

3.2.2 Mineral Resources

3.2.2.1 Analysis of Project Effects

For the purpose of this EIR, the County's *Guidelines for Determining Significance and Report Format and Content Requirements: Mineral Resources* (County of San Diego 2008) applies to both the direct impact analysis and the cumulative impact analysis. The guidelines stipulate:

A project will generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it will generally not be considered to have a significant effect on mineral resources, absent specific evidence of such an effect:

- The project is:
 - On or within the vicinity (generally up to 1,300 feet from the site) of an area classified as MRZ-2 [Mineral Resource Zone]; on land classified as MRZ-3; underlain by Quaternary alluvium; or on a known sand and gravel mine, quarry, or gemstone deposit;

AND

 - The project will result in the permanent loss of availability of a known mineral resource that would be of value to the region and the residents of the state;

AND

 - The deposit is minable, processable, and marketable under the technologic and economic conditions that exist at present or which can be estimated to exist in the next 50 years and meets or exceeds one or more of the following minimum values (in 1998 equivalent dollars):
 - Construction materials (sand and gravel, crushed rock) \$12,500,000
 - Industrial and chemical mineral materials (limestone, dolomite, and marble [except where used as construction aggregate]; specialty sands, clays, phosphate, borates and gypsum, feldspar, talc, building stone and dimension stone) \$2,500,000
- Metallic and rare minerals (precious metals [gold, silver, platinum], iron and other ferroalloy metals, copper, lead, zinc, uranium, rare earths, gemstones and semi-precious materials, and optical-grade calcite) \$1,250,000

- 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.

3.2.2.1.1 Regional Overview

The lands within the project area have not been classified by the California Department of Conservation–Division of Mines and Geology (California Department of Conservation 1997). The project sites are underlain by granitic bedrock (refer to Section 3.1.2 Geology, Soils, and Seismicity), which may contain mineral resource deposits suitable for crushed rock. However, due to the expensive mining and processing of crushed rock combined with transportation costs, this currently restricts crushed rock operations to urbanized areas closer to areas of demand in western San Diego County (County of San Diego 2008). In addition, there are no known quarries, mines, and/or gemstone deposits within or near any of the proposed project sites (County of San Diego 2008).

The Rugged and LanEast sites are also underlain by Quaternary alluvium, as described in Section 3.1.2, Geology, Soils, and Seismicity. Quaternary alluvium is a very broadly defined geologic unit that contains a wide range of unconsolidated sediments including clay, silt, sand, and gravel. It is sand and gravel (i.e., aggregate) that is the most economically useful as construction materials. Aggregate is used in one form or another for the construction of roads, parking lots, buildings, homes, schools, hospitals, shopping centers, and other essential infrastructure. Quaternary alluvium that is composed mostly or entirely of sand and gravel is the most economically attractive commodity. Alluvium that has high fractions of fine-grained materials (i.e., clay and silt) is generally unsuitable because it increases the cost and decreases the efficiency of aggregate extraction.

Compared to crushed rock, alluvial sand and gravel mining and processing is relatively inexpensive, and there is also a scarcity of high-grade aggregate materials (i.e., Portland concrete cement) being mined in the County. According to the local mining community, this has made it economically feasible for alluvial sand and gravel mines to be potentially permitted in the eastern portion of the County provided there is a very efficient freeway or railway access to get the materials to market in the urbanized western portion of the County (County of San Diego 2008).

The only mineral resource within the project area that is potentially present, and possibly economically feasible to extract is aggregate (i.e., sand and gravel). Therefore, the discussion below is focused on aggregate as there would be no impacts with respect to crushed rock, industrial and chemical minerals, or metallic and rare minerals.

3.2.2.1.2 *Tierra del Sol*

As stated earlier, the Tierra del Sol site is underlain with granitic bedrock, which may be suitable for crushed rock, but is not currently located close to demand for these materials. The Tierra del Sol solar farm would not preclude the potential extraction of a mineral resource on the site in the future after decommissioning. Therefore, impacts related to the potentially significant loss of availability of a known mineral resource of value to the region and the residents of the state as a result of the Tierra del Sol solar farm **would be less than significant**.

3.2.2.1.3 *Rugged*

As stated earlier, the Rugged site is underlain with granitic bedrock which may be suitable for crushed rock, but is not currently located close to demand for these materials. Quaternary alluvium locally overlies the granite (e.g., along the Tule Creek corridor), which means that construction-grade aggregate could potentially be present.

Although the nearby Interstate 8 (I-8) could be used to economically transport aggregate materials to urban markets in western San Diego County, the Rugged solar farm would not result in permanent loss of availability of aggregate resources for two reasons. First, if the alluvium is of suitable quality and economically viable to extract, the Rugged solar farm would not preclude the potential extraction of the aggregate resource following the decommissioning phase of the project. Second, the site would likely be unsuitable under current land uses for a mining operation because of the presence of an environmentally sensitive area (i.e., Tule Creek), a floodway, as well as the presence of noise-sensitive land uses adjacent to the site. The closest private property line would be within 1,300 feet of the project, which is the noise setback that past County approved noise studies have indicated is needed for most typical extractive operations.

Therefore, impacts related to the potentially significant loss of availability of a known mineral resource of value to the region and the residents of the state as a result of the Rugged solar farm would be **less than significant**.

3.2.2.1.4 *LanEast*

As stated earlier, the LanEast site is underlain with granitic bedrock, which may be suitable for crushed rock, but is not currently located close to demand for these materials. Quaternary alluvium locally overlies the granite, which means that construction-grade aggregate could potentially be present.

Although the nearby I-8 could be used to economically transport aggregate materials to urban markets in western San Diego County, the LanEast solar farm would not result in permanent loss

of availability of aggregate resources for two reasons. First, if the alluvium is of suitable quality and economically viable to extract, the LanEast solar farm would not preclude the potential extraction of the aggregate resource following the decommissioning phase. Second, the site would likely be unsuitable for a mining operation under current land uses because of the presence of environmentally sensitive areas (i.e., Walker Creek which is considered an RPO wetland) as well as the presence of noise-sensitive land uses adjacent to the site. The closest private property line would be within 1,300 feet of the project, which is the noise setback that past County approved noise studies have indicated is needed for most typical extractive operations.

Therefore, impacts related to the potentially significant loss of availability of a known mineral resource of value to the region and the residents of the state as a result of the LanEast solar farm would be **less than significant**.

3.2.2.1.5 LanWest

As stated earlier, the LanWest site is underlain with granitic bedrock, which may be suitable for crushed rock, but is not currently located close to demand for these materials. There is no Quaternary alluvium mapped on the LanWest site (see Section 3.1.2). The LanWest solar farm would not preclude the potential extraction of crushed rock on the site in the future after decommissioning. Therefore, impacts related to the potentially significant loss of availability of a known mineral resource of value to the region and the residents of the state as a result of the LanWest solar farm **would be less than significant**.

3.2.2.1.6 Proposed Project

The Proposed Project would not result in permanent loss of availability of aggregate resources, including sand and gravel, because such resources, if present and economically viable, could potentially be extracted in the future after decommissioning. In addition, the Rugged and LanEast sites would likely be unsuitable for a mining operation under current land uses because of the presence of environmentally sensitive areas as well as the presence of noise-sensitive land uses adjacent to the site. Therefore, impacts related to the potentially significant loss of availability of a known mineral resource of value to the region and the residents of the state as a result of the Proposed Project would be **less than significant**.

3.2.2.2 Cumulative Impact Analysis

As discussed above, due to the expensive mining and processing of crushed rock combined with transportation costs, crushed rock operations are currently restricted to urbanized areas closer to areas of demand in western San Diego County. Thus, there is no significant cumulative impact with respect to crushed rock resources.

However, some areas underlying the Rugged site and the LanEast site have the potential to contain aggregate resources. However, for the reasons discussed above, the project would not result in the loss of availability of a mineral resource, and thus, **would not contribute to a cumulatively significant impact.**

3.2.2.3 Mitigation Measures

The Proposed Project would not result in significant impacts to mineral resources. Therefore, mitigation is not required.

3.2.2.4 Conclusion

The Proposed Project would not result in any significant impacts to mineral resources.

INTENTIONALLY LEFT BLANK