

3.7 MINERAL RESOURCES

As a result of the Initial Study, the Great Basin Unified Air Pollution Control District (District) determined that the 2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan (proposed project) had the potential to result in significant impacts to mineral resources, thus requiring the consideration of mitigation measures or alternatives, in accordance with Section 15063 of the State of California Environmental Quality Act Guidelines (State CEQA Guidelines).¹ Therefore, this issue has been carried forward for detailed analysis in this Subsequent Environmental Impact Report (EIR). This analysis was undertaken to identify opportunities to avoid, reduce, or otherwise mitigate potential significant impacts to mineral resources and to identify potential alternatives.

The analysis of mineral 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 determining if the proposed project would result in significant impacts, anticipated impacts (direct, indirect, and cumulative), mitigation measures, and level of significance after mitigation. The potential for impacts to mineral resources has been analyzed in accordance with the methodologies provided by the California Division of Mines and Geology publications and the adopted General Plan for the proposed project site.^{2,3,4}

3.7.1 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 of Bureau of Land Management (BLM) may require compliance with this regulation.

Bishop Resource Management Plan

The U.S. Department of Interior, BLM controls the 15,790-acre Owens Lake Management Area that surrounds most of Owens Lake. The Owens Lake Management Area is one of nine management areas managed by the BLM pursuant to the Bishop Resource Management Plan (Figure 3.6.1-1, *Existing Land*

¹ Great Basin Unified Air Pollution Control District. 27 February 2007. *2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan Initial Study*. State Clearinghouse Number 2007021127. Bishop, CA.

² Inyo County Planning Department. 2001. *Inyo County General Plan, Conservation, and Open Space Element*. Independence, CA.

³ California Department of Conservation, Division of Mines and Geology. 1966. *Minerals of California (1866–1966)*. Bulletin 189. Los Angeles, CA.

⁴ California Department of Conservation, Division of Mines and Geology. 1999. *Mines and Mineral Producers Active in California (1997–1998)*. Special Publication 103. Sacramento, CA.

Uses in the Owens Lake Area).⁵ The BLM's responsibilities include managing its own land and associated natural resources to provide a variety of uses. The Bishop Resource Management Plan provides guidance and policies for managing BLM land within the nine management areas. The management plan's policies and guidelines applicable to the Owens Lake Management Area address preservation and protection of the environment and archaeological artifacts, management of domestic sources of minerals, off-highway vehicle use, grazing, and recreation on public lands.

State

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA) states that all mining activities in operation as of January 1976 and those placed in operation after that date shall be required to submit a surface mining and reclamation plan, which shall provide for appropriate measures to rehabilitate the site prior to its abandonment. The California Division of Mines and Geology, Department of Conservation provides a special publication, *Mines and Mineral Producers Active in California (1988–1989)*, that contains the names and addresses, commodities, and locations of 1,012 mines believed to have produced mineral commodities in California during 1988–1989.

Local

The Inyo County General Plan includes nine elements.⁶ The Land Use and Conservation and Open Space elements establish goals and policies for the Inyo County land designations within the proposed project area. The Land Use element of the Inyo County General Plan designates the proposed project area as Open Space–Park/Recreation/Natural Resources.⁷ These land use designations generally allow for passive recreation and mining. Below are the applicable goals and policies for land use and planning relevant to the proposed project.

Land Use Element of the of Inyo County General Plan

The following goal and policies from the Land Use element of the Inyo County General Plan apply to the proposed project.

Mineral and Energy Resources

Goal MER-1. Protect the current and future extraction of mineral resources that are important to the Inyo County (County) economy while minimizing impacts of this use on the public and the environment.

Policy MER-1.1 Resource Extraction and the Environment. Support the production of mineral resources where it would not significantly impact sensitive resources as defined by CEQA and the Inyo County General Plan.

⁵ U.S. Department of the Interior, Bureau of Land Management, Bakersfield District. 1993. *Bishop Resource Management Plan Record of Decision*. Bakersfield, CA.

⁶ Inyo County Planning Department. December 2001. *Inyo County General Plan*. Independence, CA.

⁷ Inyo County Planning Department. December 2001. *Inyo County General Plan, Land Use Element*. Independence, CA.

Policy MER-1.2 Minimize Land Conflicts. New mining operations shall be designed to provide a buffer between existing or likely adjacent uses to minimize incompatibility with nearby uses, and adequately mitigate their environmental and aesthetic impacts.

3.7.2 Existing Conditions

Based on a review of California Division of Mines and Geology publications, there are known mineral resources of statewide or regional importance located within the proposed project site.^{8,9} There are existing mining operations that consist primarily of crystalline trona ore (carbonate minerals), which is extracted within the areas adjacent to the brine pool. Several existing active mines surround the Owens Lake area, including sources of aggregate materials, limestone, and decomposed granite. The existing mineral lease is held by Rio Tinto Minerals–Owens Lake Operations (referred to as the U.S. Borax Lease by the California State Lands Commission), which mines trona (carbonate minerals), and leases a large area at the low portion (Owens Lake brine pool) of the lake where minerals were deposited when the lake dried to its current size for mineral extraction activities (Figure 3.7.2-1, *Mineral Resource Lease Areas*).

The proposed project vicinity includes other mineral resources, namely gravel deposits associated with the alluvial fans and sand deposits associated with the Owens River and local dunes. These mineral resources, however, are located either outside of the proposed project area, outside of the lake bed, or on the western edge of the historic shoreline outside of the proposed project site in areas of the lake bed that are saturated with highly concentrated brine.

3.7.3 Significance Threshold

The potential for the proposed project to result in impacts related to mineral resources was analyzed in relation to the questions contained in Appendix G of the State CEQA Guidelines:

The proposed project is normally considered to have a significant impact to mineral resources when any one of two thresholds occurs:

- Result in the loss of availability of a known mineral resource that would be a future value to the region and the residents of the state.
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use.

3.7.4 Impact Analysis

Mineral Resources of Statewide or Regional Importance

The proposed project would not be expected to result in significant impacts to mineral resources in relation to the loss of availability of a known mineral resource. Based on a review of California Division of Mines and Geology publications, there are known mineral resources of statewide or

⁸ California Department of Conservation, Division of Mines and Geology. 1966. *Minerals of California (1866–1966)*. Bulletin 189. Los Angeles, CA.

⁹ California Department of Conservation, Division of Mines and Geology. 1999. *Mines and Mineral Producers Active in California (1997–1998)*. Special Publication 103. Sacramento, CA.

regional importance located within the proposed project site.^{10,11} There are existing mining operations that consist primarily of crystalline trona ore (carbonate minerals), which is extracted within the areas adjacent to the brine pool. No construction or operation activities would be expected within the brine pool, but such activities may occur adjacent to the brine pool. Therefore, there may be potential for impacts to the trona ore mining operations. A portion of the proposed project site is leased to the U.S. Borax Owens Lake Soda Ash Company (U.S. Borax) by the California State Lands Commission for mineral extraction activities. The U.S. Borax 16,600-acre area lease for trona mining is located toward the middle of the lake bed (Figure 3.6.1-1). The State Lands Commission, U.S. Borax, and the City of Los Angeles Department of Water and Power (LADWP) will coordinate to renegotiate the existing U.S. Borax lease. As part of the LADWP application for the 2008 SIP dust control areas, the California State Lands Commission will consider a lease amendment to the U.S. Borax Lease (deleting the approved DCM from the existing mineral lease legal description) and a lease amendment to LADWP to include all approved DCMs identified by the District. The areas to be subjected to the proposed dust control measures (DCMs) area will be removed from the U.S. Borax lease and granted to LADWP. This area does not contain valuable trona material and will not impact the mining operation.

Supplemental DCMs may result in increased flash flood potential for portions of the areas designated by the U.S. Borax lease. To prevent the potential for significant impacts from these DCMs to areas of possible mineral importance, implementation of mitigation measures would be required for protection from flooding impacts may cause either erosion, deposition of sediment, or loss of ore material to brine pool.

Mineral Resources in a Mineral Resource Recovery Site

The proposed project would not result in significant impacts to a locally important mineral recovery site. Parts of the northeast portion of Owens Lake are within a Mineral Resource Zone. However, according to the Conservation element of the Inyo County General Plan,¹² there are no known mineral resource recovery sites of local importance located within the proposed project site. The proposed project site is designated as Open Space–Park/Recreation/Natural Resource.¹³ Therefore, the proposed project would not be expected to result in significant impacts to a known mineral resource.

Cumulative Impacts

In consideration of the related past, present, or reasonably foreseeable, probable future projects as described in Section 2.9, *Related Projects*, the incremental impact of the combined components of the proposed project would not lead to a significant impact to mineral resources in terms of the loss of a local, regional, or state valuable resource. The potential impacts of the proposed project can be evaluated within the context of the cumulative impacts of all ongoing and proposed development.

The proposed project, in consideration with the 2003 SIP, would not create considerable cumulative impacts to mineral resources as it would continue the efforts of the 2003 SIP to mitigate emissions and

¹⁰ California Department of Conservation, Division of Mines and Geology. 1966. *Minerals of California (1866–1966)*. Bulletin 189. Los Angeles, CA.

¹¹ California Department of Conservation, Division of Mines and Geology. 1999. *Mines and Mineral Producers Active in California (1997–1998)*. Special Publication 103. Sacramento, CA.

¹² Inyo County Planning Department. December 2001. *Inyo County General Plan, Conservation, and Open Space Element*. Independence, CA.

¹³ Inyo County Planning Department. December 2001. *Inyo County General Plan, Conservation, and Open Space Element*. Independence, CA.

would evaluate dust levels from potential mineral resource areas prior to determination of need to control the dust from emissive areas. The 2003 SIP did not impact mineral rich areas. The 2008 SIP also includes use of areas that have been found to no longer contain mineral resources, and therefore would not have a cumulative impact.

The proposed project, in consideration with the Lower Owens River Project (LORP), would not create considerable cumulative impacts to mineral resources with the incorporation of the mitigation measures. These measures would ensure that potential loss of mineral resources from increased release of surface water would be reduced to below the level of significance.

The proposed project, in consideration with the U.S. Borax, Owens Lake Expansion Project/Conditional Use Permit #02-13/Reclamation Plant #02-1, would not result in considerable cumulative impacts to mineral resources because the U.S. Borax project would occur on an existing mineral lease area of the Owens Lake bed and will not directly be impacted by the proposed project with the incorporation of mitigation measures. The U.S. Borax operation will provide for the extraction of a mineral resource and the proposed project will not include the loss of such resource.

In sum, the mineral resources impact of the proposed project would not be considerable when viewed in connection with the related effects of the past, current, and reasonably foreseeable future projects listed in Section 2.9.

3.7.5 Mitigation Measures

The mineral resources impacts identified in this section may be reduced to below the level of significance through the adoption of mitigation measure Minerals-1 and mitigation measures Hydrology-3 and Hydrology-4 from Section 3.9.6, *Hydrology, Mitigation Measures*. The measures listed below may mitigate impacts to mineral resources by protecting the mineral lease areas.

Measure Minerals-1, Borax Lease Area Approval and Compensation

The City of Los Angeles Department of Water and Power shall be required to obtain approval from the California State Lands Commission prior to working in the areas that overlap with the areas leased to U.S. Borax Owens Lake Soda Ash Company. In addition, the City of Los Angeles Department of Water and Power shall be required to compensate the California State Lands Commission for associated staff time to prepare the legal description for any transfers of mineral lease areas to dust control areas.

Measure Hydrology-3, Berm Failure Prevention

The City of Los Angeles Department of Water and Power shall require soil berms to be constructed along the down-gradient and side boundaries of each Shallow Flood irrigation block to prevent leakage and any increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. These berms will be keyed into the core of the lake bed and will be used to collect excess surface water along the downslope borders of each irrigation block. Design of flood protection berms is subject to approval by the California State Lands Commission and the Great Basin Unified Air Pollution Control District.

Measure Hydrology-4, Reduction of Flash Flood Potential

The City of Los Angeles Department of Water and Power shall require the use of sediment traps, road/berms with clay core, or parallel alignment of the moats and rows to the mineral lease for Moat &

Row dust control measures, to reduce the increased flash flood potential from the channelization of water and sediment toward the mineral lease. The Moat & Row design should ensure that there is no increase in terms of rate, quantity, or quality of storm water flows to the brine pool area or mineral lease area. Design of the Moat & Row to avoid potential increase in flash flood impacts to the mineral lease is subject to approval by the California State Lands Commission and the Great Basin Unified Air Pollution Control District.

3.7.6 Level of Significance after Mitigation

Implementation of mitigation measures Minerals-1, Hydrology-3, and Hydrology-4 would reduce significant impacts related to mineral resources to below the level of significance.