3.3 CULTURAL RESOURCES

As a result of the Initial Study, the Great Basin Unified Air Pollution Control District (District) determined that the 2008 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan (proposed project) had the potential to result in impacts to cultural resources.[1] Therefore, this issue has been carried forward for detailed analysis in this Environmental Impact Report (EIR). This analysis was undertaken to identify opportunities to avoid, reduce, or otherwise mitigate potential significant impacts to cultural resources and identify alternatives.

The analysis of cultural resources consists of a summary of the regulatory framework that guides the decision-making process, a description of the existing conditions at the proposed project area, thresholds for assessing the level of significance of impacts, anticipated impacts (direct, indirect, and cumulative), mitigation measures, and level of significance after mitigation. Potential impacts to cultural resources at the proposed project site were evaluated based on queries at the Eastern Information Center (EIC) at the University of California, Riverside, and corresponding review of the information center's U.S. Geological Survey (USGS) 7.5-minute series topographic quadrangles of Lone Pine,[2] Dolomite,[3] Cerro Gordo Peak,[4] Barlett,[5] Owens Lake,[6] Keeler,[7] Olancha,[8] Vermillion Canyon,[9] and Centennial Canyon.[10] Additional research was conducted at the Natural History Museum of Los Angeles County and with the Native American Heritage Commission. Published and unpublished literature were reviewed, including the 2006 editions of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the listing of California Historic Landmarks (CHL), and the California Points of Historical Interest (CPHI), to ascertain the presence of archaeological and historic resources that could potentially be affected as a result of the proposed project. Sapphos Environmental, Inc. completed Phase I walkover surveys, eight field sessions from January 22 to May 4, 2007, of 6,355 acres (68 percent) of the proposed project area to serve as the basis of the environmental analysis (Figure 3.3-1, *Cultural Resources Survey Area*) (Appendix E, *Cultural Resources Technical Reports*). Sapphos Environmental, Inc. will complete the Phase I Archaeological Survey in October 2007, and incorporate the results into the EIR. For the purposes of this analysis, the potential number of sites and isolates within the proposed project area were extrapolated based on the number of sites encountered in completed surveys.

[1] Great Basin Unified Air Pollution Control District. 27 February 2007. *2008 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan Initial Study*. State Clearinghouse Number 2007021127. Bishop, CA.

[2] U.S. Geological Survey. 1994. 7.5-minute series Lone Pine, CA, Topographic Quadrangle. Denver, CO.

[3] U.S. Geological Survey. 1987. 7.5-minute series Dolomite, CA, Topographic Quadrangle. Denver, CO.

[4] U.S. Geological Survey. 1987. 7.5-minute series Cerro Gordo Peak, CA, Topographic Quadrangle. Denver, CO. (The proposed project does not fall within this quadrangle, but it covers part of the surrounding area.)

[5] U.S. Geological Survey. 1987. 7.5-minute series Bartlett, CA, Topographic Quadrangle. Denver, CO.

[6] U.S. Geological Survey. 1987. 7.5-minute series Owens Lake, CA, Topographic Quadrangle. Denver, CO.

[7] U.S. Geological Survey. 1987. 7.5-minute series Keeler, CA, Topographic Quadrangle. Denver, CO.

[8] U.S. Geological Survey. 1994. 7.5-minute series Olancha, CA, Topographic Quadrangle. Denver, CO.

[9] U.S. Geological Survey. 1987. 7.5-minute series Vermillion Canyon, CA, Topographic Quadrangle. Denver, CO.

[10] U.S. Geological Survey. 1987. 7.5-minute series Centennial Canyon, CA, Topographic Quadrangle. Denver, CO. (The proposed project does not fall within this quadrangle, but it covers part of the surrounding area.)

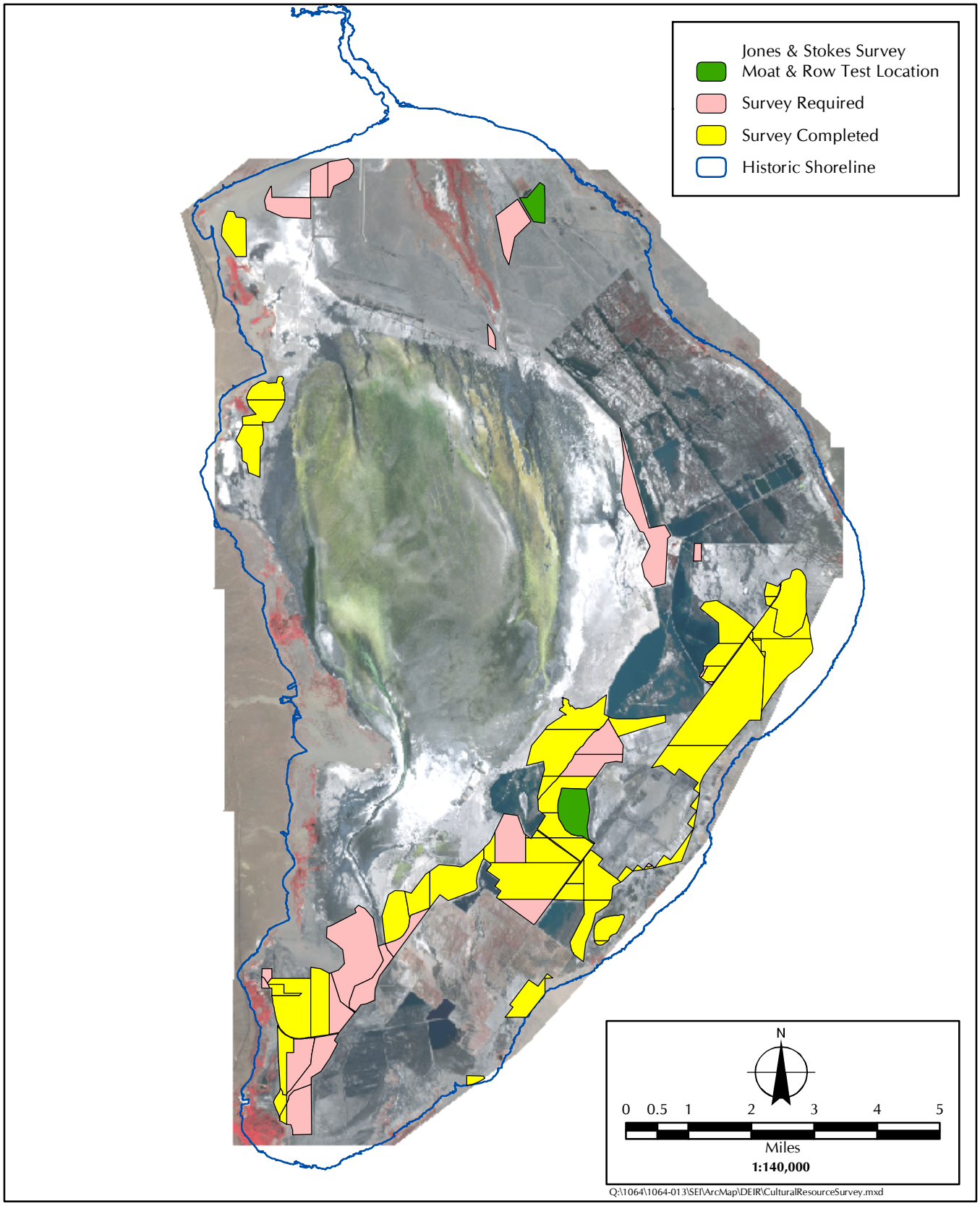

FIGURE 3.3-1

Cultural Resources Survey Areas

The potential for impacts to cultural resources related to paleontological resources have been analyzed in accordance with the data compiled by Cogstone Resource Management, Inc.[11] The paleontological survey was completed at the request of the District and Sapphos Environmental, Inc.

3.3.1 Regulatory Framework

Federal

National Environmental Policy Act

The National Environmental Policy Act (NEPA) and its supporting federal regulations establish certain requirements that must be adhered to for any project "…financed, assisted, conducted or approved by a federal agency…." In making a decision on the issuance of federal grant monies or a permit to conduct work on federal lands for components of the proposed project, the federally designated lead agency pursuant to NEPA is required to "…determine whether the proposed action may significantly affect the quality of the human environment." Only those portions of the proposed project conducted on Bureau of Land Management (BLM) lands, which total approximately 11.44 acres, may require compliance with this regulation. Anticipated approvals from the BLM include temporary and permanent right-of-way grants on federal lands.

National Historic Preservation Act[12]

Enacted in 1966, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multi-faceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of State Historic Preservation Officer (SHPO) and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHRA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings. The Section 106 process involves identification of significant historic resources within an "area of potential effect;" determination if the undertaking will cause an adverse effect on historic resources, and resolution of those adverse effects through execution of a Memorandum of Agreement. In addition to the ACHP, interested members of the public, including individuals, organizations, and agencies (such as the California Office of Historic Preservation), are provided with opportunities to participate in the process. Only those portions of the proposed project conducted on BLM lands,

[11] Gust, S., and Scott, K. Revised July 2007. *Paleontological Evaluation of 2008 Supplemental Control Requirements for the Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan, Inyo County, California*. Submitted to: Sapphos Environmental, Inc., Pasadena, CA. Prepared by: Cogstone Research Management, Santa Ana, CA.

[12] *United States Code*, Title 16, Section 470: "National Historic Preservation Act."

which total approximately 11.44 acres, may require compliance with this regulation. Anticipated approvals from the BLM include temporary and permanent right-of-way grants on federal lands.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[13] The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American or regional/local history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the four established criteria:[14]

(A) It is associated with events that have made a significant contribution to the broad patterns of our history;

(B) It is associated with the lives of persons who are significant in our past;

(C) It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or

(D) It has yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Secretary of the Interior's Standards for the Treatment of Historic Properties

Evolving from the *Secretary of the Interior's Standards for Historic Preservation Projects with Guidelines for Applying the Standards,* which were developed in 1976, the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings* were published in 1995 and codified as 36 CFR 67. Neither technical nor prescriptive, these standards are "intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources."[15] "Preservation" acknowledges a resource as a document of its history over time and emphasizes

[13] *Code of Federal Regulations*, Title 36, Part 60.2: "Effects of Listing under Federal Law."

[14] *Code of Federal Regulations*, Title 36, Part 60.4: "Criteria for Evaluation."

[15] Weeks, Kay D. and Anne E. Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstruction Historic Buildings*. Washington DC: U.S. Department of the Interior, National Park Service.

stabilization, maintenance, and repair of existing historic fabric. "Rehabilitation," while also incorporating the retention of features that convey historic character, also accommodates alterations and additions to facilitate continuing or new uses. "Restoration" involves the retention and replacement of features from a specific period of significance. "Reconstruction," the least used treatment, provides a basis for recreating a missing resource. These standards have been adopted, or are used informally, by many agencies at all levels of government to review projects that affect historic resources.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency, and to provide a summary to any Native American tribe claiming affiliation. Only those portions of the proposed project conducted on BLM lands, which total approximately 11.44 acres, may require compliance with this regulation. Anticipated approvals from the BLM include temporary and permanent right-of-way grants on federal lands.

State

California Environmental Quality Act[16]

Pursuant to the California Environmental Quality Act (CEQA), a "historical resource" is a resource listed in, or eligible for listing in, the CRHR. In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with state guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.[17]

CEQA applies to archaeological resources when 1) the archaeological resource satisfies the definition of a historical resource or 2) the archaeological resource satisfies the definition of a "unique archaeological resource." A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:[18]

(1) The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

[16] *California Public Resources Code*, Division Thirteen, Statutes 21083.2 and 21084.1.

[17] *California Code of Regulations*, Title 14, Chapter 3, *Guidelines for the Implementation of the California Environmental Quality Act as amended October 6, 2005*. Section 15064.5(a)

[18] *California Public Resources Code*, Division 13, Section 21083.2(g).

(2) The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.

(3) The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."[19] Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:[20]

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance.[21] It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years may be also eligible for inclusion in the CRHR provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.[22]

[19] *California Public Resources Code*, Section 5024.1(a)

[20] *California Public Resources Code*, Section 5024.1(c)

[21] Office of Historic Preservation. Undated. "Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for purposes of determining eligibility for the California Register)." Available at: www.ohp.parks.ca.gov

[22] Office of Historic Preservation. Undated. "Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for purposes of determining eligibility for the California Register)." Available at: www.ohp.parks.ca.gov

Other State Statutes and Regulations

California Historical Landmarks[23]

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the City or Town Council in whose jurisdiction it is located), be recommended by the State Historical Resources Commission, and be officially designated by the Director of California State Parks. The specific standards now in use were first applied in the designation of CHL #770. CHLs #770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Associated with an individual or group having a profound influence on the history of California.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest[24]

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of three criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).

[23] Office of Historic Preservation, Department of Parks and Recreation, State of California. "California Historical Landmarks Registration Programs." Available at: www.ohp.parks.ca.gov.

[24] Office of Historic Preservation, Department of Parks and Recreation, State of California. "California Points of Historical Interest Registration Programs." Available at: www.ohp.parks.ca.gov

- Associated with an individual or group having a profound influence on the history of the local area.

- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Native American Heritage Commission

Section 5097.91 of the Public Resources Code established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the Public Resources Code specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code, Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Penal Code, Section 622.5

Penal Code, Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

Public Resources Code, Section 5097.5

Public Resources Code, Section 5097.5 defines as a misdemeanor the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

Local

Inyo County General Plan Conservation/Open Space Element[25]

The Land Use/Conservation/Open Space element of the Inyo County General Plan sets forth the following goal in relation to cultural resources: "Preserve and promote the historic and prehistoric cultural heritage of the County." The County's Land Use/Conservation/Open Space element includes the following policies related to the preservation and promotion of the County's cultural heritage:

> 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.
>
> 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 Native American resources could be affected by development proposals.

Inyo County Ordinance Title 9

Inyo County Code Title 9, Public Peace, Morals and Safety, states:

> No publicly or private sponsored project or action shall be expressly permitted by the county planning commission, hereinafter, 'the commission,' or any other county agency where the commission finds that any archaeological, paleontological, and historical features, or Native California Indian burial sites may be disturbed in any way by the project or action; provided, the commission many conditionally expressly permit the project or action if the project or action sponsor takes responsibility for preservation, protection, or relocation of the features or sites in accordance with a specific plan for preservation, protection, or relocation that shall be reviewed and approved by the commission after a public hearing. The public hearing shall be held, in the instance of Native California Indian burial sites, following the review and comment required by Section 9.52.020.[26]

[25] Inyo County. 11 December 2001. *Inyo County General Plan Update, Section 8.7, Cultural Resources*. Independence, CA. Available at: http://www.inyoplanning.org/general_plan/goals/ch8.pdf

[26] Inyo County. County Code, Title 9: "Public Peace, Morals and Safety." Available at: http://www.qcode.us/codes/inyocounty/

3.3.2 Existing Conditions

The existing conditions for paleontological, archaeological, and historic resources, and human remains are characterized at the project level of detail (Appendix E). For clarity of analysis and presentation, prehistoric period archaeological resources are presented as archaeological resources and historic period archaeological resources are presented as historical resources. The Prehistoric Period is defined as the era prior to European contact with native populations, which occurred in the proposed project area in the years 1769 to 1797. Archaeologists generally use the year 1782 as the beginning of the historic period.

3.3.2.1 Paleontological Resources

The geological formations underlying the proposed project area consist of Quarternary Alluvium, Eolian Sands, and Quaternary Lake Deposits.[27,28,29] The older Pleistocene and late Holocene portion of each geological unit is considered to have moderate sensitivity for paleontological resources. These geological units are often buried under recent Holocene sediments; however, they have a high potential to be exposed on the eastern and southern Owens Lake playa through deflation (erosion by wind). Unique paleontological resources were discovered in older Pleistocene and late Holocene geological units located in the eastern and southern Owens Lake playa as a result of monitoring in association with the South Sand Sheets project.

Known paleontological resources were evaluated in 2003 by queries to the Natural History Museum of Los Angeles County, the San Bernardino County Museum, and the Eastern California Museum, in support of the 2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan (SIP) EIR.[30] Late Pleistocene fossils of mammoth, horse, bison, camel, and puma were known from the lower Owens River and the Owens Lake playa. In addition, a sample from USGS Core OL-92 taken in the southwestern portion of Owens Lake recovered paleofaunal remains and fossil fish identified as the Owens chub (*Gila bicolor snyderi*) and the Owens sucker (*Catostomus fumeiventris*). These were recovered at 500 feet below surface. A survey of the 2003 SIP project area, located adjacent to the current proposed project area, recovered several Pleistocene vertebrate fossils, including duck, rodent, and pocket gopher.[31] In addition, locally extinct invertebrates were recovered. These fossil materials were located in a limited area, on the east side of the lake at localities that appear to have been subject to deflation to the east, south of, and within 1 mile of Swansea. These resources were found within sands and gravels.

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[27] Streitz, R. and M.C. Stinson. 1974. Geologic Map of California: Death Valley Sheet. Los Angeles, CA: California Geological Survey.

[28] Matthews, R.A. and J.L. Burnett. 1965. Geologic Map of California: Fresno Sheet. Los Angeles, CA: California Geological Survey.

[29] Stone, P., Dunne, G.C., Moore, J.G. and G.I. Smith. 2000. Geologic Map of the Lone Pine 15' Quadrangle, Inyo County, California. Available at: http://geopubs.wr.usgs.gov/i-map/i2617/i2617.pdf

[30] Great Basin Unified Air Pollution Control District. February 2004. *2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan Integrated Environmental Impact Report*. State Clearinghouse House Number 2002111020. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

[31] Gust, S. May 2003. *Paleontological Assessment Report and Mitigation Plan for the Owens Valley Project, Inyo County, California*. Prepared for Sapphos Environmental, Inc., Pasadena, CA. Prepared by: Cogstone Resource Management, Inc., Santa Ana, CA.

A sample survey of the proposed project area was conducted in February 2007 (Appendix E).[32] No vertebrate fossils were observed or recovered during this survey; however, Holocene shells were noted on the margins of the north and southeast sections of the lake. These shells consisted of Great Basin ram's horn snail [*Helisoma (Cariniflex) newberryi*] and clam (*Anodonta* spp.).

Although no significant fossils were observed during the 2007 survey, the proposed project contains both Holocene and Pleistocene sediments, which have the potential to contain unique or significant paleontological resources. CEQA does not specify the definition of significant or unique paleontological resource or geologic feature. The commonly accepted definition is provided by the Society of Vertebrate Paleontology, which states that Significant Nonrenewable Paleontological Resources are "fossils and fossiliferous deposits here restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or botanical fossils except when present within a given vertebrate assemblage. Certain plant and invertebrate fossils or assemblages may be defined as significant by a project paleontologist, local paleontologist, specialists or special interest groups, or by Lead Agencies or local governments."[33].

As a result of literature review and field surveys, there are no unique geological features located within the proposed project area.

3.3.2.2 Archaeological Resources

The proposed project site is located in an area where hundreds of archaeological resources have been recorded in the vicinity of Owens Lake, including the Owens Lake bed. An archaeological records search was conducted at EIC at University of California, Riverside, for previously recorded archaeological resources within the proposed project area and within a 1-mile radius. Record searches were conducted on November 16, December 6, 2006, and March 14, 2007. All the USGS 7.5-minute series quadrangles relevant to the proposed project area were reviewed for known prehistoric and historic resources including topographic quadrangle maps of Lone Pine,[34] Dolomite,[35] Cerro Gordo Peak,[36] Barlett,[37] Owens Lake,[38] Keeler,[39] Olancha,[40] Vermillion Canyon,[41] and Centennial Canyon.[42] Table 3.3.2.2-1, *Previously Recorded Prehistoric Archaeological Sites Located below the Historic Shoreline*, provides a list of the sites previously recorded on the Owens Lake bed, below the historic shoreline.

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[32] Gust, S., and Scott, K. Revised July 2007. *Paleontological Evaluation of 2008 Supplemental Control Requirements for the Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan, Inyo County, California*. Submitted to: Sapphos Environmental, Inc., Pasadena, CA. Prepared by: Cogstone Research Management, Santa Ana, CA.

[33] Society of Vertebrate Paleontology. 2007. Web site. "Policy Statements." Available at: http://www.vertpaleo.org/society/polstatconformimpactmigig.cfm

[34] U.S. Geological Survey. 1994. 7.5-minute series Lone Pine, CA, Topographic Quadrangle. Denver, CO.

[35] U.S. Geological Survey. 1987. 7.5-minute series Dolomite, CA, Topographic Quadrangle. Denver, CO.

[36] U.S. Geological Survey. 1987. 7.5-minute series Cerro Gordo Peak, CA, Topographic Quadrangle. Denver, CO. (The proposed project does not fall within this quadrangle, but it covers part of the surrounding area.)

[37] U.S. Geological Survey. 1987. 7.5-minute series Bartlett, CA, Topographic Quadrangle. Denver, CO.

[38] U.S. Geological Survey. 1987. 7.5-minute series Owens Lake, CA, Topographic Quadrangle. Denver, CO.

[39] U.S. Geological Survey. 1987. 7.5-minute series Keeler, CA, Topographic Quadrangle. Denver, CO.

[40] U.S. Geological Survey. 1994. 7.5-minute series Olancha, CA, Topographic Quadrangle. Denver, CO.

[41] U.S. Geological Survey. 1987. 7.5-minute series Vermillion Canyon, CA, Topographic Quadrangle. Denver, CO.

[42] U.S. Geological Survey. 1987. 7.5-minute series Centennial Canyon, CA, Topographic Quadrangle. Denver, CO. (The proposed project does not fall within this quadrangle, but it covers part of the surrounding area.)

TABLE 3.3.2.2-1
PREVIOUSLY RECORDED PREHISTORIC ARCHAEOLOGICAL SITES LOCATED BELOW THE HISTORIC SHORELINE

Site Number	Site Number	Site Number
CA-INY-54	CA-INY-6072	CA-INY-6380
CA-INY-55	CA-INY-6073	CA-INY-6381
CA-INY-78	CA-INY-6074	CA-INY-6383
CA-INY-273	CA-INY-6075	CA-INY-6384
CA-INY-337	CA-INY-6076	CA-INY-6385
CA-INY-452	CA-INY-6077	CA-INY-6386
CA-INY-1518	CA-INY-6078	CA-INY-6387
CA-INY-5398	CA-INY-6079	CA-INY-6388
CA-INY-5790	CA-INY-6080	CA-INY-6389
CA-INY-5791	CA-INY-6248	CA-INY-6390
CA-INY-5795	CA-INY-6252	CA-INY-6391
CA-INY-5796	CA-INY-6264	CA-INY-6393
CA-INY-5798	CA-INY-6360	CA-INY-6513
CA-INY-5799	CA-INY-6361	CA-INY-6513
CA-INY-5799	CA-INY-6362	CA-INY-6520
CA-INY-5800	CA-INY-6363	CA-INY-6521
CA-INY-5801	CA-INY-6364	CA-INY-6522
CA-INY-5810	CA-INY-6365	CA-INY-6523
CA-INY-5929	CA-INY-6367	CA-INY-6524
CA-INY-5931	CA-INY-369	CA-INY-6599
CA-INY-6064	CA-INY-370	CA-INY-6659
CA-INY-6065	CA-INY-6371	CA-INY-6660
CA-INY-6066	CA-INY-6372	CA-INY-6722
CA-INY-6067	CA-INY-6373	CA-INY-6723
CA-INY-6068	CA-INY-6374	CA-INY-6889
CA-INY-6069	CA-INY-6377	
CA-INY-6071	CA-INY-6379	

Published and unpublished literature were also reviewed, including the 2006 editions of the Historic Property Data File for Inyo County, NRHP, CRHR, CHL, and CPHI. Cultural resources at the proposed project site were also evaluated with regard to the 2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment SIP EIR.[43]

Sapphos Environmental, Inc. completed Phase I walkover surveys of 6,355 acres (Appendix E), approximately two-thirds of the 9,664-acre proposed project area (Figure 3.3-1). The approximately 2,400 hours of survey work was conducted between January 22 and May 4, 2007, and was carried out in eight separate field rotations. A total of 5 new prehistoric archaeological sites and 57 prehistoric archaeological isolates have been recorded to date. Sapphos Environmental, Inc. will complete the Phase I Archaeological Survey in October 2007 and incorporate the results into the Final EIR. Based on survey findings to date and on the distribution of previously recorded sites in areas adjacent to the survey area, it is estimated that up to 19 prehistoric sites and up to 86 prehistoric isolates may be present in the survey area.

[43] Great Basin Unified Air Pollution Control District. February 2004. *2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan Integrated Environmental Impact Report*. State Clearinghouse House Number 2002111020. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

All cultural resources were assigned temporary numbers, and their exact positions were recorded using Universal Transverse Mercator (UTM) coordinates to establish their position on the USGS topographic quadrangle maps. Sites and isolates were given field numbers using the prefix OL (Owens Lake). The numbering system is continuous for the archaeological sites. Isolate numbers are not always consecutive because some isolates were incorporated into sites and others were eliminated after analyzing the distribution of the cultural material in the lake (i.e., isolated flakes initially recorded in the southwestern-most portion of the lake were later eliminated due to the number of such instances observed). All site records are on file with the District and State Lands Commission and are limited to review on a "need to know basis," as a means of protecting the resources from unauthorized collection or vandalism.

Distribution

Those archaeological sites located on the northwest portion of the lake (OL Sites 5, 6, and 7) are located below the historic shoreline (characterized by sand and gravel) and extend onto the Owens Lake playa. Although the artifacts scattered along the playa may have resulted from erosion of the sites located at higher elevations, the co-occurrence of multiple artifact classes (such as ground stone and lithic debitage) within the sites in the playa suggests otherwise. These cultural deposits may be associated with old shorelines sequences.[44] These findings are consistent with previous investigations,[45] which have demonstrated that areas of cultural sensitivity were not restricted to those places above the historic shoreline.

One site (OL Site 1) was recorded on the southwestern portion of the lake. Although the distribution of the artifacts appears to be restricted to concentrations within the washes, two concentrations exhibited an unusual number of tools. It is assumed that if the artifacts have all been transported and redeposited by water the ratio of tools to debitage should be similar throughout the drainages. The higher presence of tools warrants further examination. Phase II investigations may determine a depositional sequence for this portion of the lake and address the distribution of tools considering both natural processes and human activities.

One site (OL Site 2), located largely outside the survey area on the southeastern portion of the lake, consists of a lithic scatter covering an area of 130 by 50 meters. On this site, chert is the predominant lithic material; five tools were noted, including one diagnostic obsidian projectile point and four non-diagnostic bifaces. Artifacts are distributed among two distinct concentrations, which are separated by a salt crust area. Artifacts were also noted northwest of the current site boundary; however, the survey was conducted during snowy plover *(Charadrius alexandrinus)* nesting period and access to that portion of the site was restricted. This site extends to the southeast, and may join with CA-INY-6378, a site previously described by Wells[46] and evaluated by Jones and Stokes.[47]

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[44] Stine, S. 1994. *Late Holocene Fluctuations of Owens Lake, Inyo County, California*. Prepared for: Far Western Anthropological Research Group, Inc., Davis, CA.

[45] Wells, H. 2003. *Cultural Resources Survey for 2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan, Final Report*. With contribution by M.R. Walsh and illustrations by C. Backes. Prepared for: Sapphos Environmental, Inc., Pasadena, CA. Prepared by: Ancient Enterprises, Inc., Santa Monica, CA.

[46] Wells, H. 2003. *Cultural Resources Survey for 2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan, Final Report*. With contribution by M.R. Walsh and illustrations by C. Backes. Prepared for: Sapphos Environmental, Inc., Pasadena, CA. Prepared by: Ancient Enterprises, Inc., Santa Monica, CA.

[47] Jones and Stokes. 2005. *Final Archaeological Testing and Evaluation of 25 Sites on the Owens Lake Playa, Inyo County, California, Volumes I and II*. Prepared for: CH2MHILL, Santa Ana, CA. Sacramento, CA.

One of the most intriguing finds at Owens Lake is the large number of isolated projectile points and non-diagnostic bifaces present throughout the lake bed. These findings were recorded during the surveys in 2003, during monitoring activities in later years, and during the current survey. It is expected that if these points have been washed out from sites on the shoreline, the Owens River, or on smaller drainages, a larger number of debitage pieces should also be present. Debitage usually outnumbers tools and a site washed into the lake should present similar frequencies as those from the site. Only on rare occasions, one or two flakes were noted in association with the points/bifaces. Although it is possible that both points/bifaces and debitage travel during rainy periods, and are subsequently sorted according to weight and/or shape, a higher amount of debitage should still be present. In addition, unauthorized collection (pothunting) of artifacts in the area is common, and would have focused on the points and bifaces. Thus, the current ratio of these artifacts to debitage is even more intriguing.

Understanding artifact distribution in the lake requires a better knowledge of the hydrological and geomorphological conditions of the lake combined with analysis of artifact distribution based on a compilation of the data currently available for the lake. Answers to these questions should be addressed in future investigations.

Site Function

The prehistoric sites identified during the current survey are mostly lithic scatters, which suggest hunting activities. Evidence of plant processing was only noted in those sites located near the shoreline, in areas with sandy soil and vegetation. In general, this trend coincides with what has been noted in previous investigations, sites within the Owens Lake bed are characterized by lithics only, and sites near the shoreline have a wider arrange of artifact classes. Phase II investigations of the newly recorded sites, combined with previously recorded data would increase the information regarding site function along Owens lake shoreline and within the lake bed.

Chronology

During the present survey, a total of 26 chronologically sensitive or diagnostic projectile points were recorded, including artifacts found as isolates and within sites. Virtually all time periods associated with archaeological sites from the Great Basin are represented (Table 3.3.2.2-2, *Projectile Point Types Represented during the Phase I Archaeological Survey*), and these findings agree with those from previous investigations.[48]

[48] Walsh, M.R. 2003. *Diagnostic Projectile Points in Cultural Resources Survey for 2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan, Final Report*. Prepared for: Sapphos Environmental, Inc., Pasadena, CA. Prepared by: Ancient Enterprises, Inc., Santa Monica, CA.

TABLE 3.3.2.2-2
PROJECTILE POINT TYPES REPRESENTED DURING THE PHASE I ARCHAEOLOGICAL SURVEY

Epoch	Owens Valley Region	Mojave Desert Region	Dates	Projectile Point Types*
Early Holocene	Early	Lake Mojave	Pre ~ 7000 BP	2 Lake Mojave
Middle Holocene	Little Lake	Pinto	~7000 BP to ~3500 BP/3150 BP	2 or possibly 3 Pinto 3 possible Borax Lake
Late Holocene	Newberry	Gypsum	~3150 BP to ~1350BP	4 or possibly 6 Elko 2 Humboldt*
	Haiwee	Rose Spring	~1350 BP to ~650 BP	2 Rose Spring
	Marana	Late Prehistoric	~650 BP to Historic contact	4 Cottonwood

NOTES:
* The four Leaf-shaped points need to be dated to more accurately place them in time.
** Humboldt points may represent activity during the Little Lake Period

It is possible that those archaeological sites that do not exhibit chronological continuity with only certain periods represented may indicate discontinuous occupations. On the other hand, sites that contain projectile points representing a wide range of time periods may be the result of steady occupation. Occupation of these archaeological sites may be tested through the classification of diagnostic artifacts and by submitting a selected sample of debitage for hydration and sourcing analysis.

The results of the field survey were incorporated into a geographical information system (GIS) to produce a spatially accurate map of cultural resources. Locations of cultural resources were plotted with respect to the distribution of the 2008 Owens Valley PM_{10} Planning Area Demonstration of Attainment SIP dust control measure (DCM) areas.

3.3.2.3 Historical Resources

The results of the records searches on November 16, December 6, 2006, and March 14, 2007 at EIC at the University of California, Riverside, also identified five historic archaeological sites previously recorded on the Owens Lake bed, below the historic shoreline: CA-INY-5792H, CA-INY-6063H, CA-INY-6375H, CA-INY-7640H, and CA-INY-7641H.

In addition, several historic resources have been recorded and or designated within 1 mile of the historic shoreline of the proposed project area and adjacent to the proposed project area,[49,50,51,52,53,54,55] including several resources that have been recognized as California Historical

[49] Great Basin Unified Air Pollution Control District. 2 July 1997. *Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan Final Environmental Impact Report*. State Clearinghouse Number 96122077. Bishop, CA.

[50] Great Basin Unified Air Pollution Control District. 28 February 1997. *Cultural Resources Inventory and Evaluation of Historic Resources on the Eastern Side of Owens Lake*. Prepared by: Jones and Stokes, Sacramento, CA.

[51] Wells, H. 2003. *Final Report Cultural Resources Survey for 2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan.* Prepared by: Ancient Enterprises, Inc. for Sapphos Environmental, Inc., Pasadena, CA.

Landmarks or Points of Historical Interest. Some of these resources are associated with the historic town of Cartago (located at the southwestern-most portion of the lake). In addition to the historic resources associated with the town of Cartago, these resources include the Cartago Boat Landing (State Point of Historic Interest SPHI-INY-006), a portion of a wood stove pipeline related to salt extraction operations in the town, remnants of the California Alkali Company (also known as the Inyo Chemical Company), and other historic resources related to the initial settlement of the town.[56,57] Other historic resources within 1 mile of the historic shoreline of the proposed project area include:[58] Natural Soda Products Company (NSPC), recommended as eligible for the NRHP; the towns of Keeler and Swansea; the historic settlement of Tramway and the various resources associated with them; the Owens Lake Silver–Lead Furnace (State Historic Landmark SHL-0752); the Saline Valley Salt Tram Historic Structure (NRHP 19-74000514); the Cottonwood Charcoal Kilns (State Historic Landmark SHL-537); and the Keeler End of the Line (State Point of Historic Interest SPHI-INY-004).

During the first portion of the Phase I Archaeological Survey, 5 new historic archaeological sites, 1 previously recorded historic archaeological site, and 30 historic isolates were located and recorded, using the same methods as for the prehistoric archaeological resources (Appendix E). Sapphos Environmental, Inc. will complete the Phase I Archaeological Survey in October 2007 and incorporate the results into the Final EIR. Based on the number of sites recovered as a result of the completed survey, it is assumed that 6 historic sites and up to 45 historic isolates may be present in the survey area.

The location of the historic archaeological sites found during the current survey suggests their association with the different industries operating at Owens Lake during the late 1800s and 1900s (Figure 3.3.2.3-1, *Historic Period Resources*). However, historic isolates are distributed throughout the lake.

OL Site 3H, which is located on the northwest portion of the lake, appears to be associated with the production of borax. Based on its location, the wooden trestles present at the site suggest that these were part of the Pacific Alkali Company (Figure 3.3.2.3-1) or any of the other corporations that purchased the company at later times, such as the Columbia-Southern Chemical Corporation or the Pittsburgh Plate Glass Company. Unfortunately, during the current investigation, a specific date for the structures could not be determined. The only artifact from the site with a dateable

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[52] City of Los Angeles Department of Water and Power. February 2000. *Initial Study for North Sand Sheet Shallow Flooding Project; Owens Lake Dust Mitigation Program, Owens Lake, California*. Prepared by: CH2M HILL, Santa Ana, CA.

[53] City of Los Angeles Department of Water and Power, and Inyo County Water Department. 1 November 2002. *Notice of Availability of the Draft Environmental Impact Report and Environmental Impact Statement, Lower Owens River Project*. Los Angeles, CA, and Bishop, CA.

[54] Nelson, W. 2001. *A Class III Cultural Resources Inventory for the Lower Owens River Project, Inyo County, California*. Prepared by: Far Western Anthropological Research Group, Inc. for URS Greiner Woodward Clyde, Santa Barbara, CA.

[55] Great Basin Unified Air Pollution Control District. February 2004. *2003 Owens Valley PM_{10} Planning Area Demonstration of Attainment State Implementation Plan Integrated Environmental Impact Report*. State Clearinghouse House Number 2002111020. Prepared by: Sapphos Environmental, Inc., Pasadena, CA.

[56] City of Los Angeles Department of Water and Power. May 2002. *California Register of Historical Resources Evaluation of a Historic Pipeline at Cartago, California*. Prepared by: Jones and Stokes, Sacramento, CA.

[57] CH2M HILL. August 2005. *Final Archaeological Testing and Evaluation of 25 Sites on the Owens Lake Playa, Inyo County, California*. Volume I. Prepared by: Jones and Stokes, Sacramento, CA.

[58] Great Basin Unified Air Pollution Control District. 28 February 1997. *Cultural Resources Inventory and Evaluation of Historic Resources on the Eastern Side of Owens Lake*. Prepared by: Jones and Stokes, Sacramento, CA.

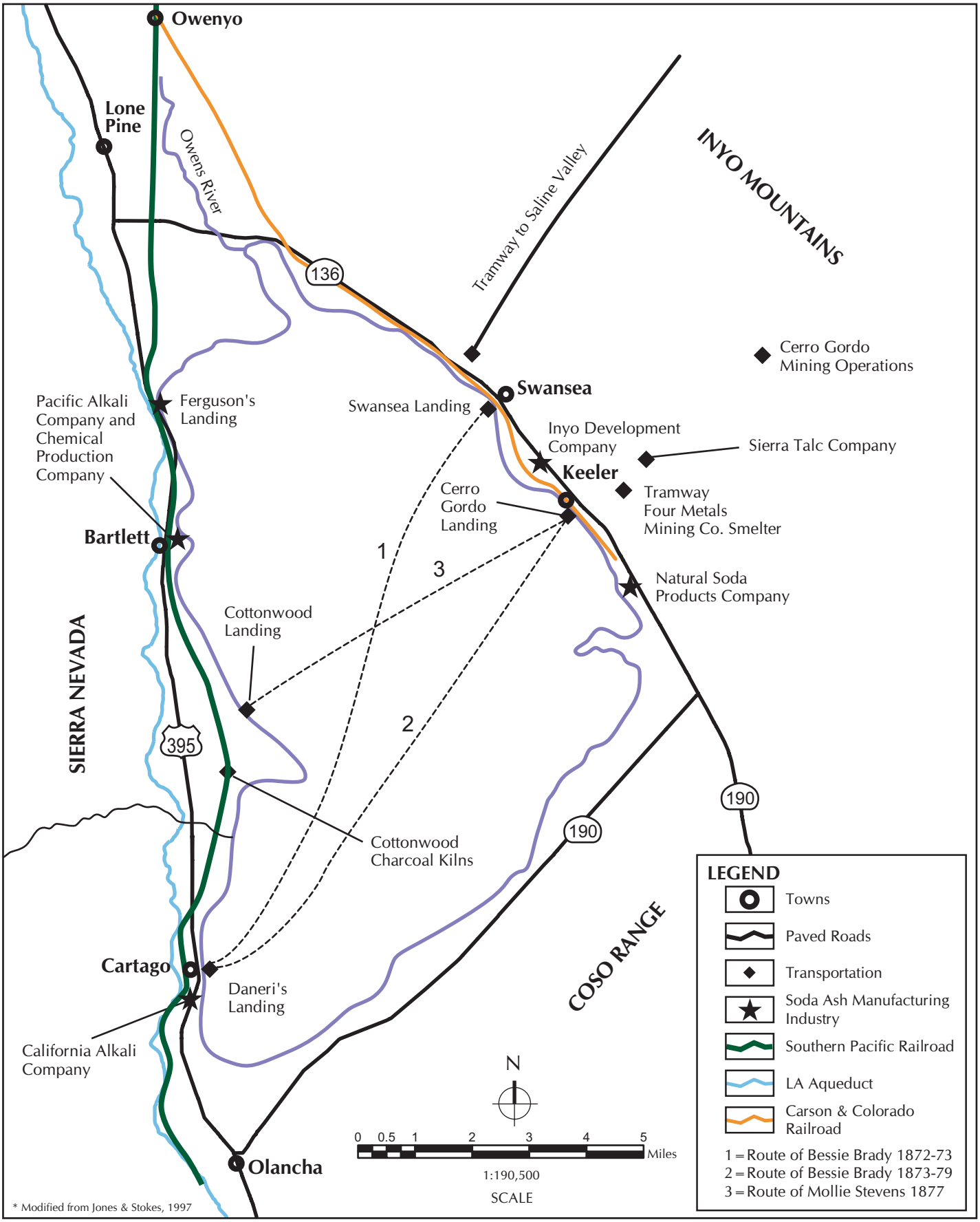

FIGURE 3.3.2.3-1
Historic Period Resources

maker's mark consists of a clear glass bottle made by the Hazel-Atlas Corporation between 1920 and 1964. However, the bottle may not have any relation to the time when the wooden structures were in use. Assuming that OL Site 3H was associated with the production of borax, it is suggested that the site was in use some time between 1926, when the Pacific Alkali Company started operations, and the 1970s when the plant operated under the Pittsburgh Plate Glass Company. Today, the structures that were part of this borax production are still standing on the east side of U.S. Highway 395.

Those sites located on the southern portion of the lake, OL Sites 8H, 10H, and 11H, appear to be associated with activities that took place east of the town of Cartago (Figure 3.3.2.3-1). As with OL Site 3H, the sites could not be dated during the present survey, and therefore their association is strictly based on their location. The wooden posts and associated features, and what appears to be the remnants of old roads, are located northeast from where the California Alkali Company (Figure 3.3.2.3-1) was located and nearby what used to be Daneri's Landing (Figure 3.3.2.3-1). Thus, these sites may be the remnant soda works from the California Alkali Company, which operated between 1917 and 1924, and/or the Inyo Chemical Company, which was active from 1924 to 1932. The Inyo Chemical Company remodeled the plant and constructed 8 miles of pipeline to pump the brine back to the plant at Cartago. The remains of the wooden pipeline have been previously recorded approximately 1 mile southeast from where these sites are located.[59] It is possible that some of the structures may have been associated with Daneri's Landing, which was used by the Bessie Brady steamboat to transport silver from Swansea to Cartago between 1872 and 1873, and from Keeler to Cartago between 1873 and 1879.

Several of the historic isolates could not be dated; however, some of the isolates exhibited marker's marks that could be used for a temporal designation. Dateable isolates are mostly represented by glass bottles and insulators, and some military ammunition, the majority of which appear to have been made during the mid-1940s.

Hundreds of pieces of what appears to be drift wood were noted throughout the lake, primarily on the west portion of the lake (east of the town of Bartlett) and in those areas located in the east central portion of the lake (southwest corner of the USGS 7.5-minute series Owens Lake topographic quadrangle). This wood is distributed forming continuous sinuous lines, as if following the edge of a body of water. In spite of the fact that the lake has been dry since the 1920s, unusually high runoff on seven occasions during 1938, 1967, 1969, 1980, 1982, 1983, and 1986,[60] allowed water to enter the lake, thus driving the pieces of wood to settle into this pattern. The drift wood was restricted to the areas previously mentioned, and did not reach the southern portion of the lake.

[59] Jones and Stokes. 2002. *California Register of Historical Resources Evaluation of a Historic Pipeline at Cartago, California*. Prepared for: City of Los Angeles Department of Water and Power. Sacramento, CA.

[60] Stine, S. 1994. *Late Holocene Fluctuations of Owens Lake, Inyo County, California*. Prepared for: Far Western Anthropological Research Group, Inc., Davis, CA.

3.3.2.4 Human Remains

Based on a review of the available historic maps available for the area,[61,62,63,64] no recorded cemeteries are located within the proposed project area. In addition, a record search was conducted at the EIC located at the University of California, Riverside, on November 16 and December 6, 2006. The appropriate USGS 7.5-minute series topographic quadrangles were reviewed for the presence of Native American burials and/or cemeteries or former historic period cemeteries within the vicinity of the proposed project area. The results of these efforts found no known burials or cemeteries within the proposed project area; however, known Native American burial sites are located approximately between 2 and 3 miles from the proposed project area.[65,66,67] Native American burial practices in the region are characterized by internments of single individuals in a flexed or semi-flexed position. Cremation was also practiced in the area. In the Owens Valley, Mono Basin, and Rose Valley areas, large rocks or milling equipment were sometimes placed over the burials to cover the internment. Although grave goods are frequently present, these appear in small quantities, and generally include projectile points from different time periods. In the Coso Range area, archaeological investigations suggest that for the most part burial practices mirrored those described above. However, grave goods were more abundant and characterized by perishables and basketry.[68] Euro-Americans generally buried their dead either in cemeteries or in isolation. No evidence of cemeteries, burial sites, or cremations was found during the current survey.

3.3.3 Significance Thresholds

Appendix G of the California Environmental Quality Act states that a project may have a significant effect on the environment if it will disrupt or adversely affect a paleontological site, except as part of a scientific study.[69] Also, under CEQA, a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. Substantial adverse change in the significance of an historical resource is defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of an historical resource would be significantly impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR, a local register of historic resources pursuant to Section 5020.1(k) of the Public Resources Code, or historic resources survey meeting the requirements of Section 5024.1(g)

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[61] U.S. Geological Survey. 1951. 15-minute series Keeler, CA, Topographic Quadrangle. Denver, CO.

[62] U.S. Geological Survey. 1951. 15-minute series Lone Pine, CA, Topographic Quadrangle. Denver, CO.

[63] U.S. Geological Survey. 1956. 15-minute series Olancha, CA, Topographic Quadrangle. Denver, CO.

[64] U.S. Geological Survey. 1905. 15-minute series Olancha, CA, Topographic Quadrangle. Denver, CO.

[65] Singleton, Dave, Native American Heritage Commission. 8 December 2006. Letter to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

[66] Singleton, Dave, Native American Heritage Commission. 8 December 2006. Personal communication with Amy Commendador-Dudgeon, Sapphos Environmental, Inc., Pasadena, CA.

[67] Halford, Kirk and Kim Carpenter. January 2005. *Results of Limited Phase II Testing at the Keeler Dunes Site, Owens Valley, California. Cultural Resource Project: CA-170-03-11*. On file at Sapphos Environmental, Inc., Pasadena, CA.

[68] Gilreath, A.J., and Holanda, K.L. 2000. *By the Lake by the Mountains: Archaeological Investigations at CA-INY-4554 and INY-1428*. Prepared by: Far Western Anthropological Research Group, Inc., Davis, CA. Submitted to: California Department of Transportation, District 9, Bishop.

[69] *California Code of Regulations*, Title 14, Division 6, Chapter 3, Section 15000-15387, Appendix G.

of the Public Resources Code. CEQA also explicitly states that damage to archaeological sites that meet the definition of an historical resource or unique archaeological resource must be considered. In general, a project that follows the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and associated guidelines shall be considered as mitigated to below the level of significance.[70]

3.3.4 Impact Analysis

3.3.4.1 Paleontological Resources

Both Pleistocene and Holocene fossils have been recovered from the eastern surface of the Owens Lake playa (exposed lake bed) over the last 70 years, apparently revealed by severe wind erosion. Additional fossils have been recovered north and south of Owens Lake along the Owens River channel. The geological formations underlying the proposed project area consist of Quaternary Alluvium, Eolian Sands, and Quaternary Lake Deposits.[71,72,73] The older Pleistocene and late Holocene portion of each geological unit is considered to have moderate sensitivity for paleontological resources, and thus have potential to reveal additional important fossils that can contribute to the history of life in Owens Lake.

Past and proposed dust control measures create no apparent negative impacts to paleontological resources, provided weight of any equipment utilized is controlled to prevent crushing. However, plowing, trenching, and other forms of grading and excavations have the potential to result in significant impacts to cultural resources related directly to the destruction of a unique paleontological resource, therefore requiring the consideration of mitigation measures.

Shallow Flooding

Construction of the Shallow Flooding DCM would have the potential to destroy a unique paleontological resource. The ground-disturbing activities required to install Shallow Flooding have the potential to encroach into the "older" Pleistocene and late Holocene portions of the geologic units that underlie the proposed project area. Excavations and re-contouring to level the panels and build berms would have the potential to compress or fracture fossils. These geologic units have a moderate sensitivity for paleontological resources. The flooding associated with operation of the DCM would not be expected to adversely affect paleontological resources remaining *in situ* in deeper sediments. Similarly, maintenance activities would be expected to be limited to areas that were graded during construction and no additional impacts would be anticipated.

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[70] Weeks, Kay D. and Anne E. Grimmer. 1995. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstruction Historic Buildings*. Washington, DC: U.S. Department of the Interior, National Park Service.

[71] Streitz, R. and M.C. Stinson. 1974. Geologic Map of California: Death Valley Sheet. Los Angeles, CA: California Geological Survey.

[72] Matthews, R.A. and J.L. Burnett. 1965. Geologic Map of California: Fresno Sheet. Los Angeles, CA: California Geological Survey.

[73] Stone, P., Dunne, G.C., Moore, J.G. and G.I. Smith. 2000. Geologic Map of the Lone Pine 15' Quadrangle, Inyo County, California. Available at: http://geopubs.wr.usgs.gov/i-map/i2617/i2617.pdf

Moat & Row

Construction of the Moat & Row DCM would have the potential to destroy a unique paleontological resource. Excavations required for the berms and ditches, and the compression of the sediment caused by the movement of heavy equipment during construction of the DCM would have the potential to result in the destruction of a unique paleontological resource. Operation of the Moat & Row system, including the addition of water or Managed Vegetation would not be expected to adversely affect paleontological resources remaining *in situ* in deeper sediments. Similarly, maintenance activities would be expected to be limited to areas that were previously graded during the construction of the Moat & Row DCM.

Channel Area

Treatment of the 0.5-square-mile channel area with a passive habitat restoration would be expected to avoid significant adverse impacts to unique paleontological resources. A habitat restoration scenario would be expected to be largely undertaken in more recent surficial alluvial deposits that have a low potential to yield unique paleontological resources.

3.3.4.2 Archaeological Resources

The proposed project would result in significant impacts to cultural resources related to a substantial adverse change in the significance of an archaeological resource, therefore requiring the consideration of mitigation measures. Four of the five prehistoric archaeological sites, OL Site 1, OL Site 5, OL Site 6, and OL Site 7, recorded during the Phase I Archaeological Survey lie within the proposed project site and would be subject to direct impacts from construction activities. An additional site, OL Site 2, is located immediately adjacent and contiguous with the proposed project area. It is assumed that up to three additional archaeological sites will be recorded during the survey of the remaining portion of the proposed project site, and that these resources would also be directly impacted by implementation of the DCMs. Direct impacts would consist of any earthmoving activities related to the implementation of any of the proposed DCMs. For the purposes of this analysis, the five prehistoric archaeological sites that were recorded during the current survey and up to three additional sites that are presumed to be present would be expected to be substantially adversely impacted by implementation of the proposed project.

Shallow Flooding

Construction of the Shallow Flooding DCM would cause a substantial adverse change in the significance of OL Site 1, which is treated as an archaeological resource as defined in §15064.5 of the State CEQA Guidelines, for the purpose of this analysis. Sites located at the edge of an area where Shallow Flooding is to be implemented would be adversely impacted by the construction of the berms designed to contain the water. The construction of berms requires movement of earth and construction equipment, both of which would cause significant adverse impacts to the archaeological resources. Excavations would result in the displacement of artifacts and archaeological deposits, resulting in loss of site integrity. Excavations may also result in the loss of diagnostic artifacts, which are vital to the historical significance of a site, and heavy equipment movement would likely result in the breakage of artifacts. Operation of the Shallow Flooding DCM involves releasing water along the upper edge of the lake bed and allowing it to spread and flow down-gradient toward the center of the lake. To be effective, at least 75 percent of each square mile of the control area must be wetted to produce standing water or surface-saturated soil. This process would result in significant adverse impacts to the archaeological sites in several ways. First,

the water flow into the site area would move and redistribute artifacts, resulting in loss of site integrity. Second, the Shallow Flooding would be expected to expedite the deterioration of the resource fabric, particularly those sites that are substantially composed of wood and metal. Lastly, covering the sites with water precludes further investigations for information important to prehistory. Investigations conducted to date have not addressed whether the potential for the site to generate information has been exhausted. Finally, Shallow Flooding requires annual maintenance to maintain the irrigation system and required land contours and gradient that would contribute to ongoing degradation of the site fabric.

Moat & Row

Implementation of the Moat & Row DCM would be expected to cause a substantial adverse change in the significance of OL Sites 5, 6, and 7, which are treated as archaeological resources as defined in Section 15064.5 of the State CEQA Guidelines, for the purposes of this analysis.

Construction of the Moat & Row DCM would involve the construction of earthen berms about 5 feet in height, flanked by ditches excavated about 4 feet below the current lake surface. Excavations would result in the displacement of artifacts and archaeological deposits, resulting in loss of site integrity. Excavations may also result in the loss of diagnostic artifacts, which are vital to the historical significance of a site. In addition, heavy equipment movement required to implement the measure would likely result in the breakage of artifacts. Operation would not be expected to result in alteration of sites that remained intact after construction. However, it is anticipated that maintenance would involve ongoing earthmoving to maintain the geometric configuration of the berms and ditches that would result in the ongoing potential to alter cultural resources that are left *in situ*.

Channel Area

There are no significant archeological sites located within the 0.5-square-mile channel area; therefore, there would be no anticipated impacts to cultural resources resulting from DCMs in this area.

3.3.4.3 Historical Resources

The proposed project would result in significant impacts to cultural resources related to a substantial adverse change in the significance of an historical resource, therefore requiring the consideration of mitigation measures. A total of five historic archaeological resources that satisfy the CEQA definition of historical resources or unique archaeological resources would be subjected to direct and indirect impacts from project implementation. The five historic archaeological sites (OL Site 3H, OL Site 4H, OL Site 8H, OL Site 10H, and OL Site 11H) recorded during the Phase I Archaeological Survey lie within the proposed project site and would be subject to direct impacts from construction activities. No previously recorded historic resources outside of the proposed project site would be directly or indirectly affected by implementation of the proposed project. Direct impacts would consist of any earthmoving activities related to the implementation of any of the proposed DCMs.

Shallow Flooding

Construction of the Shallow Flooding DCM would cause a substantial adverse change in the significance of OL Sites 4H, 8H, 10H, and 11H, which are historical resources as defined in

Section 15064.5 of the State CEQA Guidelines. Construction of the berms, designed to contain water, requires movement of earth and construction equipment, both of which would cause significant adverse impacts to the historical resources. Excavations would result in the displacement of artifacts and historical deposits, resulting in loss of site integrity. Excavations may also result in the loss of diagnostic artifacts, which are vital to the historical significance of a site, and heavy equipment movement would likely result in the breakage of artifacts. Operation of Shallow Flooding involves releasing water along the upper edge of the lake bed and allowing it to spread and flow down-gradient toward the center of the lake. To be effective, at least 75 percent of each square mile of the control area must be wetted to produce standing water or surface-saturated soil. This process would result in significant adverse impacts to the historical sites in several ways. First, the water flow into the site area would move and redistribute artifacts, resulting in loss of site integrity. Second, the Shallow Flooding would be expected to expedite the deterioration of the resource fabric, particularly those sites that are substantially composed of wood and metal. Lastly, covering the sites with water precludes further investigations for information important to history. Finally, maintenance of Shallow Flooding would be expected to involve subsequent land leveling and trenching for repairs to the irrigation system that would have the potential to alter *in situ* historic materials.

Moat & Row

Implementation of the Moat & Row DCM would cause a substantial adverse change in the significance of, OL Site 3H, an historical resource as defined in Section 15064.5 of the State CEQA Guidelines. Construction of the Moat & Row DCM would involve the construction of earthen berms approximately 5 feet in height, flanked by ditches excavated about 4 feet below the current lake surface. Excavations would result in the displacement of artifacts and historical deposits, resulting in loss of site integrity. Excavations may also result in the loss of diagnostic artifacts, which are vital to the historical significance of a site. In addition, heavy equipment movement required to implement the measure would likely result in the breakage of artifacts. Operation of the Moat & Row DCM would not be expected to alter *in situ* historic materials. However, maintenance of the Moat & Row DCM would be expected to result in subsequent damage to *in situ* materials as a result of ongoing earth moving to maintain the geometry of the Moat & Row system.

Channel Area

There are no significant historical sites located within the 0.5-square-mile channel area; therefore, there would be no anticipated impacts to cultural resources resulting from DCMs in this area.

3.3.4.4 Human Remains

The proposed project has the potential to directly or indirectly disturb human remains, including those interred outside of formal cemeteries, therefore requiring the implementation of mitigation measures. Although no recorded cemeteries or Native American burial sites are located within the proposed project area, known burials are located approximately between 2 and 3 miles from the proposed project area.[74,75,76] There is a potential for the unanticipated discovery of burials during construction activities.

[74] Singleton, Dave, Native American Heritage Commission. 8 December 2006. Letter to Natasha Tabares, Sapphos Environmental, Inc., Pasadena, CA.

[75] Singleton, Dave, Native American Heritage Commission. 8 December 2006. Personal communication with Amy Commendador-Dudgeon, Sapphos Environmental, Inc., Pasadena, CA.

Shallow Flooding

Construction of the Shallow Flooding DCM may result in the disturbance of human remains, including those interred outside formal cemeteries. Flooding the area would be expected to expedite the deterioration of human remains, and excavations may unearth and disturb unanticipated human burials.

Moat & Row

Construction of the Moat & Row DCM may result in the disturbance of human remains, including those interred outside formal cemeteries. Excavations may unearth and disturb unanticipated human burials.

Channel Area

There are no known Native American burials or historic period cemeteries located within the 0.5-square-mile channel area. Implementation of the channel area with a passive habitat restoration would not be expected to impact human resources, including those interred outside formal cemeteries. However, implementation of the channel area requiring any ground disturbance activities may result in the disturbance of human remains, including those interred outside formal cemeteries. Implementation of the measure may unearth and disturb unanticipated human burials.

3.3.4.5 Cumulative Impacts

The proposed project would not result in significant cumulative impacts to cultural resources. A total of three related projects were identified in the vicinity of the proposed project in Section 2.9, Related Projects. The potential impacts of the proposed project can be evaluated within the context of the cumulative impacts of all ongoing and proposed development.

When considered in relation to the effects of the 2003 SIP, significant impacts to cultural resources would occur during the construction phase, which would be mitigated to below the level of significance. The 2003 SIP's significant impacts are related to activities where Shallow Flooding, gravel cover, and Managed Vegetation measures are used as DCMs. The implementation of the proposed project would occur at a time when the 2003 SIP would have concluded its construction phase and begun its operational phase, where cultural resources would not be significantly impacted. Therefore, the cumulative effect would not be considerable.

The effects of the proposed project when considered in connection with the effects of the Lower Owens River Project (LORP) would not create known impacts to cultural resources because no impacts to cultural resources were identified for the LORP, thereby negating any potential for cumulative impacts to cultural resources.

The effects of the proposed project when considered in connection with the effects of the U.S. Borax Owens Lake Expansion Project/Conditional Use Permit #02-13/Reclamation Plant #02-1 would not create significant cumulative impacts to cultural resources because the Owens Lake

[76] Halford, Kirk and Kim Carpenter. January 2005. Results of Limited Phase II Testing at the Keeler Dunes Site, Owens Valley, California. Cultural Resource Project: CA-170-03-11. On file at Sapphos Environmental, Inc.

Expansion Project/Conditional Use Permit #02-13/Reclamation Plant #02-1 document did not identify cultural resources as a potentially impacted resource.

3.3.5 Mitigation Measures

Paleontological Resources

Measure Cultural-1, Paleontological Resources Construction Monitoring

The impacts to cultural resources related directly or indirectly to the destruction of a unique paleontological resource that has the potential to be present in older Pleistocene and late Holocene portions of geological units in the eastern and southern Owens Lake playa shall be reduced to below the level of significance through construction monitoring of ground-disturbing activities and salvage of paleontological resources. Ground-disturbing activities include, but are not limited to, drilling, excavation, trenching, and grading. Where any such activity is anticipated in older Pleistocene and late Holocene portions of geological units in the eastern and southern Owens Lake playa in conjunction with the construction of dust control measures, the Great Basin Unified Air Pollution Control District shall require construction monitoring. The Great Basin Unified Air Pollution Control District shall require that construction monitoring, salvage, and recovery of unique paleontological resources be consistent with standards for such recovery established by the Society of Vertebrate Paleontology:

- A qualified paleontologist shall be retained to provide professional paleontological services. The paleontologist shall be responsible for implementation of the mitigation plan and maintenance of professional standards of work.

- Shallow Flooding without any excavation does not require mitigation. However, planned grading, trenching, and excavation activities associated with Moat & Row (or flooding areas associated with older Pleistocene and Late Holocene portions of geological units in the eastern and southern Owens Lake playa) shall be monitored. Sediments located near the surface are recent and are not anticipated to be paleontologically sensitive. However, those sediments located approximately 4 feet or more below the surface may contain paleontological resources and shall be monitored. This measure may be modified by the qualified paleontologist for specific locations as the depth of recent sediments varies across the project area. In conjunction with the subsurface work, the monitor shall inspect exposed sediments, including microscopic examination of matrix, to determine if fossils are present. In addition, the qualified paleontologist shall be available on call to respond to unanticipated discoveries.

- The monitor may be a qualified paleontological monitor or a cross-trained archaeologist, biologist, or geologist working under the supervision of a qualified principal paleontologist. The function of the monitor is to identify potential resources and recover them with appropriate scientific data.

- Paleontological Resources Sensitivity Training is required for all project personnel if the monitor will not be present full-time. This 15 minute field training reviews what fossils are, what fossils might potentially be found, and the appropriate procedures to follow if fossils are found.

- Discovery of fossil-producing localities shall require that stratigraphic columns be measured and that geologic samples be taken for analysis.

- If fossil localities are discovered, the paleontologist shall collect controlled samples for processing. All fossils recovered shall be prepared, identified, and cataloged before donation to the accredited repository designated by the lead agency. The qualified paleontologist shall be required to secure a written agreement with a recognized repository, regarding the final disposition, permanent storage, and maintenance of any significant fossil remains and associated specimen data and corresponding geologic and geographic site data that might be recovered as a result of the specified monitoring program. The written agreement shall specify the level of treatment (i.e., preparation, identification, curation, cataloguing, etc.) required before the fossil collection would be accepted for storage. In addition, a technical report shall be completed. The final disposition of paleontological resources recovered on State lands must be approved by the California State Lands Commission.

- Within 90 days of the completion of the paleontological monitoring, the qualified paleontologist shall prepare a final mitigation report to be submitted to the Great Basin Unified Air Pollution Control District and the California State Lands Commission with an appended, itemized inventory of the specimens. The report shall include a list of specimens recovered, documentation of each locality, interpretation of fossils recovered, and any technical or specialist's reports as appendices. The report and inventory, when submitted to the Great Basin Unified Air Pollution Control District, shall signify the completion of the program to mitigate impacts to paleontological resources.

Archaeological and Historical Resources

The direct and indirect impacts to cultural resources related to substantial adverse changes to the significance of archaeological and historical resources resulting from implementation of the proposed project would be reduced to below the level of significance through the implementation of mitigation measures Cultural-2 and -3, which are in accordance with Section 15126.4 (b)(3) of the State CEQA Guidelines.

Measure Cultural-2, Cultural Resources Investigations

The Great Basin Unified Air Pollution Control District shall ensure that potentially impacted prehistoric and historic archaeological sites be assessed for significance, as defined by Public Resources Code Section 21083.2 or State of California Environmental Quality Act Guidelines Section 15064.5(a), through the implementation of Phase II investigations. Impacts to those sites found to be significant shall be mitigated to below the level of significance through a Phase III data recovery program. Resources found to be not significant shall not require mitigation.

Coordination with the California State Lands Commission shall be undertaken to mitigate impacts consistent with California State Lands Commission practices for the mitigation of archaeological sites that occur on lands under the jurisdiction of the California State Lands Commission, including California State Lands Commission approval and issuance of a permit for Phase II testing and Phase III data recovery program. The Great Basin Unified Air Pollution Control District shall consult with the State Historic Preservation Officer as required by 15064.5 (b) (5) of the State of California

Environmental Quality Act Guidelines for state-owned historical resources. Construction shall not occur on state property until concurrence from the State Historic Preservation Officer is obtained concerning determinations of eligibility and that mitigation has reduced the impact to cultural resources to a less than significant level. In addition, coordination with interested Native American tribes identified by the Native American Heritage Commission shall be undertaken. Local tribes shall be contacted by the qualified archaeologist specified for the project, and a Native American monitor(s) shall be retained to be present on site during all ground-disturbing activities, including but not limited to archaeological evaluation, excavation, Phase II investigations and Phase III data recovery (if needed), and construction activities. The Native American monitor(s) shall coordinate with the qualified project archaeologist, the Great Basin Unified Air Pollution Control District, and the City of Los Angeles Department of Water and Power to ensure responsible remediation of Native American sites and sacred materials. Should human remains be discovered, the California State Lands Commission shall be notified within 24 hours.

Phase II

Five (5) newly recorded prehistoric archaeological sites (OL Sites 1, 2, 5, 6, and 7), five (5) newly recorded historic archaeological sites (OL Sites 3H, 4H, 8H, 10H, and 11H), and any additional prehistoric or historic archaeological sites located on the 9,664-acre proposed project site shall be assessed for significance as defined by the State of California Environmental Quality Act through the implementation of Phase II investigations prior to the initiation of construction activities in those areas where the sites are located:

- Development of a research design that guides assessments of site significance and scientific potential. This design will be an update, expansion, and refinement of research designs that have guided previous Phase II evaluations in the study area.
- Mapping and systematic collection of a representative sample of surface artifacts
- Subsurface investigation through shovel test pits, surface scrapes, or 1 by 1 meter excavation units; a combination of such methods; or equivalent methods
- Analysis of recovered material to determine significance pursuant to the State of California Environmental Quality Act
- Preparation of a report, including evaluation of site significance and recommendations for mitigation if appropriate
- Transmittal of report to the Eastern Information Center at the University of California, Riverside
- Curation of artifact collection. The final disposition of collected artifacts from State lands is subject to approval by the California State Lands Commission

Phase III

A Phase III data recovery effort, in accordance with the State of California Environmental Quality Act (Section 21083.2 (d)), shall be implemented by the Great Basin Unified Air Pollution Control District for those sites determined to be significant, pursuant to the State of California Environmental Quality Act, through Phase II testing and evaluation. The Great Basin Unified Air Pollution Control District shall ensure that data recovery has been completed prior to the issuance of a construction permit for any area containing a site determined to be significant and for which it can be demonstrated that consequential scientific information can be recovered. The Phase III data recovery program shall include:

- Development of a comprehensive research design to answer questions addressed during the Phase II on a broader regional level and to provide a procedural framework for the collection of data at sites determined to be significant.
- Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size
- Subsurface investigation through methods, such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When applicable, other techniques, such as geophysical testing methods may also be used
- Analysis of recovered material through visual inspection, and chemical analysis when applicable
- Preparation of a report
- Transmittal of report to involved parties and Eastern Information Center at the University of California, Riverside
- Curation of artifact collection. The final disposition of collected artifacts from State lands is subject to approval by the California State Lands Commission

Measure Cultural-3, Cultural Resources Monitoring Program

Impacts to surface and subsurface cultural resources not identified during the Phase I (survey), Phase II (testing and evaluation), or Phase III (data recovery) shall be mitigated through the implementation of a monitoring program during construction or any ground-disturbing activities. Native American consultation shall be undertaken as part of this mitigation measure. Previous monitoring efforts have demonstrated that there is a high potential for the unanticipated discovery of cultural resources during construction on the Owens Lake bed, even in those areas that have been previously surveyed. This is a consequence of the movement of sediment by wind and/or water across the lake bed, which results in the exposure and covering of cultural materials on the surface of the lake bed on a regular basis. Monitoring shall be required only during initial grading and earthmoving activities. The Great Basin Unified Air Pollution Control District shall require that the following program be implemented and that the requirement be duly noted in the plans and specifications:

- **Retain a Qualified Archaeologist.** A qualified archaeologist shall be retained to implement a monitoring and recovery program in any area identified as having the potential to contain unique archaeological resources as defined by Public Resources Code Section 21083.2 or historical resources as defined by the State of California Environmental Quality Act Guidelines Section 15064.5(a).

- **Agreement for Disposition of Recovered Artifacts.** The selected archaeologist shall be required to secure a written agreement with a recognized museum repository, such as the University of California, Davis and the San Bernardino County Museum, regarding the final disposition and permanent storage and maintenance of any unique archaeological resources or historical resources recovered as a result of the archaeological monitoring, as well as corresponding geographic site data that might be recovered as a result of the specified monitoring program. The written agreement shall specify the level of treatment (i.e, preparation, identification, curation, cataloging, etc.) required before the collection would be accepted for storage.

  The ultimate decision regarding the disposition of artifacts collected during Phase I (survey), Phase II (testing and evaluation), Phase III (data recovery), or monitoring efforts on lands administered by the California State Lands Commission shall be

made by the California State Lands Commission. Artifacts collected during past efforts on California State Lands Commission lands have been sent to the University of California, Davis, if they had been recovered from a site that was eligible for the National Register of Historic Places or the California Register of Historical Resources. The California State Lands Commission has indicated that those artifacts collected from sites that were not eligible for the National Register of Historic Places or the California Register of Historical Resources will be returned to the tribes. The final disposition of artifacts recovered from lands administered by other agencies (e.g. BLM) shall be determined in accordance with the policies of those agencies.

- **Preconstruction Briefing.** The selected archaeologist, or an equally qualified designee, shall attend a preconstruction briefing to provide information regarding regulatory requirements for the protection of unique archaeological resources, historical resources, and human remains. Construction personnel shall be briefed on procedures to be followed in the event that a unique archaeological resource, historical resource, or human remains are encountered during construction. An information package shall be provided for construction personnel not present at the initial preconstruction briefing. The archaeologist(s) shall be required to provide a telephone number where they can be reached by the construction contractor, as necessary.

- **Unanticipated Discovery of Human Remains on State Lands** (Public Resources Code 5097). The archaeologists shall ensure that all construction personnel shall be informed of the requirement to notify the coroner of the County within 24 hours of the discovery of human remains on state lands. Upon discovery of human remains, there shall be no further excavation or disturbance of the site or any that are reasonably suspected to overlie adjacent human remains until the following conditions are met:
  - The Inyo County Coroner has been informed and has determined that no investigation of the cause of death is required, and if the remains are of Native American origin, the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

- **Unanticipated Discovery of Human Remains on Federal Lands** (Native American Graves Protection and Repatriation Act). Whenever any person inadvertently discovers human remains on public lands, including lands administered by the Bureau of Land Management, 43 Code of Federal Regulations 10.4 requires the individual to notify the land manager in writing of such discovery. If the discovery occurs in connection with an authorized use, the activity that caused the discovery is to cease and the materials are to be protected until the land manager can respond to the situation. Upon receipt of written confirmation of the discovery, 43 Code of Federal Regulations 10.4 requires the manager to do the following: (1) certify receipt of the notification; (2) take immediate steps, if necessary to further protect the materials; (3) notify by telephone, with written confirmation, the tribes likely to be culturally affiliated with the materials; and (4) initiate consultation with such tribes. If, after consultation with tribes, the manager determines that the material

will be adequately protected in situ, without the need to excavate or remove the material from the area of discovery, then the requirements under the Native American Graves Protection and Repatriation Act have been completed. The materials remain in federal ownership, adequately protected by the manager as provided for in the law. If, after consultation with tribes, the manager determines that the circumstances warrant intentional excavation or removal of the materials from the area of discovery, then 43 Code of Federal Regulations 10.3 applies, and the manager must complete the steps outlined therein for intentional excavations.

- **Construction Monitoring.** A qualified archaeologist shall monitor earthmoving activities in areas that are likely to contain unique archaeological resources or historical resources. The archaeologist shall be authorized to halt construction, if necessary, in the immediate area where buried cultural remains are encountered. Prior to the resumption of grading activities in the immediate vicinity of the cultural remains, the project proponent shall provide the archaeologist with the necessary resources to identify and implement a program for the appropriate disposition (as specified by Section 15064.5 (e) of the State of California Environmental Quality Act Guidelines).

- **Monitoring Report.** The monitor shall maintain daily monitoring logs that shall be submitted quarterly to the Great Basin Unified Air Pollution Control District. A complete set of the daily monitoring logs shall be kept on site throughout the earthmoving activities and be available for inspection. The daily monitoring log shall be keyed to a location map to indicate the area monitored, the date, assigned personnel, and the results of monitoring, including the recovery of archaeological material, sketches of recovered materials, and associated geographic site data. Within 90 days of the completion of the archaeological monitoring, a monitoring report shall be submitted to the Great Basin Unified Air Pollution Control District, the City of Los Angeles Department of Water and Power, the California State Lands Commission, and to the Eastern Information Center at the University of California, Riverside. The report, when submitted to the Great Basin Unified Air Pollution Control District, shall signify the completion of the program to mitigate impacts to unique archaeological resources or historical resources.

Human Remains

Implementation of the proposed project has the potential to result in direct impacts to unknown burial sites. Mitigation measure Cultural-2, which requires Phase II and Phase III archaeological investigations and Native American monitoring, and Cultural-3, which requires monitoring of all other ground-disturbing activities and specifies the statutory procedures to be followed in the event of the discovery of human remains, would mitigate impacts to unknown locations of human remains to a less than significant level.

3.3.5 Level of Significance after Mitigation

Implementation of mitigation measures Cultural-1 through Cultural-3 would reduce impacts to cultural resources related to an adverse change in the significance of a paleontological resource, an archaeological resource, an historical resource, or human remains to below the level of significance.