

## 4.12. MINERAL RESOURCES

This section includes the following discussion and analysis related to mineral resources: existing physical and regulatory setting; criteria and methodology for evaluating impacts; and results of the impact assessment, including identification of potentially significant impacts and corresponding mitigation measures to avoid or substantially lessen such impacts to the extent feasible, as appropriate. The District received no scoping comments pertaining to mineral resources (see Scoping Report in Appendix A of this document). [Note: Comments from the California Department of Conservation (CDOC), Geologic Energy Management Division (CalGEM) regarding construction in proximity to existing oil and gas wells are addressed in Section 4.9. *Hazards and Hazardous Materials*.]

### 4.12.1. Environmental Setting

#### Mineral and Aggregate Resources

Fresno County has abundant and varied mineral resources that have been extracted for many years. In western Fresno County, present-day production includes aggregates (sand and gravel), fossil fuels (oil and natural gas), metals (chromite, mercury), and construction and industrial materials (asbestos, gypsum, and limestone). The California Department of Conservation, California Geological Survey (CGS) has designated two Mineral Resource Zones (MRZs) in Fresno County that have important aggregate deposits. These are located along the San Joaquin River east of State Route 99, and along the Kings River downstream of Big Pine Dam (CGS 2025; Fresno County 2023b).

According to the Mineral Resources Data System (MRDS) administered by the U.S. Geological Survey (USGS), there are four identified aggregate resource operations within western Fresno County in the vicinity of the VCIP Plan Area. These four active sand and gravel operations are adjacent to drainage courses emerging from the western foothills, including operations on: Little Panoche Creek, approximately seven miles northwest of the Plan Area; Panoche Creek, within the western margin of the Plan Area, west of I-5; Warthan Creek, 3.5 miles west of the Plan Area near Coalinga; and Zapato Chino Creek, 1.5 miles southwest of the Plan Area on SR-33. There is also one active mercury mine and two active gypsum mines in the Diablo Range west of the Plan Area (USGS 2025a).

#### Oil and Natural Gas

Oil and natural gas production has long been a major industry in western Fresno and Kings counties, particularly in the foothills around Coalinga, Avenal, and Kettleman City. According to CalGEM, there are several designated oil and gas fields located within or partially within the Plan Area. In the Plan Area east of I-5, there is one small gas field and five small oil fields, all of which have been officially classified as “abandoned.” In the foothills around Coalinga, there are several large active oil fields which partially extend into the Plan Area. These oil fields include thousands of formerly producing oil wells, most of which are idle or have been plugged and abandoned. Outside the designated oil and gas fields, there are hundreds of non-producing oil and gas wells scattered throughout the remainder of the Plan Area, most of which were dry holes. There are no remaining actively producing oil or gas wells within or near the Plan Area. However, there are several new exploratory wells within the Plan Area, including two wells southwest of the I-5/SR-145 interchange, and three new wells to the west of Five Points (CalGEM 2025a).

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## 4.12.2. Regulatory Context

### Federal

There are no federal regulations pertaining to mineral resources that are applicable to the VCIP.

### State

#### ***State Surface Mining and Reclamation Act***

The Surface Mining and Reclamation Act of 1975 (SMARA) authorized the State Mining and Geology Board (SMGB) to, after receipt of mineral information from the State Geologist pursuant to Public Resources Code section 2761(d), designate specific geographic areas of the state containing mineral deposits as areas of regional or statewide significance. The objective of the classification and designation processes is to ensure, through appropriate lead agency policies and procedures, that mineral deposits of statewide or regional significance (i.e., of “prime importance of meeting future need”) are not prematurely developed for alternative incompatible uses and are thus available when needed. Pursuant to SMARA, the CGS established MRZs to classify the regional significance of mineral resources in the state. MRZs are defined as follows:

- MRZ-1: An area where adequate information indicates there are no significant mineral deposits present, or where little likelihood exists for their presence.
- MRZ-2: An area with adequate information indicating significant mineral deposits are present, or where a high likelihood exists for their presence.
- MRZ-3: An area containing known or inferred mineral occurrences of undetermined mineral resource significance.
- MRZ-4: An area where geologic information does not rule out either the presence or absence of mineral resources.

According to maps of MRZs within Fresno County, the VCIP Plan Area is not within or near an MRZ. Additionally, there are no active aggregate mines in the VCIP Plan Area (DMR 2025).

#### ***California Geologic Energy Management Division***

CalGEM (formerly Division of Oil, Gas, and Geothermal Resources (DOGGR)) is responsible for supervising the drilling, operation, maintenance, plugging, and abandonment of oil, gas, and geothermal wells. CalGEM’s regulatory program promotes responsible development of oil, natural gas, and geothermal resources in California through sound engineering practices, prevention of pollution, and implementation of public safety programs. CalGEM either prohibits land developments over or near plugged or abandoned oil and gas wells, or requires remediation of wells to current CalGEM standards.

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## **Fresno County**

### **Fresno County General Plan**

The Fresno County General Plan (Fresno County 2024b) includes the following goals and policies related to mineral resources that may be relevant to the VCIP:

#### ***Open Space and Conservation Element***

##### **C. Mineral Resources**

**Goal OS-C** To conserve areas identified as containing significant mineral deposits and oil and gas resources for potential future use, while promoting the reasonable, safe, and orderly operation of mining and extraction activities within areas designated for such use, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately mitigated.

##### **Minerals**

**Policy OS-C.1 Incompatible Mining Uses**  
The County shall not permit incompatible land uses within the impact area of existing or potential surface mining areas.

**Policy OS-C.2 Mineral Resource Zones**  
The County shall not permit land uses incompatible with mineral resource recovery within areas designated as Mineral Resource Zone 2 (MRZ-2).

**Policy OS-C.7 Mining Buffers**  
The County shall require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality.

**Policy OS-C.10 Mineral Resource Lands Protection**  
The County shall not permit land uses that threaten the future availability of mineral resource or preclude future extraction of those resources.

**Policy OS-C.12 New Development Compatibility**  
The County shall ensure that new discretionary land use developments are compatible with existing and potential surface mining areas and operations as identified on the Mineral Resource Zone Maps prepared by the State Division of Mines and Geology and other mineral resource areas identified by the County.

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### Oil and Gas

#### **Policy OS-C.21**

#### **Active Petroleum Wells**

The County shall not allow any building intended for human occupancy to be located near any active petroleum well unless suitable safety and fire protection measures and setbacks are approved by the local fire district.

## **4.12.3. Environmental Impact Analysis**

### **METHODOLOGY**

Evaluation of potential impacts related to mineral resources was based on a review of policies, maps, and plans that may apply to the proposed VCIP, which could include the General Plan and “General Plan Background Report” for Fresno County, California Geological Survey’s Mineral Lands Classification Database, USGS Mineral Resources Data System database, and CalGEM Oil/Gas Well Database.

### **SIGNIFICANCE CRITERIA**

Based on Appendix G of the CEQA Guidelines, implementation of the VCIP would be considered to result in a significant impact related to mineral resources if it would:

- 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.
- a. 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.

#### **4.12.3.1. DIRECT AND INDIRECT EFFECTS**

##### **Impact MIN-1. Loss of Availability of a Known Mineral Resource**

**Implementation of the VCIP Energy Resource and Infrastructure Plans would not cause 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*)**

No lands within or adjacent to the VCIP Plan Area are classified as MRZs, nor are these lands zoned for, or adjacent to lands designated as, an MRZ in the Fresno County General Plan. There is one active aggregate operation on Panoche Creek west of I-5 within the western margin of the Plan Area, but this quarry is not near any lands planned for VCIP solar and energy storage projects or infrastructure projects. Thus, implementation of the VCIP would not affect the operation of this quarry or the availability of mineral resources extracted. There are three additional sand and gravel operations which also would not be affected by implementation of the VCIP because they are outside the Plan Area, to the west. There are no hard rock mining operations in the Plan Area vicinity. In the Diablo Range west of the Plan Area, there is one active mercury mine and two active {00081353.1}

gypsum mines. These mines also would not be affected by the VCIP because they are outside the Plan Area. Implementation of the VCIP energy and infrastructure projects would therefore not result in a loss of availability of a known mineral resource that would be a value to the region and the residents of the state. As such, any potential impacts in this regard would be *less than significant*.

Historically, there were several oil and gas wells within the Plan Area, all of which have been abandoned. Currently, there are no active oil or gas wells in the Plan Area. Two exploratory oil wells located west of I-5 are not near any lands planned for VCIP clean energy or infrastructure projects and therefore would be unaffected. Three exploratory wells were planned near Five Points, and an unclassified conditional use permit (UCUP) for the well drilling project was approved by Fresno County in 2019. However, a review of historical aerial photography indicates the site was cleared of orchard trees and graded by September 2020, and then replanted with almonds by April 2021. This oil well drilling site is located 300 feet east of the planned VCIP connecting transmission corridor, which indicates that any oil wells drilled on this site would be too far from the VCIP transmission line to be affected by its construction and operation.

There is always the possibility that oil and gas extraction in the project area could become feasible under future economic conditions and new technologies. However, like recent solar and energy storage projects in the area, the VCIP energy projects would include open areas within and around the facilities that would be accessible to mineral rights holders if drilling within the Plan Area were to become economically feasible in the future. In addition, once the VCIP facilities reach the end of their operating lives and are decommissioned, the reclaimed lands would be widely accessible for oil and gas exploration and/or extraction if needed. Similarly, the VCIP transmission lines would have very small footprints at the tower sites, and the narrow linear character of the transmission lines would not interfere with access to any nearby oil and gas resources. Construction of the VCIP clean energy and infrastructure projects would not interfere with access to oil and gas resources, and impacts related to access to important oil and gas resource recovery sites would be *less than significant*.

In summary, the construction of the VCIP energy and infrastructure projects would not result in the loss of availability of a known mineral resource. Therefore, the impact upon mineral resources would be *less than significant*.

**Mitigation Measures: No mitigation is required.**

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#### **Impact MIN-2. Loss of Availability of a Locally-Important Mineral Resource Recovery Site**

**Implementation of the VCIP Energy Resource and Infrastructure Plans would not cause a loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. (*Less-than-Significant Impact*)**

No lands within or adjacent to the VCIP Plan Area are classified as MRZs, nor are these lands zoned for, or adjacent to lands designated as, an MRZ in the Fresno County General Plan (Fresno County 2023b). As such, construction of the VCIP projects and transmission lines would not result in the loss of availability of a locally-important mineral resource recovery site and the impact would be *less than significant*.

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**Mitigation Measures: No mitigation is required.**

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### **4.12.3.2. TRANSMISSION CORRIDORS OUTSIDE THE VCIP**

Transmission corridors for delivery of solar generation from VCIP projects to urban electricity markets in northern and southern California have been identified at a conceptual level in this PEIR to allow a general discussion of environmental impacts associated with transmission line development in these corridors for informational purposes. These transmission delivery corridors extend far beyond the District's boundaries and are not part of the VCIP. Planning and approval of these outside transmission lines are under the jurisdiction of state and federal energy regulatory agencies, public utilities, and cities and counties traversed by the transmission corridors. The following discussion provides an overview of potential impacts of the outside transmission lines with respect to mineral resources.

The delivery transmission lines extending outside the Plan Area to regional load centers would have a total corridor length of approximately 348 miles and would pass through 10 counties (see Figure 2.4-1). The northern transmission corridor would extend from the valley floor to the lower foothills of the Diablo Range, which it would then follow for most of its length before descending to the valley again in Alameda County. The western transmission corridor would commence on the valley floor and then traverse the Coast Ranges on the way to Moss Landing. The southern transmission corridor would extend south along the valley floor before traversing the Tehachapi Mountains and the Antelope Valley on the way to its terminus near Acton.

#### **Loss of Availability of Known Mineral Resource**

The northern transmission corridor would be located in the vicinity of several mineral production sites in the Mount Diablo Range, including manganese and silica mines, and sand and gravel pits along drainage courses (USGS 2025a). This corridor would pass through the vicinity of several active and abandoned gas fields. There are numerous gas wells in the vicinity of the transmission corridor, but all were dry holes and have been abandoned. The northern transmission corridor would not pass by any active oil or gas wells (CalGEM 2025a).

The western transmission corridor would pass several mineral production sites including mercury, copper, magnesite, and barium mines, stone and limestone quarries, and sand and gravel pits (USGS 2025a). This transmission corridor would pass several gas wells in northwest Fresno County and near Hollister, but all were dry holes and have been abandoned. The western transmission corridor would not pass any active oil or gas wells (CalGEM 2025a).

The southern transmission corridor would pass several mineral production sites including aggregate mines in the valley portions of Kings and Kern Counties, gold and antimony mines in the Tehachapi Range, and limestone quarries in the foothills west of the Antelope Valley. This transmission corridor would pass through several active and abandoned oil and gas fields, particularly the large oil fields in the Lost Hills area of Kern County. There are numerous oil and gas wells in the vicinity of the southern transmission corridor, but all nearby wells have been abandoned. The southern transmission corridor would not pass any active oil or gas wells (CalGEM 2025a).

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The outside transmission corridors all would pass through areas with active mineral production sites, but do not pass near enough to these operations to have an adverse effect. Due to the widely dispersed locations of the many oil and gas wells in the San Joaquin Valley, it is common for transmission lines to pass through areas with active and inactive oil and gas wells. The outside transmission corridors also would pass through a few designated oil fields, but would not pass through or near any areas with active oil or gas wells. Construction and operation of the outside transmission lines would not cause a loss of availability of mineral resources and the impact would be *less than significant*.

#### **Loss of Availability of Designated Mineral Resource Recovery Site**

As discussed in Section 4.12.2. *Regulatory Context*, the CGS has established MRZs to classify lands that contain mineral deposits. MRZ-1 lands have little potential for the presence of significant mineral resources. MRZ-2 lands have significant mineral resources or a high likelihood for their presence exists. MRZ-3 lands have known or inferred mineral occurrence of undetermined mineral resource significance. MRZ-4 lands have unknown mineral occurrences.

The lands that would be traversed by the outside transmission corridors are highly variable in terms of MRZ classification. The northern transmission corridor mainly would pass through lands classified as MRZ-1, MRZ-2 and MRZ-3 along the foothills, and would pass through unclassified lands in the valley areas. The western transmission corridor would pass through an MRZ-3 area in the central segment and is unclassified in the eastern and western segments. The southern transmission corridor is classified as MRZ-3 throughout its western Kern County segments and is unclassified through the Tehachapi Range and Antelope Valley.

These MRZ classifications are used by local governments for corresponding provisions in their General Plans and other planning documents. Based on the above, substantial portions of the outside transmission corridors would pass through areas with known or potential mineral resources, primarily aggregates. Given the narrow rights-of-way of the transmission lines and the small and widely spaced locations of the transmission towers, however, construction and operation of the outside transmission lines would not impede access to these designated mineral resource areas, and the impact would be *less than significant*.

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### **4.12.3.3. CUMULATIVE IMPACTS**

As discussed under Impacts MIN-1 and MIN-2, the VCIP clean energy and infrastructure projects would not cause a loss of availability of known mineral resources or a loss of availability of a locally important mineral resource site. None of the cumulative projects identified in Section 2.2 are located near existing mineral or aggregate extraction sites, producing oil or gas wells, or potential mineral recovery areas as delineated by government agencies. As such, none of the cumulative projects, including the VCIP projects, would result in the loss of availability of known mineral resources, or in the loss of availability of a locally important mineral resource delineated on a local land use plan. Therefore, implementation of the VCIP energy resource and infrastructure plans would *not make a cumulatively considerable contribution* to any cumulative impact related to mineral resources.

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### **Transmission Corridors Outside the VCIP**

Construction of the outside transmission lines would not result in the loss of availability of mineral resources or impede access to designated mineral resources areas in the counties the transmission lines would pass through. Therefore, the outside transmission lines would have a less-than-significant impact on mineral resources, and the contribution to any cumulative impact would not be cumulatively considerable. Consideration of cumulative impacts to mineral resources resulting from development in the 10 affected counties is beyond the scope of this PEIR. It is reasonable to assume, however, that through project-level review, cumulative projects would be sited and implemented to avoid the loss of availability of mineral resources or the loss of availability of an important mineral resource site as designated on local general plans or other plans. The contribution to any impact to mineral resources from the outside transmission projects would *not be cumulatively considerable* and the cumulative impact of construction of the outside transmission lines would be *less than significant*.

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## **4.12.4. References – Mineral Resources**

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| USGS 2025a          | U.S. Geological Survey (USGS). <i>Mineral Resources Data System (MRDS) – U.S.G.S.</i> As of April 22, 2025. <a href="https://mrdata.usgs.gov/mrds/">https://mrdata.usgs.gov/mrds/</a>  |

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