3.11 Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
11. MINERAL RESOURCES—Would the project:				
a) 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?	☐	☐	☐	☒
b) 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 plan?	☐	☐	☐	☒

This section identifies mineral resources near the Project alignment, describes regulations relevant to mineral resources that apply to the Project, and assesses Project impacts to mineral resources. All except an approximately 0.4 mile portion of the proposed alignment would be located within existing PG&E easements, which are not currently available for mineral resource extraction. The remaining 0.4 mile portion crosses a parcel in the Pine Hill Preserve, managed by the BLM.

3.11.1 Environmental Setting

Existing Mineral Resources

Minerals are naturally occurring chemical elements or compounds, or groups of elements or compounds, formed from inorganic processes and organic substances. Naturally occurring concentrations of minerals in the earth's crust are known as mineral deposits. Mineral resources are mineral deposits of which the economic extraction of a commodity (such as gold or copper) from the deposit is currently potentially feasible. In addition to metallic minerals, materials used for construction (e.g., sand and aggregate), industrial and chemical processes (e.g., salt), and fuel (e.g., oil) can be considered mineral resources in California.

Locations of past and current mining activity as well as the presence of geologic materials that can be mined both can be used to assess the potential mineral resources at a site. The Project is located in western El Dorado and eastern Sacramento counties, an area which was extensively mined during the California gold rush of the mid-19th century. Many active and historic mines have been staked in western El Dorado County since the gold rush. In addition to gold, notable deposits of chromite, copper, precious-metal-bearing sulfides, and limestone have been identified in the area (Busch, 2001; Loyd, 1984; Loyd et al., 1983).

Multiple sources of information were consulted to determine the presence of mineral resources within or near the Project alignment. The Mineral Resources Data System (MRDS), administered by the U.S. Geological Survey (USGS), provides data describing metallic and nonmetallic mineral resources, including deposit name, location, commodity, deposit description, production status and references. To confirm the presence/absence of existing surface mines, closed mines, occurrences/prospects, and unknown/undefined mineral resources within the study area, the

MRDS online database was reviewed (USGS, 2005). Mining claims recorded by the BLM were reviewed as well, as a 0.4-mile portion of the Project alignment would cross BLM land currently held as part of the Pine Hill Preserve. Maps created by the California Geological Survey (CGS; formerly the Division of Mines and Geology), designed to protect mineral resources in California by classifying the regional significance of mineral resources, were also reviewed.

Due to the long history of mining in the area, there are nearly two dozen records of mining activity within 1 mile of the Project (USGS, 2005); however, only one of these sites is currently active. This site is the Marble Valley Quarry, a producer of crushed and broken stone from a surface mining operation located south of the Project alignment. The four BLM mining claims that have been made in the vicinity of the Project have been closed since 1992 (BLM, 2014).

The land within and surrounding the Project alignment in Sacramento County is classified as an area of undetermined mineral resource significance where Portland cement is known or inferred to occur, but has otherwise not been classified and is not an aggregate resource area (i.e., as MRZ-3 in the California Mineral Land Classification System described below) (Dupras, 1999). Within El Dorado County, portions of the Project alignment cross through some areas classified the same way but for gold deposits rather than Portland cement, and other areas classified as areas of unknown mineral resource significance for gold deposits formed by various geologic processes where there is no known occurrence of gold (i.e., as MRZ-4 in the California Mineral Land Classification System described below). No aggregate resource areas are identified along the Project alignment (Busch, 2001).

Oil, Gas, and Geothermal Resources

The California Division of Oil, Gas, and Geothermal Resources (DOGGR) oversees the drilling, operation, maintenance, and plugging and abandonment of oil, natural gas, and geothermal wells in California, and tracks every known oil and gas well and field in the state. Maps maintained by DOGGR indicate that the Project alignment is not located on a known oil or gas field, and that oil and gas wells that were drilled within 10 miles of the Project alignment have been plugged for at least 30 years (DOGGR, 2014).

3.11.2 Regulatory Setting

Regulations that apply to mineral resources in the Project area are discussed below.

Federal

The BLM administers mining on federal lands under multiple mining laws. These laws include the General Mining Law of 1872, various Mineral Leasing acts, the Materials Act of 1947, and the Federal Land Policy and Management Act of 1976, and apply to mineral deposits on Federal lands that are open for mineral entry. Areas closed from mineral entry are withdrawn from the operation of the federal mining laws. Mining claims may not be staked in areas closed to mineral entry by a special act of Congress, regulation, or public land order. Areas that are closed from mineral entry include National Parks, National Monuments, Indian reservations, most reclamation projects, military reservations, scientific testing areas, and most wildlife protection areas. The BLM also can apply other special designations to lands under its management from which

mineral entry could be withdrawn. The Sierra Resource Management Plan (RMP), prepared by the Mother Lode (Folsom) BLM Field Office to guide management of all public lands under the jurisdiction of the Mother Lode Field Office, designates the Pine Hill Preserve as an area of critical environmental concern (ACEC) (BLM, 2008). The RMP recommends that locatable mineral entry be withdrawn for lands with special designations, including the Pine Hill Preserve, and that collection of salable minerals be prohibited in the Pine Hill Preserve and other ACECs. Mineral leasing is allowed in RMP-designated ACECs under the No Surface Occupancy Stipulation, which prohibits surface occupancy or use related to mining operations.

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA) (Pub. Res. Code §§2710-2796) and its implementing regulations (14 Cal. Code Regs. §3500 et seq.) establish a comprehensive state policy for the conduct of surface mining operations and for the reclamation of mined lands to a usable condition that is readily adaptable for alternative land uses. SMARA encourages the production, conservation, and protection of the state's mineral resources and recognizes that "the state's mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California" (Pub. Res. Code §2711). Under SMARA, the term "minerals" includes "any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum" (14 Cal. Code Regs. §3501).

The CGS maps and regulates the locations of potential mineral resources in California consistent with SMARA. In order to protect these potential mineral resources, the CGS has classified the regional significance of mineral resources into Mineral Resource Zones (MRZs) and mapped them. Descriptions of the MRZ categories are provided in **Table 3.11-1**.

TABLE 3.11-1
CALIFORNIA MINERAL LAND CLASSIFICATION SYSTEM CATEGORY DESCRIPTIONS

Mineral Resource Zone Category	Category Description	
MRZ-1	*Areas of No Mineral Resource Significance*	
MRZ-2a	Demonstrated Reserves	*Areas of Identified Mineral Resource Significance*
MRZ-2b	Inferred Resources	
MRZ-3a	Known Mineral Occurrence	*Areas of Undetermined Mineral Resource Significance*
MRZ-3b	Inferred Mineral Occurrence	
MRZ-4	No Known Mineral Occurrence	*Areas of Unknown Mineral Resource Significance*

SOURCE: CDMG, nd.

Local

Local governments generally regulate mineral resources and mining within their jurisdictions pursuant to their General Plan and local surface mining ordinances. However, because the State Mining and Geology Board relieved El Dorado County of its SMARA lead agency duties in 2001 (SMGB, 2001), there currently is no local regulation of surface mining in El Dorado County. By contrast, Sacramento County regulates surface mining via the implementation of Title 20 Chapter 20.04 of the Sacramento County Code and the City of Folsom regulates surface mining via the implementation of Chapter 17.97 of its municipal code.

3.11.3 Applicant Proposed Measures

No APMs have been proposed to address mineral resources.

3.11.4 Environmental Impacts and Mitigation Measures

To evaluate potential impacts of the Project on mineral resources, the locations of Project components were compared with maps of known mineral resources of value to the state, region, and local jurisdictions to determine whether Project components would occur on or otherwise limit access to these resources. The outcomes of this analysis are described below.

a) Whether the Project would 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: *NO IMPACT*.

As described in *Section 3.11.1, Environmental Setting*, no known mineral resources are mapped along the Project alignment (these would be mapped as MRZ-2 based on the California mineral land classification system category descriptions provided in Table 3.11-1). A segment of the line crosses through a mineral occurrence of undetermined significance south of Cameron Park; however, due to the mineral use restrictions along the PG&E easement and on the BLM land crossed by this segment, access to this mineral occurrence of undetermined significance is already limited. Furthermore, permanent Project structures along this segment would be limited to poles and electrical lines, which would not substantially block physical access to this inferred mineral occurrence. . In addition, rock underlying the Project alignment is not the type of material generally used for aggregate (sand, gravel, and crushed stone used for roads and other construction). Access to and availability of known mineral resources that would be of value to the region and the residents of the state would not be substantially lost as a result of the Project. There would be no impact of the Project on availability of mineral resources valuable to the region or residents of the state.

b) Whether the Project would 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 plan: *NO IMPACT*.

The Project alignment does not intersect any mineral resource recovery sites identified in local land use plans. For this reason, the Project would not impact the availability of locally important mineral resources from an identified resource recovery site.

References

Busch, L., 2001. *Mineral Land Classification of El Dorado County, California*. CGS Open-File Report 2000-03.

California Department of Conservation, State Mining and Geology Board (SMGB), 2001. State Mining and Geology Board Relieves El Dorado County of Lead Agency Duties Related to Surface Mining Law. June 15, 2001 [http://www.conservation.ca.gov/index/news/2001%20News%20Releases/Pages/NR2001-48%20SMGB%20Assumes%20El%20Dorado%20County%20Duties.aspx] Accessed June 5, 2014.

California Division of Mines and Geology (CDMG), no date (nd). *Guidelines for Classification and Designation of Mineral Lands*. California Surface Mining and Reclamation Policies and Procedures Special Publication 51.

California Division of Oil, Gas, & Geothermal Resources (DOGGR), 2014. Well Finder [map]. [http://maps.conservation.ca.gov/doggr/index.html#]. Accessed March 6, 2014.

Dupras, D., 1999. *Mineral Land Classification: Portland Cement Concrete-Grade Aggregate and Kaolin Clay Resources in Sacramento County, California*. DMG Open-File Report 99-09.

El Dorado County, 2003. *Exhibit 5.9-6: Important Mineral Resources* in El Dorado County General Plan EIR. May 2003.

Loyd, R., 1984. *Mineral Land Classification of the Folsom 15' Quadrangle : Sacramento, El Dorado, Placer, and Amador Counties, California*. California Division of Mines and Geology Open-File Report 84-50SAC.

Loyd, R., T. Anderson, and M. Bushnell, 1983. *Mineral Land Classification of the Placerville 15' Quadrangle El Dorado and Amador Counties, California*. California Division of Mines and Geology Open-File Report 83-29 SAC.

U.S. Bureau of Land Management (BLM), 2014. Mining Claim Geographic Report : List of Mining Claims by Section [Meridian 21, T9N, R8E-R9E]. [http://www.blm.gov/lr2000/]. Accessed March 11, 2014.

U.S. Bureau of Land Management (BLM), 2008. *Sierra Resource Management Plan and Record of Decision*. February.

U.S. Geological Survey (USGS), 2005. Mineral Resources Data System [El Dorado and Sacramento Counties]. U.S. Geological Survey, Reston, Virginia. [http://mrdata.usgs.gov/mrds/]. Accessed March 4, 2014.

This page intentionally left blank