

3.10 Mineral Resources

This section evaluates the potential impacts of the Proposed Action on mineral resources. This evaluation includes an assessment of the direct, indirect, short-term, long-term, and cumulative effects of the Proposed Action on areas of significant mineral deposits. The evaluation is based on a review of *Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region* (CDMG, 1982).

3.10.1 Affected Environment

3.10.1.1 Environmental Setting

The following discussion describes the existing mineral resources within the SV 100K study area.

Rocks and minerals mined in San Diego County include sand and gravel, decomposed granite, stone, and rock. Specialty sand is produced at the Palo Verde Lake Desiltation operation east of San Diego, and gemstones (primarily tourmaline) are produced in the Mesa Grande District at the Himalaya Mine in the north county. There is no current oil or gas production in San Diego County. Western San Diego County was classified into Mineral Resource Zones by the CDMG in 1982. Plate 21 of the report entitled *Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region* (CDMG, 1982) indicates that the SV 100K study area has been classified as MRZ-2 and MRZ-3, as defined below.

3.10.1.2 Regulatory Setting

The following discussion addresses state and local laws and policies relevant to mineral resources issues for the Proposed Action.

Surface Mining and Reclamation Act of 1975 (SMARA)

The Surface Mining and Reclamation Act (SMARA) requires the State geologist to classify, solely on the basis of geologic factors and without regard to existing land use and ownership areas with mineral resource deposits, as follows: (1) areas containing little or no mineral deposits; (2) areas containing significant mineral deposits; and (3) areas containing mineral deposits, the significance of which requires further evaluation. The CDMG subsequently defined the above categories into Mineral Resource Zones (MRZ) for each region in the state (CDMG, 1982). Local agencies are required to use MRZ classification information when developing land-use plans and when making land-use decisions.

There are four MRZ classifications:

- **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. This zone will be applied where well-developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is slight or nonexistent.
- **MRZ-2.** Areas where adequate information indicates that significant mineral deposits are present or where it is judged that there is a high likelihood for their presence. This zone will be applied to known mineral deposits or where well-developed lines of reasoning, based on economic geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
- **MRZ-3.** Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- **MRZ-4.** Areas where available information is inadequate for assignment to any other MRZ classification.

Under SMARA, the State geologist is responsible for preparing an inventory of select mineral commodities available within a defined study region. The first phase of this program is classification, where the market area of a mineral commodity is identified, the future (50-year) need of the commodity within the region is projected, and geologic classifications of the lands within the area are completed regarding the presence or absence of the commodity. The second phase of the program is the designation of those deposits without regard to land use; the purpose of designation is to identify those deposits that are available from a land use perspective and are of prime importance in meeting the future needs of the region.

A mineral land classification for sand and gravel deposits and crushed rock sources was completed for the western portion of San Diego County by the CDMG in 1982. In addition to the mineral land classification, the projected aggregate needs for 50 years and estimates of the aggregate resource tonnage were evaluated for the production-consumption (P-C) region. Because aggregate resources are generally utilized close to their source, areas containing significant aggregate mineral resources and users of the resource are generally referred to as P-C regions.

The San Diego P-C region was determined to be the western third of the county, which contained the metropolitan area and the areas where urbanization was expected to occur within 10 to 30 years. Also included in the P-C region were areas that currently provide or are expected to provide mineral materials to the urban or urbanizing areas of the county.

According to Plate 21 of the Mineral Land Classification report (CDMG, 1982), the San Vicente Dam, the reservoir, an area to the north of the reservoir, and the southeast quarry option area are

all classified as MRZ-3; the southwestern portion of the study area, including the marina and the southwest quarry option, is classified as MRZ-2; and the southernmost portion of the dam construction zone is classified as MRZ-4. The off-site quarry option is also located in an area classified as MRZ-2. The mineral resources within MRZ-2 consist of Eocene conglomerate terrain and have been mapped as Tertiary sedimentary rocks by GEI (2007c). The producers in this area must blend the coarse material with sand from other deposits or crushed coarse material to make aggregate. The mineral resources in the MRZ-3 have also been mapped as areas of Tertiary sedimentary rocks and late Jurassic metavolcanic rocks. The mineral resources in the MRZ-4 are primarily mapped as late Jurassic volcanic and metavolcanic rocks.

3.10.2 Project Design Features

There are no General Conditions and Standard Specifications or Project Design Features that specifically address reducing potential impacts on mineral resources.

3.10.3 Direct and Indirect Effects

3.10.3.1 Thresholds of Significance

Thresholds used to evaluate potential mineral resources impacts are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G. A significant mineral resources impact would occur if the Proposed Action would:

1. 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.

3.10.3.2 Impact Analysis

Methodology

Several options were evaluated for the provision of aggregate for RCC production for the dam raise construction. One set of options involves the extraction and processing of aggregate at one of three possible on-site quarries (Figure 2.2-8 [Alternatives Analyzed] of this EIR/EIS): one in the area of the existing marina and two within City of San Diego property south of San Vicente Dam. Conventional and RCC concrete batch plants would be set up in the marina area or near the base of the dam to process aggregate material. The other option involves hauling of aggregate to the site from an off-site location.

The SV 100K study area, including the three on-site quarry locations, was evaluated for the occurrence of significant mineral resources. The evaluation is based on the State's Mineral Land Classification Report prepared by the CDMG. Impacts on mineral resources mapped in local land use plans are not analyzed in detail because zoning ordinances do not apply to the location or construction of facilities used for the production, generation, storage, or transmission of water

(Section 53091 of the California Government Code). However, for purposes of a thorough analysis, consistency of the Proposed Action with local land use plan is also provided.

Analysis

Threshold 1: 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

State's Mineral Land Classification Report

Aggregate obtained from the marina, southwest quarry or off-site quarry options would be in an area mapped as MRZ-2. As stated above, MRZ-2 zones are areas where significant mineral deposits are present or where it is judged that there is a high likelihood for their presence. Because of the MRZ-2 mapping designation, if aggregate for the Proposed Action were obtained from the marina area or from the southwest quarry option, it would make these resources available for a public water storage project, which would be considered a designated, valid use of the mineral resource and would not be considered a loss of availability of the resource. Further, aggregate obtained from one of either of these locations, would not prohibit the recovery of mineral resources in the future at the other location after completion of the Proposed Action. Therefore, the impact would be less than significant.

Aggregate obtained from the southeast quarry option would be in an area mapped as MRZ-3. As stated above, MRZ-3 zones contain mineral deposits, the significance of which cannot be evaluated from available data. If aggregate is obtained from the southeast quarry option, it would make these mineral resources available for a public water storage project, which would be a valid use of the resources. Additionally, aggregate obtained from the southeast quarry option would not prohibit the recovery of mineral resources in the future at the other locations after completion of the Proposed Action. Therefore, there would not be a loss of any important mineral resources within the MRZ-3 zone for the southeast quarry option, and the impact would be less than significant.

The inundation areas and portions of the dam construction site (near the existing dam) would be located in areas mapped as MRZ-3. As stated above, MRZ-3 zones contain mineral deposits, the significance of which cannot be evaluated from available data. Inundation of the areas mapped as MRZ-3 from the Proposed Action would make these resources unavailable for future extraction. However, these areas are already unavailable due to their proximity to the dam and reservoir. Therefore, there would not be a loss of any important mineral resources within the MRZ-3 zone from inundation, and the impact would be less than significant.

Local General or Specific Plan

The General Plan land use designation in the Lakeside Community Plan for the San Vicente Reservoir and surrounding areas is Impact Sensitive and Public/Semi-Public Lands. It does not specifically identify any areas for mineral recovery or gravel operations. However, the

Conservation Element of the Lakeside Community Plan (under the sand and gravel policies and recommendations) identifies that “additional resources also exist, particularly, sand in San Vicente Creek; and "Poway Conglomerate" located in the areas surrounding the heavy industrial designations in the northern section of the community. While there are currently no plans for excavating these sites, further studies may indicate a need to tap these important resources.”

As described in Section 1.3 (Introduction) of this EIR/EIS, the purpose of the Proposed Action is three-fold: enhance reliability of the water supply, increase system efficiency, and better manage water supplies. The Proposed Action would include excavation of these important resources for the quarry options and inundation for the reservoir, and this would be a valid use of the resources for a public water storage project that would help meet county water needs. Moreover, although the resources are recognized as a valuable commodity, they are not specifically mapped or otherwise delineated for protection or preservation. Therefore, the Proposed Action would not conflict with any mapping delineated on a local general plan, specific plan, or other local land use plan, and impacts would be less than significant.

The Proposed Action would require excavation within mapped MRZ-2 and MRZ-3 areas and inundation of areas mapped as MRZ-3. The use of these mineral resources would be a valid use of the resources for a public water storage project and would not represent a loss of important mineral resources or conflict with local land use plans. Therefore, impacts of the Proposed Action would be less than significant.

3.10.3.3 Mitigation Measures

Impacts on mineral resources would be less than significant. Therefore, no mitigation measures are required.

3.10.3.4 Residual Impacts after Mitigation

No residual impacts would occur.

3.10.4 Cumulative Effects

3.10.4.1 Other CIP Projects

As described in Section 3.2 (Cumulative Projects) of this EIR/EIS, it was determined that the Slaughterhouse Terminal Reservoir would be the only CIP project with the potential to contribute cumulative impacts when combined with the Proposed Action because they are located within two miles of one another. The PEIR for the Regional Water Facilities Master Plan concluded that construction of this and other CIP projects could result in cumulative impacts on mineral resources because it is possible that any project could be located in a mineral-rich zone. However, the Proposed Action would not result in significant mineral impacts. The above conclusions regarding cumulative mineral resources impacts for the CIP

project described above are incorporated into the cumulative mineral resources analyses in Section 3.10.4.3 below.

3.10.4.2 ESP Projects

ESP project components that would be in the vicinity of the Proposed Action would include the San Vicente Pipeline, the San Vicente Pump Station, and the San Vicente Surge Control Facility. The ESP EIR/EIS did not address mineral resources impacts. However, based on the mineral resources analysis conducted for the Proposed Action, it is expected that mineral resources impacts for ESP projects in the vicinity of the Proposed Action would be less than significant. The above conclusions regarding cumulative mineral resources impacts for the three ESP projects described above are incorporated into the cumulative mineral resources analyses in Section 3.10.4.3 below.

3.10.4.3 Other Planned Projects with CIP and ESP Projects

Cumulative Threshold 1: 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

The Proposed Action would require excavation within areas mapped MRZ-2 and MRZ-3 to make mineral resources available for a public water storage project. The use of these mineral resources would be a valid use of the resources. Other cumulative projects in the vicinity of the Proposed Action primarily include five mining projects and a number of residential subdivisions (refer to Figure 3.2-1 [Cumulative Projects] of this EIR/EIS). As discussed in Section 3.2 (Cumulative Projects) of this EIR/EIS, construction impacts related to these projects are assumed to occur within the same timeframe as construction of the Proposed Action. These projects have the potential to affect mineral resources. If significant mineral resources are found to occur in any of the cumulative project areas or within CIP or ESP projects areas, it is expected that appropriate project design features or mitigation measures would be implemented to reduce the impacts to less than significant. Therefore, mineral resources impacts of the Proposed Action, when combined with the mineral resources impacts associated with CIP, ESP, and other planned cumulative projects listed in Table 3.2-1 (Cumulative Projects) of this EIR/EIS, would not be cumulatively considerable. Cumulative impacts would be less than significant.

The Proposed Action would be located in MRZ-2 and MRZ-3 zones, but it is not expected to reduce the availability of significant mineral resource deposits in these zones. Therefore, cumulative mineral resources impacts of the Proposed Action, when combined with the mineral resources impacts associated with CIP, ESP, and other planned cumulative projects listed in Table 3.2-1 (Cumulative Projects) of this EIR/EIS would be less than significant.