4.10 Mineral Resources

This section evaluates the potential impacts of the Moosa 100K Alternative on mineral resources. This evaluation includes an assessment of the direct, indirect, short-term, long-term, and cumulative effects of the Moosa 100K Alternative on known mineral resources and locally important mineral resource recovery sites. This evaluation is based on a review of *Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region* (CDMG, 1982).

4.10.1 Affected Environment

4.10.1.1 Environmental Setting

The Moosa 100K Alternative is located in San Diego County in California, and is in the same geomorphic province as the Proposed Action. Please refer to Section 3.10.1.1 (Mineral Resources for the Proposed Action) of this EIR/EIS for the regional environmental setting for the Moosa 100K Alternative.

Western San Diego County was classified into Mineral Resource Zones (MRZ) by the CDMG in 1982. Plate 10 of the report entitled *Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region* (CDMG, 1982) indicates that the Moosa 100K study area has been classified as MRZ-3 and 4, as defined in Section 3.10.1.2 (Mineral Resources for the Proposed Action) of this EIR/EIS.

4.10.1.2 Regulatory Setting

The Moosa 100K Alternative is located in San Diego County in California. Please refer to Section 3.10.1.2 (Mineral Resources for the Proposed Action) of this EIR/EIS for the state regulatory setting for the Moosa 100K Alternative, including the Surface Mining and Reclamation Act of 1975 (SMARA) and CDMG MRZ classifications.

The areas of Moosa Dam, Reservoir, and area to the north have been classified as MRZ-3 and MRZ-4 by the CDMG. The Moosa 100K study area is not classified as having significant mineral resources deposits (i.e., MRZ-2 areas). Based on the CDMG system, MRZ-3 boundaries encompass areas containing mineral deposits, the significance of which cannot be evaluated from available data. MRZ-4 boundaries encompass areas where available information is inadequate for assignment to any other MRZ classification.

4.10.2 Project Design Features

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

4.10.3.1 Thresholds of Significance

Thresholds used to evaluate potential mineral resources impacts for the Moosa 100K Alternative are the same as those used to evaluate impacts for the Proposed Action and the SV 50K/Moosa 50K Alternative. The thresholds are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G. A significant mineral resources impact would occur if the Moosa 100K Alternative 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.

4.10.3.2 Impact Analysis

Methodology

The methodology for determining impacts on mineral resources is the same as for the Proposed Action (see Section 3.10.3.2 [Mineral Resources for the Proposed Action] of this EIR/EIS).

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

The Moosa 100K Alternative would require excavation of aggregate to construct the concrete-faced rockfill dam. Aggregate is expected to be obtained from within the proposed inundation area.

Aggregate obtained from the proposed excavation areas for the Moosa 100K Alternative would be in areas mapped as MRZ-3 and MRZ-4. As defined in Section 3.10.1.2 (Mineral Resources for the Proposed Action) of this EIR/EIS, MRZ-3 zones contain mineral deposits, the significance of which cannot be evaluated from available data, while MRZ-4 zones are areas where available information is inadequate for assignment to any other MRZ classification. No portions of the Moosa 100K Alternative would affect significant mineral resources deposits classified as MRZ-2 (important mineral deposits are present or have a high likelihood of being present).

If mineral resources for the Moosa 100K Alternative are obtained by excavation in the MRZ-3 area, it would make these resources available for a public water storage project, which would be a valid use of the resources. Even if excavation into MRZ-2 areas were required, the Moosa
100K Alternative would either make valid use of available mineral resources in that MRZ-2 area, or not preclude future use of such minerals. Therefore, the loss of any important mineral resources would be less than significant.

**Local General or Specific Plan**

There are no known important mineral resource recovery sites delineated on a local general plan, specific plan, or other land use plan located within the Moosa 100K study area. The County General Plan and Valley Center Community Plan do not show any mineral recovery zones mapped within the project limits or in the vicinity of the Moosa 100K study area. Therefore, impacts from quarry excavation on mineral resources delineated on a local general plan, specific plan, or other local land use plan would be less than significant.

*The Moosa 100K Alternative would require excavation within mapped MRZ-3 and MRZ-4 areas and not within areas designated as MRZ-2 (areas where significant mineral deposits are present or likely to be present). The use of 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. Therefore, impacts of the Moosa 100K Alternative would be less than significant.*

**4.10.3.3 Mitigation Measures**

Impacts on mineral resources from the Moosa 100K Alternative would be less than significant. Therefore, no mitigation measures are required.

**4.10.3.4 Residual Impacts after Mitigation**

No residual impacts would occur.

**4.10.4 Cumulative Effects**

**4.10.4.1 Other CIP Projects**

As described in Section 4.2 (Cumulative Projects for the Moosa 100K Alternative) of this EIR/EIS, it was determined that Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline are the only CIP projects with the potential for cumulative impacts when combined with the Moosa 100K Alternative. The PEIR Regional Water Facilities Master Plan concluded that these projects may be located in a mineral rich zone and would have the potential to cause cumulative mineral resources impacts. However, the Moosa 100K Alternative would not result in significant mineral impacts. The above conclusions are incorporated into the cumulative analyses in Section 4.10.4.2 below.
4.10.4.2 Other Planned Projects with CIP Projects

This section evaluates the cumulative mineral resources impacts of the Moosa 100K Alternative when considered in conjunction with other planned projects listed in Table 4.2-1, and incorporates the cumulative mineral resource impacts conclusions associated with the CIP projects described in the above section. The following cumulative mineral resource analysis addresses the significance threshold listed in Section 4.10.3 above.

**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 Moosa 100K Alternative would either make valid use of available mineral resources in an MRZ-2 area, or not preclude future use of such minerals. The Moosa 100K Alternative would not result in the loss of availability of designated mineral recovery sites.

Other cumulative projects in the area primarily include several small and large subdivisions along with a few small commercial, institutional and industrial developments (see Table 4.2-1). As discussed in Section 4.2 (Cumulative Projects for the Moosa 100K Alternative) of this EIR/EIS, construction impacts related to these projects are assumed to occur within the same timeframe as construction of the Moosa 100K Alternative. These projects may affect mineral resources and would be required to mitigate for any impacts as part of their implementation. The Moosa 100K Alternative mineral impacts would be less than significant and thus would not contribute to any cumulative impacts of these projects.

*The Moosa 100K Alternative would be located in MRZ-3 and MRZ-4 zones and is not expected to reduce the availability of significant mineral resource deposits in the MRZ-2 zones. Therefore, cumulative mineral resources impacts of the Moosa 100K Alternative, when combined with mineral resources impacts associated with the CIP projects listed above and planned cumulative projects listed in Table 4.2-1, would be less than significant.*