

4.11 MINERAL RESOURCES

4.11.1 Introduction

This section discusses the existing mineral resources in the proposed La Entrada Specific Plan (proposed project) area and the potential impacts related to implementation of the proposed project. The following discussion is based on information provided in the City of Coachella (City) General Plan Conservation Element (1996), Riverside County (County) General Plan Multipurpose Mineral Resources Element (2008), the *Preliminary Geotechnical Investigation* (April 15, 2013) (Appendix G) *Updated Geotechnical Fault Investigation Report for Land Planning Purposes* (January 15, 2007) (Appendix G), and the California Department of Conservation (DOC) California Geological Survey, Special Report 198 (2007).

4.11.2 Methodology

This section will identify and evaluate the proposed project's potential to result in significant adverse impacts related to the availability of known mineral resources. Mineral resources of concern include metals, industrial minerals (i.e., sand and gravel), oil and gas, geothermal resources, and other mineral resources that are considered to be of economic value to the region.

4.11.3 Existing Environmental Setting

Mineral Resources. Mineral resources are defined as naturally occurring solid crystalline substances that are comprised of chemical elements or compounds formed as a result of inorganic processes and organic substances, which are considered an economically valuable commodity.

According to the City's General Plan Conservation Element, the primary mineral resources found and mined in the Coachella Valley region are sand and gravel. These deposits are typically found near the Little San Bernardino and Santa Rosa Mountains. As a result, there are several aggregate quarries through the region and portions of the City have been designated as Mineral Resource Zone 3 (MRZ-3) by the California Geologic Survey. The MRZ-3 classification indicates that the land area within the City contains mineral deposits for which the significance cannot be determined based on the information available.¹

As discussed further in Section 4.11.4, Regulatory Setting, the project site is designated as a Mineral Resource Zone 3 (MRZ-3). Based on subsurface investigations, there appear to be potential aggregate mineral resources at the project site; however, these generally consist of sands and a minor portion of gravels, which do not have a high economic value. There is no evidence of other economic mineral deposits, and geotechnical investigations did not reveal mineral deposits favorable for economic materials. The project site has not been used for the extraction of sands, gravels, or other materials.

¹ Busch, Lawrence L., 2007, Department of Conservation, California Geological Survey, Special Report 198.

4.11.4 Regulatory Setting

Federal Policies and Regulations. There are no federal regulations applicable to mineral resources.

State Policies and Regulations.

Surface Mining and Reclamation Act of 1975. The Surface Mining and Reclamation Act of 1975 (SMARA) requires that the California State Geologist implement a mineral land classification system to identify and protect significant regional or statewide mineral resources in areas where future development may potentially restrict future mineral extraction on such lands. This classification system is intended to aid local jurisdictions in the adoption of General Plan mineral resource management policies.

The SMARA classifies mineral resources within the State through the Mineral Resource Zone (MRZ) System. MRZs are used in the mapping of mineral commodities within a city to illustrate where future mineral resource extraction may be prevented or restricted by land use issues and indicate where mineral resources may be potentially mined within 50 years subsequent to their classification. The following describes potential MRZs within a region:

- **MRZ-1:** Land areas where there is sufficient information to indicate that no significant mineral deposits are present, or where it is determined that there is little potential for their presence
- **MRZ-2:** Land areas where there is sufficient information to indicate that significant mineral deposits are present, or where it is determined that there is a high potential for their presence
- **MRZ-3:** Land areas containing mineral deposits for which the significance cannot be determined based on available information

California State Mining and Geology Board. Mining operations and mining reclamation activities are required to conform with laws and regulations adopted by the California State Mining and Geology Board (SMGB).

California Department of Conservation's Office of Mine Reclamation. Reclamation activities are overseen by the DOC's Office of Mine Reclamation (OMR), and all reclamation activities are also required to comply with requirements established by the OMR.

Division of Oil, Gas, and Geothermal Resources. The California Division of Oil, Gas, and Geothermal Resources (DOGGR) is under the jurisdiction of the State Department of Conservation. The DOGGR monitors the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells in an effort to ensure environmental protection. The DOGGR also collects data on groundwater, oil, gas, and geothermal resources and maintains a record of all existing and abandoned well locations.

Division of Mines and Geology. The California Division of Mines and Geology (CDMG) is under the jurisdiction of the DOC. The CDMG assists in the utilization of mineral deposits and the identification of geological hazards.

California Geological Survey. The California Geological Survey (CGS) assists in the identification and utilization of mineral deposits, as well as the identification of geologic hazards.

Local and Regional Plans and Policies.

City of Coachella General Plan Conservation Element (1996). The following goals and policy are applicable to the proposed project:

Goal: The protection of mineral resources for extraction is important to the regional and national economies.

Policy: The City shall conserve MRZ-3 to assist in retaining aggregate reserves that are sufficient to supply a commensurate portion of the Palm Springs Production-Consumption Region for the next 100 years. This is primarily along the San Andres Fault Zone where there is also a high to moderate potential for the occurrence of clay and geothermal resources.

4.11.5 Project Design Features

As summarized in Chapter 3.0, Project Description, the proposed Specific Plan includes components that are referred to as Project Design Features. However, there are no primary Project Design Features related to mineral resources.

4.11.6 Thresholds of Significance

The following thresholds of significance criteria are based on Appendix G of the *California Environmental Quality Act (CEQA) Guidelines*. Based on these thresholds, implementation of the proposed project would have a significant adverse impact related to mineral resources if it would:

Threshold 4.11.1: Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or

Threshold 4.11.2: Result in the loss of availability of a locally important mineral resource recovery site on a local general plan, specific plan, or other land use plan.

4.11.7 Project Impacts

Threshold 4.11.1: **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state**

Less than Significant Impact. As previously stated, the project site is located within MRZ 3 and contains aggregate mineral deposits such as sand and gravel. Operation of the proposed project would

not result in a loss of availability of known mineral resources that would be of value to the region since ground disturbance, grading, or excavation activities are not likely to occur as part of the long-term operational activities. However, during project construction, the project would remove a substantial amount of sand and gravel at the project site that may be suitable for aggregate and would prevent the potential future utilization of these resources. Therefore, development of the proposed project would be inconsistent with the City's goal of conserving land within MRZ-3. Sand and gravel are of value for construction and industrial uses. In the United States, including California, sand and gravel are extracted both on and off shore, with the majority of the off-shore extraction specifically for beach erosion control and replenishment. In 2012, California was the leading state in number of tons of construction grade sand and gravel mined. Although sand and gravel resources are plentiful, environmental restrictions, geographic distribution, and quality requirements for some uses can result in sand and gravel extraction being uneconomic. The most important commercial sources of sand and gravel are in river channels and river floodplains. There are extensive sand and gravel extraction operations in a number of places in southern California; one the nation's largest sand and gravel operations is in Los Angeles County. As a result, although sand and gravel resources are of value to the region and residents of the State of California, the amount of sand and gravel resources on the project site would represent only a very small percent of the total sand and gravel resources available in California. As a result, the loss of those resources on the project site would represent only a very minor loss and a less than significant impact compared to the available sand and gravel resources in the region. Existing commercial aggregate sources are anticipated to be able to adequately meet existing and future needs. The proposed project would not result in a loss of availability of other known mineral resources that would be of value to the region and residents of the State. Therefore, impacts to the availability of known mineral resources within the project area are considered less than significant, and no mitigation is required.

Threshold 4.11.2: Result in the loss of availability of a locally important mineral resource recovery site on a local general plan, specific plan, or other land use plan

No Impact. The project site has not been identified as a locally important mineral resource recovery site on the City or County's General Plan, the McNaughton Specific Plan, or any other land use plan. Therefore, there would be no loss in availability of a locally important mineral resource recovery site during construction or operation of the proposed project, and no mitigation would be required.

4.11.8 Cumulative Impacts

The cumulative study area for mineral resources encompasses the entire Coachella Valley region due to the demand for aggregate construction materials in the region. As discussed above, the project site is located within MRZ-3, which indicates that the project site contains aggregate mineral resources. Although implementation of the proposed project would result in minor impacts associated with the loss of availability of sand and gravel resources on the project site, sand and gravel resources are available elsewhere in the Coachella Valley and Southern California. In addition, the proposed project would not result in the loss of availability of a locally important mineral resource recovery site. Therefore, because the proposed project is not anticipated to contribute to a significant cumulative impact to a mineral resource that is located within a designated MRZ or other known mineral resources in the area. No mitigation is required.

4.11.9 Significant Unavoidable Adverse Impacts

The proposed specific plan development would not cause a significant unavoidable adverse impact to known mineral resources.

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