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4.11 MINERAL RESOURCES

Would the Proposed Project:	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?				✓

4.11.0 Introduction

This Section discusses the existing conditions and potential impacts to mineral resources resulting from construction, operation, and maintenance of the proposed San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company—hereinafter referred to as “the Applicants”—Pipeline Safety & Reliability Project (Proposed Project). The Proposed Project involves construction, operation, and maintenance of an approximately 47-mile-long, 36-inch-diameter natural gas transmission pipeline that will carry natural gas from SDG&E’s existing Rainbow Metering Station to the pipeline’s terminus on Marine Corps Air Station (MCAS) Miramar. Because the Proposed Project will not cross any active or planned mining operations and because it will generally be confined within the existing public right-of-way (ROW), the Proposed Project will not result in the loss of availability of mineral resources. Therefore, impacts to Mineral Resources from the Proposed Project will be less than significant.

4.11.1 Methodology

Mineral resource data was obtained from the United States (U.S.) Geological Survey (USGS), the California Geological Survey (CGS), and the California Department of Conservation (DOC). The following documents were also reviewed for data pertaining to mineral resources:

- County of San Diego General Plan,
- City of San Diego General Plan,
- City of Escondido General Plan,
- City of Poway General Plan, and
- MCAS Miramar Integrated Natural Resources Management Plan (INRMP).

Google Earth Pro aerial photographs in the vicinity of the Proposed Project alignment were also reviewed.

4.11.2 Existing Conditions

Regulatory Background

Federal, state, and local regulations were reviewed for applicability to the Proposed Project and are described in the following subsections.

Federal

Marine Corps Air Station Miramar Integrated Natural Resources Management Plan

The MCAS Miramar INRMP does not contain any specific language or policies with regards to mineral resources.

State

Surface Mining and Reclamation Act of 1975

The CGS designates mineral resource zones (MRZs) where access to important mineral resources may be threatened, according to provisions of the California Surface Mining and Reclamation Act (SMARA) of 1975. The SMARA requires that all jurisdictions incorporate mapped mineral resource designations approved by the State Mining and Geology Board (SMGB) into their general plans. The SMGB and the DOC's Office of Mine Reclamation (OMR) are jointly charged with ensuring proper administration of the SMARA's requirements. The SMGB promulgates regulations to clarify and interpret the SMARA's provisions, as well as to serve as a policy and appeals board. The OMR provides an ongoing technical assistance program for lead agencies and operators, maintains a database of mine locations and operational information statewide, and is responsible for compliance-related matters.

Local

Pursuant to Article XII, Section 8 of the California Constitution, the California Public Utilities Commission (CPUC) has exclusive jurisdiction in relation to local government to regulate the design, siting, installation, operation, maintenance, and repair of natural gas pipeline transmission facilities. Other state agencies have concurrent jurisdiction with the CPUC. Although local governments do not have the power to regulate such activities, the CPUC encourages, and the Applicants participate in, cooperative discussions with affected local governments to address their concerns where feasible. As part of the environmental review process, the Applicants have considered relevant regional and county policies and issues, and have prepared this evaluation of the Proposed Project's potential impacts to mineral resources. Local policies on mineral resources are described in the following subsections.

County of San Diego General Plan

The County of San Diego Department of Planning and Land Use is responsible for maintaining and implementing the County of San Diego General Plan, as well as ensuring regulatory compliance with county codes and ordinances. Title 8, Division 7 of the San Diego County Code of Regulatory Ordinances includes regulations related to grading, excavation, clearing, and mining in San Diego County. Additionally, the Land Use section of the County of San Diego General Plan contains a special "Extractive" designation. The Extractive designation is applied only to areas containing economically or potential economically extractable mineral resources,

including construction materials (e.g., sand, gravel, and crushed rock), industrial and chemical mineral materials, or metallic and rare minerals found within the county. The designation promotes extraction as the principal and dominant use. Uses other than extraction and processing of mineral resources are allowed only when they will not interfere with present or future extraction. Uses that are supportive of or compatible with mining are also allowed, such as processing, agriculture, and open space. Interim uses that are not compatible, but that will be removed, may also be allowed.

City of San Diego General Plan

The City of San Diego Planning Department maintains and implements the City of San Diego General Plan and ensures regulatory compliance with city codes and ordinances. The Conservation Element of the General Plan identifies the location of high-quality mineral resource areas that are designated for the managed production of mineral resources. The General Plan notes that mineral deposits that are acceptable for use as Portland Cement Concrete grade aggregate are generally the rarest and most valuable aggregate resources in the region. Extraction activities in the City of San Diego occur in Mission Valley, Carroll Canyon, and Mission Gorge. Mining operations also occur within the city's Multiple Species Conservation Program Subarea Plan and primarily consist of sand, rock, and gravel extraction.

City of Escondido General Plan

The City of Escondido General Plan does not contain any policies in regard to mineral resources.

City of Poway General Plan

The City of Poway General Plan does not contain any policies in regard to mineral resources.

Environmental Setting

According to the USGS, a mineral resource is defined as a concentration of naturally occurring solid, liquid, or gaseous materials in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction, either currently or in the future. Mineral resources include oil, natural gas, and metallic and non-metallic deposits. MRZs, as classified by the SMGB, were established to designate lands that contain mineral deposits. MRZ definitions are provided in Table 4.11-1: MRZ Definitions.

MRZs in the Proposed Project area have been mapped and classified in the California DOC's Designation of Regionally Significant Construction Aggregate Resource Areas in the Western San Diego County Production-Consumption Region, which was published in 1985 and updated in 1996. The majority of the Proposed Project is located in areas classified as MRZ-1, MRZ-3, and MRZ-4. As described in Table 4.11-1: MRZ Definitions, these MRZs do not contain known mineral resources of significance. However, the significance of mineral resources within MRZ-3 have not been determined and may be reclassified upon further exploration.

Table 4.11-1: MRZ Definitions

MRZ Type	Definition
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
MRZ-2a	Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. As shown on the California Mineral Land Classification Diagram, MRZ-2 is divided on the basis of both degree of knowledge and economic factors. Areas classified as MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves, as determined by drilling records, sample analysis, surface exposure, and arid mine information. Land included in the MRZ-2a classification is of prime importance because it contains known economic mineral deposits.
MRZ-2b	Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified as MRZ-2b contain discovered mineral deposits that are significant inferred resources, as determined by their lateral extension from proven deposits or their similarity to proven deposits. Further exploration work could result in upgrading areas classified as MRZ-2b to MRZ-2a.
MRZ-3a	Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b classifications. As shown on the California Mineral Land Classification Diagram, MRZ-3 is divided based on the known economic characteristics of the resources.
MRZ-3b	Areas containing inferred mineral occurrences of undetermined mineral resource significance. Land classified as MRZ-3b represents areas in geologic settings that appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-2a or MRZ-2b classifications.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ.

Source: California DOC 1996

Approximately 8.6 miles of the Proposed Project are located in areas designated as MRZ-2, which indicates that significant mineral deposits are present or highly likely. MRZ-2 areas are further designated into Construction Aggregate Sectors A through V, which are determined by the geological characteristics of the aggregate material (e.g., alluvium, metavolcanics, and conglomerates). The Proposed Project crosses three MRZ-2 sectors, as detailed in Table 4.11-2: MRZ-2 Sectors Crossed by the Proposed Project. Figure 4.11-1: Mineral Resource Zone Map of the Proposed Project shows all MRZ-2 areas in the Proposed Project Area relative to the location of the Proposed Project.

Table 4.11-2: MRZ-2 Sectors Crossed by the Proposed Project

Approximate Mileposts (MPs) within MRZ-2 Sectors	Construction Aggregate Sector Designation (A-V)	Sector Details	Approximate Area of MRZ-2 Sector within Proposed Project ROW ¹ (acres)
8.5 to 9.0	C	Channel and floodplain deposits of the San Luis Rey River from the State Route 78 bridge to the Interstate 15 bridge	3.16
29.7 to 30.5	I	Alluvial fan deposits extending eastward from Lake Hodges to the upper end of the San Pasqual Valley	2.58
39.6 to 40.6, 43.3 to 46.9	J	Mesa-top conglomerate deposit consisting of four areas in or near the communities of Rancho Bernardo, Rancho Peñasquitos, Mira Mesa, and Tierrasanta; the cities of Poway and Santee; and MCAS Miramar	28.05

Source: California DOC 1996

According to online spatial data from the USGS Mineral Resources Data System (MRDS), the Vulcan Materials Company's Beeler Canyon Sand and Gravel Plant is the only site where minerals are planned to be extracted within one mile of the Proposed Project. The Vulcan Materials Company's Beeler Canyon Sand and Gravel Plant is located approximately 0.87 mile east of the Proposed Project alignment at MP 39.6. Pending approval from the U.S. Army Corps of Engineers (USACE) and the City of Poway, commercial extraction of sand and gravel is planned at this location. Additionally, according to the USGS MRDS online spatial data, there are approximately 130 sites within five miles of the Proposed Project with either known mineral occurrences, prospects, or where past mining activities occurred. There are no oil-producing or natural gas wells in the vicinity of the Proposed Project.

¹ Approximate acreage was calculated by estimating the distance the pipeline travels within MRZ-2 zones assuming a 50-foot permanent ROW width.

4.11.3 Impacts

Significance Criteria

Under the California Environmental Quality Act, impacts to mineral resources will be considered significant if the Proposed Project:

- Results in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state
- Results 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

Question 4.11a – Loss of Regionally or State-Valued Mineral Resources

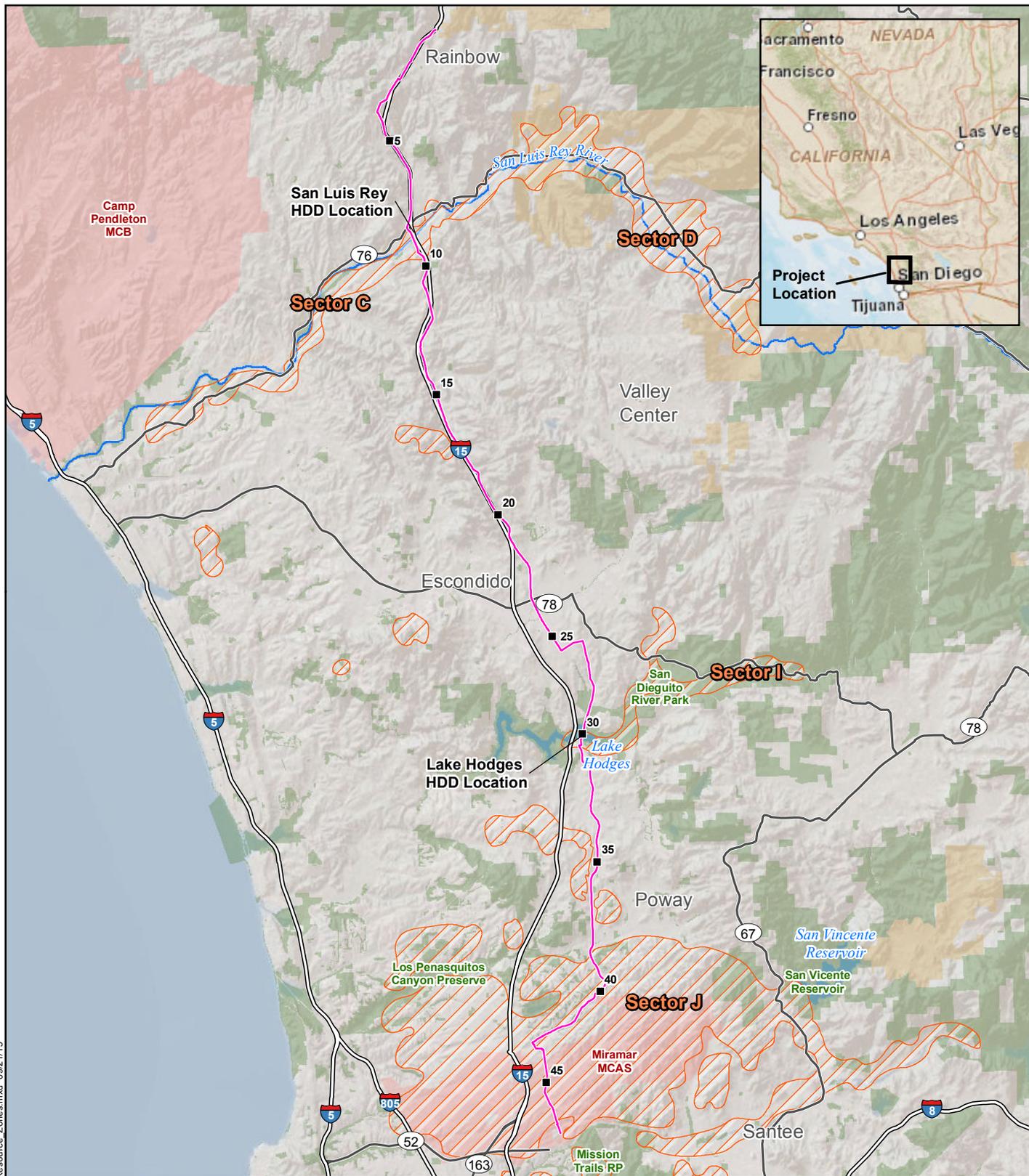
Construction – Less-than-Significant Impact

The nearest mining site to the Proposed Project is the Beeler Canyon Sand and Gravel Plant, which is a sand and gravel mine owned and operated by Vulcan Materials Company. The Beeler Canyon operation, which is located approximately 0.87 mile east of the Proposed Project, is currently idle, pending permit approval from the USACE and the City of Poway. Any future mining operations at the site will not be affected by construction due to its distance from the Proposed Project. The Proposed Project is located in three areas designated as MRZ-2; however, the Proposed Project will generally be constructed in these areas within the existing roadway or road ROWs, which precludes future extraction of aggregate resources. The Proposed Project will cross two MRZ-2 sectors that are not within a roadway; these locations include the San Luis Rey River (i.e., MRZ-2 Sector C, which is approximately 3.16 acres) and Lake Hodges (i.e., MRZ-2 Sector I, which is approximately 2.58 acres), where horizontal directional drilling (HDD) techniques will be utilized to install the pipeline under riparian areas. The use of HDD techniques eliminates the need for open cut trenching techniques to install the pipeline during construction, and will avoid surface disturbance in these areas. Although these locations have been designated as MRZ-2, there are no current or proposed extractive operations within one mile of the Proposed Project at either crossing location.

With the exception of approximately 33.79 acres within the approximately 50-foot-wide permanent pipeline ROW, the Proposed Project will not prevent the mineral resources in the surrounding areas from being extracted. Further, of the approximately 33.79 acres of the Proposed Project permanent ROW designated as MRZ-2, all but approximately 5.74 acres are precluded from further mining due to existing land uses. Therefore, if mining is allowed within the San Luis Rey River, Lake Hodges, the City of Poway, or MCAS Miramar in the future, the availability of regionally valuable aggregate resources will be slightly reduced (0.17 percent); however, impacts will be less than significant.

Operation and Maintenance – Less-than-Significant Impact

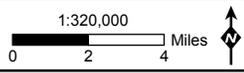
Operation and maintenance activities conducted for the Proposed Project will be consistent with what is currently being conducted for other existing natural gas transmission facilities that are operated by the Applicants. Routine operation and maintenance activities will occur within the permanent ROW and will not involve the extraction of any known regionally or state-valued mineral resources. As previously discussed, no extraction of mineral resources contained within



**Figure 4.11-1: Mineral Resource Zone (MRZ)
Map of the Proposed Project Area**

Pipeline Safety & Reliability Project

- | | | |
|--------------------------|----------------------------|----------------------------|
| ■ Milepost | ■ Park | — Interstate |
| — Proposed Project Route | ■ Military | — Major Road/State Highway |
| ▨ MRZ-2 Zone | ■ Bureau of Indian Affairs | |



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the 50-foot permanent ROW will be permitted during the operations phase of the Proposed Project as the ROW will preclude the future extraction of mineral resources from approximately 5.74 acres of undeveloped land. However, as previously discussed, this is a narrow swath of MRZ-2; therefore, less-than-significant impacts will occur as a result of operation and maintenance of the Proposed Project.

Question 4.11b – Loss of Locally Important Mineral Resources – *No Impact*

The County of San Diego, City of San Diego, the City of Escondido, and the City of Poway general plans—as well as the MCAS Miramar INRMP—do not identify any locally important mineral resources that will be crossed by the Proposed Project, and the Proposed Project does not cross any lands designated as Extractive by the County of San Diego. Therefore, construction of the Proposed Project will not result in a loss of a locally important mineral resource. Operation and maintenance of the Proposed Project will generally be conducted within the Applicants’ permanent ROW, and will not affect or uncover any locally important mineral resources. Therefore, no impact will occur.

4.11.4 Applicants-Proposed Measures

Less-than-significant impacts to mineral resources in the Proposed Project area will occur as a result of the Proposed Project; therefore, no avoidance or minimization measures are proposed.

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