



Section 5.12:

Mineral Resources



5.12 MINERAL RESOURCES

This section evaluates potential impacts to mineral resources that could result from implementation of the proposed General Plan 2035.

5.12.1 REGULATORY SETTING

FEDERAL

There are no Federal regulations applicable to mineral resources. Activities related to mining and mine reclamation are regulated by the State.

STATE

Surface Mining and Reclamation Act of 1975

The State Mining and Reclamation Act of 1975 (*California Public Resources Code* Section 2710 et seq.) (SMARA) required that the California State Geologist implement a mineral land classification system to identify and protect mineral resources of regional or statewide significance in areas where urban expansion or other irreversible land uses may occur, thereby potentially restricting or preventing future mineral extraction on such lands. It is also the intent of this process, through the adoption of general plan mineral resource management policies, that this information be considered in local land use planning activities (*California Public Resources Code* Section 2762). The California State Mining and Geology Board (SMGB) classifies such urban and non-urban lands according to a priority list, or when the Board is otherwise petitioned to classify a particular land area.

As mandated by SMARA, aggregate mineral resources within the State are classified by the SMGB through application of the Mineral Resource Zone (MRZ) System. The MRZ is used to map all mineral commodities within identified jurisdictional boundaries, with priority given to areas where future mineral resource extraction may be prevented or restricted by land use compatibility issues, or where mineral resources may be mined during the 50-year period following their classification. The MRZ classifies lands that contain mineral deposits and identifies the presence or absence of substantial sand and gravel deposits and crushed rock source areas (i.e., commodities used as, or in the production of, construction materials). The State Geologist classifies MRZs within a region based on the following factors:

- 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-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- MRZ-3: Areas containing mineral deposits for which the significance cannot be determined from available data.
- MRZ-4: Areas where available information is inadequate for assignment of any other MRZ category.

Mining operations and mine reclamation activities are required to be performed in accordance with laws and regulations adopted by the SMGB, as contained in Section 3500 et seq. of *Title 14 of the California Code of Regulations (CCR)*. The State Department of Conservation's Office of Mine Reclamation (OMR) oversees reclamation requirements.

Division of Oil, Gas, and Geothermal Resources

The California State Department of Conservation maintains the Division of Oil, Gas, and Geothermal Resources (DOGGR). The DOGGR is responsible for monitoring the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells with the intention of environmental protection, public health and safety, and general environmental conservation methods. The DOGGR is also responsible for collecting groundwater, oil, gas, and geothermal resource data for maintaining a record of all drilled and abandoned well locations.

Division of Mines and Geology

The California Division of Mines and Geology (DMG) operates within the Department of Conservation. The DMG is responsible for assisting in the utilization of mineral deposits and the identification of geological hazards.

State Geological Survey

Similar to the DMG, the California Geological Survey is responsible for assisting in the identification and proper utilization of mineral deposits, as well as the identification of fault locations and other geological hazards.

LOCAL

City of Murrieta Municipal Code

City of Murrieta Municipal Code, Title 16 Development Code, Article IV – Administration, Chapter 16.68, Surface Mining Permits provides guidelines for the review of surface mining permit applications that are intended to create and maintain an effective surface mining and reclamation policy, as authorized by SMARA. Chapter 16.68 includes provisions for the:



- Regulation of surface mining operations in order to prevent or minimize potentially adverse effects resulting from surface mining operations.
- Reclamation of mined lands in a manner in which the continued mining of valuable materials is not precluded, and that such lands are returned to a usable condition that is readily adaptable for alternative land use.
- Production and conservation of minerals, with consideration given to range and forage, recreation, watershed, wildlife, and aesthetic enjoyment, and the elimination of potential residual hazards to public convenience, health, safety, and general welfare.

5.12.2 ENVIRONMENTAL SETTING

Murrieta and its Sphere of Influence lie within the Temescal Valley Area within Riverside County. Within this area, mineral lands are classified as metallic (hydrothermal and sedimentary), industrial, and aggregate. Within the Temescal Valley Area, existing mineral extraction activities and commodities produced primarily consist of clay, specialty sands, and specialty stone.

Construction aggregate (crushed rock, sand, and gravel) also represents a valuable mineral commodity. Sand, gravel, and clay are generally used for fill purposes, for the construction of roads and highways within urban and suburban development, and for other infrastructure purposes such as canals, aqueducts, etc. With the production of these commodities over recent years, the Temescal Valley Area has become a major area for mining.

The construction industry is greatly dependent on readily available aggregate deposits that are within a reasonable distance to market regions. Aggregate is a low unit-value, high bulk-weight commodity; therefore, aggregate for construction must be obtained from nearby sources in order to minimize costs. If nearby aggregate sources do not exist, then transportation costs can quickly exceed the value of the aggregate. For Murrieta, the nearest quarries for aggregate materials are located along I-15 north of SR-74 (Pacific Aggregates) and south of SR-76 (National Quarries), with two other quarries proposed at closer range¹.

Five mineral resource sites have been identified within the City, shown in *Exhibit 5.12-1, Mineral Resources*. These sites contain clay, sand and gravel (construction), feldspar, feldspar/silica, and gold. One geothermal resource is also identified within the City boundaries. Within the Sphere of Influence, three mineral resource sites are identified that contain feldspar, gold, and stone (crushed/broken). However, the Riverside County Permitted Surface Mines List does not show any mines within the City of Murrieta², nor is the City aware of any mines, which would require a permit.

¹ Southern California Construction Aggregates Market Study, EnviroMINE, Inc., November 2007.

² Riverside County Planning Department, "Permitted Surface Mines List," http://www.tlma.co.riverside.ca.us/planning/content/geninfo/surface_mine_list.aspx, accessed January 3, 2011.



As stated above, SMARA directs the State Geologist to classify non-fuel mineral resources of the State to show where economically significant mineral deposits occur and where they are likely to occur, based upon the best available scientific data. For industrial materials, the City and its Sphere of Influence are classified as MRZ-4, an area of unknown mineral resource significance. For aggregate resources, most of the City and the Sphere of Influence are classified as MRZ-3a, an area containing known mineral occurrences of undetermined mineral resource significance. According to Special Report 165 of the California Geological Survey, the MRZ-3a designation in Murrieta contains two types of potential deposits: sand and gravel, and crushed stone³. Land west of I-15 is classified as MRZ-1, an area of no mineral resource significance.

MRZ-3a areas are considered to have a moderate potential for the discovery of economic mineral deposits. The MRZ-3 classification indicates potentially significant mineral deposits that can be reclassified as significant mineral deposits through either a petition or regular periodic review by the State. This reclassification can occur in the event of a change in the mineral resources, or if a threat to the extraction of mineral deposits develops. Once areas within their jurisdiction have been classified as MRZ-3, cities and counties may prepare a report in order to determine the economic viability and extent of mineral and aggregate resources.

OIL

According to the State of California Department of Conservation DOGGR, no underlying oil fields are present in the General Plan Planning Area, or in outlying areas.⁴ Well data maintained by the DOGGR indicate that four exploratory wells have been previously drilled within the City. None of the wells indicated the presence of oil or gas. These wells have since been plugged and abandoned.

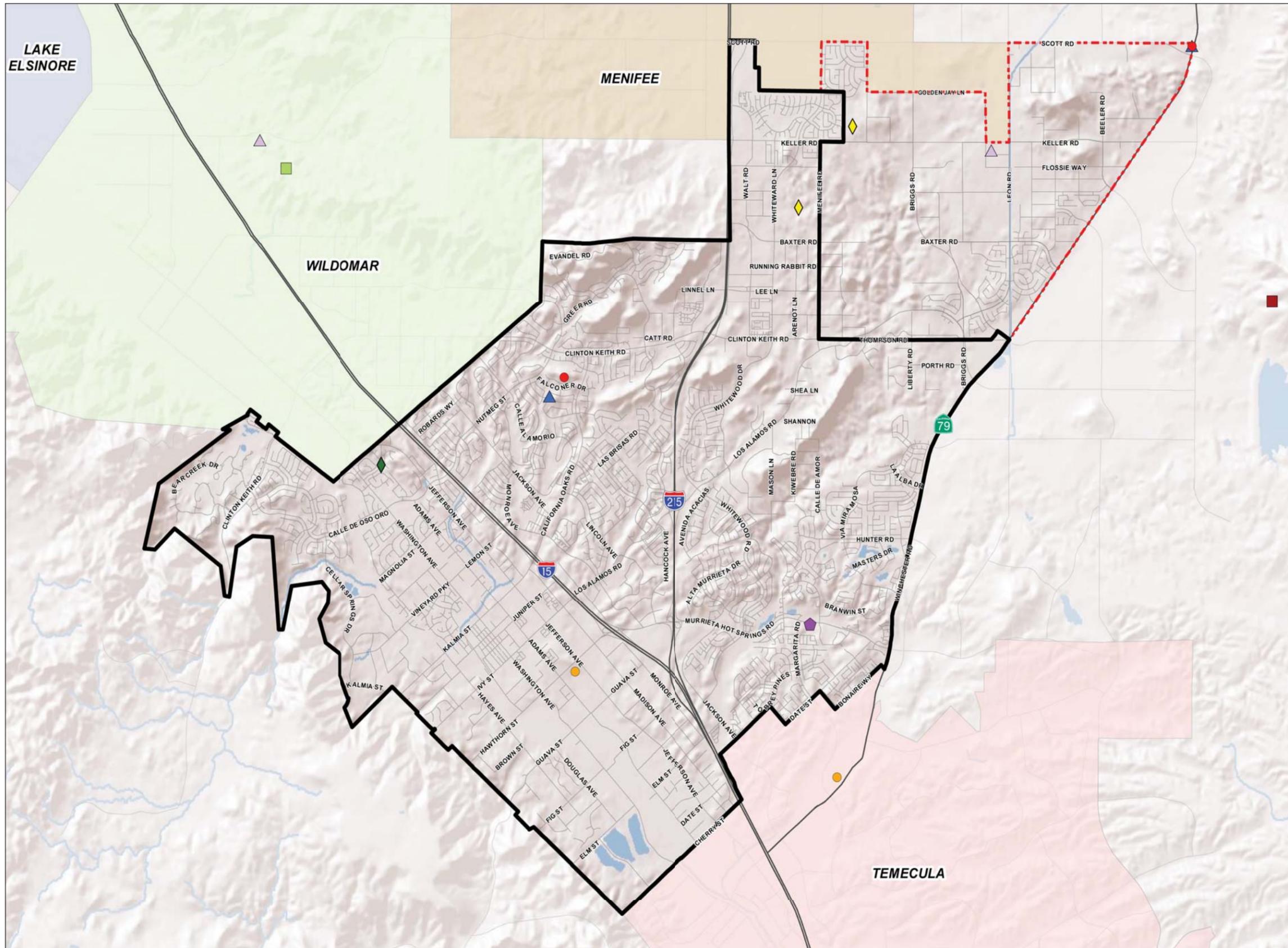
5.12.3 SIGNIFICANCE THRESHOLD CRITERIA

The issues presented in the Initial Study Environmental Checklist (Appendix G of the *CEQA Guidelines*) have been utilized as thresholds of significance in this Section. Accordingly, impacts to mineral resources resulting from the implementation of the proposed General Plan 2035 may be considered significant if they would result in the following:

- The loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- 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 *Mineral Land Classification of the Temescal Valley Area, Riverside County, California*, Special Report 165, California Department of Conservation Division of Mines and Geology, 1991.

⁴ State of California Department of Conservation, Division of Oil, Gas and Geothermal Resources, <ftp://ftp.consrv.ca.gov/pub/oil/maps>, accessed December 10, 2009.



LEGEND

- Mineral Resources**
- ◆ Clay
 - Copper
 - Feldspar
 - ▲ Feldspar, Silica
 - ◆ Geothermal
 - ◆ Gold
 - Iron
 - Sand and Gravel, Construction
 - ▲ Stone, Crushed/Broken
 - ⬡ Sphere of Influence
 - ▭ City Boundary



Source: County of Riverside, City of Murrieta, and the California Department of Conservation.



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Based on these significance thresholds and criteria, the proposed General Plan 2035's effects have been categorized as either "no impact," a "less than significant impact," or a "potentially significant impact." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less than significant level through the application of mitigation, it is categorized as a significant unavoidable impact.

5.12.4 PROJECT IMPACTS AND MITIGATION MEASURES

MINERAL RESOURCE ZONES

■ IMPLEMENTATION OF THE PROPOSED GENERAL PLAN 2035 COULD RESULT IN IMPACTS TO MINERAL RESOURCES NOT YET IDENTIFIED.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: It is unknown and therefore unlikely that there are significant mineral resources in the MRZ-4 area that would be affected by implementation of the proposed General Plan 2035; therefore, impacts are considered less than significant in this regard.

As described above, the MRZ-3a classification for aggregate resources represents an area that has the potential for mineral deposits, but no resources have been identified. Therefore, the proposed General Plan 2035 would not 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. Conservation Element Goal CSV-6 and the associated policy is specific to the responsible management of mineral resources. As such, impacts are considered less than significant in this regard.

Goals and Policies in the Proposed General Plan 2035:

CONSERVATION ELEMENT

Goal CSV-6 Mineral resources are managed responsibly with minimal impact to surrounding areas.

Policies

CSV-6.1 Ensure compliance with City regulations that seek to prevent or minimize potentially adverse effects of mining, and provide for reclamation of mined lands.

Mitigation Measures: No mitigation measures beyond the goals and policies measures identified in the proposed General Plan 2035 are required.

Level of Significance After Mitigation: Not Applicable.



MINERAL RESOURCE RECOVERY SITES

■ IMPLEMENTATION OF THE PROPOSED GENERAL PLAN 2035 COULD RESULT IN IMPACTS TO MINERAL RESOURCE RECOVERY SITES.

Level of Significance Before Mitigation: Less Than Significant Impact.

Impact Analysis: The Murrieta *Development Code* provides for the regulation of any future mining operations by allowing mining within the General Industrial zoning district and providing guidelines for the review of surface mining permit applications, as authorized by SMARA. The *Development Code* includes provisions for the regulation of surface mining operations in order to prevent or minimize potentially adverse effects, and provides for reclamation of mined lands. The proposed General Plan 2035 is consistent with the Development Code provisions that ameliorate some of the adverse consequences of mining, should there be mining operations in the future.

Mineral resources have been identified within the City of Murrieta or the Sphere of Influence; however, no mineral resource recovery sites are known to exist in this area. Therefore, implementation of the proposed General Plan 2035 is not anticipated to result in impacts to mineral resource recovery sites. As such, impacts are considered less than significant in this regard.

Goals and Policies in the Proposed General Plan 2035: Refer to the goals and policies referenced above in this Section 5.12.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the proposed General Plan 2035 are required.

Level of Significance After Mitigation: Not Applicable.

5.12.5 CUMULATIVE IMPACTS AND MITIGATION MEASURES

■ DEVELOPMENT ASSOCIATED WITH IMPLEMENTATION OF THE PROPOSED GENERAL PLAN 2035 AND OTHER CUMULATIVE DEVELOPMENT COULD RESULT IN CUMULATIVELY CONSIDERABLE IMPACTS TO UNKNOWN MINERAL RESOURCES.

Level of Significance Before Mitigation: Less Than Significant Impact.



Impact Analysis: Future development projects in the City of Murrieta, County of Riverside, and the region may impact mineral resources. However, as indicated above, no known mineral resources are located within the proposed General Plan 2035 land area. The land area is designated as MRZ-3, which indicates the potential for unknown mineral resources. Additionally, the potential exists for unidentified mineral deposits outside the City boundaries and Sphere of Influence; it is not known whether the General Plan Planning Area has large, valuable mineral and aggregate deposits. Development under the proposed General Plan 2035 would result in less than significant impacts to mineral resources. Additionally, the proposed General Plan 2035 is consistent with existing City policy allowing and regulating mines that may be developed to extract mineral resources. Therefore, implementation of the proposed General Plan 2035 would not contribute to any cumulative impacts to mineral resources. As such, impacts would be less than significant in this regard.

Goals and Policies in the Proposed General Plan 2035: Refer to the goals and policies referenced above in this Section 5.12.

Mitigation Measures: No mitigation measures beyond the goals and policies identified in the proposed General Plan 2035 are required.

Level of Significance After Mitigation: Not Applicable.

5.12.6 SIGNIFICANT UNAVOIDABLE IMPACTS

Mineral resources impacts associated with implementation of the proposed General Plan 2035 would be less than significant with compliance with and/or adherence to State and local regulations, and goal and policies in the proposed General Plan 2035. Therefore, no significant unavoidable mineral resources impacts would occur as a result of the proposed General Plan 2035.

5.12.7 SOURCES CITED

Mineral Land Classification of the Temescal Valley Area, Riverside County, California, Special Report 165, California Department of Conservation Division of Mines and Geology, 1991.

Riverside County Planning Department, “Permitted Surface Mines List,” http://www.tlma.co.riverside.ca.us/planning/content/geninfo/surface_mine_list.aspx, accessed January 3, 2011.

Southern California Construction Aggregates Market Study, EnviroMINE, Inc., November 2007.

State of California Department of Conservation, Division of Oil, Gas and Geothermal Resources. <ftp://ftp.consrv.ca.gov/pub/oil/maps> . Accessed December 10, 2009.



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