative Declaration (MND) prepared for Phase 8 also assumed construction-related GHGs to be amortized over 30 years, and because the gravel portions of

7-19 | Phase 9 project are proposed to be complete by 2016, separate, amortized GHG evaluations for multiple dust control projects occurring within the same amortization period give an incomplete representation of the cumulative contributions of relying on gravel for new and transitioned dust control. The cumulative impacts analysis needs to evaluate dust control-related GHGs over the course of the amortization period, including Phase 9 (see comment #15 above).

Thank you for the opportunity to comment on the Draft EIR for the Project. As a responsible and trustee agency, we request that you address our comments in the Final EIR.

7-20 | Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program (MMRP), Notice of Determination (NOD), CEQA Findings and, if applicable, Statement of Overriding Considerations, when they become available, and refer questions concerning environmental review to Sarah Sugar, Environmental Scientist, at (916) 574-2274 or via e-mail at [Sarah.Sugar@slc.ca.gov](mailto:Sarah.Sugar@slc.ca.gov). For questions concerning CSLC leasing jurisdiction, please contact Drew Simpkin, Public Land Management Specialist, at (916) 574-2257, or via email at [Drew.Simpkin@slc.ca.gov](mailto:Drew.Simpkin@slc.ca.gov).

Sincerely,



Cy R. Oggins, Chief  
Division of Environmental Planning  
and Management

cc: Office of Planning and Research  
Drew Simpkin, LMD, CSLC  
Sarah Sugar, DEPM, CSLC  
Pam Griggs, Legal, CSLC

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #7

California State Lands Commission  
Cy. R. Oggins, Chief  
Division of Environmental Planning and Management  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

- 7-1 California State Lands Commission's (CSLC) role as a trustee and responsible agency is described in Section 2.2.3 of the Draft EIR.
- 7-2 The Draft EIR recognizes that the project will require a lease amendment from CSLC (Draft EIR Section 2.6.5). LADWP will submit a revised part II (Project Specific Information) of the lease application to update information on the proposed project.
- 7-3 From an aerial view taken shortly after installation of the Gravel Cover, the existing Phase 8 area did have a different appearance than the surrounding playa. However, most people will not have an aerial view. Instead, the appearance of the gravel will be viewed from ground level. When viewed in this way, the appearance of the Phase 8 site from adjacent Highway 395 is similar to surrounding areas (Draft EIR Figure 4.1-2). The color of the area is consistent with existing colors on the lake which vary throughout the year. Therefore, the visual impact caused by the use of gravel is less than significant. Overall, the Phase 7a project will increase the vegetated area on the lake, which will have a beneficial aesthetic impact. Gravel is one of the three approved BACMs. According to GBUAPCD, LADWP may select any of the three BACM for dust control. The requirement for a lease amendment from CSLC for the project is noted in Draft EIR Section 2.
- 7-4 If tillage in T12-1 is determined to be effective for dust control, LADWP will coordinate with GBUAPCD to continue tillage after the 3-year test period. However, if dust control efficacy is not documented, tillage will be discontinued and an additional 211 acres of Gravel Cover will be installed (Draft EIR Section 3.1.4). Regarding the aesthetics of an additional 211 acres with Gravel Cover, the T12-1 site is surrounded by existing Shallow Flooding. Views from adjacent SR 190 would not be significantly degraded as compared to views of the exiting Tillage. Please see Final EIR Section 2.
- 7-5 Mitigation Measure AIR-1 has been defined for the project to reduce construction emissions. The fact that the measure currently contains a menu of controls, all of which are considered BACM for construction, does not mean it is deferred. The measure

## Section 3 – Responses to Comments on the Draft EIR

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commits LADWP to implement BACM during construction activities; no other performance standards are applicable. The measures to be implemented are recognized BACM for construction. The final selection of the BACM controls depends upon the final engineering design and construction plans, and GBUAPCD's approval. These BACM measures have been implemented for other similar projects and reduced construction related dust. The Dust Control Plan will be prepared in compliance with GBUAPCD Abatement Order 110317-01 and will be reviewed and approved by GBUAPCD as adequate. Therefore, the Draft EIR concludes that with implementation of mitigation measures AIR-1 through AIR-5 any increase in construction emissions will not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Overall, with installation of additional dust control measures on Owens Lake under the proposed project, the impact on air quality is beneficial.

The Dust Control Plan will detail dust control actions for the main access roads, spoil piles/stock piles and trenching. The Dust Control Plan will be consistent with the engineering specifications which will mandate water sprays not less than three times per day on each main access road and temporary or secondary road that is being used in construction. Water sprays from a water truck will be the primary means of dust control. Control of vehicle speeds and potentially temporary use of sand fences are other construction dust control measures. The mitigation measures do not cause significant impacts.

- 7-6 Additional information on temporary installation of sand fences during construction is provided below in response to CSLC's comment and in Section 2 of the Final EIR. Sand fences were previously used during construction for Phase 7 of the OLDMP.

**Purpose.** Sand fences may be used temporarily during construction in order to limit the movement of sand from construction zones to adjacent areas of the lake bed.

**Design.** Recommendations for sand fence installation during construction are currently under review. At this time, it is envisioned that the Construction Contractor will install a temporary sand fence 5 working days prior to the start of construction activities around the perimeter of T37-2. Use of sand fencing around other construction areas (up to approximately 15 miles of fence) would be optional. The sand fence would be black fabric with 50 percent porosity that is UV stabilized (Model SF-50 from U.S. Fence, or equivalent) and supported by steel T-posts (8 feet in height and driven into the ground to a depth of 4 feet, resulting in 4 feet of height for exposed post). Since the fence will not exceed 60 inches in height, wire or monofilament line across the top would not be necessary to reduce perching by predators (corvids).

## Section 3 – Responses to Comments on the Draft EIR

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**Maintenance.** The temporary sand fence will be maintained and then removed at the completion of construction activities. Sand fences that deteriorate and could potentially create litter on the lake bed will be repaired or removed.

**Impacts.** The impacts of ground disturbance necessary to install dust control on the Phase 7a DCAs are discussed throughout the Draft EIR. Except as noted for T30-1, impacts to biological and cultural resources from construction were assessed based on the assumption of complete ground disturbance of the entire DCA. In T30-1, the 43.5 acre created wetland will not be disturbed and other areas of the DCA will remain vegetated as under existing conditions. Temporary installation of sand fences during construction on the perimeter of the DCAs would not impact additional acreage that was not assessed in the Draft EIR. Under the Avoidance Alternative, sand fencing would not be installed within the boundaries of, or the buffer area associated with, significant cultural resources. Under the originally proposed project, Phase III Data Recovery would be conducted prior to construction activity (including installation of sand fences) in areas with significant cultural resources. Sand fences were previously used in T1A-1 in 2010 as part of Phase 7. Since wildlife do not move across areas with active construction, impacts to biological resources were not observed. Therefore, gaps in the fabric of sand fences to facilitate wildlife movement are not warranted.

7-7 Existing lease conditions related to biological resources are described below in response to CSLC's comment. The areas noted are outside of the Phase 7a project areas and would not be disturbed by implementation of Phase 7a.

**Designated Habitat of 1000 Acres.** CDFW and LADWP entered into Lakebed Alteration Agreement No. R6-2001-060 for the Southern Zone Dust Control Program (SZDCP) because of impacts to the dry lakebed considered by CDFW to be jurisdictional under Section 1600 et seq. of the California Fish and Game Code. CSLC issued an Amendment of Lease PRC 8079.9 (State Lands Lease) for construction and operation of SZDCP components that occur on state land on Owens Lake. Measures were required in these documents to set aside and manage an area that would be dedicated as Snowy Plover and shorebird nesting and foraging habitat in perpetuity. This requirement was based on insufficient data available on the extent of shorebird use of a portion of the SZDCP area in the southeastern portion of Owens Lake.

A Habitat Management Plan (HMP) was completed for this designated habitat in 2004 as part of requirements in the Lakebed Alteration Agreement No. R6-2001-060 with CDFG. This habitat is located in Shallow Flooding DCAs T23NE, T23NW, T23SE, and T23SW, which together cover approximately 1,183 acres. These areas are outside the Phase 7a project area.

## Section 3 – Responses to Comments on the Draft EIR

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**Habitat Shallow Flood of 143 Acres.** 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. Shallow Flooding DCA T4-3 has been designated as this shorebird foraging habitat. The area is outside the Phase 7a project area.

As noted in Draft EIR Section 2.6.5, it is assumed that a Lakebed Alteration Agreement will be required for the Phase 7a project.

- 7-8 A part of the Master Planning process, baseline habitat values were quantified using a collaboratively developed Habitat Suitability Model (HSM). Using the HSM, the Owens Lake Phase 7a Dust Control Measures Project Habitat Value report (Final EIR Appendix A) compares the pre-project habitat value in Phase 7a project areas to post-project habitat value. The habitat value of the potential alternatives is also analyzed.

Using the habitat parameters presented in the report, the habitat value was modeled for each guild in all phase 7a DCA's using the HSM. Average habitat value of each of the Owens Lake species guilds in May and November 2010 within Project DCAs was calculated and compared to projections after completion of the project. Habitat value-acres for each guild are the product of the habitat suitability model output value and the acreage of the DCA. Net changes show maintenance or enhancement of habitat value for all guilds by Phase 7a. Shallow flooding habitat value will come on line quickly after the start of project operations; Managed Vegetation will likely take two growing seasons.

- 7-9 Since significant impacts to biological resources have not been identified (aside from potential construction-related impacts), additional mitigation measures are not required. Significance thresholds based on State CEQA Guidelines Appendix G are appropriate and adequate for this evaluation. However, additional detail on the Operations Plan for the Phase 7a project, including monitoring for biological resources, is provided below.

LADWP has designed the Phase 7a project with maintenance of habitat as a stated project objective (Draft EIR Section 2.5). As part of the Master Planning process, baseline habitat values were quantified using a collaboratively developed HSM. Please see response to comment 7-8 and Final EIR Appendix A.

Monitoring of biological resources on Owens Lake is on-going and will continue under Phase 7a. The annual monitoring program includes surveys for: birds, vegetative cover and plant species (including exotic plants) and salinity. After two growing seasons for

## Section 3 – Responses to Comments on the Draft EIR

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areas of Managed Vegetation, monitoring data will be used to run the HSM. The habitat suitability analysis protocol will be similar to the baseline analysis for pre-project habitat values presented in FEIR Appendix A. Where observed habitat values for each guild after 2 years are below pre-project habitat value, a remediation plan will be developed. Below pre-project conditions is defined as greater than 10 percent below total pre-project habitat value. Note that the habitat values for each guild are the performance standards. The remediation plan will include operational changes (alterations to pond elevation, timing, vegetation planting, etc.) to be implemented to enhance habitat values for specific guilds where values are observed below the pre-project baseline. The remediation plan cannot be prepared now since it is not known what, or even if, variables are going to not meet projections. The assessment of the operational changes will include re-running the HSM one growing season after incorporation of the changes. LADWP is committed to maintaining existing habitat values on Phase 7a DCAs and the results of the monitoring and HSM analysis will be coordinated with stakeholders.

As noted in FEIR Appendix A, post-project conditions for breeding waterfowl, breeding shorebirds, and alkali meadow are anticipated to increase by 24 percent or greater. Monitoring and HSM analysis conducted two growing seasons after Phase 7a project implementation (and thereafter) will serve to quantify these anticipated increases. Habitat value increases may then serve to offset habitat reductions necessary for other dust control efforts in other phases of the OLDMP.

The referenced bird count information has been included as Appendix C of the Final EIR.

- 7-10 Historical resources are resources listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Each archaeological resource was evaluated using California Register of Historical Resources criteria to determine if it qualified as an historical resource. In response to your comment, Draft EIR text in Section 4.4.8.5 has been revised as noted in Section 2 of the Final EIR.
- 7-11 LADWP will submit a request to CSLC for approval of curation of artifacts from the Phase 7a project areas at the University of California, Riverside.
- 7-12 Since design of the improvements for the Access Roadway has not been finalized, the area of construction disturbance and therefore the area of potential impact to cultural resources is unknown. However, as a worst-case assessment, it is assumed that significant cultural resources are present adjacent to the roadway and would be impacted by construction to improve the road. Therefore, Mitigation Measure CR-4 is revised as follows to respond to CSLC's comment:



## Section 3 – Responses to Comments on the Draft EIR

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**CR-4. Unevaluated Resources on the Access Roadway.** A qualified archaeologist shall compare the work area map for the access roadway with the locations of known cultural resources. Cultural resources sites adjacent to the existing roadway that overlap with the work area map shall be avoided. Improvement of the road surface in areas adjacent to cultural resources shall be limited to the existing disturbed area of the roadway. A qualified archaeologist shall review the proposed roadway improvement design and, if warranted, make recommendations for installation of chemically inert geotextile over the existing roadway surface, which will then be capped with a layer of sterile fill soil to protect potentially present subsurface cultural resources. The thickness of the fill soil will be determined by the archaeologist in consultation with a geologist and project engineer to ensure artifacts are not warped or broken by the weight of fill or pressure by heavy equipment. The Lone Pine Paiute-Shoshone tribe shall be consulted during final design of the roadway improvements.

Relevant archaeological investigation permits shall be obtained from the California State Lands Commission. The Lone Pine Paiute-Shoshone tribe shall be contacted prior to the start of archaeological investigations and qualified tribal monitors shall be afforded an opportunity to be present during cultural resources investigations for the access roadway.

7-13 As noted in the Draft EIR Sections 2.6.5 and 2.7.1, LADWP will request a lease amendment from CSLC prior to implementation of the Phase 7a project. Draft EIR Section 2.7.1 identifies Gravel Cover as an area of known controversy. However, LADWP has determined that Gravel Cover will not impede public access, will not create a significant aesthetic impact, and will improve air quality. Gravel Cover is designated as BACM by GBUAPCD. In considering the impact of the proposed project on public trust values of Owens Lake, LADWP has considered the entire Phase 7a project. Improvement of the Phase 7a Transition Areas will improve habitat and aesthetic conditions on the lake as well as provide opportunities for public access and recreation. LADWP has not identified any impacts of the Phase 7a project on aesthetics that are inconsistent with public trust values.

7-14 Please see responses to comments 9-1 to 9-5, 9-19 and 9-61.

The Draft EIR contains sufficient qualitative information regarding the relative PM<sub>10</sub> reductions expected to occur with respect to the Project and each of the designated alternatives. LADWP based its analysis upon the attainment strategy in the 2008 SIP and the GBUAPCD Order No. 101206-01 wherein GBUAPCD determined the installation of dust controls on the 2.03 square miles of the Phase 8 area sufficiently offset PM<sub>10</sub> emissions from the Phase 7a project. The 2.03 square miles exceeds the potential avoided area in each of the alternatives, and therefore, adequately covers the emission potential of

## Section 3 – Responses to Comments on the Draft EIR

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leaving the avoided areas in their natural state. CSLC does not recommend any sufficient methodology to quantitatively analyze the proposed project and alternatives that would be necessary to prepare the suggested table. The Dust ID model cannot be used to quantify the difference in PM<sub>10</sub> reductions expected from the alternatives and proposed project because it is technically flawed and cannot sufficiently link dust from discrete areas to ambient air readings at the ambient monitoring systems. Therefore, LADWP's approach of relying upon the 2008 SIP and Order No. 101206-01 complies with CEQA because CEQA requires only that an EIR include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project. The analysis of environmental effects need not be exhaustive, but will be judged in light of what was reasonably feasible. (*Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1109.) To that end, LADWP, as lead agency, was not required to "conduct every recommended test and perform all recommended research" to evaluate the impacts of the proposed Project, or rely upon the fatally flawed Dust ID model. CSLC acknowledges in its comment that discussion of the anticipated PM<sub>10</sub> reduction among the Project and alternatives does not directly relate to potentially significant impacts and therefore was not required to be included in the Draft EIR.

- 7-15 Please see the Owens Lake Phase 7a Dust Control Measures Project Habitat Value report (Final EIR Appendix A). Overall, the originally proposed Phase 7a project would have the same or slight increased habitat value compared to the Avoidance Alternative. None of the proposed alternatives would reduce habitat value-acres for any guild compared to pre-project conditions.
- 7-16 Under the Avoidance Alternative, Expanded Avoidance Alternative and Avoidance Alternative with Soil Binder, Managed Vegetation would not be established in T37-1 and potential improvements in the aesthetics of the area from a vegetative buffer would not be realized. However, the impact of Gravel Cover in T37-1 on aesthetics is less than significant. Gravel Cover in this area would extend the existing expanse of gravel installed under the Phase 8 project. It would provide an aesthetically more pleasing curved boundary for the gravel as compared with the existing straight boundary in the Phase 8 area. While adjacent to Highway 395 (T37-1 is approximately 0.5 miles east of Hwy 395), based on the flat topography of the area, post-project views of T37-1 from Highway 395 will be similar to surrounding areas. Under the Avoidance Alternative, Expanded Avoidance Alternative and Avoidance Alternative with Soil Binder, the impact on aesthetics will be less than significant even though the benefit on aesthetics would not result from the vegetation in T37-1 included in the original proposed project.
- 7-17 Spraying soil binders from existing roads will reliably provide coverage within the maximum discharge distance of 100 feet. In T37-1 for example, approximately 8 percent

## Section 3 – Responses to Comments on the Draft EIR

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of the area designated for gravel could be covered by soil binders if existing roads are used for access. If application of soil binders in the cultural resources buffer areas is adopted by the Board of Water and Power Commissioners, mitigation measures BIO-6, BIO-7 and WQ-1 would also be implemented (Draft EIR Section 5.6.3).

7-18 Please see responses to comments 9-1 to 9-5, 9-19, and 9-61.

The approximate 3.5 square miles of 2011 Supplemental Control Requirements Division (SCRD) Phase 9 control areas (2.86 square miles of controls and 1.87 square miles of “watch areas”) were ordered by GBUAPCD as part of the 2011 SCRCD based upon data obtained from a flawed and defective Dust ID Model that violates USEPA’s approved air quality measurement standards and fails to account for other emission sources, off-lake sources, construction, vehicle, monitoring and transport activities, and natural events that cause and contribute to violations of the PM<sub>10</sub> NAAQS in the OVPA. LADWP disputes the validity and enforceability of the 2011 SCRCD and has challenged this order in administrative proceedings before CARB and in judicial proceedings that are currently pending before the Sacramento County Superior Court. LADWP had no obligation to include discussion of the Phase 9 controls in the Draft EIR’s cumulative impacts analysis because it is not a probable future project at this time. In order to warrant discussion in the cumulative impacts review in an EIR, a “probable future project” must be pending environmental review and be sufficiently certain to allow for meaningful cumulative impacts analysis. (*Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1127-28 [proposed expansion and development plans of nearby entities were not probable future projects as none of the entities had filed for review with the county planning department, and thus EIR issued in connection with quarry project was not required to include the plans of the nearby entities in its cumulative impacts section, although county may have been aware of the proposed expansion and development plans]; *City of Maywood v. Los Angeles Unified Sch. Dist.* (2012) 208 Cal.App.4th 362, 400.) The 2011 SCRCD is not currently undergoing environmental or any other form of regulatory review so as to trigger the need for discussion in the Draft EIR. LADWP is challenging the legality of the 2011 SCRCD. Therefore, LADWP was not required to include discussion of Phase 9 in the Draft EIR’s cumulative impacts section.

Finally, LADWP submitted the referenced RAP because it was required to do so. The submittal of the RAP does not change LADWP’s position that the 2011 SCRCD was improper.

7-19 The significance thresholds established by SCAQMD and CARB for GHG emissions are thresholds for individual industrial projects. Since specific standards for temporary construction emissions have not been established, project emissions were compared to the

### Section 3 – Responses to Comments on the Draft EIR

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thresholds for individual industrial projects. Amortization of construction emissions over 30 years and addition of operational emissions is part of the calculation methodology recommended by SCAQMD. A similar analysis conducted for the Phase 8 project also found GHG emissions to be below SCAQMD and CARB thresholds. Since GHG gas analysis is by its nature a cumulative impact assessment, the method does not call for addition of predicted emissions from various projects for comparison to the thresholds. Since construction and operations emissions are below individual thresholds for industrial projects, the cumulative impact of GHG emissions on climate change from Phase 7a and Phase 8 would be less than cumulatively considerable. As described in response to comment 7-18, Phase 9 was not included in the cumulative impact analysis for the Phase 7a project.

- 7-20 As requested, LADWP will distribute copies of the Final EIR and the other Phase 7a project documents to CSLC.



State of California - Natural Resources Agency

EDWARD G. BROWN, JR., Governor

**DEPARTMENT OF FISH & WILDLIFE**

Charlton H. Bonham, Director

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**Letter #8**

March 18, 2013

Ms. Laura Hunter  
 Los Angeles Department of Water and Power  
 111 North Hope Street, Room 1044  
 Los Angeles, CA 90012

*Via mail and facsimile (213) 367-4710*

**Owens Lake Phase 7a Dust Control Measures Draft Environmental Impact Report (State Clearinghouse Number: 2011051068)**

Dear Ms. Hunter:

Thank you for providing the California Department of Fish and Wildlife (Department) the opportunity to review and comment on the Owens Lake Phase 7a Dust Control Measures Draft Environmental Impact Report (DEIR) (State Clearinghouse Number 2011051068), hereinafter referred to as the "project". The Los Angeles Department of Water and Power (LADWP) is currently implementing the Owens lake Dust Mitigation Program in order to eliminate exceedances of the federal particulate matter (PM<sub>10</sub>) air quality standard. The proposed project is to control PM<sub>10</sub> dust emissions on the previously identified 3.1 square miles of Phase 7 Moat and Row (M&R) areas (T1A-3, T1A-4, T12-1, T32-1, and T37-2) that have been identified by the Great Basin Unified Air Pollution Control District (GBUAPCD) as emissive. Since implementation of the M&R Dust Control Measure (DCM) is no longer planned, the Los Angeles Department of Water and Power (LADWP) has defined a new project, Phase 7a, to control dust emissions in these identified areas using Best Available Control Measures (BACM), which includes gravel cover, shallow flooding and managed vegetation. Implementation of tillage is also proposed as a BACM test in cell T12-1. To balance water demand related to implementation of these BACM on 3.1 square miles, LADWP proposes to transition 3 to 4 square miles (6 square miles will be evaluated) of existing shallow flooding dust control areas to a Hybrid dust control method, which would include a combination of all three BACM and allow for more efficient water use at Owens Lake.

8-1

The Department is providing comments on the DEIR as the State agency which has the statutory and common law responsibilities with regard to fish and wildlife resources and habitats. California's fish and wildlife resources, including their habitats, are held in trust for the people of the State by the Department (Fish and Game Code §711.7). The Department has jurisdiction over the

Ms. Hunter  
March 18, 2013  
SCH # 2011051068

conservation, protection, and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species (Fish and Game Code §1802). The Department's fish and wildlife management functions are implemented through its administration and enforcement of Fish and Game Code (Fish and Game Code §702). The Department is a trustee agency for fish and wildlife under the California Environmental Quality Act (see CEQA Guidelines, 14 Cal. Code Regs. §15386(a)).

8-1

The Department may also assume the role of Responsible Agency. The Department most often becomes a responsible agency when a 1600 Streambed Alteration Agreement or a 2081(b) California Endangered Species Act Incidental Take Permit is needed for a project. The Department relies on the environmental document prepared by the Lead Agency to make a finding and decide whether or not to issue the permit or agreement. It is important that the Lead Agency's EIR considers the Department's responsible agency requirements. In rare cases, the Department as Responsible Agency may be required to assume the role of the Lead Agency under certain conditions (CEQA Guidelines, section 15052). The Department is providing these comments in furtherance of these statutory responsibilities, as well as its common law role as trustee for the public's fish and wildlife.

8-2

The Department appreciates the effort to use habitat transition designs similar to those discussed in development of the Habitat Suitability Model (HSM) for the Owens Lake Master Plan process. However, the limited level of detail throughout the DEIR fails to provide specific descriptions of habitat transitions and biological resource impacts to determine the final habitat conditions and values for individual Dust Control Areas (DCAs). Although the HSM and Master Plan are referenced in the document, associated criteria measurements are not included in the descriptions of the existing and planned DCAs (e.g. no description of water depth, salinity, seasonal water availability, % vegetated, % island area, vegetation structure, % dry area, microtopographic relief, vegetation richness, and vegetated topographic diversity). Also, HSM criteria, or other similarly detailed habitat descriptions, are not provided for the proposed transition of 3 to 4 square miles of existing shallow flooding DCAs to hybrid DCMs to support the statement in the DEIR that, "With the implementation of the above mitigation measures, project-related impacts on biological resources will be less than significant" (Page 4.3-47)."

In order to determine and calculate the specific impacts and appropriate mitigation for fish and wildlife resources and habitats associated with implementation of the DEIR, which may also be necessary for subsequent permitting by the Department, pertinent information for each DCA should include the specific current conditions and biological resources in each cell in the project, the history of the transition cells and any regulatory documents that pertain to them, and specific details on how impacts will be mitigated for each DCM. For example, the project proposes to change T35-1 and T35-2 from shallow flood to gravel cover. The Department's policy of no net loss of wetland habitat will require this type of specific detail to evaluate potential concerns from project

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implementation in both the DEIR and subsequent review for any associated permits for the project. As written, the DEIR is not clear how this potential loss of wetland habitat will be mitigated either in acreage or value.

8-2

The Department, and other participants in the Owens Lake Master Plan process, had hoped the DEIR would provide an excellent test run of the Habitat Suitability Model approach (HSM) that has been developed to date. We have and continue to support the concept of maintaining habitat value acres and would prefer to see this concept applied to assess and mitigate impacts to biological resources in Phase 7a. Evaluating the biological impacts of Phase 7a using the HSMs would require more detailed information as previously discussed. Also, specifically, current and predicted post-project HSM parameter values for each cell are necessary, including water depth, salinity, seasonal water availability, % vegetated, % island area, vegetation structure, % dry area, microtopographic relief, vegetation richness, and vegetated topographic diversity. This data could then be used to calculate current and predicted post-project habitat value acres for each of the six target guilds; diving waterbirds, breeding waterfowl, migrating waterfowl, breeding shorebird, migrating shorebird, and meadow. Habitat value acres for each guild would then be used to quantify both the impacts and benefits of Phase 7a. Habitat value acreage should also be calculated for any proposed alternatives. The HSM approach also requires that an evaluation process to determine how well projected habitat value acres match post implantation habitat value acres, and also how well the habitat suitability models continue to relate to habitat use by each guild on Owens Lake. This evaluation would require monitoring of parameter values, habitat use by bird guilds and plant composition for the meadow guild. This evaluation should be developed collaboratively with LADWP and the Department.

The Department also has the following comments and questions:

8-3

The DEIR states that, "... existing Shallow Flood areas T35-1 and T35-2..." will be converted to gravel cover. The DEIR should document the specific habitat locations serving to mitigate this conversion in both acreage and value. Although we remain hopeful the Owens Lake Master Plan process can be completed to implement a lake-wide mitigation approach in the future, the DEIR for this Phase 7a should clearly disclose and identify mitigation areas in similar form and function of the T25N cell in perpetuity. LADWP should propose a minimum 1:1 mitigation to impact ratio for these mitigation areas.

8-4

The DEIR discusses potential impacts to shorebirds and waterfowl from the implementation of the project from increased noise and traffic by haul trucks and other construction activities which may cause direct and indirect impacts to shorebird and waterfowl species that use nearby shallow flood cells and associated habitats. Four mitigation measures (Bio-1, Lakebed Worker Education Program; Bio-2, Preconstruction surveys for western snowy plover; Bio-3, Snowy plover nest speed limit; and Bio-4, Lighting Best Management Practices) have been proposed to reduce impacts to biological resources. However, these measures are targeted specifically towards snowy plover. The Department is

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8-4 | concerned that these measures (Bio-1 through Bio-4) do not alleviate potential direct and indirect impacts to all shorebirds and waterfowl within the project boundary to less than significant levels. Further analysis should be conducted and additional mitigation measures identified.

8-5 | These potential impacts may also have long-term consequences as additional gravel and tillage may be required each year for ongoing maintenance. This in turn could result in continued and ongoing disturbance, noise, traffic, etc., for shorebirds and waterfowl utilizing nearby shallow flood cells within the project area and associated haul routes. A maintenance and monitoring plan should also be prepared and should include a proposed operation schedule, the time of year that maintenance is expected to take place, where the annual gravel source will be acquired, and maps identifying proposed locations for maintenance. The monitoring plan should include a survey schedule with a complete analysis of potential direct and indirect impacts on these species during and post-project construction. Mitigation areas in similar form and function of the T25N cell should be identified and preserved if it is determined that use is significantly altered by implementation of the project. LADWP should propose a 1:1 mitigation to impact ratio for these mitigation areas.

8-6 | The Department was unable to determine any specific construction schedule or implementation plan in the DEIR. Transitions within the DCAs which could reduce existing habitat conditions or values for wildlife should be planned as a "last stage" of construction to minimize even the temporary loss of wetland habitat due to project implementation; e.g. transition from shallow flood to gravel should not begin until the shallow flood habitat DCMs and values are in place in perpetuity in similar form and function of the T25N cell to ensure mitigation for transitions to non-wildlife habitat conditions.

8-7 | The DEIR should provide an evaluation of the potential impact of the proposed walkways on biological resources and identify mitigation if habitat use by wildlife is reduced due to human activity. Walkway impacts on nesting birds could be minimized by avoiding known nesting areas or with seasonal closures so that nesting birds are not disturbed. An alternative design which would keep all walkways immediately adjacent to existing and planned public roadways should also be considered.

8-8 | Please consider these additional special status species in the DEIR which have been documented on Owens Lake. The following are state species of special concern: American white pelican (*Pelecanus erythrorhynchos*), long-eared owl (*Asio otus*), black swift (*Cypseloides niger*), Vaux's swift (*Chaetura vauxi*), Le Conte's thrasher (*Toxostoma lecontei*). The bank swallow (*Riparia riparia*) is a state threatened species and the willow flycatcher (*Empidonax traillii*, all subspecies) is a state endangered species. In addition, the American Peregrine Falcon (*Falco peregrinus anatum*) is a fully protected species.



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- 8-9 | The DEIR should provide quantifiable support for the statement: "Project will increase habitat values in the Transition Areas".
- 8-10 | Page 3-13  
Please provide more details on the type and amount of fertilizer to be used.
- 8-11 | Page 3-21  
The gravel staging site is very near if not within the core range of Mohave ground squirrel (*Xerospermophilus mohavensis*). The Department supports using an already disturbed site, but would like to see additional surveys and precautions taken at this site.
- 8-12 | Page 3-21  
Please clarify (ideally on Figure 2-2) the location of the northern gravel staging site.
- 8-13 | Page 3-25  
Please clarify the end project goal for T12-1. If gravel coverage is the end goal, the impact and mitigation for gravel coverage on this cell needs to be considered.
- 8-14 | Page 3-25  
Please clarify that although water neutrality is one of the LADWP's goals, it is not a requirement of dust mitigation projects on Owens Lake.
- 8-15 | The Department also requests LADWP to identify the amount of water anticipated for project construction and annual maintenance activities.
- 8-16 | Page 3-25  
Please identify the water cost for each of the project alternatives in the DEIR, including the cost of implementing the "preferred alternative".
- 8-17 | Page 3-25  
Please provide more details about hybrid "broad beds with furrows." Describe what acreage will this cover and what are the dimensions of the beds and furrows.
- 8-18 | Page 3-31  
Please clarify the location of the northern access roadway.
- 8-19 | Page 4.3-4  
Please provide documentation specific to support the portion of the statement claiming "... no impact from corvids"; e.g. is there data to support that predation by corvids has decreased at Owens Lake.

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8-20

The Department appreciates the opportunity to review and comment on the DEIR and Phase 7a Dust Control project. However, LADWP's findings that the proposed project will have less than significant impacts with mitigation incorporated is not supported by the Department. The DEIR should be amended to address our comments and concerns above, including mitigation components necessary to offset significant impacts. The revised document should then be recirculated for public comment and review. The Department looks forward to working with LADWP to discuss and resolve our concerns.

Questions regarding this letter and further coordination on these issues should be directed to Lacey Greene at the Department of Fish and Wildlife, 407 W. Line Street, Bishop, CA 93514; (760) 872-1128 or [Lacey.Greene@wildlife.ca.gov](mailto:Lacey.Greene@wildlife.ca.gov).

Sincerely,



Bruce Kinney  
Staff Environmental Scientist

cc: Department of Fish and Wildlife  
State Clearinghouse  
State Lands Commission  
GBUAPCD

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #8

California Department of Fish and Wildlife  
Bruce Kinney, Staff Environmental Scientist  
407 West Line Street  
Bishop, CA 93514

- 8-1 California Department of Fish and Wildlife's (CDFW) role as a trustee agency is described in Section 2.2.4 of the Draft EIR. The applicability of a 1600 Lakebed Alteration Agreement for the project is noted in Draft EIR Section 2.6.5.
- 8-2 LADWP has designed the Phase 7a project with maintenance of habitat as a stated project objective (Draft EIR Section 2.5). As part of the Master Planning process, baseline habitat values were quantified using a collaboratively developed Habitat Suitability Model (HSM). Using the HSM, the Owens Lake Phase 7a Dust Control Measures Project Habitat Value report (Final EIR Appendix A) compares the pre-project habitat value in Phase 7a project areas to post-project habitat value. The habitat value of the potential alternatives is also analyzed.

Using the habitat parameters presented in the report, the habitat value was modeled for each guild in all phase 7a DCA's using the HSM. Average habitat value of each of the Owens Lake species guilds in May and November 2010 within Project DCAs was calculated and compared to projections after completion of the project. Habitat value-acres for each guild are the product of the habitat suitability model output value and the acreage of the DCA. Net changes show maintenance or enhancement of habitat value for all guilds by Phase 7a. Shallow flooding habitat value will come on line quickly after the start of project operations; Managed Vegetation will likely take two growing seasons.

Monitoring of biological resources on Owens Lake is on-going and will continue under Phase 7a. The annual monitoring program includes surveys for: birds, vegetative cover and plant species (including exotic plants) and salinity. After two growing seasons for areas of Managed Vegetation, monitoring data will be used to run the HSM. The habitat suitability analysis protocol will be similar to the baseline analysis for pre-project habitat values presented in FEIR Appendix A. Where observed habitat values for each guild after 2 years are below pre-project habitat value, a remediation plan will be developed. Below pre-project conditions is defined as greater than 10 percent below total pre-project habitat value. Note that the habitat values for each guild are the performance standards. The remediation plan will include operational changes (alterations to pond elevation, timing, vegetation planting, etc.) to be implemented to enhance habitat values for specific guilds

## Section 3 – Responses to Comments on the Draft EIR

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where values are observed below the pre-project baseline. The remediation plan cannot be prepared now since it is not known what, or even if, variables are going to not meet projections. The assessment of the operational changes will include re-running the HSM one growing season after incorporation of the changes. LADWP is committed to maintaining existing habitat values on Phase 7a DCAs and the results of the monitoring and HSM analysis will be coordinated with stakeholders.

As noted in FEIR Appendix A, post-project conditions for breeding waterfowl, breeding shorebirds, and alkali meadow are anticipated to increase by 24 percent or greater. Monitoring and HSM analysis conducted two growing seasons after Phase 7a project implementation (and thereafter) will serve to quantify these anticipated increases. Habitat value increases may then serve to offset habitat reductions necessary for other dust control efforts in other phases of the OLDMP.

Regarding wetland habitat, increases in vegetated area on the Lake under the Phase 7a project are described in the Draft EIR Section 4.3.5.5 and Final EIR Appendix A. Increasing the amount of wetland and herbaceous-dominated vegetation on Owens Lake will function to increase nesting opportunities, increase available cover and protection, and directly and indirectly increase food supply for waterfowl. As detailed in Appendix A, the habitat value of the Phase 7a DCAs, including wetland habitat, will increase under the Phase 7a project.

- 8-3 The Phase 7a project includes two new ponds in Transition Area T28 to compensate for the transition of the T35 ponds to Gravel Cover (Draft EIR Section 4.3.5.1). As described in Habitat Value Report, the overall project-related impact on diving waterbird habitat is positive (+ 3.2 percent) (Final EIR Appendix A, Table 19).
- 8-4 The OLDMP has been on-going for more than 10 years. Impacts from the continual construction and maintenance activities on the lakebed to shorebirds and waterfowl other than Snowy Plover have not been documented. Mitigation Measures BIO-4 (Lighting Best Management Practices) will be beneficial for any species occurring in natural vegetation or playa areas (construction lighting if necessary will be shielded away from vegetation and playa areas). Mitigation Measure Bio-5 (Preconstruction surveys for nesting birds) is described in Draft EIR Section 4.3.7 and is applicable for all bird species. Since no significant impacts are predicted, additional mitigation measures for species other than Snowy Plover are not warranted.
- 8-5 Maintenance activities for the existing DCMs are on-going at the lake under existing conditions. Please note that gravel replenishment is not anticipated to be a yearly activity and would only be conducted if dust control efficiency was observed to be impaired.

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Therefore, the schedule and locations for maintenance activities in the Phase 7a areas are unknown. The maintenance of Shallow Flooding DCM will be more frequent and extensive than Gravel Cover and will likely be similar to Tillage although potentially more frequent. With implementation of current measures in the OLHMP and 2008 SIP FSEIR, significant impacts to wildlife have not been documented in these Shallow Flooding areas which have more wildlife use than what is expected in Tillage and Gravel Cover monocultures. After construction of Phase 7a, biological resources present on the additional acreage will be managed in the same manner as the existing DCAs - per the existing Owens Lake Habitat Management Plan (OLHMP). Resource management actions and biological resources monitoring are detailed in the OLHMP. Actions include:

- Measures to minimize wildlife collisions with various motorized vehicles and machinery (speed limits, road closures, worker education, Snowy Plover clearance surveys and reporting of nest status)
- Definition of Snowy Plover nest buffer areas
- Shielding of lighting for work at night
- Corvid Management Plan (refuse management)
- Noxious weed management
- Management of habitat for waterbird nesting and Snowy Plover

Monitoring includes:

- Annual lake-wide Snowy Plover monitoring
- Wildlife morbidity and mortality monitoring
- Lake-wide waterbird monitoring
- Ecological toxicity monitoring
- Noxious weed control monitoring
- Habitat monitoring

Monitoring data are reviewed annually to assess the status of habitat. Management and corrective measures are identified as needed. An annual report is prepared to summarize Owens Lake monitoring data; the report is submitted to CDFW and CSLC.

- 8-6 As noted in Section 2 of the Final EIR, based on assumed dates for EIR certification and permit acquisition, the construction period for construction phase #1 is estimated to be from September 2013 to April 2015. The number of active construction areas and the sequencing of various construction activities will not be specified by LADWP but will be determined by the Construction Contractor. However, the following are the anticipated major construction events. Initially, water to the Transition Areas would be turned off and work would begin on berm construction and other earthwork when soil in each given

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DCA is dry enough to support equipment. Irrigation infrastructure would be installed in the first year, and then Managed Vegetation areas would be prepared and seeded. Initial seeding is anticipated in spring 2015. Gravel Cover would be installed in the second year.

As described in Draft EIR Section 3.1.8.1, the Abatement Order provides that during construction of the Transition Areas, up to 3.0 square miles of the Transition Areas may not be compliant at all times with BACM requirements, with newly vegetated areas likely taking the longest before compliance is re-established. The Transition Areas will not be operational during construction; however wildlife will still have access to over 30 square miles of shallow flooding habitat still in operation. The shifting of use by waterbirds was identified when the T30 and T29 turnouts were being reconstructed and under a variance in 2012 which amounted to approximately 2,300 acres of shallow flooding not being in operation. This acreage not in operation amounted to more than the entire transition area in Phase 7a. Waterbird counts during the Snowy Plover survey that year remained similar to previous years due to increased wildlife use of other operational areas as documented in the 2012 Owens Lake Biological Compliance monitoring report (LADWP, 2012). Areas of Managed Vegetation are anticipated to be compliant with dust control requirements by the end of March 2017. However, the only area currently with substantial alkali meadow habitat value will be maintained during construction; therefore temporary decreases in alkali meadow will be minimal and substantially increase after one growing season. The Abatement Order does not include minimum habitat values for Transition Areas.

- 8-7 As part of the Phase 7a project, elevated boardwalks for pedestrian access are proposed for DCAs T28N, T28S, T30-1 and T36-1\_b. The walkways will be elevated a few feet above the ground surface. Public access is not currently restricted on the lake with the exception of restricted entry to areas under construction to protect public safety and the immediate area around Snowy Plover nests. Elevated boardwalks would provide a greater degree of protection to nesting birds from public disturbance than under existing conditions by directing the public to particular trails compared to undirected recreation. The OLDMP is an actively managed project. Birds using the area are subjected to continual low level disturbance from maintenance activities including vehicular traffic, heavy equipment use, and various work by hand crews. With implementation of current measures these activities have not been found to impact wildlife. The trails are not expected to add significantly to the level of disturbance. Redesign of the boardwalks to areas immediately adjacent to existing and planned public roadways is not proposed since the roadways already provide public access. The boardwalks are intended to facilitate public access to the Transition Areas while protecting vegetation and wildlife. However, public use of the trails will be monitored opportunistically and if patterns of bird use and

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nesting change, trail closure will be considered based on guidelines in the Owens Lake Habitat Management Plan.

- 8-8 Additional information on the species noted is provided below in response to the Department's comments. Please see Section 2 of the Final EIR.

**American White Pelican.** American White Pelicans use Owens Lake as a temporary stopover site in migration. Birds encountered are often seen sleeping or resting. American White Pelicans are limited ecologically by the availability of remote nesting sites and rich foraging habitats (Shuford and Gardali, 2008). The Owens Valley is not within the historic breeding range for this species and there is no available breeding habitat at Owens Lake. In addition, due to the lack of fish in the dust control ponds, the Project Area does not provide foraging habitat.

**Long-eared Owl.** The Long-eared Owl nests in dense woodlands adjacent to grasslands and meadows or shrublands that are used for foraging. No potential nesting habitat will be impacted by the project as no woodlands occur within the Project Area. At T37-2, a small stand of tamarisk and willows with adjacent meadow habitat occurs adjacent to the Project area. This tree stand and a majority of the meadow habitat are outside the project footprint. Of the existing 5.7 acres of meadow habitat, 1.5 acres will be replaced with managed vegetation of increased acreage, cover, and species diversity over existing conditions. Thus there is the potential for temporary disturbance to foraging habitat for this species, if present. Over the long-term, there will be a slight increase in meadow habitat acreage and quality.

**Black Swift.** Black Swifts have unique nesting habitats in that their nesting sites are associated with sheer cliff and waterfalls, often nesting behind waterfalls (Lowther and Collins, 2002). Black Swifts are aerial insectivores and range widely over forested and open areas in montane habitats when foraging (Lowther and Collins, 2002). No nesting habitat exists within or adjacent to the Project area. Black Swifts may occur as a rare migrant or occasional visitor in the Project area.

**Vaux's Swift.** In the summer, the Vaux's Swift is found in coastal California and most commonly in the redwood zone where they nest in tree cavities (Shuford and Gardali, 2008). During migration, they are found throughout California in a variety of habitats. Vaux's Swifts occur regularly in Owens Valley during migration and have been observed over Owens Lake. There will be no impact to nesting habitat for this species as nesting does not occur in this area. Foraging opportunities for this species are abundant and widespread at Owens Lake, and impacts from the project are expected to be minimal.

## Section 3 – Responses to Comments on the Draft EIR

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**LeConte’s Thrasher.** The Special Status for LeConte’s Thrasher only applies to the population of Le Conte’s Thrashers breeding in the San Joaquin Valley of California (DFG Special Animals List, 2011).

**Bank Swallow.** The Bank Swallow is an aerial insectivore that nests in the cavities along the banks of streams and rivers, and feeds over waterbodies, streams and fields (Garrison, 1999). The average height of nesting banks in California is 3.3 meters (Garrison, 1999). There is no nesting habitat for this species in the Project Area and no known colonies near Owens Lake. Bank Swallows occur as seasonal migrants at Owens Lake and as foraging opportunities for this species are abundant and widespread at Owens Lake, impacts from the project are expected to be minimal.

**Willow Flycatcher.** Willow Flycatcher is a riparian obligate species that inhabits riparian deciduous shrubs, particularly willow species (Grinnell and Miller, 1944). Willow Flycatchers are common migrants in the region, and habitats used in migration are generally similar to those used for breeding (Sedgwick, 2000). The Southwestern Willow Flycatcher (*E. t. extimus*) is the subspecies that breeds in Owens Valley and the minimum habitat patch size required is 1.98 acres (USFWS, 2002). There is no nesting or suitable migratory habitat for this species with the Project Area.

**American Peregrine Falcon.** The Peregrine Falcon is a cliff-nesting species that forages in a wide variety of habitats, often in areas of high prey concentrations. There is no nesting habitat for the species in the Project Area. Peregrine Falcons are seen at Owens Lake somewhat regularly. As habitat value acres will be maintained, no long-term impact is anticipated to habitat of potential prey.

8-9 Please see response to comment 8-2 and Final EIR Appendix A.

8-10 The table below summarizes the amounts and type of fertilizers (granular and liquid) anticipated to be applied on the Phase 7a Managed Vegetation areas. Granular fertilizers (rock phosphate and potassium chloride) would be applied during seeding (once). Liquid fertilizers (potassium nitrate and UAN-32 or AN20) would be applied twice a year after early plant establishment (typically after one growing season). Potassium nitrate may or may not be used depending on soil conditions. Either UAN-32 or AN20 (both are nitrogen fertilizer solutions – urea, ammonium nitrate) may be used depending on its availability and costs.

Scenario	Single Application	Split Application (2x per yr)
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	(350 lb/ac)	(55 lb/ac)	(26 gal/ac)	(6.5 gal/ac)	(6.4 gal/ac)
	Required	Required	Optional*	Required**	Required**
	Rock Phosphate	Potassium Chloride	Potassium Nitrate	UAN-32	AN20
Originally Proposed Project	279.2 tons	43.9 tons	41,480 gal	10,370 gal	10,210 gal
Avoidance Alternative	258.4 tons	40.6 tons	38,390 gal	9,598 gal	9,450 gal

\* Potassium Nitrate (optional) may be applied depending on soil sampling and soil conditions

\*\*Choose between UAN-32 OR AN20

- 8-11 The most northern extent of documented Mohave ground squirrel occurrence is in Olancha. Since the proposed Phase 7a staging area is north of Olancha, and since the species would not be expected to use heavily disturbed playa habitat that was previously scraped and used as a staging area for multiple previous phases, additional surveys for this species are not warranted.
- 8-12 The northern vehicle and equipment staging area is the same area used for Phase 8 construction as well as for earlier dust control phases. The location is noted on Draft EIR Figure 3-8.
- 8-13 A BACM Tillage test will be conducted in T12-1. If after 3 years, the efficacy of tillage for dust control has been demonstrated, LADWP will work with GBUAPCD to establish Tillage as an approved BACM and tillage will continue in T12-1. If the dust control efficiency of tillage is found to be insufficient, LADWP intends to install Gravel Cover on T12-1. Under existing conditions T12-1 is being tilled. Under the Phase 7a project, an irrigation system may be installed. Since existing biological resources values of the DCA are limited by ongoing tillage, mitigation for biological resources if Gravel Cover is implemented in the future, is not warranted. Please see Final EIR Section 2 and Appendix A).
- 8-14 The 2008 SIP's attainment strategy provides that, by achieving 11 percent reduction in PM<sub>10</sub> emissions per year, the installation of approved BACM on 43 total square miles (Phases 1-7) will bring the OVPA into attainment with the PM<sub>10</sub> NAAQS by March 23, 2017. There are three types of approved BACM under the 2008 SIP: (1) shallow flooding; (2) managed vegetation; and (3) gravel blanket. LADWP is also currently in the process of evaluating the use of Tillage as BACM (which has been previously approved as an interim measure by GBUAPCD). The Shallow Flooding and Managed Vegetation BACM are water-intensive BACM while Gravel Cover and Tillage are not. For those areas that LADWP is lawfully required to control pursuant to the 2008 SIP and/or other

## Section 3 – Responses to Comments on the Draft EIR

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valid GBUAPCD orders, LADWP has the discretion to implement any one or combination of the approved BACMs. (2008 SIP, Section 5.1)

The emphasis on less water-intensive BACM is a reflection of the limited amount of water available for Owens Lake dust mitigation. LADWP cannot meet its municipal needs and also support the ever increasing diversions of water required by GBUAPCD for Owens Lake dust controls. The 2010 LADWP Urban Water Management Plan allocates a total of 95,000 afy of potable water for Owens Lake dust mitigation. (2010 UWMP, § 5-3, Exh. 5-E.) This is water that would otherwise be used for municipal purposes to supply LADWP's more than four million customers. In order to decrease water use on Owens Lake consistent with the goals of GBUAPCD and LADWP, the Abatement Order allows for existing Shallow Flood controls as described to be transitioned to any combination of the three approved BACM measures (Managed Vegetation, Shallow Flooding and/or Gravel Cover) in order to provide a water supply for the 3.1 square miles of Phase 7a areas.

Please also see response to comment 9-58.

- 8-15 During construction, depending on weather conditions, an average of three water trucks with a capacity each of 4,000 gallons will be used; it is anticipated that each truck will be filled four times each day. Based on an estimated 19 month schedule for construction phase #1 (approximately 400 workdays), 19 million gallons of water will be used during construction. For maintenance purposes, one water truck will be used and filled twice per day for a total annual water use of approximately 2 million gallons.
- 8-16 Project costs are not presented in the CEQA document. Note that costs related to water use would be very similar between the originally proposed project and the Avoidance Alternative. The Avoidance Alternative would use slightly less water since Managed Vegetation would not be constructed around the western edge of T37-1.
- 8-17 Based on the current design, the broad bed schedule is described below and included in Section 2 of the Final EIR.

**Broad Bed Schedule**

Site	Soil Type	Broad Bed Width	Furrow Width	Furrow Depth	Center Spacing for Irrigation Device
T1A-2a	Sandy	24'	6'	18"	60'X40'
T36-1b	Sandy	24'	6'	18"	60'X40'
T32-1	Sandy	39'	6'	18"	45'
T37-2	--	39'	6'	--	45'
T28N/S	--	22'	6'	16"	45'

Note: Furrows that start of end nearest to berm/road culverts or spillways will be lined with non-woven geotextile and 4" thick, 3" Gravel Cover.  
--- information pending

### Section 3 – Responses to Comments on the Draft EIR

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- 8-18 The specific location of the Access Roadway has been omitted from the Draft EIR for the protection of cultural resources. LADWP will contact CDFW staff to discuss this project location confidentially.
- 8-19 The determination that dust control activities have been beneficial to Snowy Plover and have not increased impacts from corvids is based on the observed increase in Snowy Plover populations since implementation of DCMs on the lake. The decrease in corvid nesting habitat and lack of increase in corvid population numbers are documented in the annual biological monitoring reports for Owens Lake.
- 8-20 LADWP will continue to coordinate with CDFW regarding the Phase 7a project.

Please note that based on comments received on the Draft EIR, significant new information has not been added to the document. The Final EIR includes clarifications and minor corrections. However, new significant environmental impacts or new mitigation measures which would result in significant environmental impacts have not been identified. Therefore, recirculation of the EIR is not required or proposed.



## GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

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March 18, 2013

Letter #9

Ms. Laura Hunter  
Environmental Planning and Assessment  
Los Angeles Dept. of Water & Power  
111 North Hope Street, Room 1044  
Los Angeles, California 90012-2607

Subject: Owens Lake Phase 7a Dust Control – Draft Environmental Impact Report – Comments

Dear Ms. Hunter:

9-1

The Great Basin Unified Air Pollution Control District (District) has reviewed the Draft Environmental Impact Report (DEIR) for the Owens Lake Phase 7a Dust Control Measures Project (SCH #2011051068). These comments are provided by the District in its capacity as a Responsible Agency pursuant to the California Environmental Quality Act (CEQA). The District is a Responsible Agency, as defined in Section 15381 of the State CEQA Guidelines. The Los Angeles Department of Water and Power's (LADWP's) Phase 7a project is required to be completed pursuant to the 2008 Owens Valley PM<sub>10</sub> Planning Area Demonstration of Attainment State Implementation Plan (SIP), to achieve attainment for PM<sub>10</sub> for the Owens Valley Planning Area, pursuant to the National Ambient Air Quality Standards (NAAQS). Due to delays in LADWP completing the work required pursuant to the 2008 SIP, the District issued an Abatement Order to LADWP defining the parameters for demonstrating attainment of the PM<sub>10</sub> for the Phase 7a portion of the Owens Valley Planning Area. The District has the authority to determine compliance for the PM<sub>10</sub> emissions pursuant to the NAAQS.

9-2

Although the District has a number of detailed comments on the DEIR, which are presented below, the District has a major concern that must be addressed by the LADWP before its Board of Commissioners approves the document and moves forward with the Phase 7a dust control project. The DEIR concludes that the "environmentally superior alternative" (pgs. 1-20 and 5-23) is the "Avoidance Alternative." LADWP claims this alternative will avoid impacts to cultural resources by not constructing dust controls on 350 acres of the 3.1 square-mile (1,984-acre) project area. However, as emissions from the uncontrolled lakebed areas would continue to cause and contribute to public health threatening exceedances of both state and federal fine dust air pollution (PM<sub>10</sub>) standards, failure to adequately control emissions from within the Phase 7a project boundary will result in a project that does not meet state and federal ambient air quality

9-2 standards. The District has determined that, based on previous air quality data collected in the Phase 7a “avoided” areas, exceedances of the federal standard of nearly eight times the federal standard are expected to occur if all Phase 7a areas are not adequately controlled (see analysis on page 21, below). In addition, the Avoidance Alternative does not meet the LADWP’s own stated objective for the project: “to meet regulatory dust control requirements” (pg. 1-2). In fact, three of the five alternatives evaluated by LADWP fail to meet the NAAQS for PM<sub>10</sub> and therefore should not be carried forward for consideration.

## GENERAL COMMENTS

### Violation of approved Plans and Orders

9-3 In addition to causing exceedances of PM<sub>10</sub> standards, any alternative that does not sufficiently control emissions from the entire 3.1 square-mile project area, will violate the state-approved 2008 SIP, the federally-approved *2010 Coso Junction Maintenance Plan* (CJMP) and the 2011 Stipulated Order for Abatement (SOA) entered into by the LADWP and the District. These would be serious violations of federal, state and District requirements that must be addressed before the EIR is approved and the Phase 7a project goes forward. Failure to deploy effective PM<sub>10</sub> controls on the 350 avoided acres will result in ongoing penalties of \$5,900 per day (\$2.15 million/year) until the 350 acres is controlled. The LADWP agreed to be subject to these “daily excess emission offset payments” in the 2011 SOA (para. 11).

9-4 LADWP attempts to address the conflict between its DEIR and existing air pollution control Orders by stating “The Abatement Order can be modified to address any necessary changes to the project that was [sic] anticipated in the Order” (pg. 2-8), “Modifications to the Abatement Order will be required to implement the adopted Phase 7a project” (pg. 2-13), and “Modifications to other Board Orders may possibly be required to implement the adopted Phase 7a project” (pg. 2-13). Resolving the serious conflicts between the LADWP’s proposed project and existing orders is not as simple as modifying the regulatory Orders. The 2008 SIP has been approved by the State of California and the 2010 CJMP has been adopted by the USEPA. Removing required control areas from these plans and allowing emissions to continue would be a relaxation of the requirements and would not be legal. The District does not have the ability to relax the Phase 7a requirements. This is a significant defect in the DEIR and in the LADWP’s proposed project that can only be resolved by controlling all Phase 7a areas such that PM<sub>10</sub> exceedances are controlled.

9-5 The DEIR appears to dismiss the conflict between the Avoidance Alternative and existing air pollution control requirements by stating “LADWP has committed to controlling dust on approximately 45 square miles of Owens Lake, 2 square miles more than was required in the 2008 SIP for the OVPA to reach attainment” (pg. 2-8). This statement seems to infer that all emissive areas are equivalent and that by controlling areas beyond the Phase 7a boundaries, LADWP’s obligations are somehow met and the lake bed will somehow be controlled. This is incorrect. The 2008 SIP’s required control areas (including all Phase 7a areas) were based on data collected until June 30, 2006. In the more than six years since then, the District has collected a considerable amount of additional data that clearly indicate additional areas, beyond the 43 square miles required in the 2008 SIP, require controls. The two square miles in the Phase 8 gravel project and the 3.6 square miles in the 2011 and 2012 Supplemental Control Requirement

9-5 | Determinations are evidence of this. The LADWP cannot meet its Phase 7a obligations by controlling emissions that occur elsewhere.

Conflict between air pollution control and cultural resource protection requirements

9-6 | The LADWP attempts to use a desire to avoid cultural resources as justification for not controlling 350 acres of emissive Owens Lake bed. However, nothing in the DEIR describes the authority that elevates protection of cultural resources above the local, state and federal air pollution control requirements, nor is there a discussion of how LADWP is able to simply ignore mandatory air pollution control and public health protection requirements. LADWP seems to believe the mere presence of cultural resources on state land somehow trumps the requirements of federal Clean Air Act, the state-approved 2008 SIP and the federally-approved 2010 CJMP. LADWP also seems to believe the presence of cultural resources relieves it of the obligation to meet the terms of the SOA it entered into with the District in 2011. The District also notes that none of the Notice of Preparation comment letters or the March 13, 2013 Phase 7a DEIR comment letter submitted by the Lone Pine Paiute-Shoshone Tribe make mention desires of local tribes to avoid public-health protecting air pollution controls on the 350-acre avoidance area. The LADWP’s position is not supported by evidence in the record. The EIR must discuss these issues in detail.

9-7 | Regardless of the legal requirements, given the extreme conditions on these areas of the highly emissive Owens Lake bed, “avoidance” of cultural resources cannot be considered “protection” of cultural resources. Not only will the existing resources be subjected to high levels of ongoing environmental degradation, but “bulls-eyeing” resource areas by surrounding them with dust controls will likely subject them to looting and/or unintentional human degradation. The LADWP neglects to discuss any actual protection in the DEIR.

Project schedule

9-8 | There is no indication in the DEIR, or in any other LADWP correspondence with the District, as to what the schedule for the Phase 7a project is. The SOA requires all controls, except the T12-1 till test area, to be in place and operational by December 31, 2013. Project timing and completion dates should be presented.

Tillage test area alternatives

9-9 | With regard to the T12-1 Tillage test area, the LADWP is reminded that it is a temporary test area and that an approved Best Available Control Measure (BACM) must be in place on this area by December 31, 2015. The EIR should address an alternative to Tillage in this area in case the test is unsuccessful and must be replaced by an approved BACM. In addition, in the Project Description for the T12-1 Tillage Area, LADWP states that “the existing Tillage would be augmented with irrigation” (pg. 3-24). This is also a required component of the Tillage Test Operations Plan (LADWP, April 1, 2011), yet the irrigation system is not in place.

Transition areas

9-10 | The DEIR proposes that the LADWP will transition 3.4 square miles of existing Shallow Flooding dust control areas to Gravel Cover or Hybrid BACM. The 2011 SOA limits transition areas to “approximately 3.0 square miles” (SOA, para. 1). The use of one digit after the decimal means the maximum allowable transition area is 3.04 square miles. The LADWP’s proposed

9-10 project violates the current requirements of the SOA. However, in the interest of reducing water use on the lake bed, District staff would support a modification to the SOA that would allow up to 3.4 square miles of existing Shallow Flood areas to be transitioned to less water-intensive controls as part of the Phase 7a project. This complies with the District's commitment in Paragraph 15 of the SOA: "The parties commit to work cooperatively to support [LADWP's] efforts to develop and implement new PM<sub>10</sub> control measures or modify existing measures that are as water-use efficient as possible." The SOA modification must take place before work on Phase 7a begins and the LADWP will be expected to "take 'Reasonable Precautions' to control [PM<sub>10</sub>] emissions to the extent practicable during construction of the Transition Areas" (SOA, para. 8).

#### Air quality

9-11 The air quality regulatory framework section (Sec. 4.2.2) makes no mention of the federally-approved 2010 Coso Junction Maintenance Plan and its requirements as they relate to the Phase 7a controls. This federally-enforceable plan requires control of the Phase 7a areas such that PM<sub>10</sub> exceedances at the regulatory shoreline are eliminated. In addition, the 2008 SIP is not discussed in the state regulations section. The 2008 SIP has been approved by the state and is enforceable by the state (and the District) under state law. The requirement to control all Phase 7a areas comes under the provisions of this law.

Table 4.2-3 "Air Quality Data for the Owens Lake Area (2007-2011) does not list the state PM<sub>10</sub> standard exceedances at most of the District's monitoring stations. This information is available upon request from the District. In addition, the table only lists the Olancha, Dirty Socks and Lone Pine monitoring stations. Data related to emissions from the Phase 7a areas are also available for the North Beach, Lizard Tail, Keeler, Mill Site, Flat Rock, Shell Cut, Stanley and Coso Junction PM<sub>10</sub> monitoring stations. This data is also available upon request.

9-12 The air quality impacts section (Sec. 4.2.5) incorrectly states that "control of 43 square miles of the Owens Lake bed will result in the OVPA achieving attainment of the PM<sub>10</sub> NAAQS by 2017" (pg. 4.2-10). This conclusion is based on a data set that ended on June 30, 2006. Data collected subsequent to 2006 indicates that 48.6 square miles of controls are currently required to attain the NAAQS. The EIR should be updated to reflect the most current information.

9-13 On page 4.2-12, the DEIR states that "the proposed project will be implemented in compliance with the SIP as modified by the relevant GBUAPCD Orders." This is incorrect. Failure to control emission from the 350-acre avoidance area will not comply with SIP or SOA requirements and will subject the LADWP to excess air pollution emission payments of \$5,900 per day until all areas are controlled. Failure to deploy controls in all required areas will also subject LADWP to additional enforcement actions. The DEIR also states, "the project is consistent with the applicable air quality plan for the project area and impacts on the air quality plan will be less than significant" (pg. 4.2-12). This is also incorrect. Failure to control emissions from the 350-acre avoided areas will result in significant continued violations of state and federal PM<sub>10</sub> standards. These are significant impacts and must be addressed in the Final EIR.

9-14 Section 4.2.5.3, "Nonattainment Pollutants" should discuss failure to attain the PM<sub>10</sub> NAAQS should the 350 acres of proposed avoided areas not be controlled.

Cultural resources

9-15

On page 1-21, the DEIR states: “Implementation of a Phase III data recovery program for the significant cultural resources sites locates in the Phase 7a DCAs is not identified as feasible mitigation for the project.” The LADWP provides no basis for this statement and it provides no analysis to support it. Related to this on page 4.4-39, the DEIR states: “mitigation for impacts to the 10 CRHR-eligible resources identified in the Phase 7a DCAs has not been identified.” There is no basis for this statement and LADWP provides no evidence or analysis to support the claim. The claim is again made on page 4.4-42. Given the fact that the LADWP uses this unsupported (and likely incorrect) conclusion to avoid meeting federal, state and local air pollution control requirements, the DEIR is seriously deficient and this issue must be addressed in the Final EIR.

9-16

On page 4.4-29, the DEIR states “The [Lone Pine] tribe recommended avoidance of cultural resources.” This “recommendation” does not appear in the record. Further, on page 4.4-40, the DEIR states “Site avoidance and in-situ preservation is supported by local tribes.” There are no comments from the Lone Pine Paiute-Shoshone Tribe, or any other local tribe, in the Notice of Preparation Comments and the DEIR comment letter from the Lone Pine Tribe dated March 13, 2013 makes no such recommendation. All discussion of cultural resource avoidance in the DEIR seems to come from one member of the Lone Pine Tribe. There is no indication that she officially represents the position of her own tribe, much less that she represents the viewpoints of any other local tribes. In addition, tribal recommendations for dealing with cultural resources on state land do not have the effect of law and certainly do not override federal, state and local air pollution control requirements. Again, this is a serious DEIR deficiency and must be resolved in the final document.

Hydrology

9-17

The DEIR states that water conservation is an important component of the Phase 7a project (pgs. 1-2, 1-3 and 3-1). The entire purpose of the 3.4 square-mile Transition Area portion of the project is to allow dust controls to be deployed on additional emissive lakebed without increasing overall Owens Lake dust control water demand. However, the DEIR does not address “before and after” water use. The EIR’s Hydrology and Water Quality section (Sec. 4.5) should discuss project water quantity (in addition to quality) issues.

Land Use

9-18

The District agrees with LADWP’s discussion on page 4.6-3 that gravel Cover BACM is not inconsistent with the public trust and that air pollution reductions that result in public health and safety protection are public trust benefits.

Project Alternatives

9-19

The DEIR’s Project Alternatives (Section 5) analysis fails to focus on the state and federal PM<sub>10</sub> exceedances that will continue to occur if the 350-acre culturally sensitive areas are not controlled. The DEIR analysis only considers the lessening of cultural resource impacts at the expense of the continuing air quality exceedances. Failure to control the project’s air pollution emissions would be a serious project deficiency and would fail to meet the project’s stated objective of meeting regulatory dust control requirements (pg. 1-2). Project alternatives should be evaluated using a matrix approach where all resource areas are evaluated for each proposed



alternative. The draft analysis over-emphasizes cultural resource avoidance (as opposed to protection) at the expense of other resource categories, most notably, air quality. Failure of any alternative that does not meet all air pollution control requirements should be discussed in the “Significant Irreversible Environmental Changes,” “Areas of Known Controversy and Issues to be Resolved” and “Project Alternatives” Sections (Sections 1.10, 1.11 and 5, respectively).

On page 5-8, under discussion of the Avoidance Alternative, the DEIR states:

However, dust suppression on 350 acres would not be implemented and these areas could potentially emit fugitive dust. However, the emission reductions originally expected in the 2008 SIP can still be achieved if the cultural resources sites are avoided.

9-19 This is not true. The LADWP provides no support or analysis for this statement. The avoided areas, by themselves, have caused federal NAAQS exceedances. Failure to control emissions from the avoided 350 acres will not comply with SIP, CJMP or SOA requirements and will result in continued state and federal air quality standard exceedances. This must be addressed in the alternative analysis.

On page 5-8, the DEIR states that if the avoidance “alternative is adopted as the proposed action by the Board of Water and Power Commissioners, modification of relevant GBUAPCD Orders may be necessary.” This is not possible. The District is not able to “excuse” emissive lake bed areas that cause and contribute to exceedances of state and federal PM<sub>10</sub> standards by simply modifying Orders. Approval of any alternative that does not control Phase 7a areas sufficiently to meet air quality standards will not meet the Phase 7a project objective (pg. 1-2) and will result in uncontrolled illegal air pollution, ongoing penalty payments by the LADWP and enforcement action by the District.

**DETAILED COMMENTS**

SECTION 1: SUMMARY

9-20 **Figure 1.1**

Please update Figure 1.1 to show the public amenities such as trails, boardwalks, and visitor outlooks and the rerouting of the mainline road described in Section 2, Introduction (page 2-1).

9-21 **Section 1.2: Project Objective (page 1-2)**

The statement of the project objective should be rewritten to better conform to the requirements of Section 15124 of the State CEQA Guidelines, and to meet the standards for full disclosure and to provide the LADWP Board of Commissioners, and other Responsible and Trustee Agencies, with the requisite information to appropriately evaluate and review the environmental impacts of the proposed project, support development of a reasonable range of alternatives, and support the preparation of findings or a statement of overriding considerations, if necessary.

As stated in Section 15124 of the State CEQA Guidelines, the Environmental Impact Report (EIR) must provide a project description with information that is needed for evaluation and review of environmental impacts, including a statement of objectives:

A statement of objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate

in the EIR and will aid decision-makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.

The project goal is correctly articulated in Section 2.6.1 of the 2008 SIP EIR, certified by the Governing Board of the Great Basin Unified Air Pollution Control District:

....to implement Dust Control Measures (DCMs) on the bed of Owens Dry Lake by 2010 sufficient to prevent emission from the lake bed that cause or contribute to violations of the PM<sub>10</sub> National Ambient Air Quality Standards. In addition, the proposed project must be consistent with the State of California’s obligation of land and resource stewardship.

9-21

The inclusion of the phrase “...without increasing water commitments while maintaining habitat, improving aesthetics, providing safe and limited public access, preserving cultural resources, and utilizing existing infrastructure and vegetation...” appears to limit the evaluation of alternatives to the “no project” scenario and fails to acknowledge the findings of the District’s 2008 EIR that found that the “no project” scenario was incapable of accomplishing the project goals and objectives. Although the District supports the LADWP’s efforts to optimize existing water commitments in conjunction with the Dust Control Project and avoid or minimize the need for increased water commitments, a desire on the Department’s part to have no increase in water commitments cannot be used to limit the consideration of a reasonable range of alternatives. Similarly, while the LADWP has an obligation to explore feasible alternatives that are capable of achieving most of the basic objectives of the project while avoiding or minimizing significant impacts on the environment, the LADWP must consider all feasible alternatives capable of meeting the underlying purpose of the project, which is compliance with the NAAQS.

**Table 1-2 (pages 1-8 to 1-10)**

Comments on the following mitigation measures have also been included in the subsequent sections that they appear in.

9-22

Measure BIO-2, Preconstruction Surveys for Snowy Plover. The placement of green stakes may not be sufficiently visible to construction personnel. Recommend additional signage be installed at the start and end of road access through buffers, indicating the 15 mph speed limit and that no parking or idling is permitting in that zone. Also recommend that a biological monitor be present if and when any foot crews with hand tools are working within the buffer, as hiding fledglings could be impacted accidentally.

Measure BIO-4, Light Best Management Practices. If tall lighting structures will remain in place for more than 24–48 hours, it might be appropriate to install anti-perching devices (e.g., Nixalite) on the lights, as is planned for signage in mitigation measure BIO-3.

Measure BIO-5, Preconstruction Surveys for Nesting Birds. Besides trees and shrubs, if any other kinds of suitable nesting habitat are going to be disturbed (e.g., grasses that might provide cover for duck nests), these preconstruction surveys should include those habitat types as well.

**Section 1.7: Alternatives to the Proposed Project (page 1-19)**

Statements regarding the inability of the project to meet the basic project objective of dust control should be changed to “inability to achieve compliance with the NAAQS.” Statements regarding an inability to increase the vegetated area of Owens Lake or habitat improvement are inappropriate to support the finding that the “no project” scenario is not the environmentally superior alternative, as the Governing Board Order No 080128-01 (described on page 1-2 of the EIR) does not mandate habitat improvement or expansion, but rather requires only that the LADWP take “Reasonable Precautions” to control emissions to the extent practicable during construction of the Transition Areas pursuant to an Approved Dust Control Plan.

9-23

The LADWP has provided insufficient information for the District to make a determination regarding the relative ability of the Avoidance Alternative and Expanded Avoidance Alternative to meet the NAAQS. The District recommends that the LADWP provide quantitative data showing the relative achievement of the standards for reduction of emissivity specified in the 2008 SIP EIR. It is also recommended that the LADWP, in addition to avoidance, consider the relative effectiveness of Phase III cultural resources investigations to mitigate the impacts of the proposed Dust Control Measures (DCMs) to below the level of significance.

**Section 1.9: Significant Environmental Impacts for Which No Feasible Mitigation Is Available**

The LADWP has provided no substantial evidence to support the finding that “Implementation of a Phase III data recovery program for the significant cultural resource sites located in the Phase 7a DCAs [Dust Control Areas] is not identified as a feasible mitigation for the project.” Furthermore, Section 15126.4 of the State CEQA Guidelines requires that an EIR describe all feasible measures that could minimize significant adverse impacts. Subpart (B) specifically requires that where several measures are available to mitigate an impact, each should be discussed, and the basis for selecting a particular measure should be identified. Subpart (D) requires that if a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project, the effects shall be discussed. Finally, with respect to the comparative impacts on cultural resources, the EIR fails to disclose the degradation of cultural resource deposits that is occurring in the existing condition due to the erosive and destructive forces of wind-borne sands and anthropogenic activities.

9-24

SECTION 2: INTRODUCTION

Although the District acknowledges that the LADWP has references to District Board Order 110317-01, additional information should be provided regarding the relationship of the LADWP’s EIR to the District’s 2008 SIP EIR and Governing Board Order No 080128-01.

9-25

**Section 2.2: Responsible and Trustee Agencies**

Figures 1-1 and 2-2 appear to show that the project roadway system makes a connection to State Route (SR) 395, yet there is no discussion of the California Department of Transportation (Caltrans) as a Responsible Agency for issuance of an encroachment permit, or for the related approvals by the Bureau of Land Management, although the need for such permits is later described in Section 2.6.5, Intended Uses of the EIR (page 2-13).

9-26

There should also be reference made to the U.S. Army Corps of Engineers’ permitting authority pursuant to Section 404 of the Clean Water Act for amendment to the existing Clean Water Act Section 404 permit.

9-26 Please describe the regulatory authority of the Department of Health Services related to the contingency and business plans for transport and storage of hazardous materials and fuel.

9-27 Figure 2-2 appears to be exactly the same as Figure 1-1; recommend deleting.

**Section 2.4.1: History of the Dust Mitigation Program**

Page 2-7, 2nd Paragraph. The District’s 2008 SIP EIR and 2011 SOA provide additional background information regarding the series of actions that led to the need for the Phase 7a project.

Page 2-7, 3rd Paragraph. The spirit and legislative intent of the EIR would be significantly improved by including information regarding the public health issues associated “serious non-attainment area for PM<sub>10</sub> emissions,” consistent with the legislative intent articulated in the CEQA Statute (Public Resources Code, Division 13. Environmental Quality):

Sections 210 00(d)

The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached.

Sections 210 01 (b)

Take all actions necessary to provide the people of the state with clean air...

9-28 Please add the following information, from the District’s website, to the EIR, so that the Board of Commissioners of the LADWP can be fully informed of the health risks associated with non-attainment. The inclusion of the requested information would also provide readers of the document with an appropriate context for the actions being contemplated.

**2008 Owens Valley PM-10 Planning Area Demonstration of Attainment State Implementation Plan**

Air quality monitoring by the District has shown that the bed of Owens Lake is the major source of PM<sub>10</sub> emissions contributing to air quality violations in the Owens Valley Planning Area. In January 1993, the southern Owens Valley was reclassified as a “serious nonattainment” area for PM<sub>10</sub>.

Studies of dust transport from Owens Lake show that the standard can be exceeded more than 50 miles away and expose many more people to violations of the PM<sub>10</sub> standard than just the residents near Owens Lake. The dust from Owens Lake at concentrations that can be above the federal PM<sub>10</sub> standard annually affects about 40,000 permanent residents between Ridgecrest and Bishop. In addition, many visitors spend time in the dust-impacted area to enjoy the many recreational opportunities the Eastern Sierra and high

desert have to offer. Wind speeds greater than about 17 mph (7.6 m/s) have the potential to cause wind erosion from the barren lake bed. Ambient PM<sub>10</sub> readings in the Owens Valley Planning Area are the highest measured in the country.

The City of Los Angeles, acting through its Department of Water and Power (LADWP) is responsible for installing and operating the dust control measures on Owens Lake. Water diversions by the LADWP since early in the 20th century have cut Owens Lake off from its natural sources of water and caused the saline lake bed to be exposed. Frequent winds in the Owens Valley loft the lake bed soils and cause the PM<sub>10</sub> violations. The 1998 SIP required the LADWP to begin operation of dust control measures by the end of 2001.

9-28

The 2008 SIP has been prepared by the Great Basin Unified Air Pollution Control District in response to a finding by the United States Environmental Protection Agency (USEPA) that the Owens Valley Planning Area did not attain the 24-hour National Ambient Air Quality Standard (NAAQS) for particulate matter of 10 microns or less (PM<sub>10</sub>) by December 31, 2006, as mandated by the Clean Air Act Amendments of 1990 (CAAA). This document includes an analysis of the particulate matter air pollution problem in the Owens Valley and provides a revised control strategy to bring the area into attainment with the federal air quality standard for particulate matter, as soon as practicable by achieving at least a 5 percent reduction in PM<sub>10</sub> emissions per year. The 2008 SIP must demonstrate that the NAAQS can be attained by March 23, 2012, unless the USEPA grants an extension which could make the deadline March 23, 2017 (CAAA §179(d)(3)). The 2008 SIP also incorporates provisions of the 2006 Settlement Agreement between the District and the City of Los Angeles Department of Water & Power (City) to expand dust control measures to additional areas at Owens Lake in order to attain the NAAQS as soon as practicable.

9-29

**Section 2.5: Project Objectives (page 2-10)**

Please see comments provided for Section 1.2 of the EIR.

9-30

**Section 2.6.2: Native American Consultation**

This section provides limited information on the data gathered during the Native American consultation process. As such, it is not possible to evaluate whether sufficient consultation was undertaken by the LADWP. In addition, it is unclear as to the extent to which the lakebed landowner, California State Lands Commission (CSLC), was involved in the Native American consultation process.

9-31

**Section 2.6.5, Intended Uses of the EIR**

This section should also describe the integration of the related environmental review to support the decision-making process of each public agency.

9-32

**SECTION 3: PROJECT DESCRIPTION**

**Precise Location**

As required by Section 15124(a) of the State CEQA Guidelines, a revised version of Figure 1-1 should be included in Section 3 that clearly distinguishes the existing and proposed project

9-32 | elements. The location of the project should also appear on a regional map. Figure 2-1 could be revised to serve this purpose, but it would need to have the project location noted.

### Statement of Objectives

Although a brief project objective statement is included in Section 1, the statement of the project objective does not conform to the requirements of Section 15124(b) of the State CEQA Guidelines to support a project description. A Statement of Project Goals and Objectives should be prepared that meets the EIR standards for full disclosure and to provide the LADWP's Board of Commissioners, and other Responsible and Trustee Agencies, with the requisite information to appropriately evaluate and review the environmental impacts of the proposed project, support development of a reasonable range of alternatives, and support the preparation of findings or a statement of overriding considerations, if necessary. As stated in Section 15124 of the State CEQA Guidelines, a statement of objectives is one of requisite pieces of information to support the project description.

A statement of objectives sought by the proposed project. A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid decision-makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project.

9-33 | The project goal is articulated in Section 2.6.1 of the 2008 SIP EIR, certified by the Governing Board of the District:

....to implement Dust Control Measures (DCMs) on the bed of Owens Dry Lake by 2010 sufficient to prevent emission from the lake bed that cause or contribute to violations of the PM<sub>10</sub> National Ambient Air Quality Standards. In addition, the proposed project must be consistent with the State of California's obligation of land and resource stewardship.

The inclusion of the phrase "...without increasing water commitments while maintaining habitat, improving aesthetics, providing safe and limited public access, preserving cultural resources, and utilizing existing infrastructure and vegetation..." appears to limit the evaluation of alternatives to the "no project" scenario and fails to acknowledge the findings of the District's 2008 SIP EIR that found that the "no project" scenario was incapable of accomplishing the project goals and objectives. Although the District supports the LADWP's efforts to optimize existing water commitments in conjunction with the Dust Control Project and avoid or minimize the need for increased water commitments, a non-regulatory desire on the LADWP's part to have no increase in water commitments cannot be used to limit the consideration of a reasonable range of alternatives. Similarly, although the LADWP has an obligation to explore feasible alternatives that are capable of achieving most of the basic objectives of the project while avoiding or minimizing significant impacts on the environment, the LADWP must consider all feasible alternatives capable of meeting underlying purpose of the project, which is compliance with the NAAQS. Furthermore, the District's 2008 SIP EIR (page 2-8) articulates eight project objectives that are not disclosed in the LADWPs' EIR.

**Technical, Economic, and Environmental Characteristics**

9-34

As specified in Section 15124(c) of the State CEQA Guidelines, the EIR needs a general description of the project’s technical, economic, and environmental characteristics. This is particularly important, given that conclusion statements, unsupported by substantial evidence, are made regarding the infeasibility of DCMs evaluated in the 2008 SIP EIR. Similarly, unsupported conclusion statements are made regarding the infeasibility of a Phase II and Phase III research design and data recovery to reduce impacts to below the level of significance.

SECTION 4.1: AESTHETICS

**Section 4.1.2: Existing Conditions**

9-35

This section contains a superficial description of the existing environment that is to be used as the baseline physical conditions for the evaluation of the proposed project’s impacts. The proposed project site in its current condition exhibits extensive manmade alterations to a natural environment. The description should note whether specific areas of the proposed project would be visually sensitive to potential users/viewers of those areas, particularly since the visual impacts of gravel cover was noted as a concern by the CSLC. Recommend including additional photographs of existing conditions from potential viewer areas, especially since the proposed project as described has made efforts to enhance the visual character of DCAs to appear more natural.

Figure 4.1-1 should provide the directional vantage point from which the photograph is taken.

SECTION 4.3: BIOLOGICAL RESOURCES

**General Comments**

9-36

The term “vegetation communities” is used throughout, presumably to mean plant communities in the sense of Sawyer/Keeler-Wolf classification, plus non-plant cover. Clarification would be useful in several places.

9-37

“Sensitive species” is used differently in text of section 4.3.3.3, Table 4.3-4, and section 4.3.5.4.

**Section 4.3.1: Regulatory Framework**

9-38

This section should be expanded. Organizing this section by law or regulation and including appropriate subsection titles with the names of the law or regulation would improve readability. In particular, the discussion of regulations applicable to wetlands and riparian areas is too brief.

**Section 4.3.1.1: Federal Status**

9-39

Add mention of the Bald and Golden Eagle Protection Act, since bald eagle is potentially present.

9-40

Breaking this section into subsections by statute would improve readability.

**Section 4.3.1.2: State Status**

9-41

Add mention of protections under other state statutes, such as fully protected species (including peregrine falcon and eagles): see, e.g., [http://www.dfg.ca.gov/wildlife/nongame/t\\_e\\_ssp/fully\\_pro.html](http://www.dfg.ca.gov/wildlife/nongame/t_e_ssp/fully_pro.html).

9-42 | Breaking this section into subsections by statute would improve readability.

**Section 4.3.3.1: Literature Review**

9-43 | Please confirm if previous biological surveys conducted in support of the Draft EIR were reviewed. Please confirm if results of the Audubon surveys at Owens Lake were reviewed. Review of these other surveys at Owens Lake should be referenced and discussed.

**Section 4.3.3.2: Field Survey**

9-44 | The Biological Resources Survey Summary lacks a reference. It should be attached as an appendix.

It is unclear if the field surveys were general biological surveys or if any focused or protocol surveys were conducted. Please include the total amount of survey hours or days.

**Section 4.3.3.3: Existing Biological Resources Setting**

It is recommended that this section be broken into vegetation and wildlife subsections. DCA names are listed without reference to a map to orient the reader. Please add a map or refer to an appropriate map included earlier in the document. Names of plant communities are listed, and the reader is left to assume that these are the Sawyer-Keeler-Wolf plant community types.

Please add a clear listing of all plant communities present, provide a map of plant communities and cell/buffer areas, and add map callouts when specific locations are mentioned (e.g., “access roadway” in paragraph 3).

In the fifth paragraph (wildlife), the table numbers in table callouts appear to be inaccurate. Please add a map reference.

9-45 | In the sixth paragraph (sensitive species), please clarify that the American peregrine falcon is a California fully protected species. The “sage sparrow” common name should be changed to “Bell’s sage sparrow” to clarify which subspecies is under consideration.

A discussion is needed of the snowy plover describing which subspecies is at Owens Lake and the status of that subspecies. Otherwise, many readers would assume that it is state threatened. Subspecies epithet should be added to all uses of species’ Latin name (unless discussing the species as a whole).

**Table 4.3-1:** Recommend changing the name from “Summary of Existing Biological Resources Conditions – Phase 7a Project Areas” to “Summary of Existing Plant Communities and Land Cover Conditions – Phase 7a Project Areas.”

For this table and others in this section that cover multiple pages, the table number and/or title should be repeated at the top of the page followed by “(cont.)” for clarity. Some tables might benefit from the use of an 11” × 17” page size.

**Table 4.3-3:** The “big horn sheep” should be corrected to “Sierra Nevada bighorn sheep,” as only this subspecies is listed as threatened and endangered.



9-45 | **Table 4.3-4:** In addition to golden eagle, American peregrine falcon and bald eagle are California fully protected species and should be added to this table.

9-46 | **Section 4.3.3.4: Avian Use of Project Vicinity**  
A listing of the species present would be extremely helpful, not just the figures showing use. Add text such as “Breeding species of shorebirds included: x, y, and z,” and likewise for other sets.

9-47 | **Section 4.3.5.1: Summary of Impacts to Vegetation Types**  
Recommend changing the section title to “Summary of Impacts by Plant Community and Cover Types” for clarity.

9-47 | Please move the reference for table 4.3-6 to earlier in this section.

At the end of the first paragraph, the sentence “After project completion, the locations of water available to birds and other wildlife on the lake will be altered” is vague and should be deleted since specific information is provided in the subsequent paragraph and Table 4.3-6.

9-48 | **Section 4.3.5.4: Impacts to Sensitive Species**  
Here, the term “sensitive species” is used to include threatened and endangered species and non-listed sensitive species. This is very different from the term’s usage in Table 4.3-4 (which is referenced as Table 4.3-5).

In the 12th paragraph: *Other Sensitive Mammals*. Mention of “big horn sheep” in the first sentence should be corrected to “Sierra Nevada bighorn sheep.”

9-49 | **Section 4.3.7.1: General Approach to Mitigation for Biological Resources**  
Measure BIO-2, Preconstruction Surveys for Snowy Plover. The placement of green stakes may not be sufficiently visible to construction personnel. Recommend additional signage be installed at the start and end of road access through buffers, indicating the 15 mph speed limit and that no parking or idling is permitting in that zone. Also recommend that a biological monitor be present if and when any foot crews with hand tools are working within the buffer, as hiding fledglings could be impacted accidentally.

9-49 | Measure BIO-4, Light Best Management Practices. If tall lighting structures will remain in place for more than 24–48 hours, it might be appropriate to install anti-perching devices (e.g., Nixalite) on the lights, as is planned for signage in mitigation measure BIO-3.

Measure BIO-5, Preconstruction Surveys for Nesting Birds. Besides trees and shrubs, if any other kinds of suitable nesting habitat are going to be disturbed (e.g., grasses that might provide cover for duck nests), these preconstruction surveys should include those habitat types as well.

#### SECTION 4.4: CULTURAL RESOURCES

9-50 | **General Comments**  
The LADWP argues that the 11 California Register of Historical Resources (CRHR) eligible sites located within the project area should be avoided and that a 100-foot buffer area should be

placed around each site to protect the resource from inadvertent disturbance during construction on adjacent areas. Although preservation of these archaeological resources is clearly highly important to local Native American groups, as mentioned above, their total avoidance is not possible given the project's objective of resolving public health issues associated with emissive dust.

Dust control modeling conducted by the District indicates that Best Available Control Measures (BACM) can effectively be implemented to avoid impacting the two CRHR-eligible sites (CA-INY-7442 and CA-INY-7443). However, to adequately control emissive dust in three of the Phase 7a project subareas, BACMs must be applied to portions of eight CRHR-eligible archaeological sites and their associated 100-foot buffer areas. Recommendations concerning the appropriate mitigation measures to be implemented in each of these areas are provided below on a site by site basis. Insufficient information is provided in the Draft EIR or the Archaeological Testing and Evaluation Report (ATER)<sup>1</sup> to evaluate avoidance or mitigation strategies for the remaining CRHR-eligible site of CA-INY-8918.

### Subarea 1<sup>2</sup>

The modeling data indicate that 101.55 acres of Subarea 1 that are located within CRHR-eligible archaeological sites require the implementation of dust control measures. This area includes 44.03 acres located within site CA-INY-8938/H (7A-046/H), 50.72 acres within site CA-INY-7421, and the entire 6.8 acres that make up site CA-INY-8942/H (7A-052/H). All three sites are considered eligible for the CRHR under Criterion D, their ability to contain information important to understanding prehistoric use of the Owens Lake shoreline.

CA-INY-8938/H is a large, moderately dense temporary seasonal camp. An examination of the sketch map provided in the Draft Phase II report (page 146),<sup>3</sup> indicates that a relatively light density of surface artifacts are located throughout much of the eastern portion of the site. Results of the Phase II testing indicate that subsurface remains are quite limited in this locale, with only one obsidian flake recovered at 15 centimeters below the surface.<sup>4</sup> Given these findings, it is recommended that the 44.03 acres of dust control measures be implemented within the eastern portion of the site. A Phase III data recovery program would be limited to the dust control area. This strategy will avoid impacts to the relatively dense cultural deposits located in 7A-046/H's central and western portions, thereby preserving most of the site's data potential while minimizing project impacts to a level where they would not cause a substantial adverse change in the significance of site CA-INY-8938/H.

<sup>1</sup> Garcia and Associates. 2012. *Draft Report: Owens Lake Dust Mitigation Program, Phase 7a, Phase II Archaeological Testing and Evaluation, Owens Lake, Inyo County, California*. Report prepared for the Los Angeles Department of Water and Power.

<sup>2</sup> In this comment letter, the District avoids mentioning "T-cell" names when referring to cultural resources in order to protect the confidentiality of the cultural resource sites.

<sup>3</sup> Garcia and Associates. 2012. *Draft Report: Owens Lake Dust Mitigation Program, Phase 7a, Phase II Archaeological Testing and Evaluation, Owens Lake, Inyo County, California*. Report prepared for the Los Angeles Department of Water and Power.

<sup>4</sup> Garcia and Associates. 2012. *Draft Report: Owens Lake Dust Mitigation Program, Phase 7a, Phase II Archaeological Testing and Evaluation, Owens Lake, Inyo County, California*. Report prepared for the Los Angeles Department of Water and Power. P. 394.

CA-INY-7421 is a multi-component site containing the remains of a temporary camp and chipping station loci. The distribution of surface artifacts indicates that the densest cultural deposits at CA-INY-7421 are concentrated along the western edge of the site, outside of the Phase 7a project area.<sup>5</sup> This finding indicates that the required 50.72 acres of dust control measures, preceded by a Phase III data recovery program, could be undertaken in the central and eastern portions of the site, where artifact density is relatively low. Positioning dust control and data recovery efforts away from the site's main cultural deposits would not significantly reduce the integrity of the CRHR-eligible property under Criterion D, its ability to contain information important to understanding prehistoric use of the Owens Lake shoreline.

It is also recommended that a Phase III data recovery effort be undertaken at CA-INY-8942/H. Phase II investigations determined that site CA-INY-8942/H consists of a prehistoric temporary seasonal food processing area and a historic mineral extraction locale. Dust control measures are required within this site's entire 6.8-acre area. Phase III work efforts at CA-INY-8942/H would result in the recovery of all important archaeological data at the site. These investigations will effectively exhaust the research potential of CA-INY-8942/H and will reduce the potential impacts of the project on this historic property to a less than significant level.

#### Subarea 2

9-50 The modeling data indicate that 63.76 acres of Area [REDACTED] that are located within CRHR-eligible archaeological sites require the implementation of dust control measures. A total of four CRHR-eligible archaeological sites are located in Subarea 2. Three of the sites, CA-INY-7413/H, CA-INY-7414, and CA-INY-7415/H (Locus A), are considered to be eligible under Criterion A (association with the Indian War era of 1861-1867 at Owens Lake) and Criterion D (contains information important to understanding prehistoric use of the Owens Lake shoreline). The fourth site, CA-INY-8911, is a small prehistoric lithic production locus eligible under Criterion D as it may provide important information about prehistoric use of the Owens Lake shoreline. Consultation with local Native American groups indicates that these sites are particularly sensitive and are considered to be culturally important to their heritage (page 460).<sup>6</sup> To preserve these historic properties while still meeting regulatory dust control requirements, it is recommended that shallow flooding be implemented on the western portion of CA-INY-7414, the eastern portion of CA-INY-8911, and the northeastern portion of CA-INY-7413/H. Shallow flooding would be limited to areas within the three sites where artifact and feature density is lowest, and all artifacts in these sites would be left *in situ*. Implementing this strategy would eliminate any need to directly impact the surfaces of these sites through grading, excavation, or trenching.

**Select portion of letter redacted for confidentiality.**

<sup>5</sup> Garcia and Associates. 2012. *Draft Report: Owens Lake Dust Mitigation Program, Phase 7a, Phase II Archaeological Testing and Evaluation, Owens Lake, Inyo County, California*. Report prepared for the Los Angeles Department of Water and Power. P. 133.

<sup>6</sup> Garcia and Associates. 2012. *Draft Report: Owens Lake Dust Mitigation Program, Phase 7a, Phase II Archaeological Testing and Evaluation, Owens Lake, Inyo County, California*. Report prepared for the Los Angeles Department of Water and Power.

Subarea 3

9-50

CA-INY-8964 is a prehistoric procurement and processing site that exhibits two occupational surfaces.<sup>7</sup> This site is considered eligible for the CRHR under Criterion D, its ability to contain information important to understanding prehistoric use of the Owens Lake shoreline. To meet regulatory dust control requirements, dust control measures must be implemented on the entire 11.34 acre portion of the site that is located in Subarea 3. Project impacts to this portion of the site would be reduced to below the level of significance through implementation of a Phase III data recovery plan.

**Section 4.4.8.3: Native American Consultation**

As also noted previously in Section 2.6.2, this section provides limited information on the data that was gathered during the Native American consultation process. As such, it is not possible to evaluate whether sufficient consultation was undertaken by the LADWP. In addition, it is unclear as to the extent to which CSLC (the lead agency) was involved in the Native American consultation process.

Two specific documents are referenced in this section that should be included in the Draft EIR:

- 1) A letter is referenced in which “The NAHC identified 14 Native American groups and individuals relevant for the Phase 7a project (**Appendix B**).” (Page 4.4-26)

9-51

This correspondence is not present in Appendix B.

- 2) On Page 4.4-26, reference is made to “a letter received by Mr. Ron Nichols (LADWP General Manager) from the Acting Chairperson of the Lone Pine Paiute-Shoshone Reservation (M. Wuester, pers. Comm., February 3, 2012),” which expresses tribal concerns over the proposed project.

A copy of this letter should be included in an appendix to the Draft EIR.

In addition, any other correspondence related to the Native American consultation process must be referenced in the Draft EIR and documented in an appendix. This documentation should also include correspondence from any Native American parties who indicated they have no concerns about the project, or had favorable opinions about the project. Such documentation needs to be included to evaluate LADWP’s statements regarding Native American concerns about the destruction of culturally sensitive archaeological sites (see Page 4.4-42).

SECTION 4.5: HYDROLOGY

9-52

**Section 4.5.1: Regulatory Framework**

Recommend the use of subheadings for each regulatory framework component to improve readability.

<sup>7</sup> Garcia and Associates. 2012. *Draft Report: Owens Lake Dust Mitigation Program, Phase 7a, Phase II Archaeological Testing and Evaluation, Owens Lake, Inyo County, California*. Report prepared for the Los Angeles Department of Water and Power. Pp. 429-431.

9-53 | As noted in earlier comments on Section 2.2, reference should be made to the U.S. Army Corps of Engineers' permitting authority pursuant to Section 404 of the Clean Water Act for amendment to the existing Clean Water Act Section 404 permit.

**Section 4.5.5.2: Impacts to Drainage Patterns**

9-54 | Issues identified in the Notice of Preparation (NOP) comments are listed here and include "watershed-level effects including pollutant removal, flood water retention and habitat connectivity." The subsequent paragraph discusses drainage and flood waters, but there is no mention of habitat connectivity and pollutants.

9-55 | On page 4.5-11, regarding design measures to prevent an increase in rate, quantity, or decrease in quality of storm water, a figure should be provided that illustrates the type of design elements that would be incorporated into the project and their locations to protect the mineral lease areas and ponds from these impacts.

SECTION 4.6: LAND USE

9-56 | Proposed recreational improvements are noted here, but there is no discussion of whether their construction would adversely impact the environment in any way. Although the benefits provided by these improvements are notable, please indicate if there would be any short-term or long-term impacts associated with their inclusion in the project.

SECTION 5: PROJECT ALTERNATIVES

9-57 | As mentioned previously in regard to other sections of the DEIR, in the first paragraph the inclusion of the phrase "...without increasing water commitments while maintaining habitat, improving aesthetics, providing safe and limited public access, preserving cultural resources, and utilizing existing infrastructure and vegetation..." limits the evaluation of alternatives to the "no project" scenario and fails to acknowledge the findings of the District's 2008 EIR that found that the "no project" scenario was incapable of accomplishing the project goals and objectives.

9-57 | Also noted in previous comments, insufficient data are provided to support a finding that implementation of a Phase III data recovery program is not considered feasible mitigation. The dust control modeling data show that complete avoidance of impacts to significant historic resources is not feasible given the need to meet the basic objectives of the project. Because of this, and given the fact that the majority of the historic resources in question have been determined significant through their ability to yield scientifically important information (CRHR Criterion D), eliminating Phase III data recovery as mitigation severely limits the development of project alternatives.

**Section 5.2.4: Considerations of an All Shallow Flooding Alternative**

9-58 | As noted in earlier comments, the LADWP's goal to have no increase in water commitments for dust control cannot be used to limit the consideration of a reasonable range of alternatives. In developing feasible alternatives that are capable of achieving most of the basic objectives of the project while avoiding or minimizing significant impacts on the environment, the LADWP must consider all feasible alternatives capable of meeting the underlying purpose of the project, which is compliance with the NAAQ. This section does not present substantial information that shallow flooding is infeasible.

9-58 On page 5-3, although the text states that there is insufficient surplus water to implement shallow flooding on Phase 7a, there are no data presented, no volumes of water estimated that would be required for shallow flooding, and no figures of the volume of any current surplus although reference is made to a 2010 LADWP Water Supply Assessment for Phase 8 and those results are extended to Phase 7a.

**Section 5.3.2: Impacts**

9-59 On page 5-6, Air Quality and Greenhouse Gases, it should be noted that NAAQS would not be met under the “no project” alternative.

**Section 5.4: Avoidance Alternative**

CEQA Section 15126.6(a) indicates that the EIR:

...describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

In addition, Section 15126.6(c) states:

The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects.

9-60 The Draft EIR concludes that Phase III data recovery as a mitigation measure is infeasible and provides limited documentation of this conclusion and the rationale for applying this conclusion to all cultural resource areas identified, in addition to a 100-foot buffer area. As noted in Section 4.4 comments, the District recommends that LADWP consider variations in artifact density within each cultural resource area to prioritize avoidance of the most sensitive, valued resources. Dust control measures, preceded by a focused Phase III data recovery program, could then be designed that limit impacts to lower-sensitivity areas while allowing the project objectives to be met. The current range of alternatives is limited by this determination of infeasibility.

The Draft EIR does not evaluate shallow flooding in the cultural resource areas as a dust control measure that could meet the objectives (achieve NAAQS for PM<sub>10</sub>) while minimizing impacts to the cultural resources in those areas. It is noted that prior to construction of the aqueduct, these areas would have been covered by water, possibly continuously or periodically. The Draft EIR does not present information to indicate whether this control measure was presented to the Native American groups as a possible means of achieving both dust control and protecting resources. Native American groups should be consulted about whether shallow flooding of portions of some cultural resource areas is more acceptable than the other options presented in the Draft EIR, including: 1) avoidance of the resources that would leave them potentially exposed for looting and, 2) a measure that involves spraying soil binders over these areas, an alternative that would require periodic maintenance and that may damage surficial cultural materials. It is recognized that the LADWP would prefer to reduce the use of water for dust

control. If shallow flooding of portions of some cultural areas would be acceptable means of controlling dust and avoiding impacts to cultural resources, the LADWP could evaluate substituting non-water control measures on other areas of Phase 7a to provide water for these sensitive areas.

The text in Section 5.0 focuses on the implementation of dust controls over 45 square miles, two miles more than the 43 required in the 2008 SIP. As noted previously, the two additional miles referenced by LADWP were discovered to be a source of emissions subsequent to the preparation of the 2008 SIP and have no relevance to the 2008 SIP requirements. The sentence as currently written is misleading and incorrectly suggests that LADWP has committed to doing more than required by the SIP, when in actuality, LADWP is seriously delinquent in meeting their requirements of the 2008 SIP, 2010 SJMP and the 2011 SOA.

9-60

The text should provide a summary of PM<sub>10</sub> control effectiveness per dust control area and adequately demonstrate that the NAAQS for PM<sub>10</sub> will be met by this Avoidance Alternative. The District previously presented information to the LADWP that indicated some cultural areas would have to be treated with dust control in order to meet the NAAQS for PM<sub>10</sub>.<sup>8</sup> The District has prepared additional information, presented in these comments, that illustrates the uncontrolled PM<sub>10</sub> impact at the shoreline that would result from not controlling these cultural areas (see Table 1, *Summary of Potential PM<sub>10</sub> Impacts at the Shoreline from Phase 7a Areas*, below). The data indicate that there are four cultural areas of Phase 7a that exceed the NAAQS at the shoreline by nearly two times the standard to up to eight times the standard, if left untreated in the Draft EIR's Avoidance Alternative. Consequently, the Avoidance Alternative does not meet the project objective of meeting the NAAQS and should not be considered a viable alternative.

On page 5-9, Cultural Resources, the text notes that the 350 acres that would be left undisturbed to avoid cultural resources would be subjected to weathering and wind. This may leave the resources unprotected. Please clarify if the LADWP's outreach to Native American groups indicates that this is an acceptable means of "protecting the cultural resources."

### **Section 5.5: Expanded Avoidance Alternative**

9-61

The text in Section 5.0 focuses on the implementation of dust controls over 45 square miles, 2 miles in addition to the 43 required in the 2008 SIP. As noted previously, the 2 additional miles referenced by LADWP were discovered to be a source of emissions subsequent to the preparation of the 2008 SIP and have no relevance to the 2008 SIP requirements. The sentence as currently written is misleading and incorrectly suggests that LADWP has committed to doing more than required by the SIP, when in actuality, LADWP is seriously delinquent in meeting their requirements pursuant to the 2008 SIP.

As noted previously, the Avoidance Alternative does not meet the project objective of meeting NAAQS for PM<sub>10</sub> and should not be considered a viable alternative. Therefore, the Expanded Avoidance Alternative likewise is not capable of meeting the project objective.

<sup>8</sup> Memorandum from Duane Ono, Great Basin Unified Air Pollution Control District, to T. Schade, B. Van Wagoner, and N. Mejia. 25 July 2012. Subject: Control Requirements for Phase 7a Cultural Resource Areas.

**Table 1 - Summary of Potential PM10 Impacts at the Shoreline from Phase 7a Areas**

Phase 7a Area	Sensit Site	MDCE Control Efficiency (%)	Total Area (acres)	Non-CRA (acres)	CRA Area (acres)	Uncontrolled PM10 Impact at Shoreline			
						Total (µg/m <sup>3</sup> )	Average PM10 (µg/m <sup>3</sup> /ac)	Non-CRA (µg/m <sup>3</sup> )	CRA* (µg/m <sup>3</sup> )
<b>Sub 1</b>	6061	90	193.05	149.0	44.03	1,300	6.73	1,004	<b>296</b>
Sub 1	6293	88	61.78	58.9	2.84	1,083	17.54	1,034	50
<b>Sub 1</b>	7606	95	208.49	151.0	57.52	2,600	12.47	1,883	<b>717</b>
Sub A	5629	91	189.19	189.2	0	1,444	7.63	1,444	0
Sub A	7562	99	324.34	324.3	0	13,000	40.08	13,000	0
Sub A	7584	91	189.19	189.2	0	1,444	7.63	1,444	0
Sub B	1730	33	23.17	15.6	7.59	194	8.37	130	64
Sub B	1733	64	77.22	77.2	0	361	4.68	361	0
<b>Sub 2</b>	1891	96	208.49	144.7	63.76	3,250	15.59	2,256	<b>994</b>
<b>Sub 3</b>	2821	99	123.55	112.2	11.34	13,000	105.22	11,807	<b>1,193</b>
Sub 3	2829	83	54.05	54.1	0	765	14.15	765	0
Sub 3	3043	91	69.5	69.5	0	1,444	20.78	1,444	0
Sub 3	3273	92	38.61	38.6	0	1,625	42.09	1,625	0
Sub 3	7281	93	65.64	65.6	0	1,857	28.29	1,857	0
Sub 3	7304	98	65.64	65.6	0	6,500	99.02	6,500	0
	<b>Total</b>		<b>1892</b>	<b>1705</b>	<b>187</b>				

\* Bold numbers indicate the potential PM10 impact at the shoreline from Cultural Resource Areas (CRAs) that would cause a violation of the 150 µg/m<sup>3</sup> federal PM10 standard if they are not controlled.

**Section 5.5.1**

The section’s first paragraph, on page 5-10, states,

...based on consultation with Lone Pine Paiute-Shoshone tribe, LADWP has identified a variation of the Avoidance Alternative; with an additional 60 acres avoided. This alternative was identified in response to Native American concerns that the recent discovery of cultural resources sites on the lake is very important to their people and heritage, and therefore, is worth being saved.

No information is provided on the general location of these additional 60 acres, the nature of the culturally sensitive resources, or the specific concerns that the Native American groups have

9-60

9-62



9-62 | with the implementation of dust control measures in this area, leaving an aura of mystery surrounding avoidance of this area in this expanded avoidance alternative.

**Section 5.6.1: Description**

9-63 | The amount of roadway anticipated for chemical application should be included upfront in the description; it appears later in the section. The LADWP should consider consultation with the Native American groups and the District to develop a roadway system that would minimize and avoid impacts while treating sufficient areas to meet the NAAQS.

**Page 5-15 Effectiveness**

9-64 | This section needs to present a range of anticipated dust control effectiveness of soil binders, particularly for PM<sub>10</sub> suppression.

SECTION 6: RELATED PROJECTS AND CUMULATIVE IMPACTS

No substantive comments.

SECTION 7: ADDITIONAL CEQA ANALYSES

The following comments on mitigation measures were made previously in Section 1.0 and Section 4.3.

9-65 | Measure BIO-2, Preconstruction Surveys for Snowy Plover. The placement of green stakes may not be sufficiently visible to construction personnel. Recommend additional signage be installed at the start and end of road access through buffers, indicating the 15 mph speed limit and that no parking or idling is permitting in that zone. Also recommend that a biological monitor be present if and when any foot crews with hand tools are working within the buffer, as hiding fledglings could be impacted accidentally.

Measure BIO-4, Light Best Management Practices. If tall lighting structures will remain in place for more than 24–48 hours, it might be appropriate to install anti-perching devices (e.g., Nixalite) on the lights, as is planned for signage in mitigation measure BIO-3.

Measure BIO-5, Preconstruction Surveys for Nesting Birds. Besides trees and shrubs, if any other kinds of suitable nesting habitat are going to be disturbed (e.g., grasses that might provide cover for duck nests), these preconstruction surveys should include those habitat types as well.

**Section 7.3.1: Cultural Resources**

9-66 | As noted in previous sections of the document, no evidence is presented that supports the finding that Phase III data recover is not a feasible mitigation measure for the project.

**Section 7.4: Alternatives to the Proposed Project**

9-67 | Comments made on Section 5.0 apply to the alternatives and environmentally superior alternative with respect to demonstrating their ability to meet national ambient quality standards, lack of evidence for determination that Phase III data recovery is infeasible, and recommended consultation with Native American groups to identify appropriate actions for specific cultural areas.

9-68

As detailed in this letter, the District has serious concerns regarding the adequacy of the Phase 7a DEIR and its implied possibility that the LADWP may willingly choose to not control all Phase 7a areas sufficient to meet its air pollution control obligations. In addition, it appears that the project is at least one year behind the mandatory completion schedule imposed by the District Governing Board. The LADWP faces significant penalty payments and enforcement actions both for not controlling emissions from all required areas and for not controlling emissions according to the schedule it committed to in the 2011 SOA. The District suggests that LADWP staff meet with District staff to discuss and resolve these concerns.

Sincerely,



Theodore D. Schade, P.E.  
Air Pollution Control Officer

Cc (via email):

- Mr. Colin Connor, Calif. State Lands Commission
- Mr. Bruce Kinney, California Department of Fish and Wildlife
- Mr. Mel Joseph, Lone Pine Paiute-Shoshone Tribe
- Mr. Martin Adams, LADWP
- Mr. Mark Sedlacek, LADWP
- Mr. Charles Holloway, LADWP
- Mr. William Van Wagoner, LADWP

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## Section 3 – Responses to Comments on the Draft EIR

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### Letter #9

Theodore D. Schade, P.E.  
Air Pollution Control Officer  
Great Basin Air Pollution Control District  
157 Short Street  
Bishop, California 93514-3537

9-1 GBUAPCD's role as a responsible agency is identified in Section 2.2.1 of the Draft EIR.

While the 2008 SIP contemplated a Phase 7a type project, the 2008 SIP also stated that implementation of all dust controls on the lake bed is subject to CEQA. As the lead agency under CEQA, LADWP determines if there are significant effects of the proposed project, and whether mitigation should be implemented to prevent significant, avoidable environmental damage by requiring changes in the project by the adoption of alternatives that avoid the impacts or through mitigation; and, makes findings. (See Pub. Res. Code, §§ 21000, et seq.; CEQA Guidelines, §§ 15124, 15126.2, 15126.4, 15126.6.)

The asserted delays in implementing the Phase 7a Project are the result of decisions made by the California State Lands Commission (CSLC) outside of LADWP's control. LADWP was permitted by GBUAPCD's orders to pursue moat and row as a dust control method on a 3.1 square mile area referred to as "Phase 7a". Because CSLC claims ownership to the lakebed, LADWP was required to obtain CSLC's approval to install the moat and row controls. CSLC required LADWP to prepare a Supplemental EIR (SEIR) before CSLC would consider the project. LADWP agreed, but the delays caused by the preparation of the SEIR and securing the necessary permits and approvals from CSLC prevented LADWP from implementing the moat and row dust controls by the October 1, 2009, deadline in GBUAPCD's orders. As a result, LADWP was required to obtain a variance from GBUAPCD for an additional year to install the controls. However, in order to secure the variance to cover the delay, GBUAPCD required LADWP to install dust controls on an additional 2.03 square miles (Phase 8 Project). After LADWP negotiated with CSLC for more than 2 years to secure a lease to implement the moat and row controls, CSLC denied LADWP's application. As a result, LADWP did not have sufficient time to comply with CEQA, obtain new permits, leases and approval, and construct BACM by the October 1, 2010, date specified in the variance. LADWP acted in good faith to comply with GBUAPCD's Orders. Nevertheless, GBUAPCD issued an NOV to LADWP that resulted in the Abatement Order and LADWP paying \$6.5 million to GBUAPCD.

USEPA determines when an area is in compliance with the National Ambient Air Quality Standards (NAAQS).

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9-2 CEQA requires that LADWP consider not only the project, but a “range of reasonable alternatives” that meet the project objectives. (*Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 566.) The project objectives cannot be so narrowly drawn that there is only the project and no project, and no alternatives. GBUAPCD cannot commit LADWP to a definite action before the CEQA analysis has been performed. (CEQA Guidelines, § 15352(a).) The impact to cultural resources remains significant after mitigation. The range of alternatives must include alternatives that could avoid or substantially lessen the project’s significant environmental effects. (Pub. Res. Code, §§ 211002, 21002.1(a); CEQA Guidelines, § 15126.6.) The EIR accordingly identifies the alternative that avoids the cultural resource impacts.

GBUAPCD does not provide sufficient evidence to support its assertion that the failure to construct dust controls on the specified 350 acres (0.5 square miles) of the Phase 7a project area (6.5 square miles total) will “cause or contribute” to exceedances of the state and federal PM<sub>10</sub> standards, and amount to a failure to adequately control emissions from within the Phase 7a project boundary. LADWP’s installation and operation of dust controls on 42 square miles reduces over 90 percent of the PM<sub>10</sub> emissions from the Owens Lakebed. Once the Phase 7a project is implemented, dust controls will be on 45 square miles (28,800 acres) and will reduce 96 percent of PM<sub>10</sub> emissions. The avoidance area in the environmentally superior alternative is only 1 percent of the control area, and will have no appreciable negative effect on the overall PM<sub>10</sub> emissions that will be reduced from the Phase 7a project. Furthermore, GBUAPCD is incorrect that the Project itself is required to meet state and federal ambient air quality standards. The regional OVPA, not the Project, must attain the NAAQS.

GBUAPCD states that the failure to control the entire Phase 7a project area will result in exceedances of nearly eight times the NAAQS; however, sufficient evidence is not offered to support this assertion. The vague reference to “previous air quality data collected in the Phase 7a ‘avoided’ areas” is insufficient to substantiate this assertion. Please also see response to comment 9-60.

GBUAPCD misstates the full scope of the Project Objectives summarized in Section 2.5 of the Draft EIR. The objective of the Phase 7a project is to implement dust control measures to meet regulatory dust control requirements “without increasing water commitments while maintaining existing habitat, improving aesthetics, providing safe limited public access, *preserving cultural resources*, and utilizing existing infrastructure and vegetation.” (Draft EIR, § 2.5 [emphasis added].) The Abatement Order does not require LADWP to implement dust controls on Phase 7a without regard to competing environmental, biological, cultural and other interests and/or without complying with applicable state, local and federal laws, including CEQA and related cultural resource and historic preservation laws. In fact, paragraph 5(d) of the Abatement Order includes

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specific provisions contemplating LADWP's obligation to comply with CEQA in connection with the Phase 7a Project. The alternatives are not required to implement all of the project objectives. (*Mira Mar Mobile Community v. City of Oceanside* (2002) 119 Cal.App.4th 477, 489.) When archaeological resources are involved, avoidance, or preservation in an undisturbed state, is the preferable course of action. Public Resources Code section 21083.2, subdivision (b), provides that preservation methods may include planning construction to avoid archaeological sites.

- 9-3 GBUAPCD speculates, without providing sufficient evidence to support its claim, that the alternatives identified in the EIR will not sufficiently control emissions from the entire 3.1 square mile project area. The project alternatives in the Draft EIR do not violate the 2008 SIP, the 2010 Coso Junction Maintenance Plan (CJMP), or the Abatement Order.

The 2008 SIP attainment strategy has not been approved by USEPA, and is therefore not federally enforceable under the Clean Air Act. The 2008 SIP attainment strategy provides that the installation of controls on 43 total square miles will bring the OVPA into attainment with the PM<sub>10</sub> NAAQS by March 23, 2017. The 2008 SIP control strategy does not take into account the additional emissions reductions that have occurred as a result of LADWP's installation of controls on Phase 8, an additional 2.03 square miles that were not considered in the 2008 SIP's attainment demonstration. The excess controls resulting from Phase 8 cover an area four times larger than the Avoidance Area in the environmentally superior alternative. There has been no finding by CARB, USEPA, or GBUAPCD that attainment will not be achieved with these current and supplemental controls; such a finding could not be made until, at the earliest, 2017. Furthermore, if subsequently determined to be necessary, the 2008 SIP could be revised to reflect the modified Phase 7a Project. (42 U.S.C. § 7410, subds. (a)(2)(H), (a)(3).) SIP revisions are commonplace and expressly contemplated by the Clean Air Act. (42 U.S.C. § 7410, subds. (a)(2)(H).)

In addition, the 2008 SIP required LADWP to be responsible for conducting any CEQA analysis beyond the 2008 SIP SEIR in order to complete implementation of the SIP control strategy (see 2008 SIP, § 8.1) and to obtain any necessary leases or other permits or approvals from responsible agencies for the project. (See §§ 8.1, 5.2.6.) Further, paragraph 7 of Board Order 080128-01, which implements the 2008 SIP and is attached as Exhibit 2 to the Abatement Order, also required LADWP to be the lead agency under CEQA for the moat and row project; this same area is now part of the Phase 7a Project. Please also see response to comment 9-1.

The CJMP relates to the Coso Junction Planning Area (CJPA), which is currently in attainment with the NAAQS, and therefore has no application to the OVPA. CARB

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agrees with this interpretation of the purpose and effect of the CJMP in the OVPA. (See Appendix B of the Final EIR [CARB First Procedural Order, pp. 9-10].)

Paragraph 5(d) of the Abatement Order specifically contemplates that LADWP will complete CEQA review for the Phase 7a Project. LADWP could not commit to installing controls on the full Phase 7a area without predetermining the outcome of its environmental analysis in violation of CEQA. (Cal. Code Regs. tit. 14, § 15126.6.) In addition, paragraph 22 of the Abatement Order allows for amendments to the Abatement Order. Depending on the ultimate Phase 7a Project selected by the LADWP Board of Commissioners, LADWP can and will seek an amendment to the Abatement Order, if necessary, and condition the project approval on GBUAPCD's granting LADWP's petition to amend the Abatement Order. This EIR is intended to provide the CEQA analysis for GBUAPCD's action on such a petition.

GBUAPCD's assertion that LADWP will be subject to ongoing civil penalties of \$5,900 per day until the entire Phase 7a area is controlled, and that LADWP agreed to be subject to these "excess emission payments", is incorrect and misstates the requirements of the Abatement Order. No deadlines in the Abatement Order have been missed. BACM controls (except for T12-1) are not required to be installed and operational in Phase 7a until December 31, 2013. Phase 7a and Transition areas controlled by Managed Vegetation are to achieve vegetation cover by December 31, 2015. The Abatement Order contemplates and provides for an extension of time to construct controls without the payment of fines or excess emissions payments. LADWP has notified GBUAPCD as required under the Abatement Order of the need for an extension of time due to circumstances beyond its control, as discussed below, in recognition of the estimated schedule for the project set forth in the Final EIR.

Paragraph 11 of the Abatement Order states that LADWP may be subject to "daily offset payments," except where its failure to install BACM in accordance with the Abatement Order was excused pursuant to Paragraphs 5, 6, 8 and 9 or where these deadlines are modified by the GBUAPCD Governing Board in accordance with Paragraph 22 of the Abatement Order. LADWP has fully complied with all substantive and procedural requirements under Paragraphs 5 and 6 of the Abatement Order relating to the unexpected discovery of cultural resources in Phase 7a, and resulting impact on the schedule to construct the Phase 7a project. LADWP expects to petition the GBUAPCD Governing Board for a modification to the Abatement Order for the necessary extensions of time. GBUAPCD lacks authority to assess civil penalties or daily offset payments for alleged violations of the Abatement Order under these circumstances. Further, it is improper for GBUAPCD to pre-judge LADWP's contemplated petition to amend the Abatement Order and imply that penalties will be imposed because LADWP is fully complying with CEQA's mandates.

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Please also see response to comment 9-1.

9-4 Please see responses to comments 9-1 to 9-3.

The 2008 SIP, 2010 CJMP, and Abatement Order all contemplated that LADWP would conduct CEQA review for the Phase 7a Project, and all of these documents may be modified or amended to account for issues, such as cultural resources, that could arise during the CEQA process. As such, it is incorrect that these documents can never be amended. Specifically, paragraph 22 of the Abatement Order provides that either LADWP or Great Basin may petition the GBUAPCD Governing Board for a modification of the Order, with or without a stipulation. The 2008 SIP, 2010 CJMP, and Abatement Order do not require LADWP to implement dust controls on Phase 7a where doing so would require the destruction of valuable cultural and historical resources in violation of applicable state, local and federal laws, including but not limited to, CEQA, the National Historic Preservation Act (16 U.S.C. § 470 et seq.) and NEPA (42 U.S.C. §§ 4231, et seq.), that are expressly directed at preserving resources and preventing their destruction. (See also, e.g., 25 U.S.C. §§ 3001, et seq. [Native American Graves Protection and Repatriation Act]; 16 U.S.C. § 470aa [Archaeological Resources Protection Act of 1979]; Pub. Res. Code, §§ 5097.97-.98.)

Paragraph 23 of Board Order 080128-01 requires LADWP to comply with applicable CEQA mitigation measures included in the 2008 SIP SEIR. The mitigation measures require, among other things, that (1) potentially impacted prehistoric and historic archaeological sites be assessed for significance as required by CEQA through Phase II investigations; (2) impacts to sites found to be significant be mitigated to below the level of significance through a Phase III data recovery program; and, (3) there be a cultural resources monitoring program during construction and coordination with interested Native American tribes. (SEIR § 3.3.5; p. 3.3-24; see also Appendix R-E [Final Cultural Resources Technical Report], § 5.3, pp. 5-107-109; Pub. Res. Code, § 2108302; CEQA Guidelines § 15064.5(a) For those sites that the LADWP Board of Commissioners determines in-situ preservation is not the preferred manner of avoiding damage to archaeological resources, LADWP will comply with these mitigation measures by implementing a Phase III data recovery program.

Further, the Inyo County General Plan policies set forth in the Land Use/Conservation/Open Space element, that must also be considered include:

- Policy CUL-1.3, Protection of Cultural Resources: Preserve and protect key resources that have contributed to the social, political, and economic history and prehistory of the area, unless overriding considerations are warranted.

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- Policy CUL-1.4, Regulatory Compliance: Development and/or demolition shall be reviewed in accordance with the requirements of CEQA and the National Historic Preservation Act.
- Policy CUL-1.5, Native American Consultation: The County and private organizations shall work with appropriate Native American groups when potential

The Project does not involve an illegal “relaxation” of control strategy requirements that can only be resolved by controlling all Phase 7a areas. In accordance with CEQA, the Draft EIR identifies a reasonable range of project alternatives that “would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project,” and then evaluates the comparative merits of each alternative. (CEQA Guidelines, § 15126.6.) There is not sufficient evidence to support that avoiding 350 acres is a relaxation of the requirements, particularly given LADWP has already agreed to control (through Phase 8a) 2 square miles more than is necessary to reach attainment of the PM<sub>10</sub> NAAQS. The LADWP Board of Commissioners, as the lead agency under CEQA, is vested with the authority to select the alternative that most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. (CEQA Guidelines, § 15091.) It would be unlawful for GBUAPCD to order LADWP to circumvent CEQA and approve a specific project without consideration of the alternatives. It would also be unlawful under CEQA for GBUAPCD to predetermine and order the outcome of an environmental analysis that LADWP is required to undertake in connection with the project. (Cal. Code Regs. tit. 14, § 15126.6.)

9-5 Please see responses to comments 9-1 to 9-4.

The 2008 SIP attainment strategy contemplated the installation of controls on 43 square miles of the OVPA as sufficient to achieve PM<sub>10</sub> attainment by March 23, 2017. GBUAPCD subsequently ordered LADWP to control an additional 2 square miles as part of Phase 8 (bringing the total dust control area to 45 square miles); however, this additional area was never considered necessary for the OVPA to meet the NAAQS. The Phase 8 controls were imposed by GBUAPCD as a condition of granting LADWP a variance extending the deadline for it to install moat and row controls on Phase 7a because of permitting and other delays resulting from decisions made by CSLC. This is in excess of what is required in the 2008 SIP. LADWP has completed Phase 8 and, therefore, installed dust mitigation above and beyond what is required by the 2008 SIP for the OVPA to reach attainment.

The SCRCD is intended to be a 42 U.S.C. section 7502(c)(9) CAA “contingency measure.” According to the 2008 SIP, SCRCDs are implemented in the event the 2008 SIP control strategy fails to bring the planning area into compliance or the reasonable further



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progress milestones cannot be met. The 2008 SIP has not been approved by USEPA. As such, the SCRDP process is not the applicable contingency measure required by the CAA. Even if it were, the attainment demonstration for the 2008 SIP shows that the OVPA will attain the PM<sub>10</sub> NAAQS by 2017 and achieve reasonable further progress without the SCRDP. Under the CAA, the contingency measure becomes effective *upon determination by USEPA* that the area has failed to make reasonable further progress or to attain the PM<sub>10</sub> NAAQS by the applicable statutory deadline. (59 Fed. Reg. 41998-01, 42014-42015 (Aug. 16, 1994).) USEPA has made no such determination that reasonable further progress or the 2017 attainment has not been met. Thus, the contingency measure cannot be activated until the 2008 SIP is declared a failure.

The SCRDP is also not a contingency measure required by the Coso Junction Maintenance Plan. On September 3, 2010, USEPA redesignated the CJPA in attainment of the PM<sub>10</sub> NAAQS and approved a maintenance plan, and the area has remained in attainment. (75 Fed. Reg. 54031-01 (September 3, 2010).) Therefore, the contingency measure provisions of the CJPA Maintenance Plan have not been triggered, and there is currently no legal requirement to implement any contingency measure to address a NAAQS violation in the CJPA. USEPA stated the contingency measures for the CJPA consist of the dust controls that GBUAPCD has *already ordered* LADWP to implement on an additional 13.2 miles of Owens Lake, beyond the 29.8 square miles of controls that were in place as of December 2006. (75 Fed. Reg. 36023-01, 36031 (June 24, 2010).) Since the CJPA attained the PM<sub>10</sub> NAAQS as a result of the controls that were implemented by December 2006, the additional, not-yet-implemented controls would serve as adequate contingency measures to address any future NAAQS violations. (*Id.*) Further, the SCRDPs are a 42 U.S.C. section 7502(9) contingency measure, which is the contingency provision for non-attainment plans. 42 U.S.C. section 7505a(d), is the contingency provision for maintenance plans. USEPA has made it clear that the contingency provisions of 42 U.S.C. section 7502(c)(9) do not apply to contingency measures in maintenance plans. (75 Fed. Reg. 36023-01, 36031 (June 24, 2010).) Thus, GBUAPCD's improper decision to trigger the SCRDP process to impose additional and unwarranted requirements upon LADWP is not evidence that the specific 350 acres in the avoidance alternative will cause or contribute to violations of the PM<sub>10</sub> NAAQS.

The remaining 3.6 square miles of controls were ordered by GBUAPCD as part of the 2011 and 2012 SCRDPs based upon data obtained from its Dust ID Model, which is flawed and defective because it violates USEPA's approved air quality measurement standards and fails to account for other emission sources, off-lake sources, construction, vehicle, monitoring and transport activities, and natural events that cause and contribute to violations of the PM<sub>10</sub> NAAQS in the OVPA. (Please also see response to comment 9-61.) LADWP disputes the validity and enforceability of the 2011 and 2012 SCRDPs, and has challenged both of these orders in administrative and judicial proceedings currently

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pending before CARB (2012 SCRD) and the Sacramento County Superior Court (2011 SCRD), Case No. 2013-80001451.

Phase 7a is a stand-alone Project that LADWP has evaluated in compliance with CEQA and all applicable local, state and federal laws and regulations.

9-6 Please see responses to comments 9-1 to 9-5.

LADWP is the lead agency for the Phase 7a Project pursuant to the 2008 SIP, Board Order 080128-01, the Abatement Order, and Section 15367 of the CEQA Guidelines. As lead agency, LADWP is responsible for evaluating each of the Project Alternatives in light of the relevant facts, laws and public comments so that the Board of Commissioners can determine the best course of action. (CEQA Guidelines, §§ 15126.6, 15004(a).) The Board of Commissioners, as the lead agency under CEQA, is vested with the authority to select the alternative that most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. (CEQA Guidelines, § 15091.) The CAA does not require LADWP to ignore or to destroy cultural resources. LADWP takes its responsibilities under CEQA very seriously and will analyze all of the potential impacts associated with each Project Alternative to enable the Board of Commissioners to make an informed decision about how to proceed. (*Id.*) LADWP is in compliance and will continue to comply with all applicable local, state and federal laws relating to air quality, environmental review and the protection and preservation of cultural and archaeological resources. LADWP will not ignore CEQA and comments submitted by local Native American Tribes.

9-7 The Avoidance Alternative was defined to avoid construction disturbance to known cultural resources and to preserve the significant cultural sites. As noted in Draft EIR Section 5.4.2, the sites would be subject to continued weathering by wind and water. If cultural resources are avoided, continued weathering would not be an impact of the proposed project. However, as noted in CEQA Guidelines Appendix K, “in-situ preservation of a site is the preferred manner of avoiding damage to archaeological resources. Preserving the site is more important than preserving the artifacts alone because the relationship of the artifacts to each other in the site provides valuable information that can be lost when the artifacts are removed. Further, preserving the site keeps it available for more sophisticated future research methods. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.” (Draft EIR, § 4.4.11.)

LADWP is aware that looting is a potential threat to cultural resources on Owens Lake and care has been taken not to include the locations of significant cultural resources in publically distributed documents. Please see Section 4.4.1 of the Draft EIR for further discussion on the need for confidentiality of cultural resources information. GBUAPCD

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has not offered any suggestions on methods to protect cultural resources and reduce impacts to less than significant levels. However, CSLC is the landowner and ultimately responsible for the security of the cultural resources.

9-8 Please see Section 2 of the Final EIR for the current Phase 7a construction schedule. The dates presented are contingent upon approval of the project by the Board of Water and Power Commissioners, receipt of a lease amendment from CSLC, and receipt of permits and other approvals from other agencies, including Fish and Wildlife and the GBUAPCD Governing Board's approval of a modification to the Abatement Order. The construction period for construction phase #1 is estimated to be from September 2013 to April 2015.

9-9 As needed, irrigation in T12-1 would be applied by a temporary above ground water system or via water trucks. If a subsurface irrigation system is installed, it will be constructed as part of the Phase 7a project (as described in Draft EIR Section 3.1.4 and analyzed in Section 4). If monitoring indicates that Tillage is effective for dust control, Tillage in T12-1 will be continued. If required dust control efficiencies are not achieved, Gravel Cover will be installed (Draft EIR Section 3.1.4). Please also see Final EIR Section 2, FEIR Appendix A and response to comment 7-4.

9-10 Please see response to comment 9-4.

Paragraphs 7 and 8 of the Abatement Order provide that during construction of the project, up to 3.0 square miles of transition area may not be compliant at all times with BACM. As stated in Draft EIR Section 3.1.8.1, the transition of 0.4 square miles of DCAs will be accomplished during the non-dust control season. As such, LADWP will be in compliance with the Abatement Order and modification of the Abatement Order to allow the additional 0.4 square miles to be transitioned during the dust control season is not required. However, LADWP intends to submit a petition to modify the Abatement Order to clarify this point. LADWP notes GBUAPCD's comment that District staff would support this modification to the Abatement Order

9-11 Please see responses to comments 9-1 to 9-5.

The CJMP relates to the Coso Junction Planning Area, which is currently in attainment with the NAAQS, and therefore has no application to the OVPA. Air quality data from the referenced stations are included in Section 2 of the Final EIR.

9-12 Please see responses to comments 9-1 to 9-5.

GBUAPCD is incorrect that the control of 48.6 square miles is required in order to reach attainment with the PM<sub>10</sub> NAAQS. It has not been determined that the 43 square miles of

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controls identified in the 2008 SIP are insufficient to achieve attainment with the NAAQS since there have been no findings by USEPA, CARB, or GBUAPCD that the current dust controls have failed to achieve attainment by the 2008 SIP's projected attainment date of 2017.

9-13 Please see responses to comments 9-1 to 9-5.

9-14 Please see responses to comments 9-1 to 9-5 and 9-12.

GBUAPCD has not provided sufficient evidence to support its assertion that the failure to construct dust controls on the specified 350 acres of the Phase 7a project area will cause the OVPA to fail to achieve attainment with the NAAQS. Furthermore, GBUAPCD is incorrect that the Project itself is required to meet state and federal ambient air quality standards. The OVPA, not the Project, must comply with the NAAQS.

9-15 Please see responses to comments 9-1 to 9-5.

The Draft EIR concluded that implementation of the Avoidance Alternative (excluding 350 acres of dust controls from the original 3.1 square mile project area) and mitigation measures CR-1 to CR-6 would reduce impacts to cultural resources to less than significant levels. (Draft EIR, §§ 1.9, 4.4.1.) The Draft EIR examined the feasibility of a Phase III data recovery as mitigation (Draft EIR, § 4.4.11.1), but concluded that it would not be “feasible mitigation for impacts to significant cultural resources located on approximately 350 acres of the original Phase 7a project areas”. (Draft EIR, § 4.4.11.1, p. 4.4-41; see also § 1.9; § 4.4.1, p. 4.4-47. The resources intended to be protected by the avoidance alternative are sites eligible for listing under the California Register of Historical Resources (CRHR). A Phase III recovery may not provide the optimum mitigation for CRHR-eligible sites. Further, a Phase III data recovery is a complex, time-consuming process that could also further delay implementation of the Phase 7a Project. The exact length of these delays cannot be determined because the full extent of the cultural resources and artifacts situated within the Project area is presently unknown. For example, if the Phase III recovery uncovered substantially more artifacts than previously identified or a Native American burial site containing human remains, then the delays associated with installing BACM could be potentially significant. From this perspective, a Phase III recovery would be contrary to GBUAPCD's position that controls be implemented immediately within the entire Phase 7a area regardless of the impacts to existing cultural resources. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. In response to GBUAPCD's comments, the Board will consider adoption of the originally proposed project with Phase III data recovery as required by the 2008 SIP SEIR for those sites that the Board determines in situ

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preservation is not the preferred manner of avoiding damage to archaeological resources. The Board will also consider, and may potentially adopt, an alternative to the proposed project, and may condition its project approval on GBUAPCD's approval of a petition to modify the Abatement Order.

- 9-16 In a letter dated February 3, 2012, Mary Wuester, the acting Chairperson for the Lone Pine Paiute-Shoshone Reservation (LPPSR) is acting as a spokesperson for the tribe when she states *“Avoidance is the best mitigation...The LPPSR General Council has passed legislation to prevent destruction of our cultural resources and sacred sites by whatever means necessary.”*

In a letter dated March 18, 2013, Kathy Bancroft, the acting THPO from the LPPSR recommended site avoidance and in-situ protection of cultural resources when she states *“Some may argue that simply avoiding the cultural resources is not protecting them. In reality, avoidance is the highest form of protection. These artifacts have been out there for thousands of years and some look like they were just made yesterday. Even moving around the rocks that form a thermal feature or house ring destroys its value. Artifacts do not belong in someone's home or in a box in a corner of some university. They certainly do not need to be unnecessarily destroyed by those who do not realize their actual value to all people. The archaeology needs to remain in place in order to tell the true story of the past.”*

Similar sentiments are expressed in letters dated March 18, 2013 by Nancy J. Naylor, the LPPRS Cultural Resources Officer, and other LPPRS representatives, including Barbara Freund, Leonard Espinosa, Leslie Bellas, and Thomas N. Jefferson. Raymond Andrews, the THPO of the Bishop Paiute Tribe and Charlotte Lange of the Mono Lake Kutzadika<sup>a</sup> Tribe repeated the request to avoid and protect the cultural resources.

- 9-17 As part of the Master Planning process, habitat value and water demand changes as a result of Phase 7a implementation were calculated based on the HSM and historical water demands by dust control measures (DCMs) on Owens Lake. The conclusion of the analysis is that Phase 7a will avoid increases in water use while maintaining habitat value. Existing average water use for the OLDMP (through Phase 7) is approximately 88,694 afy; projected average water use for the OLDMP with Phase 7a is estimated at 87,958 afy. Under existing conditions, water demand can go up to 95,877 afy (or 108 percent of average annual) during a dry year. Therefore, with Phase 7a, demand is anticipated to be up to approximately 95,000 afy, the maximum volume of water allotted to the OLDMP per the Board of Water and Power Commissioners Resolution 010 063. Resolution 010 063 (Owens Lake Water Use Policy) requires that the OLDMP be implemented with water conservation measures on Owens Lake to reduce LAA diversions below 95,000 afy for existing and future dust control projects.

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9-18 Comment noted.

9-19 Please see responses to comments 9-1 to 9-5 and 9-12.

GBUAPCD's assertion that the Project Alternatives over-emphasize the protection and preservation of cultural resources in lieu of addressing the air quality impacts associated with each alternative is incorrect. In preparing the Draft EIR, LADWP, as lead agency for the Phase 7a project, individually evaluated each Project Alternative (No Project, Avoidance Alternative, Expanded Avoidance Alternative and Avoidance Alternative with Soil Binder) to determine whether they would achieve the emission reductions required by the 2008 SIP without unduly impacting areas known to contain significant cultural resources, in compliance with CEQA and historical and cultural resources protection laws.

GBUAPCD does not provide sufficient evidence to support its assertion that the "avoided areas, by themselves, have caused federal NAAQS exceedances" and/or that the failure to install controls on these areas will result in "continued state and federal air quality standard exceedances."

Paragraph 22 of the Abatement Order specifically provides that the GBUAPCD Governing Board may modify the Abatement Order in response to a petition or stipulation of the parties. LADWP may approve the project contingent upon the GBUAPCD Governing Board considering and approving a future petition or stipulation to modify the Abatement Order. (*Laurel Heights Improvement Assn. v. Regents of Univ. of California* (1988) 47 Cal.3d 376, 394; *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 [purpose of EIR "is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made."] [emphasis in original].) For the reasons discussed in LADWP's response to GBUAPCD Comment 9-1 to 9-5, GBUAPCD has no basis to impose penalties or excess emission fees.

9-20 Due to the scale of Figure 1-1, the public amenities and road details are not shown. Please see the detailed figures in Section 3 of the Draft EIR (Figures 3-15 through 3-18 for public amenities and Figure 3-1 for the re-routing of the Lake Minerals Road).

9-21 Please see responses to comments 9-1 to 9-5 and 9-19.

LADWP is the lead agency for the Phase 7a Project pursuant to the 2008 SIP, Board Order 080128-01, Abatement Order, and Section 15367 of the CEQA Guidelines. As lead agency, LADWP is responsible for determining the Project Objective and identifying and evaluating a reasonable range of alternatives for the Board of Commissioners to consider before making their ultimate determination about how to proceed on Phase 7a. (CEQA

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Guidelines, § 15126.6.) GBUAPCD, as responsible agency, may comment upon the Project Objective and Project Alternatives selected by LADWP; however, the ultimate determination regarding these matters are solely and exclusively within the discretion of LADWP. (*Id.* [“The lead agency is responsible for selecting a range of project alternatives for examination...”]; CEQA Guidelines, § 15124, subd. (b).) Please also see Sections 1.6 and 1.7 of the Draft EIR.

The underlying purpose of the Phase 7a Project is not “compliance with the NAAQS.” The OVPA, not the Project, is required to attain the NAAQS.

- 9-22 Construction crews are trained on an annual basis as part of the lakebed worker education program to recognize Snowy Plover, their life history, and the need for the requirements of the nest buffer and speed limits. Buffers are more densely marked where they intersect roads which may include placement of signs in high traffic areas. Maps with nest location information and construction restrictions are distributed whenever a new nest is found. Since these procedures are existing practices, the suggested revisions to Mitigation Measure BIO-2 are not incorporated.

Temporary lighting does not have the same potential to impact nesting shorebirds through predator perching as permanent structures since they are ephemeral and will be moved thereby limiting predators from habituating to their presence. These structures will also typically be placed in areas of active construction which have been surveyed for active nests. Therefore, the suggested revisions to Mitigation Measure BIO-4 are not incorporated.

In response to your comment, Mitigation Measure BIO-5 has been revised as follows (see also FEIR Section 2):

**BIO-5. Preconstruction Surveys for Nesting Birds.** If ~~tree or shrub~~ vegetation removal activities are scheduled to occur during the bird breeding season (January 15 to July 31), pre-construction surveys for bird nests shall be conducted no more than 7 days prior to the start of ground-disturbing activities. Surveys shall be conducted in areas of suitable nesting habitat that will be impacted by construction. Active nests will be marked at a safe distance with visible flagging and the construction crew supervisor will be made aware of these locations. Construction may commence in all areas without active bird nests. All bird nests will remain undisturbed while they are active. After a nest ceases to be active (fledges or fails), and the qualified biologist has made this determination, construction may proceed in the area. If construction is initiated in one breeding season and persists into subsequent breeding seasons, additional surveys are not necessary unless construction activities involve additional ~~tree or shrub~~ vegetation removal.

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9-23 Please see responses to comments 9-1 to 9-5, 9-19, and 9-21.

The OVPA, not the Project, is required to attain the NAAQS. Therefore, statements “regarding the inability of the project to meet the basic objectives of dust control” are inaccurate and will not be changed to refer to an “inability to achieve compliance with the NAAQS”. Furthermore, the Project Objective, as discussed in LADWP Response to GBUAPCD Comment 9-2 and summarized in Section 2.5 of the Draft EIR, is to meet regulatory dust control requirements “without increasing water commitments while maintaining existing habitat, improving aesthetics, providing safe limited public access, preserving cultural resources, and utilizing existing infrastructure and vegetation.” (Draft EIR, § 2.5.) GBUAPCD’s comment understates the true nature and scope of the Project Objective.

9-24 Please see responses to comments 9-15 and 9-60.

9-25 Please see responses to comments 9-1 to 9-5, 9-19, and 9-21.

The 2008 SIP provides that LADWP will be responsible for conducting any CEQA analysis beyond the 2008 SIP SEIR in order to complete implementation of the SIP control strategy (see 2008 SIP, § 8.1) and to obtain any necessary leases, permits or other approvals from responsible agencies for the project. (See §§ 8.1, 5.2.6.) Paragraph 7 of Board Order 080128-01, which implements the 2008 SIP and was included as Exhibit 2 to the Abatement Order, also required LADWP to be the lead agency under CEQA for the moat and row project, which is the same Phase 7a area. Paragraph 5(d) of the Abatement Order specifically contemplates that LADWP will complete CEQA review for the Phase 7a Project. LADWP prepared the Phase 7a Draft EIR pursuant to the 2008 SIP, 2008 SIP EIR, Board Order 080128-01 and the Abatement Order. The Draft EIR meets all procedural and substantive requirements imposed by these documents.

9-26 Please see additional information on Responsible and Trustee Agencies in Section 2 of the Final EIR.

The permitting authority of the Corps of Engineers and Bureau of Land Management and the role of the Inyo County Department of Environmental Health Services are described in Draft EIR Section 2.6.5.

9-27 Figure 1-1 is identical to Figure 2-2. It is included for completeness of the Executive Summary.



## Section 3 – Responses to Comments on the Draft EIR

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- 9-28 This information is included in GBUAPCD’s comment letter and, like all other public comments, will be considered by the LADWP Board of Commissioners before making its ultimate determination on the Phase 7a Project. Comments on the Draft EIR and responses to comments are a part of the Final EIR.
- 9-29 Please see response to comment 9-21.
- 9-30 LADWP complied with all local, state and federal laws and regulations relating to consultation with local Native American Tribes about the potential impacts of the Phase 7a Project. Please see section 4.4.8.3 of the Draft EIR. Native American Tribes provided valuable input to LADWP throughout this process, including highly sensitive information about cultural resource sites and artifacts that LADWP is not publicly disclosing in order to ensure the protection and preservation of these sites. Please see Section 4.4.1 of the Draft EIR for further discussion on the need for confidentiality of cultural resources information.

The CSLC was informed of steps taken by LADWP and their consultant to engage in Native American consultation. The permit application prepared by Garcia and Associates for the CSLC in July 2011 described Native American consultation, which had been ongoing. The following information was provided to the CSLC: “On March 8, 2011, letters were mailed to Inyo County Native American tribal representatives to invite them to an informational meeting regarding the Phase 7a project to be held on April 11, 2011. Several Native American representatives attended the meeting, which included a discussion of archaeological resources identified during the archaeological survey and the proposed plans for Phase II Archaeological Evaluative Testing. Kathy Bancroft from the Lone Pine Paiute-Shoshone Tribe is being informed of when and where archaeological survey is being performed and she is invited to be present; in turn, she will notify other tribal representatives. Similarly, she (or another Native American representative) will be invited to monitor when archaeological excavations occur.”

The CSLC’s subsequent permit issued for Phase 7a Phase I and Phase II cultural resources investigations, states, “Native American representatives shall be notified of all archeological field work and be invited to be present.” In accordance with the permit condition, LADWP representatives coordinated closely with tribal representative Kathy Bancroft, and she or another tribal representative were given the opportunity to be present during the archaeological studies. Ms. Bancroft was also in contact with the archaeologists on a daily basis to determine where they were working, so she, or another representative, could be present.

- 9-31 A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies is included in Draft EIR Section 2.6.5.

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- 9-32 Draft EIR Figures 2-1, 2-2, 3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-15, 3-16, 3-17, and 3-18 provide sufficient detail regarding the precise location and boundaries of the proposed project as well as the regional setting.
- 9-33 Please see response to comment 9-21. As Lead Agency under CEQA for the proposed project, LADWP has the authority to define project objectives (Draft EIR Section 2.5). The Phase 7a project objective reflects that the goal of the project is to implement dust control measures. The eight project objectives presented in the 2008 SIP EIR were reviewed. These eight objectives are also focused on implementing dust control measures.
- 9-34 The Project Description set forth in Section 1.4 of the Draft EIR fully complies with the applicable CEQA Guidelines. (CEQA Guidelines, § 15124, subd. (c).) The Phase 7a Project’s technical and environmental characteristics are detailed through Sections 3 and 4 of the Draft EIR. The economic growth inducing impacts of the Phase 7a Project are also discussed in Sections 1.8 and 7.6 of the Draft EIR.

The Draft EIR does not contain any statements regarding the infeasibility of Phase II cultural resources investigations. In fact, a Phase II cultural resource testing and evaluation was conducted for 73 archaeological sites (Draft EIR Section 4.4.8.5). Please also see response to comments 9-4 and 9-15.

- 9-35 Draft EIR Section 4.1.2 provides sufficient detail on the existing aesthetic conditions of the project site. Photographs of the project site are included as Draft EIR Figures 3-3, 3-12, 4.1-1, 4.1-2 and 4.1-5. Figure 4.1-1 is a photograph taken from the west.
- 9-36 The term “vegetative communities” is used consistent with the floristic association concepts of Sawyer and Keeler-Wolf (1995) and Sawyer, Keeler-Wolf and Evens (2009), combined with older community classification from Holland (1986) (CDFG, 2010) (Draft EIR Section 4.3.1).
- 9-37 The generalized term “sensitive species” is used in the text of the Draft EIR. Specific species status (endangered, threatened, California species of special concern, etc.) are noted in the Draft EIR Tables 4.3-3, 4.3-4, and 4.3-5.
- 9-38 Section 4.3.1 of the Draft EIR provides sufficient detail on the regulatory framework for biological resources related to the proposed project.
- 9-39 The Bald and Golden Eagle Protection Act, originally passed in 1940, provides for the protection of the bald eagle and the golden eagle (as amended in 1962) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export

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or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). Please see Section 2 of the Final EIR.

- 9-40 Draft EIR Section 4.3.1.1 is sufficiently readable.
- 9-41 Section 4.3.1.2 of the Draft EIR includes sufficient discussion of state laws and regulations governing the protection of sensitive species
- 9-42 Draft EIR Section 4.3.1.2 is sufficiently readable.
- 9-43 Review of previous biological resources reports was conducted (Draft EIR Section 4.3.3.1). The results of the Audubon surveys for 2010 are reflected in Draft EIR Figures 4.3-1 to 4.3-5.
- 9-44 The Biological Resources Summary Report prepared for the project is referenced in the Draft EIR. The significant portions of the document have been incorporated into the EIR and the document is available from LADWP. LADWP Watershed Resources Staff conducted a field assessment of existing conditions in April and May 2011 following spring green-up. General biological resources surveys and wetland delineations (where appropriate) were conducted. The specific number of survey hours are not noted since it's not germane to the environmental impact assessment presented in the Draft EIR.
- 9-45 Draft EIR Figure 2-2 notes the location of Phase 7a DCAs.

The term “vegetative communities” is used consistent with the floristic association concepts of Sawyer and Keeler-Wolf (1995) and Sawyer, Keeler-Wolf and Evens (2009), combined with older community classification from Holland (1986) (CDFG, 2010) (Draft EIR Section 4.3.1).

The vegetation conditions for Phase 7a DCAs are mapped (Draft EIR Appendix E). Select locations (i.e., access roadway) have been deliberately excluded from the Draft EIR to protect cultural resources.

Please see Section 2 of the Final EIR for revisions to Table 4.3-1 to include observed wildlife use. The suggested name change to the table is therefore not incorporated.

**American Peregrine Falcon.** The Peregrine Falcon is a cliff-nesting species that forages in a wide variety of habitats, often in areas of high prey concentrations. There is no nesting habitat for the species in the Project Area. Peregrine Falcons are seen at Owens Lake somewhat regularly. As habitat value acres will be maintained, no long-term impact

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is anticipated to habitat of potential prey. As noted by the commenter, the American Peregrine Falcon is a Fully Protected Species (see Final EIR Section 2).

The last sentence of the Sensitive Species paragraph of Draft EIR Section 4.3.3.3 is revised indicate that Bell’s Sage Sparrow is not present in the project area (Final EIR Section 2).

**Snowy Plover.** The Snowy Plover present on Owens Lake is not a different subspecies from the west coast population. It is the inland breeding population which is a distinct population segment separate from the coastal population, which is listed. Recent taxonomic revisions have changed the species epithet of Snowy Plover on Owens Lake to *nivosus*. Draft EIR Table 4.3-4 clearly identifies Snowy Plover as a California Species of Special Concern (CSC). Table 4.3-4 is revised to add “inland breeding population” to the Snowy Plover listing (Final EIR Section 2).

The table headers are sufficiently clear as presented.

As noted, the reference in Table 4.3-3 is to Sierra Nevada big horn sheep. Information on American Peregrine Falcon is included above. As a State Endangered species, Bald Eagle is included in Draft EIR Table 4.3-3.

- 9-46 As noted in the Draft EIR Section 4.3.3.4, a detailed listing of bird species observed on Owens Lake from seven lake-wide bird surveys from 2007 to 2008 is included in the Owens Lake Habitat Management Plan (LADWP, 2010e; citation corrected as noted in Section 2 of the Final EIR).
- 9-47 Draft EIR Section 4.3.5.1 is sufficiently clear as written. Additionally, since LADWP has elected to publish errata to the EIR (Final EIR Section 2 Additions and Corrections) and not to reprint the document, suggestions to move text have not been incorporated.
- 9-48 The generalized term “sensitive species” is used in the text of the Draft EIR. Specific species status (endangered, threatened, California species of special concern, etc.) are noted in the Draft EIR Tables 4.3-3, 4.3-4, and 4.3-5.

As noted, the reference in Draft EIR Section 4.3.5.4 is to Sierra Nevada big horn sheep.

- 9-49 Please see response to comment 9-22.
- 9-50 Please see Section 4.4 of the Draft EIR for the discussion about how each Project Alternative would achieve the Project Objective of meeting regulatory dust control requirements “without increasing water commitments while maintaining existing habitat, improving aesthetics, providing safe limited public access, preserving cultural resources,

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and utilizing existing infrastructure and vegetation.” Please see also section 2.5 of the Draft EIR.

GBUAPCD does not provide sufficient evidence or data to support its assertion that BACM must be installed on at least eight of the ten CRHR-eligible sites identified within the Project Area in order to “adequately control emissive dust.” With respect to the general reliability, accuracy and effectiveness of GBUAPCD’s flawed Dust ID Model, please see response to 9-61.

Regarding CRHR-eligible site CA-INY-8918, please note that project re-design will allow complete avoidance of this site (see Mitigation Measure CR-3). No construction disturbance will be necessary at this site.

Regarding the remaining CRHR-eligible sites located within Phase 7a DCAs, if the LADWP Board of Water and Power Commissioners adopts the originally proposed project, LADWP would implement Phase III Data Recovery as a mitigation measure for the portions of the CRHR-eligible sites impacted by project construction. However, LADWP has determined that Phase III Data Recovery would significantly reduce the integrity of the sites. Further, Phase III Data Recovery will create a cumulative effect on the number of archaeological sites destroyed as a result of the project. Based on the comment, if the originally proposed project is adopted by the Board, they may also elect to exclude implementation of BACM on portions of the CRHR-eligible sites.

Implementation of Shallow Flooding in CRHR-eligible sites would not preserve artifacts in situ. Construction for Shallow Flooding infrastructure includes grading and trenching for irrigation system installation.

- 9-51 Please see response to comment 9-30. Please see Appendix D of the Final EIR for the referenced letters.
- 9-52 Draft EIR Section 4.5.1 is sufficiently clear as written.
- 9-53 Please see additional information on Responsible and Trustee Agencies in Section 2 of the Final EIR.
- 9-54 Predicted habitat conditions after implementation of the Phase 7a project are discussed in Draft EIR Section 4.3 and Final EIR Appendix A. The predicted increases in vegetated area under the proposed project will increase habitat connectivity. Since significant water quality impacts are not predicted for project construction or operation (Draft EIR Section 4.5), impacts on wildlife from water pollutants would not result.

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- 9-55 Shallow Flooding design for T1A-4 includes the construction of perimeter berms (16 feet in width, no less than 3 feet in height with a slope of 3:1 to 4:1). Riprap will be installed on the slope sides. The berm is noted on Draft EIR Figure 3-6.
- 9-56 Impacts from construction of project facilities on the entire area of the DCAs, including the locations of the public amenities, are detailed in Section 4 of the Draft EIR. Once constructed, the boardwalks, trails, berm roads and visitor overlooks would increase public access and provide a greater degree of protection to nesting birds from public disturbance than under existing conditions. Please also see response to comment 8-7.
- 9-57 Please see response to comment 9-15.
- 9-58 The 2010 LADWP Urban Water Management Plan allocates a total of 95,000 afy of potable water for Owens Lake dust mitigation. (2010 UWMP, § 5-3, Exh. 5-E.) This is water that would otherwise be used for municipal purposes to supply LADWP’s more than four million customers. The Board of Water and Power Commissioners Resolution 010 063 (Owens Lake Water Use Policy) requires that the OLDMP be implemented with water conservation measures on Owens Lake to reduce LAA diversions below 95,000 afy for existing and future dust control projects. Thus, any additional water needed for dust control on Phase 7a above and beyond the allocated 95,000 afy will need to be offset from some other source besides the Los Angeles Aqueduct. LADWP cannot meet its municipal needs and also support the ever increasing diversions of water required by GBUAPCD for Owens Lake dust controls.
- 9-59 Please see responses to comments 9-1 to 9-5, 9-19, and 9-21.

GBUAPCD is incorrect that “NAAQS would not be met under the ‘no project’ alternative. The OVPA, not the Project, is required to attain the NAAQS.

- 9-60 Please see response to comments 9-4 and 9-15. The Draft EIR concluded that implementation of the Avoidance Alternative (excluding 350 acres of dust controls from the original 3.1 square mile project area) and mitigation measures CR-1 to CR-6 would reduce impacts to less than significant levels. (Draft EIR Sections 1.9 and 4.4.1) The Draft EIR examined the feasibility of a Phase III data recovery as mitigation (Draft EIR Section 4.4.11.1), but concluded that it would not be “feasible mitigation for impacts to significant cultural resources located on approximately 350 acres of the original Phase 7a project areas”. (Draft EIR Section 4.4.11.1, p. 4.4-41; see also Section 1.9; Section 4.4.1, p. 4.4-47.) However, in response to this comment, the LADWP Board of Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources, including potentially adopting the originally proposed project with Phase III data recovery as required by the 2008 SIP SEIR for those sites that the Board determines

## Section 3 – Responses to Comments on the Draft EIR

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in-situ preservation of a site is not the preferred manner of avoidance damage to archaeological resources. The Board may condition its project approval on GBUAPCD's approval of a petition to modify the Abatement Order.

The use of Shallow Flooding as BACM in the areas known to contain cultural resources, which LADWP notes are situated below the regulatory 3,600-foot shoreline of Owens Lake, would not reduce cultural resources impacts below a level of significance. Implementation of Shallow Flooding in CRHR-eligible sites would not preserve artifacts in situ. Construction for Shallow Flooding infrastructure includes grading and trenching for irrigation system installation. The alternatives identified by LADWP in the Draft EIR would most effectively achieve the Project objectives of meeting regulatory dust control requirements “without increasing water commitments while maintaining existing habitat, improving aesthetics, providing safe limited public access, preserving cultural resources, and utilizing existing infrastructure and vegetation.” (Draft EIR Section 2.5 [emphasis added].)

Please see response to GBUAPCD Comment 9-58. LADWP's emphasis on utilizing less water-intensive BACM is not a mere “preference,” as suggested; rather, it is a practical reality based upon the limited amount of water available for Owens Lake dust mitigation and directives from the Board of Water and Power Commissioners.

Please see responses to comments 9-1 to 9-5. The 2008 SIP's attainment strategy provides that, by achieving 11 percent reduction in PM<sub>10</sub> emissions per year, the installation of controls on 43 total square miles will bring the OVPA into attainment with the PM<sub>10</sub> NAAQS by March 23, 2017. GBUAPCD's Phase 8 order requiring LADWP to control an additional 2 square miles (bringing the total dust control area to 45 square miles) is in excess of what is required in the 2008 SIP. LADWP has, in fact, completed Phase 8 and has therefore installed dust mitigation above and beyond that required by the 2008 SIP. If Phase 8 has no relevance to achieving compliance with the NAAQS, then there would have been no basis for GBUAPCD to order LADWP to control these additional areas.

GBUAPCD is incorrect that the objective of the Phase 7a Project is “meeting the NAAQS.” The OVPA, not the Project, is required to attain the NAAQS.

GBUAPCD is correct that avoiding known cultural resources areas would subject these areas to continued impacts from weathering due to wind and water. However, as described in Section 5 of the Draft EIR, these are natural processes that are not related to the proposed Project alternative. Please also see response to comment 9-7.

9-61 Please see response to comment 9-60.

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Table 1 appears to have been generated using data obtained from GBUAPCD's Dust ID Model. LADWP has disputed GBUAPCD's use of the Dust ID model because it is flawed and defective for several reasons. The Dust ID model integrates several recognized component models (for example, CALPUFF and CALMET) as well as numerous calculations and screening processes that are used by GBUAPCD to determine whether areas of the Owens playa have caused or contributed to exceedances of the federal PM<sub>10</sub> standard at the historic shoreline. CALPUFF is approved by the USEPA for use as a long-range dispersion model (Revision to the Guideline on Air Quality Models, Final Rule, 68 Fed. Reg. 18440 (April 15, 2003)); however, USEPA has not approved CALPUFF for use in "near-field" applications, which is the manner in which the model is currently being used at Owens Lake. (USEPA Clarification Memo, 8/13/2008, pp. 1-3, 6.) Since CALPUFF is not a USEPA approved model for "near-source" or "near-field" assessments, USEPA rules require that *prior* approval be obtained from EPA when using alternative models for regulatory purposes. (40 C.F.R. Part 51, Appendix W, § 3.2.2(a); USEPA Clarification Memo, 8/13/2008, pp. 4-5.) GBUAPCD has never obtained such approval. Therefore, LADWP does not find the Dust ID model valid.

In addition, the Dust ID Model depends largely on the accuracy and reliability of the "K-factors" to predict ambient PM<sub>10</sub> concentrations at the regulatory shoreline. GBUAPCD uses the CALPUFF model to back-calculate the K-factors that are used to produce hourly emission rates at the regulatory shoreline. Thus, K-factors are derived from the data set being evaluated and are simply calibration factors for CALPUFF. The calibration of CALPUFF with its own results violates EPA modeling rules (40 C.F.R. Part 51, Appendix W, § 7.2.9), and highlights the inaccuracy, unreliability, and lack of credibility supporting the results generated by the Dust ID Model.

The Dust ID Model is also flawed insofar as it fails to take into account significant non-LADWP-related sources of PM<sub>10</sub> emissions that affect the ambient air monitoring system concentrations, including off-lake sources, construction, vehicle, monitoring and transport activities and natural events. According to USEPA, background concentrations are an essential part to be considered in determining source impacts. (40 C.F.R. Part 51, § 8.2.1.) USEPA rules state that background sources (i.e., natural sources, nearby sources, and unidentified sources) should be determined under appropriate procedures described in 40 C.F.R. Part 51, §§ 8.2.1 to 8.2.3. GBUAPCD's Dust ID Model does not comport with these USEPA requirements.

Finally, the monitoring data utilized in the Dust ID Model were not collected pursuant to a USEPA-approved Quality Assurance Project Plan ("QAPP"). USEPA rules require, among other things, that "[A]ll monitoring organizations must develop a quality system that is described and approved in quality management plans (QMP) and quality assurance project plans (QAPP)..." (40 C.F.R. 58, Appendix A, § 2.1.) Unless specifically



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delegated in the Quality Management Plan of the USEPA organization sponsoring the work, all QAPPs prepared by non-USEPA organizations like GBUAPCD “must be approved by the EPA before implementation.” (USEPA Requirements for Quality Assurance Project Plans for Environmental Data Operations, USEPA QA/R-5. EPA/240/B-01/003 (Mar. 2001), § 2.5, p. 8; see also USEPA Guidance for Quality Assurance Project Plans, USEPA QA/G-5 (Dec. 2002), § 1.2, p. 3 [“All work involving the collection or use of environmental data, by or on behalf of EPA, is to be done with an approved QA Project Plan”].) Further, “[N]one of the environmental work addressed by the [QAPP] shall be started until the [QAPP] has been approved and distributed to project personnel.” (*Id.*, at § 2.6, p. 9.) GBUAPCD does not dispute that it has been collecting ambient air monitoring data without a USEPA-approved QAPP required by 40 C.F.R. 58 Appendix A and related EPA guidance documents.

Finally, according to USEPA, models like the Dust ID Model lack the fundamental capacity to show actual concentrations at a precise location and time or that a precise location caused an exceedance, the exact task for which GBUAPCD used the model in developing the data shown in Table 1. (40 C.F.R. Part 51, Appendix W, § 9.1.2. [“estimates of concentration that occur at a specific time and site [] are poorly correlated with actually observed concentrations and are much less reliable”].)

- 9-62 The specific location of the additional 60 acres has been deliberately excluded from the Draft EIR to protect cultural resources present in this location, and at the request of the Lone Pine Paiute-Shoshone THPO because they believe it to be a sacred area. GBUAPCD is encouraged to communicate directly with LADWP if additional information is required regarding this location.
- 9-63 The roadways anticipated to be necessary for soil binder application are sufficiently described in Draft EIR Section 5.6.1. Consultation with Native American representatives has been ongoing during the environmental review process for the Phase 7a project. (See Draft EIR, Section 4.4.8.3.)
- 9-64 As described in Draft EIR Section 5.6.1, the specific effectiveness of the various soil binders reviewed is unknown. LADWP is planning to conduct a soil binder pilot study during the Spring of 2013 to evaluate relative performance of various soil binder products.
- 9-65 Please see response to GBUAPCD Comment 9-22.
- 9-66 Please see response to GBUAPCD Comment 9-15.
- 9-67 Please see responses to comments 9-1 through 9-67.

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9-68 Please see responses to comments 9-1 through 9-67.

# Lone Pine Paiute-Shoshone Reservation

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March 18, 2013

**Letter #10**

Los Angeles Department of Water and Power  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

**Select portions of letter redacted per  
request of author.**

Dear Concerned Decision Makers,

As a Tribal Cultural Resources Monitor and later, as the acting Tribal Historic Preservation Officer (THPO) for the Lone Pine Paiute-Shoshone Reservation (LPPSR), I have been involved in the Owens Lake Dust Mitigation Project (the Project) for eleven (11) years. The LPPSR Environmental Department is submitting their comments concerning environmental issues, but because of what I have witnessed, I need to express my deep concerns about the effect of the proposed Phase 7a Project on our cultural resources, history and ethnography.

10-1

The LPPSR has been involved with the Project from the beginning and we have learned a lot in the process. Because of that process, much of the historical and prehistorical knowledge of Tribal members has been confirmed by the sciences of archaeology, paleontology and geomorphology. The Tribe is in support of clean air, but feels that there is a way to improve air quality while also saving our cultural resources. We have fought to protect our past during every phase of the Project with only limited success. The strong objections to bad mitigation of cultural resources during Phase 8, fell upon deaf ears because of construction deadlines and other pressures. We are now taking the opportunity to express our concerns to those who will hopefully listen and open a larger discussion to create a solution acceptable for all those involved.

10-2

The four options proposed in the Draft EIR suggest possible methods to protect our cultural resources. Option #1, to do nothing, is not an option in our opinion because the dust needs to be controlled. Option #4, using soil binders, is not an option, not only because of the environmental concerns, but because it will also cause destruction of the archaeology. Roads must be built to access the area in order to apply the binders, not only once, but consistently throughout the year. The force of the spray will definitely cause site disturbance and the effect of the chemical/binding compound on culturally sensitive material is not known. Options #2 and #3, avoidance alternatives, offer a compromise to address the dust problem, while protecting significant sites.

There are many reasons to support the Avoidance Alternative as an environmentally superior method. Failure to avoid these culturally sensitive areas is not acceptable for the following reasons:

- **Destruction of artifacts and irreplaceable archaeological and geographic features.** In order to implement each DCM, the Playa surface must be scraped and leveled. This process destroys surface and subsurface artifacts and features even when considered to be fully mitigated.

- 10-2
- **Destruction of the ethnographic landscape.** Our family's history is in the landscape. Not only are they destroying the proof of historic events and a prehistoric way of life, but they are changing the landscape and geology that our stories are built on.
  - **Construction will provide access to looters.** The reason that these artifacts remain is because there is no easy access to them. Roads will be built for construction and maintenance, which will provide easy access to the artifacts in the vicinity which weren't destroyed during construction.

The people of the LPPSR are adamant on implementing the Expanded Avoidance Alternative which provides for the addition of 67 acres [REDACTED] proven to be in the center of a culturally sensitive area. Extensive cultural resources have been found completely surrounding this less than 1/10th of a square mile that makes up the difference in this option and the Avoidance Alternative. We are certain that artifacts and features will be destroyed during construction. [REDACTED]

10-3

[REDACTED]

10-4

The 3.4 square miles of transition areas mostly consist of already disturbed ground with minimal impact anticipated. [REDACTED] An agreement was reached during construction to preserve a remaining portion of a cultural site in this area by avoiding surface disturbance and allowing the water from the managed vegetation to submerge it. Although the site has been surrounded by berm roads and previous mitigation, it is actually part of a larger site that extends beyond the road that transects it. [REDACTED]

[REDACTED]

[REDACTED] I am sure that a compromise can be reached to prevent further destruction of this important site.

10-5

While gravel provides a waterless solution to temporarily relieve dust problems, the LPPSR believes it is destroying the environmental aspects of the landscape which provides the basis for the history/stories of our families. The quarries are causing the environmental destruction of the Inyo mountains to the east of the Owens Lake. Because they are on private land, nobody is truly addressing the issues of site destruction and devastation of the native plants and wildlife at those locations.

10-6

The access road [REDACTED] is brought up in the EIR, but the archaeological surveys for that part of the Project have not even been completed. Although there has been much historical disturbances in that area, there remains large amounts of cultural resources, both historical and prehistorical. There is also a spring with medicinal and edible native plants growing all around it. Because the road will transect this sensitive area, many environmental concerns must be dealt with before construction begins.

10-7

Some may argue that simply avoiding the cultural resources is not protecting them. In reality, avoidance is the highest form of protection. These artifacts have been out there for thousands of years and some look like they were just made yesterday. Even moving around the rocks that form a thermal feature or house ring destroys its value. Artifacts do not belong in someone's home or in a box in a corner of some university. They certainly do not need to be unnecessarily destroyed by those who do

10-7 | not realize their actual value to all people. The archaeology needs to remain in place in order to tell the true story of the past.

10-8 | On the local level, we feel that the Los Angeles Department of Water and Power (LADWP) has come to realize the significance of the cultural resources on and around the Owens Lake as contributions to understanding the history and geology of the entire Owens Valley. They also recognize the insurmountable endeavor of a full phase 3 mitigation of the immense amount of prehistoric and historic archaeology in the Project area. We realize that LADWP is under court order to complete the Project as designed, but we are asking for reconsideration of the Dust Control Measures (DCM) on only about 15% of that area.

10-9 | The complete picture illustrating the significance of the Cultural Resources on the Owens Lake could not be completely described in the Draft EIR because confidentiality is necessary to protect them. Removing many of the details describing the impact on the archaeology, significantly watered down the explanation and reasons to protect them. We have a huge problem with looters in this Valley. Individuals who steal artifacts and dig up the graves of our grandparents are blatantly defying the laws on a daily basis. We cannot release information to the public that would encourage looters to destroy even more sites. [REDACTED]

Thank you for your time and your thorough consideration of this very important matter.

Sincerely,



Katherine J. Bancroft, Acting THPO  
Lone Pine Paiute-Shoshone Reservation

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #10

Katherine J. Bancroft  
Acting Tribal Historic Preservation Officer  
Lone Pine Paiute-Shoshone Reservation  
P.O. Box 747  
Lone Pine, California 93545

- 10-1 The Lone Pine Paiute-Shoshone Reservation's (LPPSR) concerns about cultural resources impacts of the OLDMP are noted. Please also see Responses to comment letter #3.
- 10-2 The LPPSR's preference for an avoidance alternative, and support of the Avoidance Alternative as an environmentally superior method, are noted. As described in Draft EIR Section 4.4.10.2, LADWP has determined that construction-related ground disturbances are likely to fracture, crush, demolish, and/or relocate cultural materials present at the CRHR-eligible sites. This would adversely alter archaeological resources determined to be CRHR-eligible, and adversely alter their immediate surroundings, such that the significance of the historical resource would be materially impaired. Controlling looting of artifacts on the state-owned lands of Owens Lake is the responsibility of CSLC.
- 10-3 The LPPSR's preference for the Expanded Avoidance Alternative is noted. The Expanded Avoidance Alternative would reduce the acreage of dust control under Phase 7a by approximately 410 acres. Approximately 350 of the avoided acres would be on sites designated as CRHR-eligible and significant under CEQA. The additional 60 acres are identified as sensitive by the LPPSR. LADWP defined the Expanded Avoidance Alternative based on consultation with the LPPSR. However, this area was not determined eligible for the CRHR or significant under CEQA based on the results of the Phase II archaeological testing and evaluation. Therefore, impacts to this portion of the project area from construction were determined to be less than significant.
- 10-4 The significant cultural resources site located within a Transition Area will be protected by implementation of Mitigation Measure CR-3. No earthwork or vehicle travel shall occur in this site or a 100-foot buffer area during Phase 7a construction or maintenance activities. Minor revisions to the design the BACM Hybrid proposed for the Transition Area will be implemented as necessary to protect this resource. Construction activities in the vicinity of this site will also be monitored by an archaeological monitor.
- 10-5 The F.W. Aggregate Dolomite Mine and the LADWP Shale Pit are currently active and permitted mines. The Phase 7a project does not include expansion of these mines or other changes in their current operation. Impacts on native plants and wildlife from mining

## Section 3 – Responses to Comments on the Draft EIR

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operations would have been reviewed as part of mine permitting under the Surface Mining and Reclamation Act (SMARA). The Phase 7a project was designed to balance the habitat value and water demand changes of Phase 7a implementation. Since Gravel Cover is the only BACM approved by GBUAPCD that does not increase water demand, there were limited options available to achieve a water neutral project.

- 10-6 Since design of the improvements for the Access Roadway has not been finalized, the area of construction disturbance and, therefore, the area of potential impact to cultural resources, is unknown. However, as a worst-case assessment, it is assumed that significant cultural resources are present adjacent to the roadway and would be impacted by construction to improve the road. Therefore, Mitigation Measure CR-4 is revised as follows:

**CR-4. Unevaluated Resources on the Access Roadway.** A qualified archaeologist shall compare the work area map for the access roadway with the locations of known cultural resources. Cultural resources sites adjacent to the exiting roadway that overlap with the work area map shall be avoided. Improvement of the road surface in areas adjacent to cultural resources shall be limited to the existing disturbed area of the roadway. A qualified archaeologist shall review the proposed roadway improvement design and, if warranted, make recommendations for installation of chemically inert geotextile over the existing roadway surface, which will then be capped with a layer of sterile fill soil to protect potentially present subsurface cultural resources. The thickness of the fill soil will be determined by the archaeologist in consultation with a geologist and project engineer to ensure artifacts are not warped or broken by the weight of fill or pressure by heavy equipment. The Lone Pine Paiute-Shoshone tribe shall be consulted during final design of the roadway improvements.

Relevant archaeological investigation permits shall be obtained from the California State Lands Commission. The Lone Pine Paiute-Shoshone tribe shall be contacted prior to the start of archaeological investigations and qualified tribal monitors shall be afforded an opportunity to be present during cultural resources investigations for the access roadway.

Regarding impacts to vegetation for road improvement, please note that no springs or vegetation supported by a spring will be disturbed during roadway improvement. The portion of the road to be improved does not transect the area referenced by the commenter.

- 10-7 Draft EIR Section 4.4.11 notes that in-situ preservation of a site is the preferred manner of avoiding damage to archaeological resources.

### Section 3 – Responses to Comments on the Draft EIR

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- 10-8 The LPPSR's preference for the Expanded Avoidance Alternative is noted. As described in Draft EIR Section 5.8, LADWP has identified the Avoidance Alternative as the Environmentally Superior alternative. However, the Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project. If the originally proposed project is adopted by the Board, a Phase III Data Recovery program will be implemented for portions of significant cultural resources sites impacted by construction. Please also see responses to comments from the GBUAPCD (comment letter #9).
- 10-9 As requested, references to specific locations containing cultural resources have been redacted from the comment letter.



March 18, 2013

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

Letter #11

To Whom It May Concern,

I am writing with concern about Phase 7a of the Owens Lake Dust Mitigation Project. My main concern is for the cultural resources which tell our history in this Valley.

11-1 I am a Cultural Monitor for the Lone Pine Paiute/Shoshone Reservation and worked on the Owens Lake Dust Mitigation Project from November 2001 until September of 2010. My concern is that the artifacts and features are going to be destroyed in the name of creating artificial wildlife habitat. We all want clean air, but I know we can do this in a way that saves our cultural resources. I'm concerned about the environment, but I am more familiar with, and realize the importance of issues surrounding our cultural resources.

Construction in the proposed Phase 7a will destroy our local Native American history once and for all in that area. We must not let this happen

Respectfully,

*Barbara Freund*

Barbara Freund  
PO Box 224  
Lone Pine, CA 93545

## Section 3 – Responses to Comments on the Draft EIR

---

### Letter #11

Barbara Freund  
P.O. Box 224  
Lone Pine, California 93545

- 11-1 The commenter's concern for the protection of cultural resources on Owens Lake is noted. Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project. If the originally proposed project is adopted by the Board, a Phase III Data Recovery program will be implemented for portions of significant cultural resources sites impacted by construction. Please also see responses to comments from the GBUAPCD (comment letter #9).

Monday, March 18, 2013

Letter #12

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

To Whom It May Concern,

As a Tribal Cultural Resource Monitor for the Lone Pine Paiute-Shoshone Reservation, I have seen the amount of cultural resources in the Owens Valley and that they are being destroyed by the ongoing projects on the Owens Lake and the surrounding area. I also went many times with my grandparents and other elders to collect food and materials for basket making. These cultural resources are important to us because they are a reminder of the Indian way of life.

12-1 Today, too many of our Indian people are unhealthy, sick and dying from unhealthy lifestyles and being part of the 'American' main stream. Our cultural sites and history needs to be preserved to remind us of how we should be living healthy. This is growing harder because many of the plants we depend on for healthy eating and other uses, like basket making, are dying from a lack of water. Other resources for daily life, like the magenta stones, are disappearing from the shoreline because of the impacts of construction and collectors. My elderly mother is sick and needs to be on a healthier diet. I need to be eating healthier. We try, but it is getting harder and harder to find the foods that our bodies are use to eating.

We all want clean air, but know that we can have clean air without destroying our cultural resources and history. Too much has been destroyed already. Please help us protect the Indian way of life.

Respectfully Submitted,



Leonard Espinosa  
PO Box 902  
Lone Pine, CA 93545

## Section 3 – Responses to Comments on the Draft EIR

---

### Letter #12

Leonard Espinosa  
P.O. Box 902  
Lone Pine, California 93545

- 12-1 The commenter's concern for the protection of cultural resources on Owens Lake is noted. Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project. If the originally proposed project is adopted by the Board, a Phase III Data Recovery program will be implemented for portions of significant cultural resources sites impacted by construction. Please also see responses to comments from the GBUAPCD (comment letter #9).

March 18, 2013

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

Letter #13

To Whom It May Concern,

I grew up listening to stories from my grandpa about the way of life when he was young. He told me about the land and water, how green it was. He told about the steamships crossing the lake and the hunting and fishing around it. Our cultural resources are the only remaining reminders of that way of life.

13-1 Growing up in the Owens Valley, I learned quickly where the dust came from. We knew of the damage it caused and something had to be done. I have worked on the Owens Lake Dust Mitigation Project as a Tribal Cultural Resources Monitor for the Lone Pine Paiute-Shoshone Reservation. Being on the lakebed, having firsthand experience with the remaining cultural resources, I got a deeper understanding of our old way of life. My grandpa's stories became more real to me.

13-2 We know that the dust needs to be controlled, but we also need to really think about the best way to do it. Gravel will settle the dust for a little while, but getting that gravel out on the lakebed is destroying the mountains to the east. Soil binders are out of the question because they showed to have bad effect on the surrounding plants and animals at Mono Lake. Applying soil binders will destroy our cultural resources anyway.

13-3

Whatever dust control measures are chosen for Phase 7a and future phases, they must take into consideration the effect it has on our cultural resources. To remove our Cultural Resources from these places would erase part of our past. We wouldn't have those connections to our ancestors and their way of life.

Sincerely,



Leslie Bellas  
PO Box 336  
Lone Pine, CA 93545

## Section 3 – Responses to Comments on the Draft EIR

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### Letter #13

Leslie Bellas  
P.O. Box 336  
Lone Pine, California 93545

- 13-1 The commenter's concern for the protection of cultural resources on Owens Lake is noted. Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project. If the originally proposed project is adopted by the Board, a Phase III Data Recovery program will be implemented for portions of significant cultural resources sites impacted by construction. Please also see responses to comments from the GBUAPCD (comment letter #9).
- 13-2 The F.W. Aggregate Dolomite Mine and the LADWP Shale Pit are currently active and permitted mines. The Phase 7a project does not include expansion of these mines or other changes in their current operation. Environmental impacts from mining operations are reviewed as part of their SMARA permits.
- 13-3 The commenter's concerns about the Avoidance Alternative with Soil Binder are noted. Although not part of the Phase 7a project, LADWP is conducting a pilot study to evaluate the dust control efficacy and impacts of soil binders on Owens Lake.



March 18, 2013

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

Letter #14

To whom it may concern;

The Mono Lake Kutzadika<sup>a</sup> Tribe has grave concerns over Phase 7a of the Owens Lake Dust Mitigation Project and future work on the Owens Lake. Some people don't understand the significance of what our cultural resources mean to us as the Native people of the Eastern Sierra. We are aware of agreements made to clean the air, but we also know that our history does not need to be destroyed in the process.

14-1 | As the indigenous people of this area, our lifestyles were respectful of the plants and animals necessary for our survival. We ate what grew around us and knew that we had to protect all of our resources to live. We have to be even more health conscious today because of the issues we face from our modern day environment. This is not only on the Reservations, but throughout the Valley. This is especially true for the children and the elderly.

Management teams must be very careful about the approach they take to control dust on the Owens Lake. They must be positive that the outcomes keep the environment safe and do not destroy the natural habitat and beauty of the landscape that my family has used and enjoyed for generations. We must pass this on to future generations.

14-2 | Soil binders were tested for use on Mono Lake with a drastic effect on the environment. I would hope we would learn from these results and come up with another positive

14-3 | solution to control the dust. Perhaps uncapping springs and reducing ground pumping in the surrounding area would enable water to flow onto many of these areas.

14-4 | Our artifacts and other archaeology will be irreversibly desecrated by the construction of more roads, easier access and continual maintenance as the Owens Lake Dust Mitigation Project area expands. We must do something now to prevent further destruction of our history.

Sincerely,

*Charlotte Lange*

Charlotte Lange, Chairperson  
Mono Lake Kutzadika<sup>a</sup> Tribe

## Section 3 – Responses to Comments on the Draft EIR

---

### Letter #14

Charlotte Lange  
Chairperson  
Mono Lake Kutzadika Tribe  
P.O. Box 237  
Lee Vining, California 93541

- 14-1 The commenter's concern for the protection of cultural resources on Owens Lake is noted. Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project. If the originally proposed project is adopted by the Board, a Phase III Data Recovery program will be implemented for portions of significant cultural resources sites impacted by construction. Please also see responses to comments from the GBUAPCD (comment letter #9).
- 14-2 The commenter's concerns about the Avoidance Alternative with Soil Binder are noted. Although not part of the Phase 7a project, LADWP is conducting a pilot study to evaluate the dust control efficacy and impacts of soil binders on Owens Lake.
- 14-3 The closest groundwater wellfield is in Lone Pine. Pumped water is used for municipal and local irrigation; water is not sent to the Los Angeles Aqueduct from this wellfield. If pumping were halted, the increase in flows to Owens Lake would be negligible.
- 14-4 Please see response to comment 14-1.



Monday, March 18, 2013

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

Letter #15

To Whom It May Concern,

I was born in Lone Pine 86 years ago. I worked with the cattlemen and packed people into the Sierra on horses and mules since I was a teenager. I know every part of this valley and know that dust is a way of life. I also have health issues and know how the dust can make that worse.

15-1      Everybody knows that the dust from the Owens Lake needs to be controlled. We are also glad that the dust is not as bad as it use to be. But we don't want the scenery and history of our home to be destroyed trying to save the air. Our cultural resources and the land they are on need to be left alone. My family lived on this land. Our stories are about this land. The things that are left on this land should remain to remind us all of who we are and where we came from.

My mother and her family lived on the shores of the Owens Lake. Many of them are buried there. Please do not destroy what remains.

Sincerely,



Thomas N. Jefferson  
PO Box 704  
Lone Pine, CA 93545

## Section 3 – Responses to Comments on the Draft EIR

---

### Letter #15

Thomas N. Jefferson  
P.O. Box 704  
Lone Pine, California 93545

- 15-1 The commenter's concern for the protection of cultural resources on Owens Lake is noted. Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project. If the originally proposed project is adopted by the Board, a Phase III Data Recovery program will be implemented for portions of significant cultural resources sites impacted by construction. Please also see responses to comments from the GBUAPCD (comment letter #9).

Monday, March 18, 2013

Los Angeles Department of Water and Power  
Attention: Laura Hunter  
111 North Hope Street, Room 1044  
Los Angeles, CA 90012

Letter #16

To Whom It May Concern,

I've lived in Lone Pine all my life on the Lone Pine Paiute-Shoshone Reservation. I have in the past and still do see all the dust storms that the Owens Dry lake produces. But it was a lot worse when I was growing up because you could actually taste it too!

16-1

Grading and then graveling the west side of the lake to stop such dusty happenings will destroy a lot of my family's history. As Paiute and Shoshone people, we use to inhabit that area and a lot of the other parts of the lake that have already been destroyed all in the name of dust control. This is understandable to a certain extent because the dust is a health hazard. But everything doesn't have to be destroyed!

16-2

Our history, as indigenous people of the Owens Valley, is partly down there on that dry lake and we would like to save and protect it. I don't understand why this particular area has to be dealt with when there's not as much dust coming from that area as there is blowing from other parts of the Owens Valley.

Sincerely,



Nancy J. Naylor  
LPPSR Cultural Resources Officer

## Section 3 – Responses to Comments on the Draft EIR

---

### Letter #16

Nancy J. Naylor  
LPPSR Cultural Resources Officer  
P.O. Box 747  
Lone Pine, California 93545

- 16-1 The commenter's concern for the protection of cultural resources on Owens Lake is noted. Analysis of the proposed project and alternatives to the proposed project has been presented in the Draft EIR. The Draft EIR, comments received on the Draft EIR, and responses to comments will be presented to the LADWP Board of Water and Power Commissioners for their consideration. Prior to adoption of the Phase 7a project, the Board of Water and Power Commissioners will consider which project most effectively balances and protects the competing interests of protecting air quality while ensuring the protection and preservation of cultural resources. The Commissioners may adopt the originally proposed Phase 7a project or an alternative to the proposed project. If the originally proposed project is adopted by the Board, a Phase III Data Recovery program will be implemented for portions of significant cultural resources sites impacted by construction. Please also see responses to comments from the GBUAPCD (comment letter #9).
- 16-2 The location of the Phase 7a project is required by GBUAPCD. The Phase 7a areas were included within the 2008 SIP as part of the 13.2 mile supplemental dust control area known as the 2006 Supplemental Dust Control Area (SDCA). GBUAPCD may approve adjustments to the boundaries of the 2006 SDCA to avoid impacts to existing resources or features. If the project selected is one of the avoidance alternatives, LADWP will be requested GBUAPCD adjust the boundaries to avoid California Register of Historic Resources (CRHR)-eligible sites and cultural resources. LADWP agrees there are significant natural off-lake sources of dust.

**APPENDIX A**

**Owens Lake Phase 7a Dust Control Measures  
Projected Habitat Value  
(April 15, 2013)**



# Owens Lake Phase 7a Dust Control Measures Projected Habitat Value



April 15, 2013





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## 1.0 INTRODUCTION

Since 2001, the Los Angeles Department of Water and Power (LADWP) has implemented Dust Control Measures (DCMs) to manage the emissions of dust from the Owens Lake using current Best Available Control Measures (BACM). BACM includes use of shallow flooding of emissive areas with water, which can be accomplished with shallow ponds or sheet flow from various low-flow outlets; managed vegetation (MV) where native plant species are grown on emissive playa; or gravel. The design and purpose of these measures was dust control, but they often created wildlife habitat where little previously existed on the lakebed playa. The Phase 7a Project will continue and expand the Owens Lake Dust Mitigation Program on 3.1 square miles of new area in six DCAs and 3.4 square miles of transitioned dust controls in seven existing DCAs for a total project area of 6.4 square miles. However in this project phase the design will incorporate habitat enhancements to maintain or enhance overall habitat value within the Phase 7a Project.

LADWP will implement current BACM including Gravel Cover, Shallow Flooding, and Managed Vegetation. The new DCA (T12-1) is the site of a Tillage BACM test. The Phase 7a project components in primary areas are:

- Shallow Flooding in T1A-4 and a portion of T37-2
- Managed Vegetation in T32-1 and portions of T37-1 and T37-2
- Gravel Cover in T1A-3 and a portion of T37-1
- Tillage BACM test in T12-1

Water demand related to implementation of BACM on the six primary Phase 7a DCAs will be balanced with water conservation measures at seven existing DCAs, including:

- Conversion of approximately 3.2 square miles of existing Shallow Flooding to a hybrid of BACM including Managed Vegetation, Gravel Cover and Shallow Flooding (Transition Areas). The Transition Areas are: T1A-2\_a, T28N, T28S, T30-1\_a, T30-1\_b, and T36-1\_b.
- Conversion of existing Shallow Flooding areas T35-1 and T35-2 to Gravel Cover.

A part of the Master Planning process baseline habitat values were quantified using a collaboratively developed Habitat Suitability Model (HSM). Using the HSM this report compares the pre-project habitat value in Phase 7a project areas to post-project habitat value. The habitat value of the potential alternatives is also analyzed.

## 2.0 OWENS LAKE HABITAT SUITABILITY MODELING

Six species guilds were identified that utilize Owens Lake: diving waterbirds, breeding waterfowl, migrating waterfowl, breeding shorebirds, migrating shorebirds and alkali meadow. Guilds are made up of species with similar habitat requirements and therefore, habitat use at Owens Lake. A HSM was developed for each guild by the Owens Lake Master Planning habitat workgroup which included members from California Department of Fish and Wildlife, Great Basin Unified Air Pollution Control District, Eastern Sierra Audubon, California Audubon, CNPS- Bristlecone Chapter, and LADWP. These models were reviewed and further refined by Bart O'Brien (Rancho Santa Ana Botanical Garden), Gary Page (Point Reyes Bird Observatory) and Don Sada (Desert Research Institute).

The HSM is evaluated by mathematically combining individual Suitability Index Values (SIVs) for each habitat parameter. These parameters were found to be the most important to describe habitat for each guild. SIVs are assigned to measurements in each parameter in the model based on measurements which are preferred by each guild. The SIVs range from 0 to 1, which indicate the suitability of each component parameter. For example, in the shorebird habitat model, shorebirds prefer shallow water for the water depth habitat parameter, therefore the SIV assigned to this parameter when shallow water is measured is 1. Each parameter's SIVs are combined mathematically to obtain the HSM value. The HSM value for each guild in each area can range from 0.0 (low or non-suitable habitat) to 1.0 (highly suitable habitat).

The pre-project habitat value analysis is based on habitat modeling done to document existing habitat value for the Owens Lake Master Plan. Additional details on habitat suitability modeling and results can be found in *Habitat Suitability Models for Species Guilds that Occur on Owens Lake* (LADWP 2011).

### 2.1 Diving Waterbird Guild Description

#### 2.1.1 Guild Description

The diving waterbird guild consists of waterfowl and other waterbird species that may dive when foraging. The two most abundant species in this guild are Ruddy Duck, and the taxonomically unrelated Eared Grebe. Other grebe species, while included in this guild, are rare or encountered infrequently at Owens Lake (LADWP 2010). Other diving waterfowl species include Bufflehead, Redhead, and Lesser Scaup among others. These species are known to spend either a considerable amount of time in open water habitats or use them almost exclusively. Species in this guild exhibit significant overlap with regard to their use of specific dust control cells. Aquatic invertebrates comprise the bulk of the diets for these species. They also have similar seasonal patterns of use, in that use is highest during migration and notably less or absent for some species during winter and summer.

Ruddy Ducks forage primarily by diving and consuming benthic invertebrates, primarily midge larvae (Family Chironomidae), but also amphipods (Order Amphipoda) and snails (Order Gastropoda) (Tome 1989). In saline ponds and lakes, Ruddy Duck is also known to consume brine fly larvae. Only small amounts of aquatic vegetation and seeds are consumed. Invertebrate prey that are consumed by Ruddy Duck are typically located in the bottom substrate, or on submerged vegetation. Ruddy Duck may regularly dive for food in water 2 to 10 feet in depth but they have been found to occasionally feed on the surface or simply immerse their heads (Belrose 1980).

Eared Grebes forage by diving to feed on bottom-dwelling invertebrates, or glean prey from submerged rocks or vegetation. At saline lakes such as Great Salt Lake and Mono Lake, this species

feeds on free-swimming brine shrimp within the water column. However, Jehl (1988) found in Mono Lake that surface feeding predominated. Additionally, surface feeding was used exclusively in summer and fall: when food in the upper layer of the lake was abundant, and in winter and spring: when food scarcity and the lakes low transparency made diving inefficient. During migration, Eared Grebes prefer saline lakes and ponds, including salt ponds with superabundant invertebrate production. In North America, Eared Grebes winter primarily in the Gulf of California, north to San Diego area. Few are reported to winter in inland lakes (Cullen et al. 1999).

In managed wetlands in the San Joaquin Valley of California, appropriate depths for diving waterbirds are presumed to be greater than 25 cm (Taft et al. 2002). Taft et al. (2002) also found that diving waterbirds persisted in areas shallower than 25 cm, but that species richness of diving waterbirds declined when average wetland depth was below 15 cm. Ruddy Duck were found to forage in shallow areas (50-100 cm) in wetland systems in Manitoba, Canada (Torrence and Butler 2006). Ruddy Ducks are more prone to feed in small bodies of water than other diving ducks and have been found to feed in ponds excavated for highway fill (Belrose 1980). Eared Grebes and other diving ducks typically use salt ponds in the San Francisco bay with depths less than 2 meters (Warnock et al. 2002).

Other diving ducks are generally uncommon and consist of less than 1% in total abundance of all other waterfowl species (LADWP 2010). Many diving ducks including sea ducks (e.g. Common Merganser) generally prey on fish (Belrose 1980) which do not occur in shallow flood dust control. The diving ducks that do occur on Owens Lake (e.g. Lesser Scaup, Bufflehead, and Redhead) occur in small numbers and feed in open water often on planktonic invertebrates.

While water depth is important to foraging waterbirds, pond size was found not to be significantly related to abundance of Eared Grebes or diving ducks in San Francisco Bay salt ponds (Warnock *et al.* 2002). Pond size was only important for fish eating birds (Warnock et al. 2002), which only occur rarely at Owens Lake due to lack of fish to prey upon. In a study of boreal lakes in Sweden and Finland, Elmberg et al. (1994) found diving duck species richness was correlated with lake size but the relationship to lake size disappeared when other habitat variables were accounted for statistically. The authors hypothesized that both habitat factors and lake size contributed to species richness but that lake size only mattered to diving ducks which depended heavily on water for brood rearing compared to dabbling ducks (Elmberg et al. 1994). No diving ducks have been seen nesting on Owens lake and are not expected to nest on Owens Lake given current conditions.

### **2.1.2 Diving Waterbird HSM**

Habitat value for diving waterbird species was found to be best described by three parameters: open water depth, salinity (which influences the productivity of aquatic invertebrates), and the seasonal availability of water.

#### Water Depth

The minimum water depth for members of the diving waterbird guild can be assumed to be that which is deep enough for the species to swim in. The maximum depth recorded in any one cell in the dust control project area is approximately 5 feet (~150 centimeters). In managed wetlands in the San Joaquin Valley of California, appropriate depths for diving waterbirds are presumed to be greater than 25 cm (Taft et al. 2002). Taft et al. (2002) also found that diving waterbirds persisted in areas shallower than 25 cm, but that species richness of diving waterbirds declined when average wetland depth was below 15 cm. Ruddy Duck were found to forage in shallow areas (50-100 cm) in wetland systems in Manitoba, Canada (Torrence and Butler 2006). Eared Grebes and other diving ducks typically use salt ponds in the San Francisco bay with depths less than 2 meters

(Warnock et al. 2002). The maximum diving depth for Ruddy Duck and Eared Grebe is not available. Water depth likely influences prey availability and food items being consumed – benthic versus planktonic invertebrates. As referenced in Torrence and Butler (2006), invertebrate abundance and biomass is usually higher in shallower depth profiles.

Based on diving waterbird abundance data from Owens Lake in 2010, only ponds that were greater than 40 acres were used by this guild. Therefore, ponds that are smaller than 40 acres were not evaluated and received a value of 0. This guild is different from the rest of the Owens Lake species guilds in that individuals only use ponded portions of each management area. Therefore, only the ponded portion of each area is evaluated for habitat suitability, unlike all other guilds.

For this model, water depths above 25 cm were given the highest rankings, whereas depths greater than 0 cm and less than 25 cm were considered marginally suitable. The 25-40 cm depth profile was ranked slightly higher than > 40 cm depths based on data showing the shallower depth may be more productive and the additional energy expended by waterbirds when diving and foraging deeper than 40 cm.

### Salinity

Ruddy ducks and Eared Grebes have some degree of salt tolerance, and are known to forage extensively in saline systems outside the breeding season. Other diving ducks may prefer less saline areas. Conditions favoring high aquatic invertebrate production will create optimal foraging habitat.

Salinity gradients are the most important variable in structuring invertebrate communities on Owens Lake (Herbst 1997). Invertebrate diversity is highest in freshwater areas while maximum productivity and diversity of invertebrates occurs in areas of moderate salinity.

Herbst (1997, 2001a and 2001b) conducted an analysis of invertebrate communities at perennial water outflow sources and shallow flooded habitats at Owens lake. The most aquatic invertebrate taxa were found in habitats with salinity below 5 mS/cm. Species diversity of invertebrates declines with increasing salinity but was sustained at high levels up to 20 mS/cm (Herbst 2001b). This maximum productivity of aquatic invertebrates occurs when the specific conductivity (EC25) is 15-20 mS/cm, based on sampling various temporary and permanent water sources on Owens lakebed (Herbst 2001b). Studies of experimental microcosms and sampling of early shallow flooding, artesian wells and seeps and springs around Owens Lake found that salinities in excess of this, to about 50-75 mS/cm, may also promote productive conditions but involve a change in the dominant species of brinefly from *Ephydra auripes* to *E. hians* (Herbst 2001b).

Experimental microcosm studies showed that sustained surface water habitat in the order of a few months duration is necessary for more productive and diverse communities to develop (Herbst 2001a). Even for the most salt tolerant insect, *Ephydra hians*, salinity is toxic above 150 g/L (123 mS/cm).

Salinity categories used for modeling are based on Herbst (1997) invertebrate community habitat distribution with the addition of a saline-to-hypersaline range (70-100 mS/cm) where the community is similar to the saline classification, except for the switch to a different dominant brinefly species, and the reduced productivity of the community members due to salt stress.

Suitability index values (SIV's) are assigned based diving waterbird guild abundance and salinity measurements performed during spring 2009 in various DCM cells, along with analysis of invertebrate communities performed by Herbst. Most of the DCM cells with the highest abundance of diving

waterbird guild members (>100 individuals) in April 2009 were in the productive saline range (15-50 mS/cm). These cells were T2-1, T30-3, T36-2, T4-4, and T30-2 which was just in the productive saline range (16.5 mS/cm) (LADWP 2010). There was one cell with 250 Ruddy Duck that was in the saline-to-hypersaline range (T29-3). There was one cell with high diving waterbird abundance (T29-2) that was in the saline range. Other diving ducks, such as Lesser Scaup and Bufflehead, though relatively low in abundance are often found in fresh and brackish areas with other waterfowl (dabbling ducks).

Water Availability

This parameter was identified in order to account for seasonal variability in water application and pond persistence during the non-dust season. The SIV for each season was weighted based on proportion of use by this guild throughout the year. Migration periods of spring and fall receive the highest value since that is when the majority of Diving Waterbird use occurs on Owens Lake. Seasons are defined based on waterbird life history characteristics and timing of use at Owens Lake as follows: Spring (February 15 – May 4), Summer (May 15 – June 30), Fall (July1 – November 14) and Winter (November 15 – February 14).

**2.1.3 Habitat Value Calculation**

The geometric mean is used to combine the diving waterbird SIV's since each one of the variables is necessary in order for the habitat to be suitable for diving waterbirds. The geometric mean of salinity and seasonal water availability is scaled by the SIV's of water depth where:

$$\text{Diving Waterbird HSM} = (\text{Water Depth SIV}) * (\text{Salinity SIV} * \text{Seasonal Water SIV})^{1/2}$$

**Table 1. Owens Lake Diving Waterbird Guild Habitat Suitability Model (HSM).**

Parameters	Habitat Value Measurements	Suitability Index Value (SIV)
Water Depth in ponds greater than 40 acres	0cm (no water)	0 * proportion of pond
	0<x<10cm	0.05 * proportion of pond
	10≤x<25cm	0.1 * proportion of pond
	25≤x<40 cm	1 * proportion of pond
	≥40 cm	0.8 * proportion of pond
		[Sum total]
Salinity	Fresh (up to 5mS/cm)	0.4
	Brackish (5 - 15mS/cm)	0.8
Average for polygon	Productive Saline (15-50mS/cm)	1
	Saline (50 - 70mS/cm)	0.6
	Saline to Hypersaline (70 - 100mS/cm)	0.4
	Hypersaline (>100mS/cm)	0
Seasonal Water Availability	Spring	0.4
	Summer	0.05
	Fall	0.5
	Winter	0.05
Each applicable season		[Sum total]

## 2.2 Breeding Waterfowl Guild

### 2.2.1 Guild Description

The breeding waterfowl guild includes all members of the genus *Anas*, otherwise referred to as dabbling ducks. For habitat suitability modeling the breeding waterfowl guild includes all species of dabbling ducks which have been known to breed on Owens Lake including primarily Mallard and Gadwall but also potentially Green-winged Teal, Cinnamon Teal and Northern Pintail. Diving ducks are not considered part of this guild, and instead are included in the diving waterbird guild.

Although some species will forage occasionally in meadow habitats, waterfowl are generally found in or near water. Wetted habitats are used during feeding, loafing and for escape from potential predators. One of the main predictors of waterfowl habitat use for foraging is water depth (Colwell and Dodd 1995, Isola et al 2000).

Breeding waterfowl typically use lower salinity habitats. Food intake in this guild varies from reproductive portions of wetlands plants to aquatic invertebrates. In addition, the composition of the diet changes with season for some species, as many species increase their consumption of animal matter during breeding, but consume mostly plant-based foods the remainder of the year.

Habitats with different salinity support different food resources however the ability to exploit the various food resources found in these different habitats varies by species. Freshwater areas typically have a greater diversity of aquatic invertebrates than brackish or saline habitats. Brackish and saline habitats support a less diverse but more productive aquatic invertebrate community, typically brine fly and brine shrimp. At Owens Lake, waterfowl diversity has been highest in cells with fresh water (LADWP 2010). Adjacent wetland vegetation, more common in freshwater areas, provides a source of seeds and vegetative material, which can comprise the bulk of the dietary needs for many species. Wetland vegetation in turn provides organic material to support a more diverse invertebrate community.

Vegetated areas are used by waterfowl primarily for nesting and cover. The lack of vegetation in most dust control cells limits the potential breeding habitat for waterfowl. Waterfowl breeding preferences can be divided into “upland” nesting species, and “over-water” nesting species. Upland nesting species generally nest in meadow or grass-dominated habitats. These grass-dominated sites may be either upland or wetland as classified under federal guidelines. Upland nesting species may place their nests under shrubs, as long as an herbaceous layer is present below the shrub for nest concealment. Newly-hatched ducklings require access to fresh water during the first week of life, however the young are quite mobile, and the female may nest far from a fresh water source. Upland nesting species such as Mallard and Gadwall typically nest within 150 meters of water (Leschack et al 1997, Drilling et al 2002), while for other species such as Cinnamon Teal, close proximity to water is an important factor (Gammonley 1996). Vegetation around waterfowl nest sites is typically described as tall and dense. For Gadwall and Mallard, vegetation height around nests is typically >30 cm and <60 cm and dense (>25% canopy cover) (Leschack et al 1997, Drilling et al 2002). Several species are also known to use islands for nesting, placing their nest under a low shrub or in tall grasses (Lokemoen 1993).

Vegetative cover can also reduce the impacts of human disturbance as well as provide a more favorable microclimate for waterfowl (Kadlec and Smith 1989). The highest overall waterfowl species richness and abundance have been found when a 50:50 vegetation cover to open water ratio is maintained in manipulated wetlands (Smith et al. 2004).



Waterfowl species use water depths in an average range of 13 cm for small species such as Green-winged Teal, up to 30 cm for larger waterfowl such as Northern Shoveler and Gadwall (Isola et al. 2000). Waterfowl are also more flexible in their use of various water depths (Isola et al. 2000) than other Owens Lake guilds, such as shorebirds, due to larger bodies and long necks.

While water depth is important to foraging waterbirds, pond size was found not to be significantly related to the abundance of dabbling ducks in San Francisco Bay salt ponds (Warnock et al. 2002). Dabbling ducks species richness has been found to be highest in shallow and topographically variable wetlands. The amount of area by itself did not influence the number of species observed in wetlands (Colwell and Taft 2000).

Dikes and islands are important particularly to roosting waterfowl and shorebirds in San Francisco Bay Salt ponds (Warnock et al. 2002). Waterfowl are frequently seen loafing and sleeping on the few islands that currently exist in the project area.

### **2.2.2 Breeding Waterfowl Guild HSM**

Habitat value for breeding waterfowl is best described by six parameters: water depth, salinity, seasonal water availability, proportion of islands, vegetated extent, and vegetation structure.

#### Water Depth

Water depth was the most important predictor of habitat use for species of waterfowl and shorebirds over various measures of vegetation and proportion of water in managed wetlands in the San Joaquin valley (Isola et al. 2000). Waterfowl species use water depths in an average range of 13 cm for small species such as Green-winged Teal, up to 30 cm for larger waterfowl such as Northern Shoveler and Gadwall (Isola et al. 2000). Waterfowl are also more flexible in their use of various water depths (Isola et al. 2000) than other Owens Lake guilds, such as shorebirds, due to larger bodies and long necks. For the model, high values were assigned to water depths up to 30 cm. Water depths of 13-30 cm were ranked slightly higher than depths below 13 cm reflective of the greater proportional use of Owens Lake by larger breeding waterfowl species such as Gadwall and Mallard.

#### Salinity

Water salinities for waterfowl are best maintained in the fresh to brackish range. Fresh water areas have supported the most waterfowl species, likely due to the diversity of food resources available. The freshwater ponds at Owens Lake also tend to support more wetland vegetation, which also contributes to the attractiveness for breeding waterfowl.

See previous discussion in the salinity section of diving waterbird guild for details regarding salinity and invertebrate communities. A summary of that discussion is provided below:

#### Summary

- Most aquatic invertebrate taxa were found in habitats below 5 mS/cm
- Maximum productivity of aquatic invertebrates occurs when the specific conductivity (EC25) is 15-20 mS/cm
- Productivity is maintained at electroconductivities up to about 50-75 mS/cm
- Salinity is toxic above 150 g/L (123 mS/cm) for the most salt tolerant insect (*Ephydra hians*).

SIV's are assigned based on waterfowl abundance in areas with known salinity in various DCM cells, performed during spring 2009. Input from field observations during counts throughout the year (particularly breeding season) were incorporated to account for seasonal variability to the extent feasible.

Waterfowl abundance by cell was negatively correlated with water salinity during April 2009. In other words, the highest numbers of waterfowl were found in cells with the lowest salinity (LADWP 2010). Waterfowl species richness was also negatively correlated to salinity with more species observed in lower salinities (LADWP 2010). The cell with the highest abundance in April 2009 was the freshest salinity cell T30-1, which also has the highest vegetative cover of any shallow flood cell. During the breeding bird survey in 2010, the freshwater cells of T36-1, 29-1, and T30-1 (based on water sampling in October 2010) consistently had the highest number of Mallard and Gadwall observed. Brackish cells T36-2E and T30-2 also had high use, particularly of Gadwall but also Mallard, during the breeding season. Unlike the freshwater cells these units have very little vegetation.

#### Water Availability

In order to account for seasonal variability in water application and pond persistence during the non-dust season the water availability variable was identified. The SIV for each season is weighted based on proportion of use by this guild in each season. The breeding and brooding period of spring and summer receives the highest value. Seasons are defined based on waterbird life history characteristics and timing of use at Owens Lake as follows: Spring (February 15 – May 4), Summer (May 15 – June 30), Fall (July 1 – November 14) and Winter (November 15 – February 14).

#### Islands

Dikes and islands are important particularly to roosting waterfowl and shorebirds in San Francisco Bay Salt ponds (Warnock et al. 2002). Waterfowl are frequently seen loafing and sleeping on the few islands that currently exist in the project area. Since several waterfowl species, including species with the potential to nest at Owens Lake, use islands for nesting, these islands have the potential to create additional nesting opportunities for waterfowl as well.

#### Vegetated Extent

Increasing the amount of wetland and herbaceous-dominated vegetation on Owens Lake will function to increase nesting opportunities, increase available cover and protection, and directly and indirectly increase food supply. Vegetative cover can also reduce the impacts of human disturbance as well as provide a more favorable microclimate for waterfowl (Kadlec and Smith 1989). The highest overall waterfowl species richness and abundance have been found when a 50:50 vegetation cover to open water ratio is maintained in manipulated wetlands (Smith et al. 2004). The proportion of open water to wetland vegetation is included in the model by determining the proportion of vegetation in a cell. Lower cover proportions (relative to the 50:50 ratio) receive a lower SIV, conversely cover values above 60% receive a slightly lower SIV.

### Vegetation Structure

Although the relationship between the vertical height diversity of vegetation and waterfowl use is not well-described, the model assumption will be that herbaceous dominated sites will be preferred over shrub-dominated sites, and that increased structural diversity will result in an increase in available microhabitats, and potential foraging or nesting habitats. While there is a large body of literature on tamarisk (*Tamarix* spp.) presence and cover and its relationships with song bird use, there exists little on the effects on waterfowl. Low amounts of tamarisk can be tolerable and potentially beneficial to some riparian bird species but large amounts of tamarisk can negatively affect bird use (Hultine et al. 2010). Since tamarisk provides limited nesting cover for waterfowl and displaces wetland plant species, large amounts of tamarisk can adversely modify waterfowl foraging and breeding habitat. Therefore when large monocultures of tamarisk exist in an area it degrades the value of habitat for waterfowl. The breeding waterfowl HSM characterizes this by subtracting 0.3 from the vegetation structure suitability value if this condition exists.

### **2.2.3 Habitat Value Calculation**

The most important parameters used for calculating breeding waterfowl habitat suitability are water depth and salinity. The geometric mean of these SIV's is multiplied by the other parameters SIV's which are equally weighted using the geometric mean where:

$$\text{Breeding Waterfowl HSM} = (\text{Water Depth SIV} * \text{Salinity SIV})^{1/2} * (\text{Vegetated Extent SIV} * \text{Vegetation Structure SIV} * \text{Island SIV} * \text{Seasonal Water SIV})^{1/4}$$

**Table 2. Owens Lake Breeding Waterfowl Guild Habitat Suitability Model (HSM)**

<b>Parameters</b>	<b>Habitat Value Measurements</b>	<b>Suitability Index Value (SIV)</b>	
<b>Water Depth</b>	0cm (no water)	0 * proportion of polygon	
	0<x<13cm (up to 80% of polygon)	0.8 * proportion of polygon	
	13≤x<30cm (up to 80% of polygon)	1 * proportion of polygon	
	≥30cm	0.01 * proportion of polygon	
		[Sum total * 1.25]	
<b>Salinity</b>	Fresh (up to 5mS/cm)	1	
	Brackish (5 - 15mS/cm)	0.8	
	Productive Saline (15-50mS/cm)	0.4	
	Average for polygon	Saline (50 - 70mS/cm)	0.1
		Saline to Hypersaline (70 - 100mS/cm)	0
		Hypersaline (>100mS/cm)	0
<b>Seasonal Water Availability</b> Each applicable season	Spring	0.35	
	Summer	0.4	
	Fall	0.25	
	Winter	0	
		[Sum total]	
<b>Partially Vegetated Islands</b> Proportion of acreage of land surrounded by water to total acreage	<4% Islands	0.3	
	For each additional percentage of islands add 0.1 to a maximum of 1 where; ≥10% Islands	1	
<b>Vegetated extent</b> Percentage of grass dominated vegetation over entire polygon	≥60 % Cover	0.4	
	40≤x<60% Cover	1	
	25≤x<40% Cover	0.8	
	5≤x<25% Cover	0.2	
	0≤x5% Cover	0	
<b>Vegetation Structure</b> Structure based on dominant community	High herbaceous structural diversity	1	
	Additional herbaceous layer common above saltgrass	0.8	
	Isolated areas of additional herbaceous structure above saltgrass	0.5	
	Low growing, usually saltgrass dominant	0.2	
	Shrub dominant	0.1	
	No vegetation	0	
	Tamarisk presence	-0.3	

## **2.3 Migrating Waterfowl Guild**

### **2.3.1 Guild Description**

The migrating waterfowl guild includes all members of the Family Anatidae, which includes all species of swan, goose, dabbling duck, with the exception of diving ducks and mergansers which are placed in the diving waterbird guild. Migrating waterfowl use of Owens Lake includes seasonal migrants and winter residents.

Food intake in this guild is diverse and varies from primarily vegetative parts of wetland plants (swans and geese), to aquatic invertebrates (dabblers and diving ducks), and reproductive portions of wetlands plants (dabbling and diving ducks). In addition, the composition of the diet changes with season for some species, as many species increase consumption of animal matter during breeding, but consume mostly plant-based foods the remainder of the year.

Although some species will forage occasionally in meadow habitats, waterfowl are generally found in or near water. Wetted habitats are used during feeding, loafing and for escape from potential predators. One of the main predictors of waterfowl habitat use for foraging is water depth (Colwell and Dodd 1995, Isola et al 2000). Water depth was the most important predictor of habitat use for species of waterfowl and shorebirds over various measures of vegetation and proportion of water in managed wetlands in the San Joaquin valley (Isola et al. 2000).

Waterfowl use fresh, brackish and saline habitats, but the ability to exploit the various food resources found in these different habitats varies by species. Saline and freshwater habitats support different food resources. Fresh water systems will typically have a greater diversity of aquatic invertebrates than brackish or saline habitats. Brackish and saline habitats typically support a less diverse but more productive aquatic invertebrate community. Adjacent wetland vegetation will provide a source of seeds and vegetative material, which provides the bulk of the dietary needs for many species. Wetland vegetation in turn provides organic material to support a more diverse invertebrate community.

At Owens Lake and other saline lake systems, brackish and saline water typically provide habitat for brine fly and brine shrimp, and the densities of these prey items can be high. Brine fly larvae and pupae are relatively large prey items, and can be effectively captured by all waterfowl species. Prey items such as brine shrimp are much smaller, and not all waterfowl can effectively filter brine shrimp from the water column. One species, Northern Shoveler, is especially adapted to straining small invertebrates from the water column. This species is the dominant fall migrant waterfowl species at Mono Lake and in the Owens Lake dust control project area, where available food resources are predominantly brine flies and brine shrimp (in some ponds) (LADWP 2010). At Owens Lake, waterfowl diversity is highest in cells with fresh water which provides a more diverse food base. In fall, high waterfowl numbers, dominated by Northern Shoveler, have been observed in brackish to saline cells, whose salinity may favor prey resources this species can effectively exploit.

While water depth is important to foraging waterbirds, pond size was found not to be significantly related to the abundance of dabbling ducks or diving ducks in San Francisco Bay salt ponds (Warnock et al. 2002). The amount of area by itself did not influence the number of species observed in wetlands (Colwell and Taft 2000). Additionally in a study of boreal lakes in Sweden and Finland, Elmberg et al. (1994) found that dabbling ducks species richness was not correlated with lake size. Instead, measures of habitat and prey were important predictors of species richness.

### 2.3.2 Migrating Waterfowl Guild HSM

Habitat value for waterfowl is best described by four parameters: water depth, salinity, seasonal water availability, and proportion of islands.

#### Water Depth

Water depth was the most important predictor of habitat use for species of waterfowl and shorebirds over various measures of vegetation and proportion of water in managed wetlands in the San Joaquin valley (Isola et al. 2000). Waterfowl species use water depths in an average range of 13 cm for small species such as Green-winged Teal, up to 30 cm for larger waterfowl such as Northern Shoveler and Gadwall (Isola et al. 2000). Waterfowl are also more flexible in their use of various water depths (Isola et al. 2000) than other Owens Lake guilds, such as shorebirds, due to larger bodies and long necks. For the model, high values were assigned to water depths up to 30 cm. Water depths of 13-30 cm were ranked slightly higher than depths above 30 cm reflective of the greater proportional use of Owens Lake by larger waterfowl species such as Northern Shoveler, Gadwall, and Mallard.

#### Salinity

Water salinities for migrating waterfowl are best maintained in the brackish to productive saline range. Freshwater areas have supported the most waterfowl species, likely due to the diversity of food resources available. The freshwater ponds at Owens Lake also tend to support more wetland vegetation, which also contributes to the attractiveness for waterfowl. Brackish to saline areas generally have the most individuals during migration and generally attract flocks of Northern Shoveler and other species, especially in the fall.

See previous discussion in the salinity section of diving waterbird guild for details regarding salinity and invertebrate communities. A summary of that discussion is provided below:

#### Summary

- Most aquatic invertebrate taxa were found in habitats below 5 mS/cm
- Maximum productivity of aquatic invertebrates occurs when the specific conductivity (EC25) is 15-20 mS/cm
- Productivity is maintained at electroconductivities up to about 50-75 mS/cm
- Salinity is toxic above 150 g/L (123 mS/cm) for the most salt tolerant insect (*Ephydra hians*).

SIV's are assigned based on waterfowl abundance in areas with known salinity in various DCM cells, performed during spring 2009. Input from field observations during counts throughout the year were incorporated to account for seasonal variability to the extent feasible.

Waterfowl abundance by cell was negatively correlated with water salinity during April 2009. In other words, the highest numbers of waterfowl were found in cells with the lowest salinity (LADWP 2010). Waterfowl species richness was also negatively correlated to salinity with more species observed in lower salinities (LADWP 2010). The cell with the highest abundance in April 2009 was the freshest salinity cell T30-1, which also has the highest vegetative cover of any shallow flood cell. Other cells with high numbers of waterfowl, excluding diving ducks, were freshwater cell T29-1, brackish cells T36-1 (8.6 mS/cm), productive saline T30-2 (16.5 mS/cm), and saline cells T2-1 and T29-2. The cell T2-1, while in the saline range, measured salinity at 28.9 mS/cm, just in the saline category.

Additionally, during fall, many Northern Shoveler use Owens Lake. Over 50% of the waterfowl observed in fall are Northern Shoveler and are typically found in more saline cells (LADWP 2010). The productive saline cells T13-1, T18N, T18S, and T30-2 often are used by large numbers of Northern Shoveler.

This gives the productive-saline and brackish salinity range the highest SIV, with freshwater slightly lower. With additional salinity the SIV quickly tapers to 0 at hypersaline (>100mS/cm).

#### Water Availability

In order to account for seasonal variability in water application and pond persistence during the non-dust season water availability was identified. The SIV for each season is weighted based on proportion of use by this guild throughout the year. Migration periods of spring and fall receive the highest value since that is when the highest numbers of waterfowl are encountered on Owens Lake. Seasons are defined based on waterbird life history characteristics and timing of use at Owens Lake as follows: Spring (February 15 – May 4, Summer (May 15 – June 30), Fall (July 1 – November 14) and Winter (November 15 – February 14).

#### Islands

Dikes and islands are important particularly to roosting waterfowl and shorebirds in San Francisco Bay Salt ponds (Warnock et al. 2002). Waterfowl are frequently seen loafing and sleeping on the few islands that currently exist in the project area. Islands may also provide some protection to nesting or loafing birds as this will serve to increase predator search effort.

### **2.3.3 Habitat Value Calculation**

Since water depth has been found to be the most important predictor of habitat use for waterfowl water depth is the most dominant SIV parameter. Analogous to the diving waterbird guild habitat model, water depth is used to scale the geometric mean of the other parameters where:

$$\text{Migrating Waterfowl HSM} = \text{Water Depth SIV} * (\text{Island SIV} * \text{Salinity SIV} * \text{Seasonal Water SIV})^{1/3}$$

**Table 3. Owens Lake Migrating Waterfowl Guild Habitat Suitability Model (HSM)**

<b>Parameters</b>	<b>Habitat Value Measurements</b>	<b>Suitability Index Value (SIV)</b>
<b>Water Depth</b>	0cm (no water)	0 * proportion of polygon
	0<x<13cm (up to 80% of polygon)	0.8 * proportion of polygon
	13≤x<30cm (up to 80% of polygon)	1 * proportion of polygon
	≥30cm	0.01 * proportion of polygon
		[Sum total * 1.25]
<b>Salinity</b>	Fresh (up to 5mS/cm)	0.8
	Brackish (5 - 15mS/cm)	1
	Productive Saline (15-50mS/cm)	1
	Average for polygon Saline (50 - 70mS/cm)	0.5
	Saline to Hypersaline (70 - 100mS/cm)	0.1
	Hypersaline (>100mS/cm)	0
<b>Seasonal Water Availability</b> Each applicable season	Spring	0.3
	Summer	0.05
	Fall	0.6
	Winter	0.05
		[Sum total]
<b>Partially Vegetated Islands</b> Proportion of acreage of land surrounded by water to overall acreage	<4% Islands	0.3
	For each additional percentage of islands add 0.1 to a maximum of 1 where;	
	≥10% Islands	1



## 2.4 Breeding Shorebird Guild

### 2.4.1 Guild Description

The breeding shorebird guild includes all members of the Order Charadriiformes, which may breed on Owens Lake. This includes Snowy Plover, Black-necked Stilt, American Avocet, Killdeer, and potentially Long-billed Curlew. Shorebirds are most abundant on Owens Lake during spring and fall migration but they are also the most abundant guild that nests on Owens Lake. The breeding shorebird guild was designed to describe habitat that the breeding shorebird species need for both foraging and reproduction.

Aquatic and terrestrial invertebrates comprise the bulk of food items taken by shorebirds, although some of the larger shorebirds such as Long-billed Curlew also consume mollusks, crustaceans, and small vertebrate species. Aquatic invertebrates consumed by shorebirds may occur in sediments, in the water column, or on the water surface. Many species feed in water or in wet mud or sand (Long and Ralph 2001); however some species, notably Snowy Plover, also feed on dry flats.

Shorebirds typically use brackish and saline habitats during breeding and in migration. Migrating birds will seek areas of high prey density, while nesting birds are restricted by the availability of appropriate nesting microhabitats in proximity to suitable foraging sites. Shorebirds do not feed in water depths greater than 10-15 cm (excepting phalaropes) and most (particularly smaller shorebirds) feed at water depths less than 4 cm (Isola et al. 2000). In another study, American Avocet were found to feed on mudflats, wade in water generally less than 20 cm deep, or swim in water up to 25 cm deep (Robinson et al. 1997).

Most shorebirds counted during April 2009 were in saline sheet flow cells also due in part to the large quantity of shallow water foraging area compared to ponds with deeper water. There appears to be a pronounced peak in shorebird abundance during 2009 in water of salinities between 56 and 75 mS/cm (LADWP 2010).

Inland nesting Snowy Plover breed throughout the west in barren to sparsely vegetated areas at reservoirs and ponds, alkaline lakes, and salt evaporation ponds in the vicinity of temporary or permanent water which provides conditions suitable to support the production of invertebrate food sources. Additionally Snowy Plover prefer some topographic or substrate color variability to obscure nest sites (District 1998). The majority of high Snowy Plover use areas often have a relatively low proportion of saturated area compared to other shallow flood areas (LADWP 2010).

The majority of Snowy Plover nests found by Henderson and Page in a survey of inland nesting Snowy Plover (1979 from District 1998) were well concealed because of placement of nest in close proximity to topographic features. The microtopographic break used by Henderson and Page (1979 from District 1998) was 5 cm within 1 m of the nest. Fewer nests were found in lower microtopographic relief areas. Since availability of habitat was not measured in the survey locations at these inland lakes it is impossible to determine if Snowy Plover are nesting in high-relief microtopography in greater proportion than availability. Presumably these alkali lakes are proportionately flat; therefore the category of greater than 5 cm relief within 1 m of the nest is quite rare. Few areas of barren playa on Owens Lake average greater than 5 cm of relief over a 2 m range, based on Lidar data used to determine microtopographic relief (Watershed Sciences 2010). Additionally, Snowy Plover nesting is often on an elevated area such as a low mound or ridge of playa (Henderson and Page 1979 from District 1998). Snowy Plover will nest in non- to lightly vegetated flats on alkali lakes. Of nests observed on lake flats, 27% were within 1 m of some vegetation and 51% had some vegetation within a 10 meter radius of the nest (Henderson and Page 1979 in District 1998).

American Avocet prefer open areas that are barren or sparsely-vegetated to nest. Like American Avocet, Black-necked Stilt can be found in open to sparsely-vegetated areas. American Avocet and other shorebirds were found to favor islands for nesting (Lokemoen 1993). In the San Francisco Bay estuary, 31% of Black-necked Stilt and almost 40% of American Avocet observations were of birds using islands in salt ponds (Rintoul et al 2003). The construction of islands surrounded by water has been found to be beneficial for nesting shorebirds (Engilis and Reid 1996). The additional shoreline created by the island provides additional foraging opportunities as well. Presence of islands may also provide some protection to nesting or loafing birds as this will serve to increase a predator's search effort.

#### **2.4.2 Breeding Shorebird Guild HSM**

Habitat value for shorebirds is best described by six parameters: water depth, salinity, seasonal water availability, islands, vegetated extent, the proportion of dry area in a cell, and the microtopographic relief of dry area.

##### Water Depth

Shorebirds do not feed in water depths greater than 10-15 cm (excepting phalaropes) and most (particularly smaller shorebirds) feed at water depths less than 4 cm (Isola et al. 2000). In another study, American Avocet were found to feed on mudflats, wade in water generally less than 20 cm deep, or swim in water up to 25 cm deep (Robinson et al. 1997).

Long and Ralph (2001) found that near Humboldt Bay, California, the most important habitat characteristic for shorebirds was presence of standing water and short vegetation. While no specific measurements were given, mudflats were commonly used by most species.

##### Salinity

See previous discussion on salinity in the diving waterbird guild, summarized below.

- Most aquatic invertebrate taxa were found in habitats below 5 mS/cm
- Maximum productivity of aquatic invertebrates occurs when the specific conductivity (EC25) is 15-20 mS/cm
- Productivity is maintained at electroconductivities to about 50-75 mS/cm
- Salinity is toxic above 150 g/L (123 mS/cm) for the most salt tolerant insect (*Ephydra hians*).

SIV's are assigned based on shorebird abundance and salinity measurements performed during spring 2009 of various DCM cells. Input from field observations during counts throughout the year (particularly breeding season of Snowy Plover) were incorporated to account for seasonal variability to the extent feasible.

Most shorebirds counted during April 2009 were in saline sheet flow cells also due in part to the large quantity of shallow water foraging area compared to ponds with deeper water. There appears to be a pronounced peak in shorebird abundance during 2009 at salinities between 56 and 75 mS/cm.

Areas where Snowy Plover were most abundant during the 2010 plover survey were areas that were saline or productive saline. These areas include T17-1, T13-1, T21, and T27N. Different areas, particularly areas with tillage, had abundant American Avocet nesting but were also in the productive saline to saline range.

Therefore, the productive saline and saline range received the highest SIV followed by brackish. The category of saline-to-hypersaline received a relatively low SIV due to low use. Freshwater also received a relatively low SIV. Hypersaline cells, while not having a forage base, may still provide suitable nesting areas in proximity to fresher areas for foraging, therefore this category still had some value unlike for other guilds.

### Seasonal Water Availability

This parameter was identified in order to account for seasonal variability in water application and pond persistence. Each season water is available during the breeding period (spring and summer) is equally weighted. Water availability for each season is totaled to obtain the water availability SIV. Seasons are defined based on waterbird life history characteristics and timing of use at Owens Lake as follows: Spring (February 15 – May 4, Summer (May 15 – June 30), Fall (July 1 – November 14) and Winter (November 15 – February 14).

### Islands

Shorebirds use islands for nesting, loafing, and sleeping. The additional shoreline created by the island provides additional foraging opportunities as well. In the San Francisco Bay estuary, 31% of Black-necked Stilt and almost 40% of American Avocet observations were of birds using islands in salt ponds (Rintoul et al 2003). The construction of islands surrounded by water has been found to be beneficial for nesting shorebirds (Engilis and Reid 1996). Some species such as American Avocet, favor islands for nesting (Lokemoen 1993). This has also been observed at Owens Lake. The size, shape, distance from shore, distance to adjacent islands, depth of surrounding water, and amount of vegetation are all factors that could influence the use of islands by shorebirds. The model assumption is that the suitability value of an area will increase with additional island acreage up to 10%.

### Dry Area

Snowy Plover, American Avocet and Black-necked Stilt need dry areas in order to successfully nest. There have been reported failures of Snowy Plover nests because wind blew water into the area surrounding a nest saturating the soil and causing abandonment (Ruhlen and Page 2002).

The majority of high Snowy Plover use areas often have a relatively low proportion of saturated area compared to other shallow flood areas. Each dust control area (cell) is required to be 75% wet for dust control compliance. The cells that are closer to 75% wet threshold (average over entire polygon) are at the drier end of the scale often have high Snowy Plover use. Water is not equally distributed within a cell, resulting in ponded areas down gradient and saturated and dryer areas higher in elevation. LADWP Watershed Resources staff have noted that the drier parts of the cell often have the highest use by plovers. Shallow flood cells often have sheet flow on the upper portion of a management cell that drains into a tailwater pond. Since the dryer parts of the sheet flow cells have more plover use the hypothesized favored ratio of wet to dry area for Snowy Plover is close to 50:50. As a cell becomes wetter there is less area available to nest. Conversely as the area becomes increasingly drier there is less area available to forage for food and therefore that area becomes less valuable.

On Owens Lake, the furthest documented nest from a water source was located approximately one mile from water (Ruhlen and Page 2001). In 2002, after initiation of shallow flooding as a dust control measure, nest distances to water averaged almost 1,395 feet for nests in natural areas, and approximately 26 feet on average in artificially flooded areas (Ruhlen, Page, and Stenzel 2006). Snowy Plover habitat has also been defined as playa within 0.5 miles of water (District 1998, 2008).

The highest SIV for this parameter is 30-60% dry area. The SIV will decrease as polygons become more flooded with the complete flooding receiving the lowest value of 0.1 and conversely, to 0 for areas with 100% dry area (no water) and greater than 0.5 miles from water.

### Microtopographic Relief

The majority of Snowy Plover nests found by Henderson and Page in a survey of inland nesting Snowy Plover (1979 from District 1998) were well concealed because of placement of nest in close proximity to topographic features. The microtopographic break used by Henderson and Page (1979 from District 1998) was 5 cm within 1 m of the nest. Fewer nests were found in lower microtopographic relief areas. Since availability of habitat was not measured in the survey locations at these inland lakes it is impossible to measure if Snowy Plover are nesting in high-relief microtopography in greater proportion than availability. Presumably these alkali lakes are proportionately flat; therefore the category of greater than 5 cm relief within 1 m of the nest is quite rare. Few areas of barren playa on Owens Lake average greater than 5 cm of relief over a 2 m range, based on Lidar data used for the index calculation (Watershed Sciences 2010). The areas that do have an average microtopographic relief above 5 cm have proportionately high Snowy Plover use (e. g., T13-1, Tubman Springs and Trucksticker Spring [North Tubman Spring]). These are generally areas where the salt crust tends to be both thick as well as heaves and cracks, producing a very irregular playa surface. Additionally, Snowy Plover nesting is often on an elevated area such as a low mound or ridge of playa (Henderson and Page 1979 from District 1998).

In early 2010, tillage of playa was performed in Phase 7 areas. Tillage roughens the soil surface to reduce fetch for dust control. This produces a series of furrows and mounds. In spring of 2010, these areas were flooded which resulted in many areas where there was saturated soil or standing water in furrows leaving the mounds above water. During the 2010, Snowy Plover annual survey in May, the majority of American Avocet nesting observed at Owens Lake occurred in these tillage areas. These areas measure above 20 cm average topographic relief over a 2 m area.

### Vegetated Extent

Most migrant shorebirds wintering in managed wetlands in the San Joaquin Valley preferred foraging in open wetlands with less than 5% emergent cover.

Snowy Plover will nest in non- to lightly vegetated flats on alkali lakes. Of nests observed on lake flats, 27% were within 1 m of some vegetation and 51% had some vegetation within a 10 meter radius of the nest (Henderson and Page 1979 in District 1998).

American Avocet around Owens Lake have been observed to nest both on barren playa, in clumps of vegetation adjacent to seeps and springs, and in small clumps of saltgrass present in some shallow flood cells. Black-necked Stilt appear to be the most vegetation-tolerant of the common breeding shorebirds on Owens Lake, nesting in higher cover saltgrass areas.

### 2.4.3 Habitat Value Calculation

The most important parameters used for calculating breeding shorebird habitat suitability are water depth and dry area. The remaining five variables are equally weighted and multiplied by the geometric mean of the SIV's of water depth and dry area where:

$$\text{Breeding Shorebird HSM} = (\text{Dry Area SIV} * \text{Water Depth SIV})^{1/2} * (\text{Relief SIV} * \text{Vegetated extent SIV} * \text{Salinity SIV} * \text{Seasonal Water SIV} * \text{Islands SIV})^{1/5}$$

**Table 4. Owens Lake Breeding Shorebird Guild Habitat Suitability Model (HSM)**

<b>Parameters</b>	<b>Habitat Value Measurements</b>	<b>Suitability Index Value (SIV)</b>	
<b>Water Depth</b>	0 cm (no water)	0.01 * proportion of polygon	
	0<x<10cm (up to 50% of polygon)	1 * proportion of polygon	
	10≤x<25cm (up to 50% of polygon)	0.4 * proportion of polygon	
	≥25cm	0.05 * proportion of polygon	
		[Sum total * 2]	
<b>Salinity</b>	Fresh (up to 5mS/cm)	0.1	
	Brackish (5 - 15mS/cm)	0.5	
	Average for polygon	Productive Saline (15-50mS/cm)	1
		Saline (50 - 70mS/cm)	1
		Saline to Hypersaline (70 - 100mS/cm)	0.6
	Hypersaline (>100mS/cm)	0.2	
<b>Seasonal Water Availability</b> Each applicable season	Spring	0.5	
	Summer	0.5	
	Fall	0	
	Winter	0	
		[Sum total]	
<b>Islands</b>	<4% Islands	0.3	
Proportion of acreage of land surrounded by water to overall acreage	For each additional percentage of islands add 0.1 to a maximum of 1 where;		
	≥10% Islands	1	
<b>Dry Area</b> Percentage of dry area	0%≤x<10%	0.1	
	10%≤x<20%	0.3	
	20%≤x<30%	0.6	
	30%≤x<60%	1	
	60%≤x<80%	0.7	
	80%≤x<100%	0.4	
	100% (but standing water within ~0.5 mile)	0.1	
No water within 0.5 mile	0		
<b>Microtopographic Relief (of dry areas)</b>	0≤x<2cm	0.2	
	Average difference between local maximum and local minimum	2≤x<5cm	0.7
		5≤x<20cm	1
		≥20cm (tillage)	0.7
<b>Vegetated extent</b> (Percentage of vegetation over entire area)	≥50 % Cover	0.3	
	25≤x<50% Cover	0.4	
	10≤x<25% Cover	0.6	
	0≤x<10% Cover	1	

## 2.5 Migrating Shorebird Guild

### 2.5.1 Guild Description

The shorebird guild includes all members of the Order Charadriiformes excluding the family Laridae (gulls) which includes plovers, stilts and avocets, phalaropes, and all sandpipers (Family Scolopacidae). Since shorebirds are most abundant on Owens Lake during spring and fall migration but have different resource needs as compared to breeding shorebirds, the migrating shorebird guild was separated from breeding shorebirds. This guild does include some of the same species of shorebirds that will breed on Owens Lake but these individuals may be migrating towards different breeding or wintering locations during spring and fall, respectively. As many as 35 shorebird species have been seen on Owens Lake during migration. The major difference between breeding and migrating shorebirds is the timing of water availability and the need for nesting habitat (microtopography and dry area).

Aquatic and terrestrial invertebrates comprise the bulk of food items taken by shorebirds, although some of the larger shorebirds such as Whimbrel and Long-billed Curlew also consume mollusks, crustaceans, and small vertebrate species. Aquatic invertebrates consumed by shorebirds may occur in sediments, in the water column, or on the water surface. Many species feed in water or in wet mud or sand; however some species, notably Snowy Plover, also feed on dry flats. Shorebirds do not feed in water depths greater than 10-15 cm and most (particularly smaller shorebirds) feed at water depths less than 4 cm (Isola et al. 2000). Most migrant and overwintering shorebirds prefer open, shallow, flooded habitats that provide muddy substrates or shallow water for foraging. Additionally, while it is important for water to remain available, the typical dry down of ponds during summer into fall concentrates invertebrate food sources providing areas of high prey density, which are often used by migrating shorebirds.

Shorebirds often use brackish and saline habitats during migration. Migrating birds will generally seek areas of high prey density which is often in the moderate salinity range. Shorebirds use islands for nesting, loafing, and sleeping. The additional shoreline created by the island provides additional foraging opportunities as well. In the San Francisco Bay estuary, 31% of Black-necked Stilt and almost 40% of American Avocet observations were of birds using islands in salt ponds (Rintoul et al. 2003). Presence of islands may also provide some protection to nesting or loafing birds as this will serve to increase a predator's search effort.

The most abundant species at Owens Lake include Western and Least Sandpipers, and Wilson's and Red-necked Phalaropes. Western and Least sandpipers are the most abundant Calidrid sandpipers present in migration, with numbers generally highest in fall. Most Western Sandpipers leave Owens Lake during the winter, while a few hundred to a few thousand Least Sandpipers have remained at Owens Lake through winter. Phalaropes are also quite abundant in migration, with numbers highest in fall. Phalaropes do not remain at Owens Lake during the winter. Least and Western Sandpipers feed on benthic and terrestrial invertebrates, and obtain prey by pecking or probing in mudflats or very shallow water. Least Sandpipers generally take the most abundant prey of the appropriate size. Prey density has explained 53% of the variability in microhabitat use by this species, with Least Sandpipers often occurring in mudflat patches with the highest prey density (Nebel and Cooper 2008).

The Wilson's Phalarope is the most terrestrial of the three phalarope species, but may also be found swimming or feeding over deeper waters. Wilson's Phalaropes feed by probing or picking prey off of muddy surfaces, or pecking prey from the water surfaces or from just below. Wilson's Phalaropes

feed on aquatic and terrestrial invertebrates. At Mono Lake, brine shrimp and brine flies form a large proportion of the diet.

The Red-necked Phalarope is a shorebird species that is characterized by its frequent use of open water habitats (Rubega et al 2000). This species feeds primarily on small aquatic invertebrates and adult flying life stages of aquatic insects. At saline lakes during fall migration, diet consists primarily of brine flies, consuming all life stages. Red-necked Phalarope feed primarily in water, capturing prey at or just below the surface of the water. During migration, this species uses water bodies of all sizes, and is particularly numerous on salt lakes where the diet overwhelmingly consists of brine flies.

## 2.5.2 Migrating Shorebird Guild HSM

Habitat value for migrating shorebirds is best described by five parameters: water depth, salinity, seasonal water availability, islands, and the vegetated extent within a management polygon. Water depth salinity, proportion of islands and vegetated extent each have similar suitability values (SIV's) compared to the breeding shorebirds. The major difference between breeding and migrating shorebirds is the timing of water availability and the need for nesting habitat (microtopography and dry area).

### Water Depth

Shorebirds do not feed in water depths greater than 10-15 cm and most (particularly smaller shorebirds) feed at water depths less than 4 cm (Isola et al. 2000). In another study, the larger American Avocet were found to feed on mudflats, wade in water generally less than 20 cm deep, or swim in water up to 25 cm deep (Robinson et al. 1997). The most abundant shorebirds that use Owens Lake are generally quite small. The abundant Least Sandpiper is the smallest shorebird at 6 inches in length with relatively short legs and a short bill. Therefore, it must forage in very shallow water and is often seen foraging on mudflats.

Long and Ralph (2001) found that near Humboldt Bay, California, the most important habitat characteristic for shorebirds was presence of standing water and short vegetation. While no specific measurements were given, mudflats were commonly used by most species.

Cycles of rainfall and evaporation may provide temporary refuge for invertebrates but if water levels remain constant shorebirds may deplete resources (Helmers 1992). Additionally, while it is important for water to remain available, the typical dry down of ponds during summer into fall concentrates invertebrate food sources providing areas of high prey density, which are often used by migrating shorebirds.

### Salinity

See previous discussion on salinity in the diving waterbird guild which is summarized below.

- Most aquatic invertebrate taxa were found in habitats below 5 mS/cm
- Maximum productivity of aquatic invertebrates occurs when the specific conductivity (EC25) is 15-20 mS/cm
- Productivity is maintained at electroconductivities to about 50-75 mS/cm
- Salinity is toxic above 150 g/L (123 mS/cm) for the most salt tolerant insect (*Ephydra hians*).



SIV's are assigned based on shorebird abundance and salinity measurements performed during spring 2009 of various DCM cells, along with analysis of invertebrate communities performed by Herbst. Input from field observations during counts throughout the year were incorporated to account for seasonal variability to the extent feasible.

Most shorebirds counted during April 2009 were in saline sheet flow cells also due in part to the large quantity of shallow water foraging area compared to ponds with deeper water. There appears to be a pronounced peak in shorebird abundance during 2009 at salinity between 56 and 75 mS/cm.

Cell T36-2 E (productive saline during sampling) was observed qualitatively to have the highest insect abundance during water quality sampling in April 2009 and also had the highest shorebird abundance (LADWP 2010). T36-2 also has a large proportion of island area that may preferentially attract shorebirds compared to other ponds.

Therefore, the productive saline range received the highest SIV followed by brackish. The category of saline-to-hypersaline received a relatively low SIV due to typically lower invertebrate productivity yet still does see shorebird use. Freshwater also received a relatively low SIV. Hypersaline cells were considered unsuitable.

#### Seasonal Water Availability

This parameter was identified in order to account for seasonal variability in water application and pond persistence. The season when water is available is weighted based on proportion of use by this guild throughout the year. Migration periods of spring and fall receive the highest value since that is when the highest numbers of shorebirds are encountered on Owens Lake. There are a small percentage of shorebirds that overwinter at Owens Lake. Seasons are defined based on waterbird life history characteristics and timing of use at Owens Lake as follows: Spring (February 15 – May 4, Summer (May 15 – June 30), Fall (July 1 – November 14) and Winter (November 15 – February 14).

#### Islands

Shorebirds use islands for nesting, loafing, and sleeping. The additional shoreline created by the island provides additional foraging opportunities as well. In the San Francisco Bay estuary, 31% of Black-necked Stilt and almost 40% of American Avocet observations were of birds using islands in salt ponds (Rintoul et al. 2003). The size, shape, distance from shore, distance to adjacent islands, depth of surrounding water, and amount of vegetation are all factors that could influence the use of islands by shorebirds. The model assumption is that the suitability value of an area will increase with additional island acreage up to 10%.

#### Vegetated Extent

Most migrant shorebirds wintering in managed wetlands in the San Joaquin Valley preferred foraging in open wetlands with less than 5% emergent cover. Least Sandpiper were found in areas that had an average of 10.3% cover of emergent vegetation.

### 2.5.3 Habitat Value Calculation

Water depth has been found to be the most important predictor of habitat use for shorebirds, therefore, water depth is the most dominant SIV parameter. The geometric mean is used to combine the other parameters SIV's since they are not substitutable where:

$$\text{Migrating Shorebird HSM} = (\text{Water Depth SIV}) * (\text{Vegetated Extent SIV} * \text{Island SIV} * \text{Salinity SIV} * \text{Seasonal Water SIV})^{1/4}$$

Table 5. Owens Lake Migrating Shorebird Guild Habitat Suitability Model (HSM)

Parameters	Habitat Value Measurements	Suitability Index Value (SIV)
<b>Water Depth</b>	0 cm (no water)	0 * proportion of polygon
	0<x<10cm (up to 50% of polygon)	1 * proportion of polygon
	10≤x<25cm (up to 50% of polygon)	0.4 * proportion of polygon
	≥25cm	0.05 * proportion of polygon
		[Sum total * 2]
<b>Salinity</b> Average for polygon	Fresh (up to 5mS/cm)	0.2
	Brackish (5 - 15mS/cm)	0.8
	Productive Saline (15-50mS/cm)	1
	Saline (50 - 70mS/cm)	0.4
	Saline to Hypersaline (70 - 100mS/cm)	0.1
<b>Seasonal Water Availability</b> Each applicable season	Hypersaline (>100mS/cm)	0
	Spring	0.4
	Summer	0.05
	Fall	0.5
	Winter	0.05
	[Sum total]	
<b>Islands</b> Proportion of acreage of land surrounded by water to overall acreage	<4% Islands	0.3
	For each additional percentage of islands add 0.1 to a maximum of 1 where;	
	≥10% Islands	1
<b>Vegetated extent</b> (Percentage of vegetation over entire area)	≥50 % Cover	0.3
	25≤x<50% Cover	0.4
	10≤x<25% Cover	0.6
	0≤x<10% Cover	1

## 2.6 Alkali Meadow Guild

### 2.6.1 Guild Description

The alkali meadow guild includes all species associated with herbaceous-dominated communities on or adjacent to Owens Lake. Typical species include reptiles such as Side-blotched Lizard, Gopher Snake; mammals such as Owens Valley Vole, Deer Mouse, Tule Elk; and birds such as Northern Harrier, Savannah Sparrow, and Western Meadowlark. Meadow habitats also support many invertebrate and plant species.

The meadow guild species generally prefer herbaceous dominated vegetation, which range from dense saturated alkali meadow (SAM) to areas of drier grassland types with shrub inclusions and isolated willow species. Meadow habitats are expected to attract typical grassland species, and those requiring additional vertical structure.

Additional information on guild members is discussed below.

### 2.6.2 Alkali Meadow Guild HSM

#### Vegetation Cover

The amount of plant cover is directly related to habitat value of an area for all species in the meadow guild from Tule Elk and Owens Valley Vole to grasshoppers and spiders. Not only does vegetation cover provide essential food and cover to herbivorous species, plant cover plays a role in mediating predator prey interaction and promoting diversity (Ayal et al. 2005).

Except for areas with freshwater application, Owens Lake habitat types are characterized by low cover values. Areas that receive freshwater often have soil salinity that is conducive to higher cover values of salt tolerant species and have hydrophyte species that can obtain higher cover values. The average cover value of these high cover alkali meadow communities was 70% (LADWP 2002). Since the Owens Lake polygons consist of many non-vegetated habitat types, the upper cover category was defined as greater than 50%, which received the highest SIV of 1. There are three additional lower cover categories that have SIV values that decrease at a linear rate until 0% cover receives a SIV of 0.

#### Vegetation Richness

Species richness is one of the simplest; most widely used, and best understood methods of characterizing a biological community. Species richness is a fundamental measurement of community and regional diversity, and it underlies many ecological models and conservation strategies (Gotelli and Colwell 2001). With increasing species richness there are more ecological interactions between those species which leads to resistance to disturbance (Tilman and Downing 1994). Increasing species richness is also often positively related to productivity (Mittelbach 2001), with increased species comes additional organisms able to exploit resources across many different ecological gradients.

Avian species richness is typically related more to vegetation structure as opposed to vegetation composition (MacArthur and MacArthur 1961, Erdelen 1984). Vegetation species richness may, however, affect the vertical height diversity of vegetation, and thus bird use. Variations in vegetation species richness would also be expected to influence the availability of food resources with more plant species offering more productive and diverse resources. Higher richness areas may be more likely to have rare species such as *Sidalcea covillei* and *Plagiobothrys parishii*.

Low amounts of tamarisk can be tolerable and potentially beneficial to some riparian bird species but large amounts of tamarisk can negatively affect bird use (Hultine et al. 2010). While 32 different bird species have been noted to breed in tamarisk it could be of lower value than native habitat (Sogge et al. 2008). Tamarisk takes the place of some native wetland species, and while some tamarisk may possibly be beneficial to some wildlife species, large monocultures are not desirable. Therefore the SIV is reduced by 0.3 for polygons with monocultures of tamarisk.

Vegetation species richness categories were defined based on observations of the vegetation communities on Owens Lake. The presence of a few plant species (inland saltgrass is usually dominant) quickly raises the value of an area for the meadow guild since meadow species do not use barren playa. With each additional ten species the SIV is raised to the point where more than 40 species received the maximum value of 1.

### Vegetation Structure

The diversity and density of birds in grassland habitats is generally low as compared to most other habitats. Within grassland and open-country habitats, more open, patchy, and variable habitats will support more bird species (Cody 1985). Grassland birds vary in their specific habitat requirements with regard to vegetation structure. Grassland bird species will readily use small shrubs and trees, although they vary in the amount of shrub cover tolerable. Some species such as Western Meadowlark prefer shorter grass, with limited amounts of shrub cover. Savannah Sparrow is more of a habitat generalist, occurring in a wide range of grassland habitats, and often in fairly lush short to medium height grassland areas. Northern Harrier will use upland and wetland habitats, and will tolerate low shrub cover (<20%) (Sample and Mossman 1997). Areas supporting SAM and taller emergent vegetation will create nesting opportunities for other species such as Marsh Wren, Red-winged Blackbird and Yellow-headed Blackbird. SAM habitats will provide additional nesting and cover opportunities for waterfowl as discussed previously. Additional woody vegetation structure will provide perch sites and additional foraging opportunities for migrant, wintering and breeding passerine birds.

Local scale habitat heterogeneity is positively related to species richness of small mammals (Williams et al 2002). In a study of small mammal populations in Nevada, the most diverse plant community which was comprised of dense herbaceous growth interspersed with forbs and many mesic shrubs supported the greatest number of small mammal species (Ports and Ports 1989). On Owens Lake, rodent species richness is positively correlated with plant species cover and the spatial heterogeneity of vegetation (Matson 1976).

Foliage height diversity is well correlated to increases in bird species richness (MacArthur and MacArthur 1961, Erdelen 1984). Since it would be impractical and time consuming to measure foliage height diversity or foliage density across the Owens Lake, categories were created based on vegetation structural groups that exist on Owens Lake.

While some wildlife may use shrubs, most of the meadow guild needs resources that grass or other herbaceous species provide. Therefore when shrubs are dominant the SIV is the lowest. The next highest SIV structure category is saltgrass dominant. These areas provide marginal cover and food resources for most species. In these saltgrass dominant areas, Kangaroo rats, white-footed mice and Owens Valley Vole have been noted along with Savannah Sparrow and the occasional foraging Northern Harrier. The majority of vegetated areas on Owens Lake are saltgrass dominant. With increasing connection to a spring or other freshwater source additional herbaceous structure generally occurs. These more mesic areas provide additional structure for small mammals to use along with

Tule Elk and other songbirds and waterbird species. With isolated areas of additional herbaceous structure this raises the SIV by an additional 0.2. When multiple additional herbaceous layers are common (e.g., wiregrass [*Juncus* spp.] and bulrush [*Schoenoplectus* spp.]) this increases the suitability value further to 0.9. This category may also have some shrub structure. This additional structure creates additional perching areas for foraging birds or to serve as singing perches. Lastly the most valuable areas contain some woody riparian species. This vegetation structure category is relatively rare on Owens Lake due to the lack of fluvial process to establish willows and cottonwood, the highly saline soil and groundwater, and shallow rooting zone. There are some springs adjacent to ephemeral creeks on the west side of Owens Lake that do have spotty but dense native woody riparian species. Due to the high structural diversity of this category, it receives the highest SIV.

### Vegetated Topographic Diversity

Topographic diversity of hummocks, rocks, and woody material provides cover for many small animals which is otherwise often lacking on the lakebed.

While vegetation in and of itself may provide cover for some small mammals (e. g., Owens Valley Vole) most small mammals need friable soil to build burrows. With increased topographic diversity there are additional raised areas that are above the saline ground water that would provide areas conducive to burrow placement. Only small mammals such as black-tailed hare, that do not rely on burrows and are mobile enough to move into vegetated shallow flood areas from adjacent uplands to forage and then leave when additional cover is needed, have been noted in the relatively flat shallow flood areas.

Substrate diversity and patchiness has been found to influence rodent community structure and increase diversity (M'Closkey 1976). On Owens Lake, areas with additional topographic diversity with vegetation even in the middle of the lakebed, such as Managed Vegetation have known use by Botta's Pocket Gopher (*Thomomys bottae*), Deer Mouse (*Peromyscus maniculatus*), and various pocket mice (*Perognathus* spp.).

The general life history requirements for reptiles of sunlight for warmth and food, usually in the form of insects (which are most valuable adjacent to vegetation) is met in some DCA's. The third requirement, cover from temperature extremes and escape from predation, is often insufficient everywhere except for adjacent to the historic shoreline.

The lakebed is topographically flat and quite simple. Spatial heterogeneity is the single most important variable in determining species richness and determining coexisting species (Pianka 1967). Various reptiles have been observed adjacent to shallow flood including Side-blotched Lizard (*Uta stansburiana*), Long-nosed Leopard Lizard (*Gambelia wislizenii*) and Desert Spiny Lizard (*Sceloporus magister*) particularly adjacent to the created wetlands in T30-1, which is located next to upland habitat. Here these species are often seen utilizing rip-rap along culverts and berms to meet their cover requirement (LADWP 2010).

With additional topographic diversity to provide cover in DCA cells (and reduction of water application) additional wildlife would very likely utilize areas with vegetation. This, in turn, would provide additional trophic levels and resources for other wildlife such as predatory snakes and raptors.

This parameter was assessed using the topographic complexity attribute in California Rapid Assessment Methods for Wetlands (CRAM 2009) which was slightly modified for use on Owens Lake.

The categories in order of increasing topographic diversity and higher suitability values are below.

- Flat (Swales of vegetation that exist with little slope);
- Mostly flat with short, steep slope (historic shoreline);
- Vegetated areas with shallow slope or short feature with steep slope;
- Vegetated areas with multiple breaks in slope and often steeper slopes (e.g., berms, hummocks, and could include influence of various woody material and rocks)

### 2.6.3 Habitat Value Calculation

Vegetation cover is the most important parameter for the alkali meadow guild. The geometric mean of the other three parameters SIVs is then scaled by vegetation cover SIV to obtain the meadow guild HSM where:

$$\text{Meadow Guild HSM} = \text{Cover SIV} * (\text{Richness SIV} * \text{Structure SIV} * \text{Topographic Diversity SIV})^{1/3}$$

**Table 6. Owens Lake Alkali Meadow Guild Habitat Suitability Model (HSM)**

Parameters	Habitat Value Measurements	Suitability Index Value (SIV)
Vegetation Cover	≥50% Cover	1 * proportion of polygon
	25≤x<50% Cover	0.8 * proportion of polygon
	10≤x<25% Cover	0.6 * proportion of polygon
	0<x<10% Cover	0.4 * proportion of polygon
	0% Cover	0 * proportion of polygon
		[Sum total]
Vegetation Richness  (Number of species)	>40 species	1
	31-40 species	0.9
	21-30 species	0.8
	10-20 species	0.6
	1-9 species	0.4
	0 species	0
	Tamarisk presence	Subtract 0.3
	Other noxious weed presence	Subtract 0.1
	Species status plant species presence	Add 0.1 per species
Vegetation Structure  Structure based on dominant community	Multiple herbaceous layers and some native woody riparian Additional herbaceous layer common above saltgrass, potentially some shrubs	1
	Isolated areas of additional herbaceous structure above saltgrass	0.9
	Low growing, usually saltgrass dominant	0.8
	Shrub dominant	0.6
	No vegetation	0.2
		0
Vegetated Topographic Diversity	Flat (Swales of vegetation that exist with little slope)	0.7
	Mostly flat with short, steep slope (historic shoreline)	0.8
	Vegetated areas with shallow slope or short feature with steep slope	0.9
	Vegetated areas with multiple breaks in slope and often steeper slopes (e.g., berms, hummocks, and could include influence of various woody material and rocks)	1

### 3.0 METHODS FOR OBTAINING HABITAT PARAMETERS

Each variable necessary to evaluate the HSM is discussed in this section. The pre-project analysis is discussed first, followed by methods used for projecting values after Project completion.

Landform and cover classification using remote sensing was the quickest and most accurate way to obtain certain variables for habitat modeling across Owens Lake. Variables of open water depth in the  $0 < x < 10$  cm range, vegetated extent of graminoid (grass-like) species, proportion of islands and proportion of dry area were obtained from the classification described below. For more information on classification procedures used see LADWP 2011.

Classification types consisted of dry playa, algae, saturated soil, water, and vegetation as described below. Species nomenclature adopted from Hickman (1994).

**Dry Playa:** This habitat type typically consisted of unvegetated lakebed, occasional terraces within saturated soils, and along constructed berms.

**Algae:** This habitat type occurred primarily within shallow flood cells in areas between shallow water and saturated soils.

**Saturated Soil:** This habitat type consisted of saturated areas or standing water that was shallow  $0 < x < 10$  cm.

**Water:** Standing water. Often contains large expanses of relatively deep ( $> 10$  cm) ponded water.

**Transmontaine Alkali Meadow (TAM):** This habitat type occurred in shallow flood cells that had a larger component of fresh water inputs and generally occurred on the up gradient (eastern edges) of the cells. This classification consists mostly of Dry Transmontaine Alkali Meadow which is saltgrass (*Distichlis spicata*) dominant, which has developed inside dust control since implementation. Some areas with better draining soils had Wet Alkali Meadow vegetation development, often in close proximity to freshwater bubblers that maintain lower salinity in the rhizosphere. Here American bulrush (*Schoenoplectus americanus*), salt marsh bulrush (*Schoenoplectus maritimus*), and cattail (*Typha* spp.) become dominant.

#### Ground Truthing

The objective of the ground truthing effort was to verify the accuracy of the preliminary habitat map. Of particular concern were the algae and TAM vegetation habitat types. These habitat types have similar spectral signatures, making them difficult to distinguish during a supervised classification. Once algae presence was confirmed to be present it was included as shallow water  $0 < x < 10$  cm.

Utilizing the preliminary habitat map, each dust control management area was surveyed by vehicle and when necessary, by foot. Large cells were surveyed from the perimeter with a spotting scope and a pair of binoculars to aid in the observation of polygons located far from view. Information about the extent of classification types, boundaries, and if the habitat was mapped properly was recorded. This information was used to refine both the habitat classification and delineated boundaries.

The habitat classification results were used to evaluate the variables of open water depth in the  $0 < x < 10$  cm range, vegetated extent of grass-like species, proportion of islands and proportion of dry area as discussed in the individual variable sections below.

Classification analysis was not used for projecting post-project habitat value.

### 3.1 Open Water Depth

Two DEM's of different resolution were used in the analysis due to the lack of a continuous, high-resolution elevation data-set covering the full extent of the lakebed. A 0.5 m DEM, composed of LiDAR derived data, created by Watershed Sciences, Inc. (2010) was available for some dust control areas (T1A-2 and some adjacent areas) which has a vertical accuracy of  $\pm 1$  cm. In areas with no LiDAR coverage or where ponds were flooded at the time of LiDAR collection (thus, making it impossible to detect the bottom of the ponds) required a second DEM. This DEM (2 m pixel size) was constructed by LADWP personnel using kriging interpolation, in ArcGIS, of ground-surveyed elevation points (vertical accuracy  $\pm 0.7$  cm) and grading contours. This analysis was performed on T30-1, T35-1, T35-2, and T36-1.

In some instances where the interpolated surface of the 2 m DEM was poor or sufficient elevation-survey points were not available (T28N and T28S), the extent of the water depths were hand digitized in ArcGIS. To assist in digitizing, coarse trends in the DEM along with high resolution (1m), color digital-aerial photos were used. In particular, aerial-photo sequences through various times of low water elevation during the non-dust control season revealed low stands in pond elevations (August and September 2009). This allowed the visual detection of varying water depths. Using these visual cues along with elevations from the 2 m DEM, water depths were classified. The Phase 1 DCM areas (T28N and T28S) have relatively small amounts of ponding, as designed, compared to other areas of shallow flooding.

Using ArcGIS, individual cells were masked from the appropriate DEM. Then, using water-surface elevations (A.M.S.L) measured at all dust-control ponds on or around May 1, 2010 and November 24, 2010 water depths within individual cells were classified into 7 depth-classes, which are: 0 cm (above the water surface),  $0 < x < 10$  cm,  $10 \leq x < 13$  cm,  $13 \leq x < 25$  cm,  $25 \leq x < 30$  cm,  $30 \leq x < 40$  cm and  $\geq 40$  cm. Additionally, using remote sensing techniques with a 4-band (RGB, NIR), digital satellite image from May 3 2010 (GeoEye1), the area of saturated soils in sheet-flow regions were delineated. This classification was also used to calculate water depth in new DCA's since only minimal shallow ponding, if any, was evident. Following classification, the total area, in acres, for each depth class was tabulated for the individual cells. Figure 2 compares the true color image used for classification with the water depth categories delineated using the 0.5 m DEM and saturated soil classification.



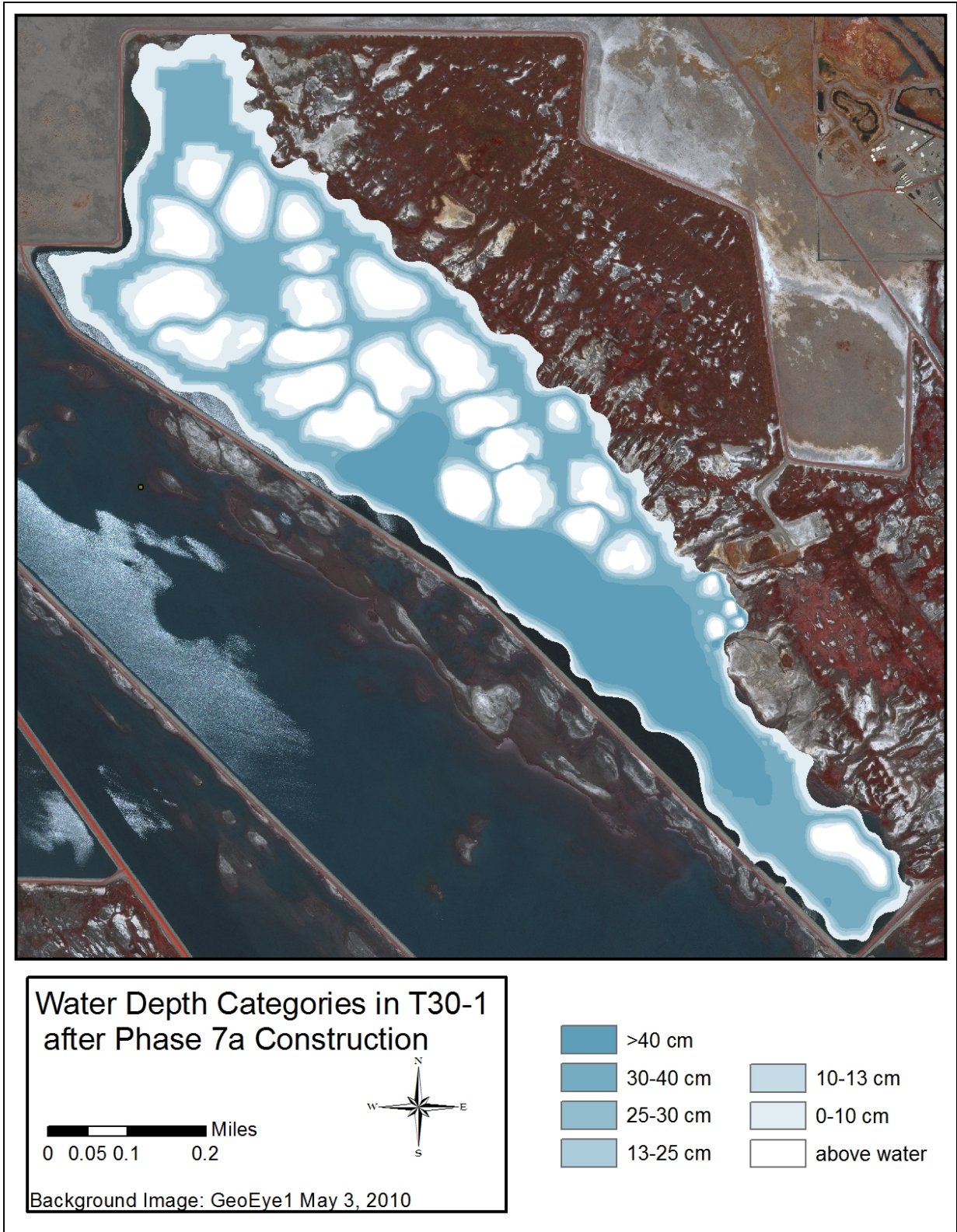


Figure 1. Example of water depth categories using design drawings of pond in DCA T30-1.

Post-project water depths were determined using the same DEM's in areas where the down-gradient ponds were not changed (T1A-2 and T36-1). T30-1, T28N, and T28S were completely redesigned for Phase 7a therefore the elevation contours from design drawings were used to project water depths during shallow flood operations (see figure 1). Water depth categories were interpolated across the cell using these design contours. New project areas do not have large ponds therefore the amount of ponding projected was based on typical operations of lateral shallow flooding for dust control compliance.

### **3.2 Salinity**

Salinity measurements were taken in shallow flood ponds or tail water ponds of sheet flow areas during spring and fall of 2010. A Quanta Water quality monitoring system (HydroLab Corporation, Austin, Texas) was used. This monitoring occurred on May 4-5 and recorded Specific Conductivity (EC25) along with other common field water quality measurements. Specific conductivity takes water conductivity and normalizes the measurement to 25°C. The range of specific conductivity the Quanta can measure is from 0-100 mS/cm.

Post-project water salinity for each DCA was assumed to be in the same range as pre-project for transition areas. New areas were projected to be in similar salinity ranges to adjacent shallow flood cells in current operation that have similar infrastructure.

### **3.3 Seasonal Water Availability**

Seasonal water presence was assessed by viewing various images of Owens Lake through the seasons. Each polygon was assigned presence or absence of water through each season. DCA's were assessed by viewing a Quickbird image from January 9, 2009, for winter. For spring water presence the May 2010 water depth classification was used. Summer water presence was assessed using an aerial image from August of 2009. Fall assessment was performed using WorldView-2 imagery captured on November 24, 2010.

Post-project water availability was projected to be similar to pre-project conditions in transition areas. However cells with more ponded water were projected to have water into the summer (T28). New project areas with shallow flooding will have water available during the dust season but will typically dry by mid-summer.

### **3.4 Islands**

Islands were delineated utilizing the dry playa classification that is surrounded by water on all sides. Once island areas were delineated the proportion of each pond was calculated for use in the HSM.

Post-project island area was obtained from design drawings and grading plans.

### **3.5 Vegetated Extent**

The 2010 vegetation classification containing graminoid (grass-like plant) dominated communities was used to determine the proportion of vegetation extent for all Project areas.

Post project vegetation extent was obtained using design drawings for managed vegetation construction.

### 3.6 Dry Area

The proportion of dry area was analyzed using a LandSat TM7 image from May 5, 2010, for DCA's. This image was processed to assess compliance with wetness requirements for dust control (75% wetted area). The fall dry area was also assessed using a LandSat TM7 image captured on November 13, 2010.

Post-project dry area was calculated from design drawings. Gravel and tillage areas were considered dry; Dry area in shallow flooding was assessed using saturation proportions typical during operations of pond and lateral shallow flooding (20-25% dry)

### 3.7 Microtopographic Relief

The microtopographic relief of dry area on Owens Lake was analyzed using ArcGIS and a high resolution DEM. The DEM utilized is 0.5 meter resolution (vertical accuracy of +/- 1cm), which covers ~ 15,000 ac of the lake and was derived from LiDAR data collected in winter 2010 (Watershed Sciences, 2010). The goal of this analysis was to measure microtopographic relief over a 2 m pixel. The 2 meter pixel size was used because it was as small as possible to measure change with the pixel size of the data set (four measurements in each of the 0.5m pixels) but large enough to capture the microtopographic variation caused by tillage.

Using ArcGIS, two raster datasets were created from the 0.5m DEM: one with the maximum elevation over 2m (four 0.5 m pixels), and the other with the minimum elevation over 2m. This was performed using the aggregate function in ArcGIS. The resulting two raster data sets were then subtracted to get the change in relief in each two meter pixel. Next, individual Owens Lake polygons were masked from the newly constructed raster. Any areas that were covered with water were removed from the microtopographic relief raster. The microtopographic relief was averaged across each polygon to obtain the mean microtopographic value.

In order to account for the change in slope over each pixel that is not related to microtopographic relief the average slope across the DEM was calculated. The slope was approximately 1% which resulted in a change in elevation of 2 cm over 2 m due to slope. Therefore, to correct for the effect of slope 2 cm was subtracted from the average microtopographic value of each polygon.

This analysis was only possible in Phase 7 shallow flood areas (T1A-2). All other polygons were assigned a microtopographic relief value using the above analysis as a benchmark to compare during a field evaluation of all other polygons from January 31 through February 2, 2011.

Post project micro topographical relief was projected to increase in tilled areas and gravel areas. Lateral shallow flood areas were also expected to increase due to the more uniform application of water and less need to have a smooth gradient for sheet flow from bubblers. Most transition areas were projected to have either a higher or similar range in microtopography to pre-project conditions.

### 3.8 Vegetation Cover

An estimate of vegetative cover on the Owens playa is one parameter required to generate HSM values as part of the Owens Lake Master Planning process. The approach and methodology are summarized below.

#### Approach

Vegetative cover (mainly saltgrass) has been measured since 2004 in the Owens Lakebed Managed Vegetation (MV) area by calibrating satellite imagery with ground-truthing observations (ground-based measurements of vegetative cover). Since these estimates are used to determine compliance with dust control requirements, the precision requirements are greater than those necessary for the HSM application. The MV method performs well, with the latest assessment, November 2010 imagery acquisition, having an R<sup>2</sup> of 0.93, meaning that 93% of the variation in cover is explained. In an exploratory lake-wide vegetative cover assessment, the same MV-based method, which resulted in R<sup>2</sup> of 0.93, was applied to the entire imagery extent within the historic shoreline. This lake-wide imagery was also acquired in November 2010. This lake-wide vegetative assessment is considered exploratory because the MV-based method and MV ground-truth data are applied to areas outside of MV that contain some different vegetative communities and surface characteristics. The application of the MV-area model, R<sup>2</sup> of 0.93, is fully understood to introduce error due to the altered population which is much expanded from MV-site to lake-wide. In support of determining HSM values, the assessed areas included Shallow Flood (SF) areas, playa surface areas, and areas surrounding natural springs. These areas range in vegetation types and also in surface conditions from high-salinity to fresh water, fine to coarse soil, and crusted to bare soil surfaces.

### Methods

The vegetative cover measurement process is generally as follows (the detailed methodology may be found in the “Managed Vegetation Operation and Management Plan,” NewFields and Earthworks 2008):

- Ground-truthing measurements are made by analyzing ground-based downward-looking digital photographs (DPFs) and counting visible intersections of a grid overlay with vegetative material visible in the photograph.
- The exact XY location of each calibration target is GPS-surveyed so that the pin-count tallies can be related to specific points on acquired satellite imagery.
- The satellite imagery is ideally acquired concurrently with the ground-truthing DPFs. Satellite imagery sources utilized in this methodology include 4 spectral bands: blue, green, red, and near-infrared. Spatial resolution of this multi-spectral imagery is 2.4 m or finer.
- Various indices relating multi-spectral imagery bands are calculated for each pixel in the satellite imagery. These indices leverage the absorption and reflection of specific spectral ranges as they relate to photosynthetic activity. The result of any of these indices is a continuum of vegetative vigor.
- Results for a (calibration) subset of ground-truthing points are statistically fit to index values at corresponding locations on the image, producing a distinct relationship for each index.
- The accuracy with which indices predict a second (validation) subset of ground-truthing data is then tested statistically. Indices with the best statistical performance are selected and applied to the entire image, producing a map of percent cover for the area.

Lake-wide vegetative cover for the HSM was developed from WorldView-2 imagery captured on November 24, 2010. All ground-truthing was within the MV area and comprised the same data set used in the November 2010 MV cover compliance assessment.

Through evaluation and visual inspection of vegetation cover values across familiar areas of the lakebed, it was determined that the application of the MV ground-truth correlation caused a positive

shift in the percentage of cover estimated outside the MV area. This is likely due to referencing a relative monoculture of saltgrass cover in the MV area to develop the correlation, and then applying the correlation to more diverse vegetative communities lake-wide. In areas with species composition similar to that in the MV site, it was observed that percent cover determination was more nearly correct.

After visual review and several iterations of negative-shift calculations applied to the original output of the lake-wide vegetative assessment, a negative shift value was selected and applied to adjust for the overestimated cover. To lessen the effect of algae on vegetative cover results, areas containing standing water were excluded from the analysis process. The resulting lake-wide vegetation assessment draft was binned into categories of no vegetation, low, medium, high, and highest vegetation. These categories roughly correlate to 0%,  $0 < x < 10\%$ ,  $10 \leq x < 25\%$ ,  $25 \leq x < 50\%$ , and  $\geq 50\%$  cover.

The lake-wide vegetative cover results are intended for evaluation purposes. This being the first application of this method lake-wide, further refinements will be made in future events. Ground-truthing refinement will be expanded into more diverse plant communities during future events, and this will likely improve performance. While these results provide a good indication of cover levels, they may contain substantial errors for specific locations and should thus be applied and interpreted with some caution.

Details regarding the methodology for vegetative cover analysis at the Owens Lake can be found in the 2008 NewFields and Earthworks report.

Post-project vegetation cover was projected from acreage of Managed Vegetation area in design drawings. The projected cover classes were calculated from vegetative cover compliance thresholds for MV. The proportion of each cover class is determined by taking the total MV acreage in each DCM and multiplying by the proportion projected to be in each cover class from the table below.

**Table 7. Projected cover class distribution**

Veg Cover 0%	Veg Cover $0 < x < 10\%$	Veg Cover $10 < x < 25\%$	Veg Cover $25 < x < 50\%$	Veg Cover >50%
15.0%	16.0%	10.0%	17.7%	41.3%

### 3.9 Vegetation Richness and Vegetation Structure

LADWP field staff visited all DCA's over eleven days in January 10, 2011-February 3, 2011 and again in July 2011. Staff brought hardcopy aerial photos with the polygon boundaries into the field and used a Trimble GPS loaded with the GIS polygon file to verify observer position.

Many perennial plants were dormant without flowers and sometimes with few leaves. During this field visit vegetation structure was also assessed. Additional field visits during summer allowed observed annual species. Isolated areas of MAM or SAM communities and native woody riparian vegetation were noted when found. Tamarisk presence was also noted.

Post-project vegetation richness was projected based on species already present in the DCA, the seeding mix proposed for each Managed Vegetation area, the amount of habitat to be seeded, and the soil type of each area. Sandier soils were projected to obtain higher diversity and structure compared to clayey soil types. The species in the seed mix and the type of soil was also used to project what the vegetation structure will be when the area is compliant with dust control cover standards.

### **3.10 Vegetated Topographic Diversity**

This variable was assessed using topographic complexity attribute in California Rapid Assessment Methods for Wetlands (CRAM 2009) that was slightly modified for Owens Lake. This variable was assessed January 31- February 2, 2011 the same time when the microtopography of dry areas was evaluated. Maps of each polygon area were brought into the field with the slope displayed along with vegetated extent. Transition areas were typically flat with swales of vegetation or no vegetation.

Post project vegetated areas are designed to have multiple breaks in slope with channels to facilitate drainage which will increase the topographic diversity therefore were projected to have the highest topographic diversity category. Areas with shallow flood were projected to maintain topographic diversity similar to pre-project.

## 4.0 Results

The habitat parameters are presented by guild for pre-project conditions and post-project projections after completion of construction and the requisite growing seasons for vegetation. Some parameters are important for multiple guilds thus used in the habitat model for multiple guilds. For completeness these parameters are presented for each guild. Habitat suitability modeling results using these parameters are presented and compared between pre-project habitat value and post-project habitat value.

### 4.1 Diving Waterbird Guild Model Parameters

Habitat value for diving waterbird species is modeled by three habitat parameters: open water depth, salinity (which influences the productivity of aquatic invertebrates), and the seasonal availability of water.

**Table 8. Habitat parameters measured for May 2010 habitat modeling of diving waterbirds.**

DCA	Pond- Water Depth					Salinity (mS/cm)	Water Availability			
	Depth 0cm (acres)	Depth 0<x<10cm (acres)	Depth 10<x<25cm (acres)	Depth 25<x<40cm (acres)	Depth >40cm (acres)		Spring	Summer	Fall	Winter
T12-1	0	0	0	0	0	80	No	no	No	Yes
T1A-2	1.39	6.59	57.15	60.33	289.86	31.6	yes	no	Yes	yes
T1A-3	0	0	0	0	0	100	yes	no	Yes	yes
T1A-4	0	0	0	0	0	100	yes	no	Yes	yes
T28N	0	0	0	0	0	16.4	yes	no	Yes	yes
T28S	0	0	0	0	0	11.13	yes	no	Yes	yes
T30-1	37.97	21.58	6.84	44.9	71.57	7.85	yes	Yes	Yes	yes
T32-1	0	0	0	0	0	30	No	No	No	Yes
T35-1	6.34	12.74	10.79	7.11	40.43	46	Yes	Yes	Yes	Yes
T35-2	5.4	5.86	6.74	4.55	57.08	90	Yes	No	Yes	Yes
T36-1E	15.35	46.38	30.83	10.29	87.5	6.68	Yes	Yes	Yes	Yes
T36-1W	18.23	45.29	32.71	5.78	104.49	8.35	Yes	Yes	Yes	Yes
T37-1	0	0	0	0	0	90	No	no	No	Yes
T37-2	0	0	0	0	0	90	No	no	No	Yes

**Table 9. Habitat parameters in November 2010 that varied from data used for May 2010 modeling of diving waterbirds.**

DCA	Pond -Water Depth					Salinity (mS/cm)
	Depth 0cm (acres)	Depth 0<x<10cm (acres)	Depth 10<x<25cm (acres)	Depth 25<x<40cm (acres)	Depth >40cm (acres)	
T12-1	0	0	0	0	0	80
T1A-2	3.4	10.8	68.8	53.3	279.4	25.35
T1A-3	0	0	0	0	0	100
T1A-4	0	0	0	0	0	100
T28N	0	0	0	0	0	6.0
T28S	0	0	0	0	0	7.54
T30-1	16	23.8	4.8	55.7	82.5	2.64
T32-1	0	0	0	0	0	30
T35-1	10.5	6	9.9	7.1	34	47.4
T35-2	31.1	1.05	14.94	5.36	27.1	73.0
T36-1E	16.1	50.4	29.3	11.2	83.5	1.2
T36-1W	24.3	60.2	26.6	12.3	83	1.2
T37-1	0	0	0	0	0	90
T37-2	0	0	0	0	0	90

**Table 10. Habitat parameters projected after Phase 7a used for habitat modeling of diving waterbirds.**

DCA	Pond Water Depth					Salinity (mS/cm)	Water Availability			
	Depth 0cm (acres)	Depth 0<x<10cm (acres)	Depth 10<x<25cm (acres)	Depth 25<x<40cm (acres)	Depth >40cm (acres)		Spring	Summer	Fall	Winter
T12-1	0.0	0.0	0.0	0.0	0.0	70-100	No	no	No	Yes
T1A-2	70.0	78.9	43.4	50.8	176.0	15-50	yes	Yes	Yes	yes
T1A-3	0.0	0.0	0.0	0.0	0.0	>100	No	no	No	Yes
T1A-4	0.0	0.0	0.0	0.0	0.0	70-100	yes	no	Yes	yes
T28N	6.2	12.5	8.8	12.3	0.9	15-50	yes	Yes	Yes	yes
T28S	4.4	13.3	7.7	16.9	4.0	15-50	yes	Yes	Yes	yes
T30-1	36.9	40.6	25.5	62.7	37.6	"5-15"	yes	Yes	Yes	yes
T32-1	0.0	0.0	0.0	0.0	0.0	15-50	Yes	No	No	Yes
T35-1	0.0	0.0	0.0	0.0	0.0	50-70	No	No	No	Yes
T35-2	0.0	0.0	0.0	0.0	0.0	70-100	No	No	No	Yes
T36-1E	49.0	24.6	32.9	41.3	43.3	"5-15"	Yes	Yes	Yes	Yes
T36-1W	72.0	28.5	37.3	49.8	19.6	15-50	Yes	Yes	Yes	Yes
T37-1	0.0	0.0	0.0	0.0	0.0	70-100	Yes	no	Yes	Yes
T37-2	0.0	0.0	0.0	0.0	0.0	70-100	Yes	Yes	Yes	Yes



## 4.2 Breeding and Migrating Waterfowl Guild Model Parameters

The habitat parameters used for calculating breeding and migrating waterfowl habitat suitability are water depth, salinity, island acreage, seasonal water availability, vegetated extent and vegetation structure. Tables containing pre-project habitat parameters and projections after Phase 7a are presented below.

**Table 11. Habitat parameters measured for May 2010 habitat modeling of waterfowl.**

DCA	Water Depth				Salinity (mS/cm)	Water Availability				Island Acreage %	Veg Structure*	Vegetation Extent %
	Depth 0cm (acres)	Depth 0<x<13cm (acres)	Depth 13<x<30cm (acres)	Depth >30cm (acres)		Spring	Summer	Fall	Winter			
T12-1	218.1	1.3	0.0	0.0	80.0	No	no	No	Yes	0.00	NV	0.00
T1A-2	65.5	217.7	89.0	328.4	31.6	yes	no	Yes	yes	0.70	LGSD	1.00
T1A-3	503.0	0.0	0.0	0.0	100.0	yes	no	Yes	yes	0.00	SD	1.00
T1A-4	616.0	0.0	0.0	0.0	100.0	yes	no	Yes	yes	0.00	NV	0.00
T28N	173.4	245.9	27.1	23.5	16.4	yes	no	Yes	yes	0.00	AHLAS	21.04
T28S	112.8	176.1	10.9	9.7	11.1	yes	no	Yes	yes	0.00	AHLAS	11.15
T30-1	498.5	67.9	44.3	81.9	7.9	yes	Yes	Yes	yes	0.03	MHLWR	51.51
T32-1	115.0	0.0	0.0	0.0	30.0	No	No	No	Yes	0.00	LGSD	2.74
T35-1	8.1	28.2	0.0	42.9	46.0	Yes	Yes	Yes	Yes	0.00	SD	1.00
T35-2	10.4	9.9	4.0	63.2	90.0	Yes	No	Yes	Yes	2.03	SD	1.00
T36-1E	29.4	130.5	33.0	94.9	6.7	Yes	Yes	Yes	Yes	0.00	AHLAS	9.68
T36-1W	49.5	165.7	33.0	109.1	8.4	Yes	Yes	Yes	Yes	0.00	AHLAS	2.80
T37-1	137.0	0.0	0.0	0.0	90.0	No	no	No	Yes	0.00	NV	0.00
T37-2	377.4	0.4	0.0	0.0	90.0	No	no	No	Yes	0.00	LGSD	1.00

\*MHLWR= Multiple Herbaceous Layers with some Woody Riparian; MHLSS= Multiple Herbaceous Layers some Shrub Structure; HHSD= High Herbaceous Structural Diversity; AHLAS= Additional Herbaceous Layer Above Saltgrass; SDAS= Saltgrass Dominated with isolated areas of Additional Structure; LGSD= Low Growing Saltgrass Dominant; SD= Shrub dominant; NV= No Vegetation

**Table 12. Habitat parameters in November 2010 that varied from data used for May 2010 modeling of waterfowl.**

DCA	Depth 0cm (acres)	Depth 0<x<13cm (acres)	Depth 13<x<30cm (acres)	Depth >30cm (acres)	Salinity (mS/cm)
T12-1	218.8	0.6	0	0	80
T1A-2	215.2	80	83.1	314.8	25.35
T1A-3	0	0	0	0	100
T1A-4	0	0	0	0	100
T28N	251.4	170.1	26.2	5.5	6
T28S	155.9	133.3	11	0.2	7.54
T30-1	466.1	85.7	51.9	88.4	2.64
T32-1	114.6	0	0	0	30
T35-1	13.7	11.9	5	46.9	47.4
T35-2	32.93	1.39	16.41	30.65	73
T36-1E	67.7	97.5	32.1	91	1.2
T36-1W	114.1	123.4	30.9	87.7	1.2
T37-1	137	0	0	0	90
T37-2	377.1	0.1	0	0	90

**Table 13. Habitat parameters projected after Phase 7a used for habitat modeling of waterfowl.**

DCA	Water Depth				Salinity (mS/cm)	Water Availability				Island Acreage %	Veg Structure*	Vegetation Extent %
	Depth 0cm (acres)	Depth 0<x<13cm (acres)	Depth 13<x<30cm (acres)	Depth >30cm (acres)		Spring	Summer	Fall	Winter			
T12-1	218.1	1.3	0.0	0.0	70-100	No	no	No	Yes	0	NV	0.0
T1A-2	309.0	122.0	49.0	227.8	15-50	yes	Yes	Yes	yes	5	SDAS	26.8
T1A-3	503.0	0.0	0.0	0.0	>100	No	no	No	Yes	0	NV	0.0
T1A-4	123.0	492.0	0.0	0.0	70-100	yes	no	Yes	yes	0	NV	0.0
T28N	323.0	80.7	23.1	24.8	15-50	yes	Yes	Yes	yes	10.3	MHLSS	42.4
T28S	146.0	99.5	25.1	30.3	15-50	yes	Yes	Yes	yes	9.8	MHLSS	17.3
T30-1	474.0	86.8	32.1	100.3	5-15	yes	Yes	Yes	yes	17	MHLWR	59.0
T32-1	114.0	1.0	0.0	0.0	15-50	Yes	No	No	Yes	0	SD	95.8
T35-1	79.0	0.0	0.0	0.0	50-70	No	No	No	Yes	0	NV	0.0
T35-2	85.0	0.0	0.0	0.0	70-100	No	No	No	Yes	0	NV	0.0
T36-1E	147.0	24.6	32.9	84.7	5-15	Yes	Yes	Yes	Yes	0	HHSD	59.3
T36-1W	203.0	21.0	33.0	100.0	15-50	Yes	Yes	Yes	Yes	0	HHSD	49.0
T37-1	136.0	1.0	0.0	0.0	70-100	Yes	no	Yes	Yes	0	SD	28.5
T37-2	78.0	62.0	217.0	31.0	70-100	Yes	Yes	Yes	Yes	0	LGSD	7.8

\*MHLWR= Multiple Herbaceous Layers with some Woody Riparian; MHLSS= Multiple Herbaceous Layers some Shrub Structure; HHSD= High Herbaceous Structural Diversity; AHLAS= Additional Herbaceous Layer Above Saltgrass; SDAS= Saltgrass Dominated with isolated areas of Additional Structure; LGSD= Low Growing Saltgrass Dominant; SD= Shrub dominant; NV= No Vegetation

### 4.3 Breeding and Migrating Shorebird Model Parameters

The habitat parameters used for modeling breeding shorebird habitat suitability are water depth, dry area, salinity, water availability, vegetation extent, island acreage, and microtopographic relief. Tables containing pre-project habitat parameters and projections after Phase 7a are presented below.

**Table 14. Habitat parameters used for May 2010 habitat modeling of shorebirds.**

DCA	Dry Area	Depth				Salinity (mS/cm)	Water Availability				Vegetation Extent %	Island Acreage %	Micro-topographic Relief
	% of Dry Area	Depth 0cm (acres)	Depth 0<x<10cm (acres)	Depth 10<x<25cm (acres)	Depth >25cm (acres)		Spring	Summer	Fall	Winter			
T12-1	100.00%	218.1	1.3	0.0	0.0	80.0	No	no	No	Yes	0.0	0.0	1.90
T1A-2	15.00%	65.5	203.9	80.3	351.7	31.6	yes	no	Yes	yes	1.0	0.7	3.55
T1A-3	96.00%	503.0	0.0	0.0	0.0	100.0	yes	no	Yes	yes	1.0	0.0	3.00
T1A-4	100.00%	616.0	0.0	0.0	0.0	100.0	yes	no	Yes	yes	0.0	0.0	3.00
T28N	14.00%	173.4	225.5	38.3	14.8	16.4	yes	no	Yes	yes	21.0	0.0	1.90
T28S	16.00%	112.8	144.5	40.7	2.3	11.1	yes	no	Yes	yes	11.1	0.0	1.90
T30-1	19.00%	498.5	65.9	6.8	116.5	7.9	yes	Yes	Yes	yes	51.5	0.0	1.90
T32-1	100.00%	115.0	0.0	0.0	0.0	30.0	No	No	No	Yes	2.7	0.0	2.50
T35-1	16.00%	8.1	12.8	15.5	42.9	46.0	Yes	Yes	Yes	Yes	1.0	0.0	1.90
T35-2	12.00%	10.4	5.9	6.7	61.6	90.0	Yes	No	Yes	Yes	1.0	2.0	1.90
T36-1E	12.00%	29.4	129.8	30.8	97.8	6.7	Yes	Yes	Yes	Yes	9.7	0.0	1.90
T36-1W	12.00%	49.5	164.9	32.7	110.3	8.4	Yes	Yes	Yes	Yes	2.8	0.0	1.90
T37-1	100.00%	137.0	0.0	0.0	0.0	90.0	No	no	No	Yes	0.0	0.0	3.00
T37-2	100.00%	377.4	0.4	0.0	0.0	90.0	No	no	No	Yes	1.0	0.0	5.00

**Table 15. Habitat parameters in November 2010 that varied from data used for May 2010 modeling of shorebirds.**

DCA	Dry Area	Depth					Salinity (mS/cm)
	% of Dry Area	Depth 0cm (acres)	Depth 0<x<10cm (acres)	Depth 10<x<25cm (acres)	Depth 25<x<40cm (acres)	Depth >25cm (acres)	
T12-1	98.09%	218.8	0.6	0	0	0	80.0
T1A-2	18.11%	215.2	64.4	80.5	53.5	333	25.4
T1A-3	99.52%	0	0	0	0	0	100.0
T1A-4	100.00%	0	0	0	0	0	100.0
T28N	2.70%	251.4	155.8	40.5	4.2	5.5	6.0
T28S	4.82%	155.9	112.8	31.2	0.5	0.5	7.5
T30-1	13.53%	466.1	83	4.8	55.7	138.2	2.6
T32-1	100.00%	114.6	0	0	0	0	30.0
T35-1	16.20%	13.7	7	9.9	7.1	46.9	47.4
T35-2	25.93%	32.93	1.05	14.9	5.36	32.5	73.0
T36-1E	4.78%	67.7	96.6	29.3	11.2	94.7	1.2
T36-1W	21.03%	114.1	120.1	26.6	12.3	95.3	1.2
T37-1	100.00%	137	0	0	0	0	90.0
T37-2	92.42%	377.1	0.1	0	0	0	90.0

**Table 16. Habitat parameters projected after Phase 7a used for habitat modeling of shorebirds.**

DCA	Dry Area	Depth				Salinity (mS/cm)	Water Availability				Vegetation Extent %	Island Acreage %	Micro-topographic Relief
	% of Dry Area	Depth 0cm (acres)	Depth 0<x<10cm (acres)	Depth 10<x<25cm (acres)	Depth >25cm (acres)		Spring	Summer	Fall	Winter			
T12-1	100.00%	218.1	1.3	0.0	0.0	70-100	No	no	No	Yes	0.0	0	30.0
T1A-2	21.00%	309.0	122.0	49.0	228.0	15-50	yes	Yes	Yes	yes	26.8	5	3.5
T1A-3	100.00%	503.0	0.0	0.0	0.0	>100	No	no	No	Yes	0.0	0	3.0
T1A-4	19.00%	123.2	492.8	0.0	0.0	70-100	yes	no	Yes	yes	0.0	0	4.0
T28N	34.60%	323.0	80.7	23.1	24.8	15-50	yes	Yes	Yes	yes	42.4	10.3	2.1
T28S	33.00%	146.0	99.5	25.1	30.3	15-50	yes	Yes	Yes	yes	17.3	9.8	2.1
T30-1	16.50%	474.0	86.8	32.1	100.3	5-15	yes	Yes	Yes	yes	59.0	17	2.1
T32-1	15.60%	114.0	1.0	0.0	0.0	15-50	Yes	No	No	Yes	95.8	0	2.5
T35-1	100.00%	79.0	0.0	0.0	0.0	50-70	No	No	No	Yes	0.0	0	5.0
T35-2	100.00%	85.0	0.0	0.0	0.0	70-100	No	No	No	Yes	0.0	0	5.0
T36-1E	24.50%	147.0	24.6	32.9	84.7	5-15	Yes	Yes	Yes	Yes	59.3	0	1.9
T36-1W	30.80%	222.0	28.5	37.3	69.4	15-50	Yes	Yes	Yes	Yes	49.0	0	1.9
T37-1	78.00%	136.0	1.0	0.0	0.0	70-100	Yes	no	Yes	Yes	28.5	0	5.0
T37-2	15.00%	78.0	62.0	217.0	0.0	70-100	Yes	Yes	Yes	Yes	7.8	0	5.0

#### 4.4 Alkali Meadow Guild Model Parameters

Vegetative cover, vegetation structure, topographic relief, and vegetation species richness are the habitat parameters used to model habitat for the alkali meadow guild. Tables containing pre-project habitat parameters and projections after Phase 7a are presented below.

**Table 17. Habitat parameters measured for 2010 habitat modeling of alkali meadow.**

DCA	Veg Cover 0<x<10% (acres)	Veg Cover 10<x<25% (acres)	Veg Cover 25<x<50% (acres)	Veg Cover >50% (acres)	Veg Structure*	Topographic Relief	Veg Richness
T12-1	0.0	0.0	0.0	0.0	NV	1	0
T1A-2	0.0	0.6	0.2	0.1	LGSD	1	3
T1A-3	0.0	0.1	0.0	0.0	SD	1	4
T1A-4	0.0	0.0	0.0	0.0	NV	1	0
T28N	11.7	11.3	13.0	54.1	AHLAS	1	5
T28S	8.3	8.8	11.3	40.3	AHLAS	1	6
T30-1	16.2	20.3	30.4	256.6	MHLWR	1	39
T32-1	0.5	0.1	0.0	0.0	LGSD	3	3
T35-1	0.3	0.2	0.1	0.0	SD	1	4
T35-2	0.1	0.0	0.0	0.0	SD	1	2
T36-1E	3.3	2.3	1.0	8.2	AHLAS	1	18
T36-1W	13.2	11.1	2.4	4.6	AHLAS	1	18
T37-1	0.0	0.0	0.0	0.0	NV	1	0
T37-2	3.1	0.1	0.0	0.0	LGSD	1	2

\*MHLWR= Multiple Herbaceous Layers with some Woody Riparian; MHLSS= Multiple Herbaceous Layers with some Shrub Structure; HHSD= High Herbaceous Structural Diversity; AHLAS= Additional Herbaceous Layer Above Saltgrass; SDAS= Saltgrass dominated with isolated areas of Additional Structure; LGSD= Low Growing Saltgrass Dominant; SD= Shrub Dominant; NV= No Vegetation. Topographic relief categories are: 1) Flat (Swales of vegetation that exist with little slope); 2) Mostly flat with short, steep slope (historic shoreline); 3) Vegetated areas with shallow slope or short features with steep slope; and 4) Vegetated areas with multiple breaks in slope and often steeper slopes (e.g., berms, hummocks, and could include influence of various woody material and rocks).

**Table 18. Habitat parameters projected after Phase 7a used for habitat modeling of alkali meadow.**

DCA	Veg Cover 0<x<10% (acres)	Veg Cover 10<x<25% (acres)	Veg Cover 25<x<50% (acres)	Veg Cover >50% (acres)	Veg Structure*	Topographic Relief	Veg Richness
T12-1	0.0	0.0	0.0	0.0	NV	1	0
T1A-2	30.1	18.8	33.3	77.6	SDAS	4	10
T1A-3	0.0	0.0	0.0	0.0	NV	1	0
T1A-4	0.0	0.0	0.0	0.0	NV	1	0
T28N	31.4	19.6	34.7	80.9	MHLSS	4	11
T28S	8.5	5.3	9.4	21.9	MHLSS	4	11
T30-1	67.7	42.3	74.9	174.7	MHLWR	2	39
T32-1	18.1	11.3	20.0	46.7	SD	4	12
T35-1	0.0	0.0	0.0	0.0	NV	1	0
T35-2	0.0	0.0	0.0	0.0	NV	1	2
T36-1E	28.0	17.5	31.0	72.3	HHSD	4	25
T36-1W	21.1	13.2	23.4	54.5	HHSD	4	25
T37-1	5.3	3.3	5.9	13.8	SD	4	5
T37-2	3.8	2.4	4.2	9.9	LGSD	4	9

\*MHLWR= Multiple Herbaceous Layers with some Woody Riparian; MHLSS= Multiple Herbaceous Layers with some Shrub Structure; HHSD= High Herbaceous Structural Diversity; AHLAS= Additional Herbaceous Layer Above Saltgrass; SDAS= Saltgrass dominated with isolated areas of Additional Structure; LGSD= Low Growing Saltgrass Dominant; SD= Shrub Dominant; NV= No Vegetation. Topographic relief categories are: 1) Flat (Swales of vegetation that exist with little slope); 2) Mostly flat with short, steep slope (historic shoreline); 3) Vegetated areas with shallow slope or short features with steep slope; and 4) Vegetated areas with multiple breaks in slope and often steeper slopes (e.g., berms, hummocks, and could include influence of various woody material and rocks).

#### 4.5 Phase 7a Habitat Value

Using the habitat parameters presented above, the habitat value was modeled for each guild in all phase 7a DCA's using the HSM. Average habitat value of each Owens Lake species guilds in May and November 2010 within Project DCA's was calculated and compared to projections after completion of the project (Table 19). Habitat value-acres for each guild are the product of the habitat suitability model output value (not shown) and the acreage of the polygon. Net changes show maintenance or enhancement of habitat value for all guilds by Phase 7a.

**Table 19. Projected habitat value (value-acres) of Phase 7a compared to pre-project average habitat value for Owens Lake species guilds.**

DCA	Post-Project					
	Diving Waterbird Habitat Value	Breeding Waterfowl Habitat Value	Migrating Waterfowl Habitat Value	Breeding Shorebird Habitat Value	Migrating Shorebird Habitat Value	Alkali Meadow Habitat Value
T12-1	0	0	0	4	1	0
T1A-2	338	154	148	246	205	91
T1A-3	0	0	0	7	0	0
T1A-4	0	0	151	213	253	0
T28N	161	141	110	227	145	108
T28S	139	82	126	214	190	29
T30-1	297	267	128	136	147	266
T32-1	0	1	0	6	1	38
T35-1	0	0	0	2	0	0
T35-2	0	0	0	1	0	0
T36-1E	109	92	45	48	43	106
T36-1W	122	70	43	89	55	80
T37-1	0	0	0	12	1	10
T37-2	0	0	101	135	131	10
<b>Post-Project sum</b>	<b>1166</b>	<b>806</b>	<b>852</b>	<b>1338</b>	<b>1171</b>	<b>739</b>
	Pre-Project					
T12-1	0	0	0	5	0	0
T1A-2	484	0	174	194	272	1
T1A-3	0	0	0	11	0	0
T1A-4	0	0	0	7	0	0
T28N	0	101	156	88	250	46
T28S	0	82	109	54	167	35
T30-1	324	217	89	64	73	262
T32-1	0	0	0	2	0	0
T35-1	42	0	16	16	26	0
T35-2	26	0	6	14	9	0
T36-1E	98	94	101	54	157	9
T36-1W	120	0	120	92	192	14
T37-1	0	0	0	2	0	0
T37-2	0	0	0	2	0	0
<b>Pre-project sum</b>	<b>1094</b>	<b>494</b>	<b>771</b>	<b>603</b>	<b>1146</b>	<b>367</b>
<b>Percent change</b>	3.2%	24.0%	5.0%	37.9%	1.1%	33.6%
<b>Net change</b>	<b>72</b>	<b>312</b>	<b>81</b>	<b>735</b>	<b>25</b>	<b>372</b>

#### 4.5.1 Avoidance Alternatives

The avoidance alternative in T1A-3 would construct 194 acres less gravel which would not change the habitat parameters and therefore the habitat value for any guild. Implementation of avoidance in DCA T32-1 would construct approximately 40 acres less Managed Vegetation. This would reduce habitat value from the original project for alkali meadow from 38 to 22 value acres. No other guilds would be affected. The avoidance alternative for T37-1 would create no managed vegetation in the DCA and construct 34 acres less of gravel. With this avoidance measure habitat value at this DCA would be the same as pre-project conditions for all guilds. In T37-2 the avoidance alternative would not construct approximately 5 acres of MV from the original project and approximately 4 acres of shallow flood that may be transitioned to MV. This alternative would have 1 less value acre for the breeding shorebird, migrating shorebird and alkali meadow guild, with no change to other guilds from the original project. The additional 60 acres of avoidance in the expanded avoidance alternative would not change habitat value from the avoidance alternative.

The avoidance alternative with soil binder does not change the land cover related to habitat parameters in the HSM. The only parameter that may change is an increase in microtopographic relief which would benefit breeding shorebirds. Therefore the Phase 7a project area would have the same or slight increased habitat value compared to the avoidance alternative. Additionally, with the stabilizing effect of soil binders, areas of erosive sand movement in barren areas will be diminished which would increase the habitat value of these low habitat value areas during times of high winds and sand movement.

If T12-1 is converted from tillage to gravel the habitat value would decrease by 1 value-acre for migratory shorebirds and not change habitat value for any other guild compared to the tillage. This conversion would change the microtopography parameter to one category above pre-project conditions (from >20 cm to 3-5 cm) and likely remove the small amount standing water present (0.6 to 1.3 acres).

Implementing all Phase 7a project avoidance alternatives and transition of T12-1 to gravel would produce increases in habitat value for all guilds with 32% increase in alkali meadow, 1% increase in migrating shorebird, 37.5% increase in breeding shorebird, 5% increase in migrating waterfowl, 24% increase in breeding waterfowl, and 3.2% increase in diving waterbird habitat compared to pre-project conditions.



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**APPENDIX B**

**State of California Air Resources Board First Procedural Order  
(January 17, 2012)**



STATE OF CALIFORNIA  
AIR RESOURCES BOARD

**In the Matter of:**

**THE OWENS LAKE DUST CONTROL  
REVISED FINAL 2011 SUPPLEMENTAL  
CONTROL REQUIREMENTS  
DETERMINATION ISSUED BY GREAT  
BASIN UNIFIED AIR POLLUTION  
CONTROL DISTRICT**

**AND**

**FEEES FOR ITS LEGAL COUNSEL  
APPROVED BY THE GREAT BASIN  
UNIFIED AIR POLLUTION CONTROL  
DISTRICT,**

**FIRST PROCEDURAL ORDER**

Pursuant to Health and Safety Code section 42316(b), the City of Los Angeles ("City") has filed three Notices of Appeal of actions approved by the Great Basin Unified Air Pollution Control District ("District"). The District approved the first action on September 19, 2011, which the City appealed on October 17, 2011. This appeal challenges the reasonableness of the hourly rates that the District pays its outside legal counsel ("Rate Appeal"). The District approved the second action on November 18, 2011, which the City appealed on December 2, 2011. This appeal challenges the validity of the District's Revised Final 2011 Supplemental Control Requirements Determination ("2011 SCRD") which directs the City to implement additional control measures on Owens Lake to reduce windblown dust ("2011 SCRD Appeal"). The District approved the third action on December 5, 2011, which the City purportedly appealed on January 4, 2012.<sup>1</sup> This appeal challenges the Fee Assessment Order requiring the City to pay \$250,000 for attorneys' fees related to defending and enforcing the 2011 SCRD ("Fee Appeal").

<sup>1</sup> The Executive Officer acknowledges receipt of the District's January 11, 2012 request for permission to file a motion to dismiss the Fee Appeal on grounds that the City filed the Fee  
(continued...)

1 Health and Safety Code section 42316(b) requires the Air Resources Board ("Board"), or its  
2 designate, to conduct an independent hearing on the validity of the measures and reasonableness  
3 of the fees which are the subject of any appeals filed pursuant to this section. The Board has  
4 delegated to its Executive Officer the responsibility of serving as the impartial hearing officer for  
5 the City's three appeals.

6 On December 12, 2011, the Air Resources Board Staff ("Board Staff"), City and District  
7 participated in a conference call outside the presence of the hearing officer to discuss the appeals  
8 process and identify procedural issues pertaining to the City's first two appeals. The Board Staff  
9 prepared a Proposed First Procedural Order ("Draft Procedural Order"), which it sent to the City  
10 and District on December 14, 2011 for response. The Draft Procedural Order proposed a briefing  
11 schedule and procedure for conducting the hearings regarding the two appeals. The Board Staff,  
12 City, and District participated in a second conference call, again outside the presence of the  
13 hearing officer, on December 19, 2011. In addition to discussing the Draft Procedural Order, the  
14 parties discussed the deadline by which the hearing officer must issue his final determination  
15 regarding the 2011 SCR D Appeal. Due to disagreements among the Board Staff, City and  
16 District, they agreed to file separate briefs addressing this issue.

17 The District filed its brief regarding the deadline for deciding the 2011 SCR D Appeal  
18 ("District's 90-Day Brief") on December 22, 2011 and its brief responding to the Draft  
19 Procedural Order ("District's Procedural Brief") on December 23, 2011. The City filed a  
20 combined brief addressing the deadline for deciding the 2011 SCR D Appeal and responding to  
21 the Draft Procedural Order ("City's Combined Brief") on December 23, 2011. The Board Staff  
22 filed its brief regarding the deadline for deciding the 2011 SCR D Appeal ("Board Staff's 90-Day  
23 Brief") on December 23, 2011.

24 This Procedural Order shall govern the Rate Appeal, 2011 SCR D Appeal, and Fee Appeal.

25 \_\_\_\_\_  
26 (...continued)

27 Appeal untimely. The Fee Appeal is dated January 4, 2012, which the District asserts is the date  
28 that the City placed the Fee Appeal in the mail and served copies of it by e-mail to Board Staff  
and the District, not the date that the City filed it with the Clerk of the Air Resources Board  
("Clerk").



1 To promote an efficient and orderly consideration of this matter, by the authority granted  
2 under sections 39515, 39516, 39600, and 42316 of the Health and Safety Code, and having  
3 considered the papers filed on December 22 and 23, 2011 by the Board Staff, City, and District,  
4 IT IS HEREBY ORDERED as follows:

5 **A. Hearing Officer and Hearing Team Members**

6 The Board has delegated to its Executive Officer the responsibility of serving as the  
7 impartial hearing officer under Health and Safety Code section 42316(b). As Executive Officer  
8 of the Board, I will serve as the hearing officer for these appeals. To the best of my recollection,  
9 my involvement with air quality issues at Owens Lake was limited to the ministerial tasks of  
10 signing a June 11, 2008 transmittal letter directed to the Regional Administrator of the United  
11 States Environmental Protection Agency ("EPA") and signing Executive Order S-08-009. Both  
12 documents pertain to the 2008 Owens Valley PM10 Planning Area Demonstration of Attainment  
13 State Implementation Plan ("2008 SIP"), which the Board transmitted to the EPA for its  
14 consideration and approval. Each document was prepared by a member of the Board Staff,  
15 reviewed by a senior member of the Board Staff, and presented to me for my signature. Except  
16 for signing these two documents, I do not recall having any involvement in air quality issues at  
17 Owens Lake since commencing employment at the Board. Prior to my employment at the Board,  
18 I served as a senior environmental policy advisor to Lieutenant Governor Leo McCarthy from  
19 1991 through 1992. In this capacity, I served as the Lieutenant Governor's alternate on the  
20 California State Lands Commission ("Commission"), a state agency responsible for managing the  
21 state's public lands and resources. I do not recall participating in the Commission's decisions, or  
22 having any discussions, about Owens Lake during my tenure working for the Lieutenant  
23 Governor. I do not believe that my involvement with Owens Lake, whether considered  
24 individually or cumulatively, rises to the level of requiring me to recuse myself as the hearing  
25 officer or creates a bias in favor of or against any of parties to this appeal.

26 Although I have had limited involvement with air quality issues pertaining to Owens Lake,  
27 I understand Board Staff has had more involvement in recent years. As such, I will be walling  
28 myself off from the Board's technical, legal and programmatic staff on issues related to Owens

1 Lake during the pendency of these appeals. To assist me, I will receive legal advice from Deputy  
2 Attorneys General Randy Barrow and Stephen Lerner. I reserve the right to expand the hearing  
3 team to include one or more technical advisors. Should I elect to do so, I will provide the parties  
4 with appropriate and timely disclosures to ascertain whether or not the parties object to expanding  
5 the hearing team. I also may direct technical questions in writing to one or more of the parties  
6 and Board Staff to address and, if I do so, I will instruct that copies of any responses be in writing  
7 and, upon filing the response with the Clerk of the Air Resources Board ("Clerk"), be disclosed  
8 simultaneously to all parties and Board Staff.

9 **B. Prohibition on Ex Parte Contacts**

10 The parties, their attorneys, any individuals representing the parties, or other interested  
11 members of the public shall not make any ex parte contacts with the Executive Officer, the  
12 hearing team members, or Board Staff regarding any issue related to the pending appeals until the  
13 appeals process before the Board is final.

14 If any meeting or call is desired with program personnel from the Board Staff, please direct  
15 all communications to Staff Counsel Christina Morkner Brown or, if she is not available, Senior  
16 Staff Counsel Bob Jenne. Ms. Brown or Mr. Jenne will arrange any meetings or conference calls  
17 and representatives of both parties will be invited to participate in any calls or meetings.

18 In the interest of transparency, I am disclosing that I received two calls during the week of  
19 December 26, 2011 from representatives of the Governor's Office regarding the pending appeals.  
20 I informed the callers that appeals involving Owens Lake are pending and, as the hearing officer,  
21 I cannot speak to them about the substance or procedure of these appeals. Nothing further was  
22 discussed. Following these two calls, I have not initiated any communications with, or been  
23 contacted by, anyone regarding the pending appeals, except for communications that I have had  
24 with the hearing team.

25 **C. Role of Board Staff**

26 Board Staff will prepare staff reports containing the staff's assessments on legal,  
27 procedural, and technical matters related to the appeals. All staff assessments to the Executive  
28 Officer shall be in writing and will be disclosed simultaneously to both parties upon filing.

1           **D. Filing of Documents with the Executive Officer and Service on the Parties**

2           All documents submitted to the Executive Officer pursuant to this order must be filed with  
3 the Clerk and served on the service list below. Documents will be deemed to be timely filed if  
4 electronic or paper copies of the documents with a proof of service are received by the Clerk by  
5 5:00 p.m. on the date specified. For documents electronically filed, paper copies of the original  
6 documents shall be sent by United States mail so that they are received on the following business  
7 day. Courtesy copies of all briefs saved in Word format shall be e-mailed to the Executive  
8 Officer's counsel.

9           The service list on all submissions is as follows:

10          For the Air Resources Board:

11          Clerk of the Board,  
12          Air Resources Board  
13          1001 I Street, Sacramento,  
14          California, 95814  
15          cotb@arb.ca.gov

15          For the Hearing Team:

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19          California, 95814  
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24          California, 95814  
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24          For the Air Resources Board Staff:

25          Christina Morkner Brown, Staff Counsel  
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1           **E. Consolidation of Appeals**

2           The City has filed three appeals: (1) the Rate Appeal; (2) the 2011 SCRD Appeal; and (3)  
3 the Fee Appeal. There appear to be questions involving the ripeness of the Rate Appeal and  
4 timeliness of the Fee Appeal. With respect to the Rate Appeal, I question whether it is ripe or  
5 otherwise proper for appeal under Health & Safety Code section 42316. This section allows the  
6 City to appeal “any measures or fees imposed by the district . . .” The approval of hourly rates  
7 in an extension of a fee contract, outside the context of a specific assessment of fees charged at  
8 those rates, does not appear to constitute an “imposition” of fees by the District on the City. As  
9 for the Fee Appeal, the District has requested permission, which the Executive Officer  
10 acknowledges receiving, to file a motion to dismiss on grounds that the City filed the Fee Appeal  
11 untimely.

12           Given the commonality of issues, evidence and arguments anticipated to be addressed in the  
13 Rate and Fee Appeals, I order that these appeals be consolidated into a single appeal, which shall  
14 be referred to as the “Assessment Appeal.” I further order that the Assessment Appeal shall be  
15 stayed until a final determination is issued in the 2011 SCRD Appeal. Concurrent with issuing a  
16 final determination in the 2011 SCRD Appeal, the Executive Officer will issue a subsequent  
17 Procedural Order setting forth the briefing schedule for the consolidated Assessment Appeal,  
18 including dates when the parties will submit briefs regarding the ripeness of the Rate Appeal and  
19 the timeliness of the Fee Appeal.

20           At least 30 days prior to the date of the public hearings for the 2011 SCRD Appeal and the  
21 Assessment Appeal, the Executive Officer shall cause the Clerk to issue a notice (“Notice”)  
22 notifying the parties, Board Staff, and interested members of the public of the date, time and  
23 location set for the public hearing. Each Notice also will include the amount of time allotted to  
24 each party, Board Staff and, if allowed, members of the general public for oral argument at the  
25 public hearing.

26           **F. Indispensable Parties**

27           In the City’s Combined Brief, the City asserts that it lacks the ability to construct controls  
28 on areas of Lake Owens identified in the 2011 SCRD since it does not own, lease or have access

1 to these areas. (City's Combined Brief, 3:16-25) The City identifies the Commission as the  
2 entity holding title and controlling access to these areas and suggests that the Commission is  
3 responsible for controlling dust emanating from its own lands. (Id.) The City also states that the  
4 Commission is directly impacted by the 2011 SCR D and the 2011 SCR D Appeal. (Id.)

5 Based on the City's Combined Brief, it is unclear whether or not the City intends to argue  
6 that the Commission is an indispensable party to the 2011 SCR D Appeal and, without the  
7 Commission, the appeal cannot proceed. To the extent that the parties believe that the  
8 Commission's involvement, or lack thereof, is material to the 2011 SCR D Appeal, the parties are  
9 free to brief this issue as part of their substantive briefs.

#### 10 **G. Timeline for Decision on the Appeals**

11 The District asserts that the Executive Officer must issue his final determination by March  
12 1, 2012, the 90th day following the date when the City filed its Notice of Appeal regarding the  
13 2011 SCR D Appeal. (District's 90-Day Brief, 1:2-4) The City and Board Staff disagree.

14 The District premises its assertion on several factors, each of which I find to be  
15 unpersuasive. For the following reasons, I find that the final determination relating to the 2011  
16 SCR D Appeal need not be issued within 90 days of the date that the City filed its Notice of  
17 Appeal.

18 First, the City filed its appeal pursuant to Health and Safety Code section 42316(b). This  
19 section states:

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

1 The only statutory time requirement imposed on the Board in this section is that the Board  
2 must issue a notice at least 30 days before the scheduled hearing. There is no timeline set for the  
3 Board to conduct the appeal process or to issue a decision.

4 Second, the District argues that the 90-day requirement is part of a state-approved revision  
5 to the 2008 SIP submitted to the EPA under the federal Clean Air Act. (District's 90-Day Brief,  
6 1:4-6 & 2:3-3:8) It asserts that the 90-day requirement was added to reconcile timing differences  
7 between the City's right to appeal under Health and Safety Code section 42316 and "automatic  
8 contingency measures" required by the federal Clean Air Act to be implemented if a control  
9 strategy does not attain National Ambient Air Quality Standards or Reasonable Further Progress  
10 Milestones. (District's 90-Day Brief, 2:3-3:8) This argument fails since the 2008 SIP has not yet  
11 been approved by EPA and, as such, is not federally enforceable. Therefore, the federally  
12 enforceable SIP for Owens Valley remains the prior 1998 Owens Valley PM10 SIP ("1998 SIP")  
13 approved by the EPA in 1999. (64 Fed. Reg. 48305; September 3, 1999.), which does not include  
14 any requirement for a 90-day time limit for a Board decision.

15 The District also suggests that the contingency measures are federally enforceable since the  
16 EPA approved the maintenance plan for the Coso Junction Planning Area ("CJPA") and the  
17 maintenance plan specifically incorporates the contingency measures from the 2008 SIP. This  
18 argument fails since there is no obligation to actually implement a contingency measure unless a  
19 violation of the National Ambient Air Quality Standards occurs. With respect to the CJPA, the  
20 EPA redesignated it to attainment on September 3, 2010 and the area has remained in attainment  
21 ever since. Therefore, the contingency measure provisions of the CJPA Maintenance Plan have  
22 not been triggered and there is currently no legal requirement to implement any contingency  
23 measures to address a National Ambient Air Quality Standards violation in the CJPA.

24 Although sections 172(c)(9) and 182(c)(9) of the Clean Air Act requiring "contingency  
25 measures" do not apply to this appeal, even if they did, I would find that they do not require this  
26 appeal to be completed within 90 days. The relevant provisions of the Clean Air Act provide  
27 only that a non-attainment plan include specific "contingency measures" to be undertaken without  
28 further State or Administrator involvement if the area fails to attain the national ambient air

1 quality standard by the designated attainment date and not that the contingency measures (or any  
2 appeals therefrom) be completed within a particular timeframe.

3 Third, the District argues that Executive Order No. S-08-009 signed by the Board's  
4 Executive Officer on June 11, 2008, adopting the 2008 SIP commits the Board to decide an  
5 appeal by the City within 90 days. (District's 90-Day Brief, 3:11-26) This argument fails since  
6 the obligation to issue a determination within 90 days is triggered only "if the controls under  
7 consideration are required to take effect automatically pursuant to the contingency measure  
8 requirements of the federal Clean Air Act or U.S. EPA." As explained above, the 2008 SIP was  
9 never approved by the EPA and the "automatic" contingency measure provisions of the CAA do  
10 not apply for this nonattainment area. The contingency measures in the Maintenance Plan for the  
11 CIPA are not "required to take effect automatically" because the EPA has determined that  
12 contingency measures contained in a maintenance plan are not subject to CAA sections 172(c)(9)  
13 and 182(c)(9) and do not need to be "automatic." Therefore, for this appeal, the controls under  
14 consideration are not "required to take effect automatically pursuant to the contingency measure  
15 requirements of the federal Clean Air Act or U.S. EPA," and the 90-day timeline in the Executive  
16 Order No. S-08-009 does not apply.

17 Fourth, the District argues that the 90-day requirement will not prejudice the City.  
18 (District's 90-Day Brief, 9:2-10:9) I disagree. Given that issues involving the administrative  
19 record still exist, it is impractical to expect that the City can start, let alone complete, its briefing  
20 until these issues are resolved and the record is properly certified. Proceeding under an artificial  
21 90-day timeframe would deprive the City of its right to a fair hearing since it would lack adequate  
22 time to analyze the voluminous record, prepare its briefs, and present its cases to the Executive  
23 Officer and the Executive Officer would lack adequate time to consider all of the evidence and  
24 legal arguments, and render a sound decision.

#### 25 **H. Standard of Review**

26 The hearings will be conducted as an independent review of the administrative record. The  
27 Executive Officer will exercise his independent judgment to determine, based on the whole of the  
28



1 record, whether the weight of the evidence supports the reasonableness of the fees and the  
2 validity of the measures that are the subject of the appeals.

3 The Executive Officer interprets the requirement for an “independent hearing” in Health  
4 and Safety Code section 42316(b) to mean that the Executive Officer will apply his independent  
5 judgment in reviewing the District’s decision on the 2011 SCRD and the District’s approval of  
6 attorneys’ fees. Under this independent judgment standard, the District’s determination would be  
7 found to be unreasonable (or invalid) if the Executive Officer determines that the District’s  
8 findings are not supported by the weight of the evidence.

9 Although this review by the Executive Officer is “de novo” in that the Executive Officer  
10 will take a fresh look at the evidence in the record, the hearing is not a trial de novo. In other  
11 words, the Executive Officer will not conduct a new, unlimited evidentiary hearing since doing so  
12 would render the District’s authority a nullity by allowing the parties before it to make  
13 perfunctory evidentiary showings and thereafter introduce new evidence or issues on appeal to  
14 which the District had no chance to consider or respond. Rather, the independent hearing is a de  
15 novo review in which the Executive Officer will render his independent judgment on the basis of  
16 the administrative record, plus any additional evidence admitted to augment that record as  
17 provided in Paragraph J.

18 **I. Burden of Proof**

19 I find that the burden of proof falls on the City as the appellant since it is the party  
20 challenging the validity of the control measures and the reasonableness of the attorneys’ fees. I  
21 also find that the District is entitled to a presumption of administrative correctness, which is  
22 consistent with the Board’s decision from the City’s 1998 appeal.

23 **J. Preparation of the Administrative Record**

24 The City argues that the administrative record for the 2011 SCRD Appeal should extend  
25 beyond the documents relied upon by the District in issuing the 2011 SCRD since the City claims  
26 that the District issued the additional control measures without holding a hearing or affording the  
27 City with an opportunity to review, comment, or offer its own data. (City’s Combined Brief,  
28 9:25-12:9) The City premises its argument on grounds that the District’s failures deprived the

1 City of its rights under the due process clauses of the California and United States Constitutions  
2 since these clauses require that a party be afforded adequate notice and an opportunity to be heard  
3 before being deprived by the government of a property interest. (City's Combined Brief, 12:12-  
4 14:7) After reviewing the parties' briefs, the Board's orders from the City's 1998 appeal, and the  
5 parties' 2006 settlement agreement, I find that the City's due process rights under the California  
6 and United States Constitutions were not violated since the District afforded the City with  
7 adequate notice and an opportunity to be heard.

8 As part of the City's 1998 appeal, the City unsuccessfully sought to augment the  
9 administrative record, which should have alerted the City to the significance of presenting  
10 evidence to the District before the District issued any future orders. Through the parties' 2006  
11 settlement, the City also agreed to modify the process by which it provides input into the  
12 District's determinations to require additional control measures. Instead of a formal hearing  
13 before the District's governing board, the City agreed to an abbreviated process that permits the  
14 District's Air Pollution Control Officer to issue an order for additional controls after considering  
15 available information and consulting with the City. (District's 90-Day Brief, Exhibit E (2006  
16 Settlement Agreement), p. 11, ¶18A) If the City disagrees with a determination by the Control  
17 Officer, the City may submit an alternative analysis to the District, which the Control Officer  
18 shall consider. (District's 90-Day Brief, Exhibit E (2006 Settlement Agreement), p. 12, ¶18B(ii))  
19 If the City disagrees with the Control Officer's actions after the Control Officer has considered  
20 the City's alternative analysis, the City may initiate the Dispute Resolution Process and attempt to  
21 mediate its disagreement with the District. (District's 90-Day Brief, Exhibit E (2006 Settlement  
22 Agreement), p. 12, ¶18B(iii)) If the City still disagrees with the Control Officer's actions after  
23 participating in the Dispute Resolution Process, the City may exercise its rights under Health and  
24 Safety Code section 42316 and appeal the determination regarding control measures to the Board.  
25 (District's 90-Day Brief, Exhibit E (2006 Settlement Agreement), p. 12, ¶18B(iv)) Through this  
26 process, the City clearly assured itself of receiving adequate notice and having an opportunity to  
27 review, comment and provide input into the Control Officer's determination, despite the absence  
28 of a formal hearing. As a result, I find that the City should have taken appropriate steps to assure

1 that the administrative record included information that the City deemed important and wanted  
2 the District to consider before the District issued its order regarding additional control measures.  
3 As such, I intend to limit the administrative record to information that was presented to the  
4 District or considered by the District before the District issued the 2011 SCRD.

5 Although I intend to limit the administrative record as set forth above, I will permit the  
6 administrative record to be augmented or corrected only if evidence (1) was presented to and  
7 accepted by the District for the matter under appeal, but was mistakenly omitted from the record  
8 submitted to the Board; (2) is relevant evidence that could not, with the exercise of reasonable  
9 diligence, have been presented to the District before the appealed order was adopted; or (3) the  
10 evidence is subject to a stipulation by and between the parties to augment and correct the record.

11 The Draft Procedural Order prepared by Board Staff proposed that the District will prepare  
12 and certify a separate record of the District's proceedings for each appeal. The District certified  
13 and lodged with the Clerk the administrative records for the Rate Appeal on December 14, 2011  
14 and the 2011 SRCD Appeal on December 23, 2011. The District re-lodged the administrative  
15 record for the Rate Appeal on December 27, 2011. On December 28, 2011, the City wrote to the  
16 Executive Officer expressing concern regarding the District's premature lodging of the  
17 administrative record in the 2011 SCRD Appeal. On January 13, 2012, the City filed a motion  
18 challenging the administrative record lodged by the District.

19 Since issues surrounding the administrative records remain unresolved, I find that the  
20 District's filing of the administrative records and the City's filing of its motion challenging the  
21 record are premature. I also find that any prejudice caused by the District's premature filing of  
22 the administrative records and the City's premature filing of its motion are harmless and can be  
23 cured through the City's filing of a new motion to augment or correct the records after the District  
24 lodges a revised record or certifies that the records it has lodged to date are correct.

25 The District shall lodge a revised record or certify that the records that it has lodged to date  
26 are correct within five business days of the date that this Procedural Order is issued. The City  
27 may file a motion to request that the records filed by the District be corrected, deleted or  
28 augmented. The City's motion shall be limited to the 2011 SCRD Appeal. The City's motion

1 shall be filed with the Clerk within five business days of the date that the District lodges the  
2 revised record or certifies that the records that it has lodged to date are accurate. In its motion,  
3 the City shall identify with specificity any material which the City believes should be added,  
4 deleted, or corrected in the record and shall specify the reasons supporting each request. Where  
5 the City cannot identify particular documents with specificity, the City should identify categories  
6 of documents, explain why it is unable to identify particular documents with specificity, and  
7 explain the relevancy of each category of documents. All papers opposing the City's motion shall  
8 be filed and served within five business days of the date that the City files and serves its motion  
9 and all reply papers shall be filed and served within five business days of the date that the District  
10 files and serves its opposition. The Board Staff may file and serve its response to the City's  
11 motion and District's opposition within five business days of the date that the District files and  
12 serves its opposition. Any opposition filed by the District or response by the Board Staff should  
13 specify the reasons opposing each request by the City. After considering the briefs filed by the  
14 City, District and Board Staff, the Executive Officer will issue his decision regarding the  
15 administrative record.

16 The District shall file an updated or corrected record with page numbers for each appeal  
17 within 10 days of the Executive Officer's decision regarding the City's motion to augment or  
18 correct the record and certify that the record is complete, accurate and complies with the  
19 Executive Officer's decision regarding the City's motion. A detailed index must be placed at the  
20 beginning of each administrative record. The index must list each document in the record in the  
21 order presented, including title, date of the document, brief description, and the volume and page  
22 where it begins. If a document contains exhibits or appendices, the index must list and describe  
23 each exhibit or appendix and the volume and page where each exhibit or appendix begins. The  
24 record filed with the Clerk shall be in electronic format and the index for each appeal shall be  
25 filed as a separate PDF document. For each appeal, Board Staff, the City, and the Executive  
26 Officer's hearing team shall be provided one copy of the administrative record in electronic  
27 format. Paper copies of specific documents will be promptly provided in paper format to the  
28 Board Staff and the hearing team upon written request.

1 The District has offered to post the administrative record on its website so the public will  
2 have access; the Executive Officer will notify the District when this posting shall take place, and  
3 the District shall wait for that notification in case there are record disputes that need to be  
4 resolved.

5 There shall be no discovery in this matter.

6 The Executive Officer reserves the right to toll any timeline and to revise the briefing  
7 schedule until disputes over the record are resolved.

8 **K. Briefing, Format, Arguments and Page Limits**

9 The briefs shall be prepared on lined court paper and shall contain specific page citations to  
10 the administrative record (for factual assertions), statutes, regulations, or case law. General  
11 citations to a document or to a case are not allowed. Font size shall be at least 12 point in size.  
12 The parties shall limit the page length of their briefs as follows: 50 pages for the City's Opening  
13 Brief and the District's Opposition Brief; 25 pages for the City's Reply Brief; and 15 pages for  
14 the parties' briefs in response to the Board Staff's Report. The Board Staff shall limit the page  
15 length of its report to 25 pages. The page limitations do not include the Table of Authorities or  
16 the Table of Contents. No motion, additional brief, or other document shall be filed without prior  
17 approval by the Executive Officer. All arguments in the briefs shall be based on, and limited to,  
18 material that is part of the record and shall not introduce or refer to any material (such as data,  
19 expert opinions, declarations, etc.) that is not part of the record. The parties shall submit with  
20 their briefs an appendix that includes the pages cited from every document cited in the brief.

21 **L. Briefing Schedule**

22 The Board Staff, City and District shall adhere to the following briefing schedule for the  
23 2011 SCRD Appeal. The Executive Officer will issue a subsequent procedural order addressing  
24 the briefing schedule for the Assessment Appeal. Separate briefs shall be prepared, filed and  
25 served for each appeal. Each party shall file and serve its briefs as specified in this First  
26 Procedural Order on or before the dates set forth below. The Executive Officer reserves the right  
27 to toll any deadline and revise the briefing schedule for any reason.  
28

No.	Activity	Due Date
1.	District shall lodge the revised administrative record or certify that the records it has lodged to date are accurate and complete	5 Business Days after the date that the Executive Officer issues the First Procedural Order
2.	City's deadline to file and serve its motion to augment or supplement the administrative record regarding the 2011 SCR D Appeal and lodge copies of the documents that it seeks to augment or supplement	5 Business Days after the date that the District lodges the revised administrative record or certifies that the records it has lodged to date are accurate and complete
3.	Deadline of District to file and serve its opposition to the City's motion to augment or supplement the administrative record regarding the 2011 SCR D Appeal	5 Business Days after the date that the City files and serves its motion
4.	Deadline of City to file and serve its reply and Board Staff to file and serve its response to the City's motion to augment or supplement the administrative record regarding 2011 SCR D Appeal	5 Business Days after the date that the District files and serves its opposition
5.	District's deadline to file an updated or corrected administrative record regarding the 2011 SCR D Appeal with the Clerk and provide electronic copies of the filed record to the City, Board Staff, and the Executive Officer's hearing team	10 Calendar Days after the date that the Executive Officer issues his decision regarding the City's motion to augment or correct the administrative record regarding the 2011 SCR D Appeal
6.	City's deadline to file and serve its Opening Brief regarding the 2011 SCR D Appeal	3 Weeks after the date that the District files an updated or corrected administrative record regarding the 2011 SCR D Appeal
7.	District's deadline to file and serve its Opposition Brief regarding the 2011 SCR D Appeal	3 Weeks after the date that the City files and serves its Opening Brief regarding the 2011 SCR D Appeal
8.	City's deadline to file and serve its Reply Brief	10 Calendar days after the date that the District files and serves its Opposition Brief regarding the 2011 SCR D Appeal
9.	Board Staff's deadline to file and serve its Staff Report	10 Calendar days after the date that the District files and serves its Opposition Brief regarding the 2011 SCR D Appeal

10.	City and District's deadline to file and serve their responses to the Board Staff's Staff Report	5 Business Days after the date that the Board Staff files and serves its Staff Report
11.	Public Hearing on the 2011 SCR D Appeal	5 to 10 Business Days after the date that the City and District file and serve their responses to the Board Staff's Staff Report

**M. Hearing**

The Executive Officer intends to set the public hearing for the 2011 SCR D Appeal required by Health and Safety Code section 42316(b) for the week of May 14, 2012 and will cause the Clerk to issue a notice at least 30 days before the date of the hearings notifying the Board Staff, City, District and interested members of the general public of the date, time and location of the public hearings. The notice also will identify the amount of time that the Executive Officer will allot to the Board Staff, City, and District to present arguments at the noticed public hearings. Prior to causing the Clerk of the Board to issue these notices, the Executive Officer will solicit comment from the Board Staff, City and District regarding the location where the public hearing should be held.

The hearings shall be conducted according to the following procedures:

1. The City will present its arguments. The total time for the City's presentation will be limited to the amount of time set forth in the notice. At the option of the City, a portion of the City's time may be reserved for rebuttal arguments after the conclusion of the presentation by Board Staff.

2. The District will then present its arguments. The total time for the District's presentation will be limited to the amount of time set forth in the notice. At the option of the District, a portion of the District's time may be reserved for rebuttal arguments after the conclusion of the presentation by Board Staff.

3. Public Comment (if allowed)

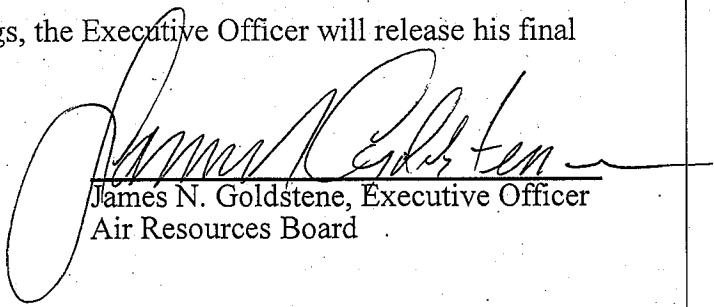
4. Board Staff may make a presentation not to exceed the amount of time set forth in the notice.

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- 5. District rebuttal, if any.
- 6. City rebuttal, if any.

Following the conclusion of the hearings, the Executive Officer will release his final decision.

Dated: 1-17-2012



James N. Goldstene, Executive Officer  
Air Resources Board

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**DECLARATION OF SERVICE BY U.S. MAIL**

IN THE MATTER OF THE APPEALS CONCERNING OWENS LAKE DUST CONTROL  
REVISED FINAL 2011 SUPPLEMENTAL CONTROL REQUIREMENTS  
DETERMINATION AND ISSUED BY GREAT BASIN UNIFIED AIR POLLUTION  
CONTROL DISTRICT

AND

FEEES FOR ITS LEGAL COUNSEL APPROVED BY THE GREAT BASIN UNIFIED AIR  
POLLUTION CONTROL DISTRICT

I declare:

I am employed by the California Air Resources Board (CARB). I am 18 years of age or older and not a party to this matter. I am familiar with the business practice at CARB for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at CARB is deposited with the United States Postal Service with postage thereon fully prepaid that same day in the ordinary course of business.

On January 17, 2012, I served the attached

**ARB EXECUTIVE OFFICER'S FIRST PROCEDURAL ORDER**

by placing a true copy thereof enclosed in a sealed envelope in the internal mail collection system at the California Air Resources Board at 1001 I Street, P.O. Box 2815, Sacramento, CA 95812, addressed as follows:

*Please refer to the attached service list.*

On January 17, 2012, I served the attached via e-mail to all parties included on the service list.

I declare under penalty of perjury under the laws of the State of California the foregoing is true and correct and that this declaration was executed on January 17, 2012 at Sacramento, California.

\_\_\_\_\_  
Mary Alice Morency  
Declarant

\_\_\_\_\_  
/s/ Mary Alice Morency  
Clerk of the Board

## **SERVICE LIST**

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[\(continued on next page\)](#)

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**APPENDIX C**

**Owens Lake Audubon Big Day Bird Count Data  
(April 2011)**



### Owens Lake Audubon Big Day Bird Count Data, April 2011

<b>Owens Lake Spring 2011 Big Day Survey - April 19, 2010</b>		
DCM	Common Name	4/19/2011
Cartago Springs	American Avocet	7
	American Coot	1
	American Kestrel	1
	California Quail	2
	Cinnamon Teal	24
	Common Yellowthroat	1
	Dowitcher sp.	7
	Gadwall	7
	Greater Yellowlegs	6
	Great-tailed Grackle	11
	Green-winged Teal	2
	Killdeer	2
	Least Sandpiper	145
	Mallard	3
	Marsh Wren	10
	Mourning Dove	7
	Northern Harrier	1
	Northern Mockingbird	1
	Northern Pintail	2
	Northern Shoveler	5
	Red-winged Blackbird	1
	Savannah Sparrow	3
	Say's Phoebe	1
	Virginia Rail	1
Western Kingbird	6	
Western Meadowlark	2	
Yellow-headed Blackbird	10	
Yellow-rumped Warbler	1	
Duck Ponds	American Coot	186
	Bufflehead	23
	Cinnamon Teal	1
	Eared Grebe	11
	Gadwall	28
	Lesser Scaup	1
	Marsh Wren	5
	Red-winged Blackbird	1
	Ruddy Duck	31
	Savannah Sparrow	2
Yellow-headed Blackbird	4	
North Cottonwood	American Avocet	11
	Barn Swallow	2
	California Gull	45
	Cinnamon Teal	10
	Cliff Swallow	2

<b>Owens Lake Spring 2011 Big Day Survey - April 19, 2010</b>		
<b>DCM</b>	<b>Common Name</b>	<b>4/19/2011</b>
	European Starling	7
	Great-tailed Grackle	12
	Killdeer	3
	Mallard	7
	Red-winged Blackbird	14
	Savannah Sparrow	18
	Tree Swallow	53
	Virginia Rail	1
	Willet	3
	Yellow-headed Blackbird	35
	Yellow-rumped Warbler	1
	Burrowing Owl	2
	American Bittern	1
Northwest Seep	American Avocet	4
	Black-necked Stilt	4
	California Gull	123
	Cinnamon Teal	16
	Cliff Swallow	1
	Common Raven	2
	Killdeer	1
	Mallard	12
	Northern Rough-winged Swallow	2
	Savannah Sparrow	45
	Tree Swallow	200
	Violet-green Swallow	1
Sulfate Well	American Pipit	3
	California Gull	179
	Ring-billed Gull	4
	Savannah Sparrow	4
T10-1	American Avocet	282
	California Gull	109
T10-2N	American Avocet	19
	Calidris sp.	155
	California Gull	44
	Cinnamon Teal	2
	Red-breasted Merganser	1
T10-2S	American Avocet	178
	American Pipit	4
	Blue-winged Teal	1
	Bonaparte's Gull	12
	Calidris sp.	4125
	California Gull	380
	Cinnamon Teal	6
	Common Raven	2
	Double-crested Cormorant	1
	Franklin's Gull	2
	Gadwall	4



<b>Owens Lake Spring 2011 Big Day Survey - April 19, 2010</b>		
DCM	Common Name	4/19/2011
	Green-winged Teal	4
	Mallard	1
	Northern Shoveler	15
T11	Calidris sp.	12
T1-1	California Gull	2
	Spotted Sandpiper	1
T13-1	Eared Grebe	12
	Gadwall	2
	Green-winged Teal	2
	Ruddy Duck	55
	Spotted Sandpiper	1
T13-2	Eared Grebe	5
	Ruddy Duck	81
T13-3	American Avocet	27
	Calidris sp.	14
	California Gull	4
	Least Sandpiper	16
	Spotted Sandpiper	1
T16	American Avocet	75
	Calidris sp.	1216
	California Gull	14
	Cinnamon Teal	2
	Eared Grebe	225
	Least Sandpiper	38
	Western Sandpiper	74
T17-1	American Avocet	85
	California Gull	70
	Common Raven	1
	Eared Grebe	6
	Least Sandpiper	1250
	Ruddy Duck	70
T17-2	American Avocet	32
	Bufflehead	2
	Common Raven	1
	Eared Grebe	6
	Ruddy Duck	40
T18-0	American Avocet	433
	American Coot	1
	California Gull	108
	Dowitcher sp.	26
	Dunlin	7
	Greater Yellowlegs	3
	Least Sandpiper	1074
	Marbled Godwit	1
	Western Sandpiper	491

T18N	Black-bellied Plover	1
	California Gull	65
	Eared Grebe	80
	Least Sandpiper	38
	Ruddy Duck	14
	Semipalmated Plover	15
T18S	American Avocet	176
	Black-bellied Plover	4
	Blue-winged Teal	1
	Bufflehead	2
	Calidris sp.	195
	California Gull	501
	Cinnamon Teal	15
	Dowitcher sp.	8
	Eared Grebe	2
	Gadwall	22
	Green-winged Teal	4
	Least Sandpiper	8
	Long-billed Dowitcher	2
	Mallard	6
	Marbled Godwit	2
	Northern Shoveler	20
	Redhead	2
	Ruddy Duck	24
Semipalmated Plover	1	
Snowy Plover	15	
Willet	1	
T1A-2	American Avocet	2
	American Pipit	44
	American Wigeon	8
	Bufflehead	1
	California Gull	28
	Cinnamon Teal	19
	Eared Grebe	12
	Gadwall	4
	Greater Yellowlegs	12
	Green-winged Teal	2
	Least Sandpiper	150
	Mallard	11
	Ring-billed Gull	10
	Ruddy Duck	178
Spotted Sandpiper	1	
Western Sandpiper	8	
T2-1	American Wigeon	2
	California Gull	118
	Cinnamon Teal	8
	Eared Grebe	46
	Gadwall	11
	Herring Gull	1
Long-billed Curlew	2	

	Northern Shoveler	13
	Ring-billed Gull	1
	Ruddy Duck	86
	Semipalmated Plover	2
	Willet	4
T21E	American Avocet	342
	American Pipit	1
	Dunlin	22
	Eared Grebe	20
	Killdeer	6
	Least Sandpiper	2150
	Ruddy Duck	160
	Short-billed Dowitcher	2
	Western Sandpiper	20
	Wilson's Phalarope	5
T2-2	California Gull	4
	Eared Grebe	9
	Ruddy Duck	116
T2-3	California Gull	4
	Least Sandpiper	9
	Western Sandpiper	2
T23NE	American Avocet	114
	Calidris sp.	130
	California Gull	554
	Greater Yellowlegs	7
	Least Sandpiper	23
	Long-billed Dowitcher	2
	Western Sandpiper	2
	Willet	8
T23NW	California Gull	88
	Least Sandpiper	10
	Savannah Sparrow	1
	Semipalmated Plover	8
T23SE	American Avocet	218
	American Pipit	2
	Calidris sp.	250
	California Gull	408
	Common Raven	1
	Greater Yellowlegs	5
	Least Sandpiper	970
	Red-necked Phalarope	3
	Savannah Sparrow	1
	Western Sandpiper	400
T23SW	American Avocet	170
	American Pipit	3
	California Gull	440
	Greater Yellowlegs	1
	Least Sandpiper	1
	Long-billed Curlew	2
	Marbled Godwit	1

	Red-necked Phalarope	4
T24	American Avocet	28
	American Pipit	1
	Black-bellied Plover	29
	Calidris sp.	130
	California Gull	2252
	Eared Grebe	46
	Greater Yellowlegs	6
	Killdeer	2
	Least Sandpiper	1668
	Long-billed Dowitcher	9
	Red-necked Phalarope	12
	Ring-billed Gull	1
	Savannah Sparrow	1
	Semipalmated Plover	38
	Snowy Plover	1
	Western Sandpiper	315
T2-4	California Gull	2
	Dowitcher sp.	1
	Greater Yellowlegs	6
	Least Sandpiper	45
	Lesser Yellowlegs	4
	Western Sandpiper	4
T2-5	No birds observed	0
T25N	American Avocet	4
	Calidris sp.	3
	California Gull	1633
	Common Raven	3
	Dowitcher sp.	2
	Least Sandpiper	54
	Mallard	2
	Semipalmated Plover	4
	Western Sandpiper	5
T26	American Avocet	36
	Calidris sp.	4
	California Gull	3163
	Cinnamon Teal	1
	Common Raven	1
T27 Addition	Semipalmated Plover	2
T27N	American Avocet	371
	Black-bellied Plover	8
	California Gull	4036
	Dowitcher sp.	88
	Greater Yellowlegs	2
	Least Sandpiper	4
	Marbled Godwit	2
	Savannah Sparrow	1
	Snowy Plover	1
	Western Sandpiper	1

	Willet	11
T27S	American Avocet	3
	Black-bellied Plover	52
	Calidris sp.	3500
	California Gull	1603
	Eared Grebe	42
	Gadwall	4
	Greater Yellowlegs	1
	Redhead	2
T28N	American Pipit	3
	California Gull	144
	Common Raven	2
	Horned Lark	1
	Killdeer	1
	Savannah Sparrow	5
T28S	American Pipit	16
	California Gull	358
	Dowitcher sp.	5
	Greater Yellowlegs	46
	Horned Lark	1
	Least Sandpiper	1
	Mallard	2
	Savannah Sparrow	7
T29-1	American Avocet	650
	American Coot	142
	American Wigeon	4
	Blue-winged Teal	1
	Bufflehead	32
	California Gull	70
	Cinnamon Teal	79
	Common Raven	3
	Dowitcher sp.	28
	Eared Grebe	11
	Franklin's Gull	2
	Gadwall	1346
	Green-winged Teal	9
	Mallard	1
	Northern Pintail	2
	Northern Shoveler	188
	Redhead	4
	Ring-necked Duck	2
	Ruddy Duck	219
	White-faced Ibis	1
T29-2	American Avocet	4413
	American Pipit	9
	Black-necked Stilt	23
	California Gull	3434
	Cinnamon Teal	2
	Dowitcher sp.	12
	Eared Grebe	184

	Franklin's Gull	1
	Gadwall	2
	Greater Yellowlegs	3
	Killdeer	1
	Lesser Scaup	1
	Lesser Yellowlegs	1
	Mallard	1
	Marbled Godwit	3
	Marsh Wren	13
	Northern Harrier	2
	Redhead	2
	Red-winged Blackbird	2
	Ruddy Duck	124
	Savannah Sparrow	1
	White-faced Ibis	3
	Willet	14
T29-3	California Gull	128
T29-4	California Gull	65
	Lesser Yellowlegs	4
T30-1	American Coot	157
	American Pipit	3
	Bufflehead	22
	Cinnamon Teal	34
	Common Raven	4
	Eared Grebe	5
	Gadwall	95
	Green-winged Teal	46
	Killdeer	2
	Mallard	16
	Marsh Wren	3
	Northern Shoveler	13
	Redhead	15
	Red-winged Blackbird	128
	Ruddy Duck	93
	Savannah Sparrow	10
	Western Meadowlark	7
	Yellow-headed Blackbird	1
T30-2	American Coot	2
	Common Raven	1
	Eared Grebe	14
	Northern Shoveler	1
	Ruddy Duck	620
T30-3	American Avocet	6
	American Coot	2
	American Pipit	2
	Bufflehead	7
	California Gull	287
	Cinnamon Teal	2
	Eared Grebe	17
	Gadwall	68

	Greater Yellowlegs	15
	Mallard	1
	Northern Pintail	2
	Northern Shoveler	9
	Peregrine Falcon	1
	Ring-billed Gull	10
	Ruddy Duck	57
	Unidentified Anas species	2
T35-1	American Avocet	10
	American Pipit	1
	Black-bellied Plover	1
	California Gull	500
T35-2	Barn Swallow	6
	California Gull	600
	Greater Yellowlegs	1
	Violet-green Swallow	6
T36-1	American Coot	21
	American Pipit	30
	California Gull	152
	Cinnamon Teal	12
	Common Raven	2
	Eared Grebe	22
	Gadwall	20
	Lesser Scaup	4
	Mallard	8
	Marsh Wren	2
	Northern Shoveler	10
	Peregrine Falcon	1
	Red-winged Blackbird	1
	Ring-billed Gull	1
	Ruddy Duck	165
	Song Sparrow	4
	White-faced Ibis	4
	Yellow-headed Blackbird	2
T36-2	American Avocet	70
	American Pipit	10
	California Gull	520
	Cinnamon Teal	8
	Ring-billed Gull	3
	Savannah Sparrow	32
	Snowy Plover	2
	White-faced Ibis	4
T36-3	California Gull	35
T3NE	Horned Lark	2
T3SE	California Gull	1
T3SW	California Gull	2
	Greater Yellowlegs	1
	Least Sandpiper	3

T4-3	California Gull	107
	Herring Gull	1
	Ring-billed Gull	1
T4-4	American Avocet	275
	American Pipit	20
	Barn Swallow	1
	California Gull	278
	Cinnamon Teal	2
	Dowitcher sp.	1
	Eared Grebe	150
	Gadwall	4
	Greater Yellowlegs	12
	Herring Gull	1
	Ruddy Duck	42
T4-5	California Gull	2
	Common Raven	4
T5-1	California Gull	1
	Common Raven	2
	Horned Lark	4
	Mourning Dove	2
	Northern Mockingbird	1
	Savannah Sparrow	14
	Say's Phoebe	2
	Snowy Plover	1
	Spotted Sandpiper	1
	Violet-green Swallow	20
T5-2	Common Raven	1
	Horned Lark	2
T5-3	American Avocet	6
	American Pipit	56
	Calidris sp.	26
	California Gull	7
	Common Merganser	1
	Horned Lark	18
	Savannah Sparrow	1
	Western Sandpiper	12
	Willet	17
T5-3 Addition	American Avocet	31
	American Wigeon	1
	Calidris sp.	60
	California Gull	3
	Cinnamon Teal	72
	Common Raven	1
	Dunlin	4
	Eared Grebe	10
	Least Sandpiper	45
	Lesser Scaup	2
	Mallard	4
	Redhead	8
	Ruddy Duck	200



	Savannah Sparrow	1
	Western Sandpiper	3
T5-4	Brewer's Blackbird	1
	California Gull	39
	Greater Yellowlegs	21
	Lesser Yellowlegs	4
T8W	No birds observed	0
T9	American Avocet	122
	California Gull	154
	Common Raven	1
	Least Sandpiper	45
T23-5	California Gull	124
	Ring-billed Gull	2
T2-1 Addition	California Gull	257
	Cinnamon Teal	2
	Eared Grebe	1
	Greater Yellowlegs	5
	Least Sandpiper	7
	Lesser Yellowlegs	1
	Ring-billed Gull	3
	Ruddy Duck	38
	Semipalmated Plover	1
T36-3 Addition	American Pipit	4
	Savannah Sparrow	1
T4-3 Addition	No birds observed	0
T25-3	No birds observed	0
T10-3	Snowy Plover	1
	Western Sandpiper	34
T5-1 Addition	Say's Phoebe	2
	Yellow-rumped Warbler	1
T24 Addition	California Gull	3
<b>Grand Total</b>		<b>58589</b>



**APPENDIX D**

**Owens Lake Phase 7a Dust Control Measures  
Cultural Resources Correspondence**



STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

**NATIVE AMERICAN HERITAGE COMMISSION**

915 CAPITOL MALL, ROOM 384  
SACRAMENTO, CA 95814  
(916) 653-6251  
Fax (916) 657-5390  
Web Site [www.nahc.ca.gov](http://www.nahc.ca.gov)  
ca\_nahc@pacbell.net



July 14, 2010

Mr. Phillip Reid, Staff Archaeologist

**GARCIA AND ASSOCIATES**

104 South "G" Street, Suite "G"  
Lompoc, CA 93436

Sent by FAX TO: 415-458-5829 &amp; 805-740-2046

No. of Pages: 4

Re: Request for a Sacred Lands File Search and Native American Contacts List for the proposed "Owens Lake Dust Mitigation Project;" located in southern Inyo County, California

Dear Mr. Reid:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources. The NAHC SLF search, did not indicate the presence of Native American cultural resources within one-half mile of the proposed project site (APE). However, there are Native American cultural resources in close proximity to the APE, specifically in adjacent USGS quadrangles..

Also, this letter includes state and federal statutes relating to Native American historic properties of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law.

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amended in 2009) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Culturally-affiliated tribes and individuals may have knowledge of the religious and cultural significance of the historic properties in the project area (e.g.APE). We recommend that you contact persons on the attached list of Native American contacts. Furthermore we suggest that you contact the California Historic Resources Information System (CHRIS) at the Office of Historic Preservation Coordinator's office (at 916-653-7272, for referral to the nearest Information Center of which there are 10.

Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq.*), 36 CFR Part 800.3 (f) (2), the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes.

Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery'.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

The response to this search for Native American cultural resources is conducted in the NAHC Sacred Lands Inventory, established by the California Legislature (CA Public Resources Code 5097.94(a) and is exempt from the CA Public Records Act (c.f. California Government Code 6254.10) although Native Americans on the attached contact list may wish to reveal the nature of identified cultural resources/historic properties. Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of the NHA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251

Sincerely,



Dave Singleton  
Program Analyst

Attachment: Native American Contact List

**Native American Contacts  
July 14, 2010  
Inyo County**

**Big Pine Band of Owens Valley**  
David Moose, Chairperson  
P. O. Box 700 Owens Valley Paiute  
Big Pine , CA 93513  
bigpinetribaladmin@earthlink  
(760) 938-2003  
(760) 938-2942-FAX

**Timbisha Shoshone Tribe**  
Joe Kennedy, Chairperson  
785 North Main Street, Suite Western Shoshone  
Bishop , CA 93514  
(760) 873-9003  
(760) 873-9004 FAX

**Bishop Paiute Tribe**  
William Vega, Chairperson  
50 Tu Su Lane Paiute - Shoshone  
Bishop , CA 93514  
(760) 873-3584  
(760) 873-4143

**Ron Wermuth**  
P.O. Box 168  
Kernville , CA 93238  
warmoose@earthlink.net  
(760) 376-4240 - Home  
(916) 717-1176 - Cell  
**Tubatulabal  
Kawaiisu  
Koso  
Yokuts**

**Fort Independence Community of Paiute**  
Carl Dahlberg Chairperson  
P.O. Box 67 Paiute  
Independence CA 93526  
stephanie@fortindependenc  
(760) 878-2126  
(760) 878-2311- Fax

**Bishop Paiute Tribe**  
Brian Adkins, Environmental Mger  
50 Tu Su Lane Paiute - Shoshone  
Bishop , CA 93514  
tcsec@pauite.com  
(760) 873-3076

**Lone Pine Paiute-Shoshone Reservation**  
Melvin R. Joseph, Chairperson  
P.O. Box 747 Paiute  
Lone Pine , CA 93545 Shoshone  
admin@lppsr.org  
(760) 876-1034  
(760) 876-8302 Fax

**Lone Pine Paiute-Shoshone Reservation**  
Sanford Nabahe, Tribal Administrator  
P.O. Box 747 Paiute  
Lone Pine , CA 93545 Shoshone  
lorjoseph@lppsr.org  
(760) 876-1034  
(760) 876-8302 fax

**This list is current only as of the date of this document.**

**Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.3.**

**This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Owens Lake Dust Mitigation Project; located in southern Inyo County in the Owens Lake Dry Bed within the following USGS 7.5 minute Quadrangles: Long Pine, Dolomite; Inyo County, California for which Sacred Lands File searches and**

**Native American Contacts  
July 14, 2010  
Inyo County**

Lone Pine Paiute-Shoshone Reservation  
Wilfred Nabahe, Environmental Coordinator  
P.O. Box 747 Paiute  
Lone Pine , CA 93545 Shoshone  
wjnabahe@lppsr.org  
(760) 876-4690  
(760) 876-8302 fax

Kern Valley Indian Council  
Robert Robinson, Historic Preservation Officer  
P.O. Box 401 Tubatulabal  
Weldon , CA 93283 Kawaiisu  
brobinson@mchsi.com Koso  
(760) 378-4575 (Home) Yokuts  
(760) 549-2131 (Work)

Lone Pine Paiute-Shoshone Reservation  
Sandy Jefferson Yonge, Cultural Representative  
880 Zucco Road Paiute  
Lone Pine , CA 93545 Shoshone  
(760) 876-5658  
(760) 876-8302 fax

Bishop Paiute Tribe THPO  
Theresa Stone-Yanez  
50 Tu Su Lane Paiute - Shoshone  
Bishop , CA 93514  
theresa.  
(760) 873-3584, Ext 250  
(760) 937-0351 -cell  
(760) 873-4143 - FAX

Timbisha Shoshone Tribe THPO  
Barbara Durham, Tribal Historic Preservation  
P.O. Box 206 Western Shoshone  
Death Valley , CA 92328  
dvdurbarbara@netscape.  
(760) 786-2374  
(760) 786-2376 FAX

Big Pine Band of Owens Valley THPO  
Bill Hellmer, Tribal Historic Preservation Officer  
P.O. Box 700 Paiute  
Big Pine , CA 93513  
amargosa@aol.com  
(760) 938-2003  
(760) 938-2942 fax

**This list is current only as of the date of this document.**

**Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code. Also, federal National Environmental Policy Act (NEPA), National Historic Preservation Act, Section 106 and federal NAGPRA. And 36 CFR Part 800.3.**

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## Lone Pine Paiute-Shoshone Reservation

P.O. Box 747 • 975 Teya Road  
Lone Pine, CA 93545  
(760) 876-1034 FAX (760) 876-8302  
Web Site: [www.lppsr.org](http://www.lppsr.org)

Friday, February 3, 2012

Mr. Ronald O. Nichols, General Manager  
Los Angeles Department of Water and Power  
111 North Hope Street, Room 1550  
Los Angeles, California 90012-2607

Dear Mr. Nichols;

The Lone Pine Paiute-Shoshone Reservation (LPPSR) has been involved with the Owens Lake Dust Mitigation Project since the work began. We have tried to protect our cultural resources on the Owens Lake bed and its historic shoreline long before the start of this project. Much of this land is sacred to our Tribal members. It is where our families lived and many are buried. It is our ethnographic landscape and our history.

The LPPSR is very concerned about the air quality of this valley, but we are more and more alarmed by the rate at which our past is being destroyed. As time goes by, we have been increasingly ignored or even pushed out of the decision making process. We were not included in the most recent phase 2 surveys, even though the EIR stated the opposite. We are only sporadically informed of day to day construction activities and developments in dealings with our cultural resources. Our monitors are no longer financially supported by the project, so we depend on volunteers. Keeping in contact with those working on the Lake on a daily basis is proving extremely difficult because we are not independently wealthy and also have other commitments. Sometimes, only one of us is able to go out on the Lake and ground disturbance is taking place in as many as five places. All we can do in those cases is prioritize and try to keep communication as open as possible. Lack of communication is the beginning of our problem, but an easy one to remedy.

In the past, many cultural artifacts and features have been deemed insignificant because they are said to have either washed or blown into the area where they were found. Another excuse is that the site is deflated, meaning that nothing is diagnostic because the soil deposits have either blown or washed away leaving artifacts which are not intact in their original deposit. Whether these determinations were made in order to keep the peace or for financial gain, it has to stop. Though the lead agencies, project proponents and their contractors attempt to show they are following the laws governing implementation of a project, they are not fulfilling the purpose that the laws were set in place to do. Knowingly destroying artifacts is a violation of almost every piece of legislation pertaining to prehistoric and historic

preservation. Nobody has the authority to change agreed upon mitigation measures. All too often, archaeologists have been assigned to assess the density of prehistoric and historic items in a designated area and they are not familiar, or even aware of the unique archaeology of our valley. Many items are overlooked and many cannot be seen, because of the crust that covers the lake bed in many areas. Because of this, significant sites have been labeled "isolates" and therefore not eligible for mitigation. Allowing archaeologist to do their jobs and acknowledging their findings and recommendations would ultimately deter conflict and delay.

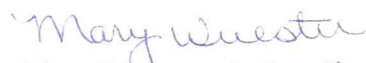
Avoidance is the best mitigation. This has proved successful in a few instances in the past, but seems to be out of the question today. Attempts to negotiate placement of geotechnical trenches were recently disregarded and the reason given was to ensure they got a good bid on the next phase. Cultural sites are defined for a reason and not to be ignored for financial gain. Some cultural sites are still intact because there is no easy access to them. Now berm roads are being built, sometimes right through pristine prehistoric sites, providing that access.

We are very concerned about what will happen to our cultural resources not only in the impending Phase 7a, but future phases. How much of our family heritage has to be destroyed? How much of our view shed has to be sacrificed? How do we tell the stories of our people when the landmarks and natural features are no longer there? How do we let others come in and destroy our sacred places? Has anybody taken the time to determine what effects these dust mitigation measures are having on the surrounding environment?

The sacred cultural sites which are scheduled to be destroyed in future phases of the Owens Lake Dust Mitigation Project are too valuable to lose. The LPPSR General Council has passed legislation to prevent destruction of our cultural resources and sacred sites by whatever means necessary. We are requesting that we take a step back and come to a consensus on the best way to implement dust mitigation while respecting the rights of the people indigenous to this valley. Archaeological and Geological research has shown that the Owens Lake has dried up and refilled several times. People inhabited the playa when the shoreline receded in the past. How can LADWP be the only one ordered to do dust control when the historic shoreline is still in dispute? This is a problem for all of us and we all need to work together to find a workable solution.

If you have any questions, please feel free to contact me at (760) 876-1034, or Kathy Bancroft at (406) 570-5289. Thank you for your concern and your prompt reply.

Sincerely,



Mary Wuester, Acting Chairperson  
Lone Pine Paiute-Shoshone Reservation

cc: Nelson Mejia, Project Manager  
Carole Denardo, Garcia and Associates