5.11 Mineral Resources

5.11.1 Introduction

Purpose

The purpose of this section is to identify any existing mineral resources and potential effects from project implementation on the project site and the surrounding area. This section also identifies mitigation measures to reduce any potentially significant mineral resource impacts and describes the residual impact, if any, after implementation of the mitigation.

Sources

The following sources were used in consideration and discussion of the potential environmental impacts:

- Designation of Regional Significant Construction Aggregation Resource Areas in the Orange County-Temescal Valley and San Gabriel Valley Production-Consumption Regions, State of California, State Mining and Geology Board.
- General Plan, City of Orange, March 2010.
- Geotechnical Investigation and Recommendations for Rio Santiago, prepared by Ginter & Associates, October 2011, as provided in Technical Appendix G, Geotechnical Investigation, to this Draft EIR.
- Mineral Land Classification Map, State of California Geological Survey.
- Orange County Important Farmland Map, State of California, Department of Conservation, Farmland Mapping and Monitoring Program.
- Comments received during the public review periods and at the scoping meetings. These comments are contained in Appendix A, *Public Participation Process*.

5.11.2 Existing Environmental Setting

The majority of the southern portion of the proposed project consists of disturbed habitat. Santiago Creek runs through the proposed project site from the eastern boundary and exits at the western boundary. Approximately five acres in the southeastern portion of the project site are used as a materials recycling area. This area includes apparatus for the crushing of boulders, bricks, rocks, etc. for recycling. The materials recycling area additionally includes operations that provide for the cement treatment of base materials. Figure 3-5, *Materials Recycling*, provides the present location of the materials recycling area. To restore previously mined portions of the site (south of Santiago Creek), a portion of the project site is presently being backfilled. The project site is presently being backfilled in sequentially defined phases. Figure 3-6, *Backfill Operation*, provides the location of the backfill operation. The project site is being over excavated (i.e., removal of unsuitable materials) and filled in the present backfill operation.

The applicant has indicated that additional grading permit(s) will be requested from the City to complete backfilling of all previously mined portions of the project site.

Site History

The project site was used from 1919 to 1995 primarily for surface mining of sand and gravel, aggregates mining, and ancillary uses. Surface mining activities ceased in 1995 and all ancillary uses were removed in the same year. Please refer to the Section 3.0, *Project Description* and Section 4.0, *Environmental Settings* for further detail related to the proposed project's site historical mining.

5.11.3 Regulatory Setting

Surface Mining and Reclamation Act (SMARA)

The Surface Mining and Reclamation Act (SMARA) provides guidelines for the classification and designation of mineral lands. The California Geological Survey has produced a report and a Mineral Land Classification Map. The Classification Map designates areas where important Production-Consumption deposits occur, and are categorized in Mineral Resource Zones (MRZs). MRZs are defined as follows:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are
 present, or where 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 for their presence exists.
- 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 another MRZ zone.

According to SMARA, mineral lands include areas containing sand and gravel, and related materials are known collectively as aggregate resources. SMARA requires all cities to contain a mineral resource management policy which:

- 1. Recognizes mineral information transmitted by the State Mining and Geology Boards;
- 2. Assists in the management of land use affecting areas of regional significance; and,
- 3. Emphasizes the conservation and development of identified mineral resources.

City of Orange

The City General Plan states that sand and gravel resources provide valuable sources of aggregate materials for new construction. The City, in accordance with the State Mining and Geology Board guidelines, recognizes the need to protect these resources from premature urbanization. The applicable General Plan goals and polices related to mineral resources are addressed in Section 5.10 *Land Use and*

Planning; and, specifically within Table 5.10-2, Project Consistency with the City of Orange General Plan.

Land Use Element

In accordance with SMARA provisions, the State Mining and Geology Board has published a report describing construction aggregate deposits considered "regionally significant." The report titled, Designation of Regional Significant Construction Aggregation Resource Areas in the Orange County-Temescal Valley and San Gabriel Valley Production-consumption Regions, designates five areas as regionally significant.

Figure 5.11-1, *Aggregate Resources*, identifies resource Sector G adjacent to the Santa Ana River, Resource Sector J in and around Santiago Creek, Sector L between Irvine Park and Santiago Dam in Santiago Creek, Sector M located under Santiago Reservoir (Irvine Lake) and Sector N, beginning near Santiago Reservoir in Santiago Creek to the planning area boundary as "Regionally Significant Aggregate Resource Areas." The project site is located in Sector J.

The City's General Plan Land Use Element protects aggregate resource areas from premature urbanization. The "Resource Area" land use designation, which applies to portions of the project site, allows for only aggregate extraction or recreation uses. Those portions of project site not designated "Resource Areas" have an "Open Space" or a "Low Density Residential" designation.

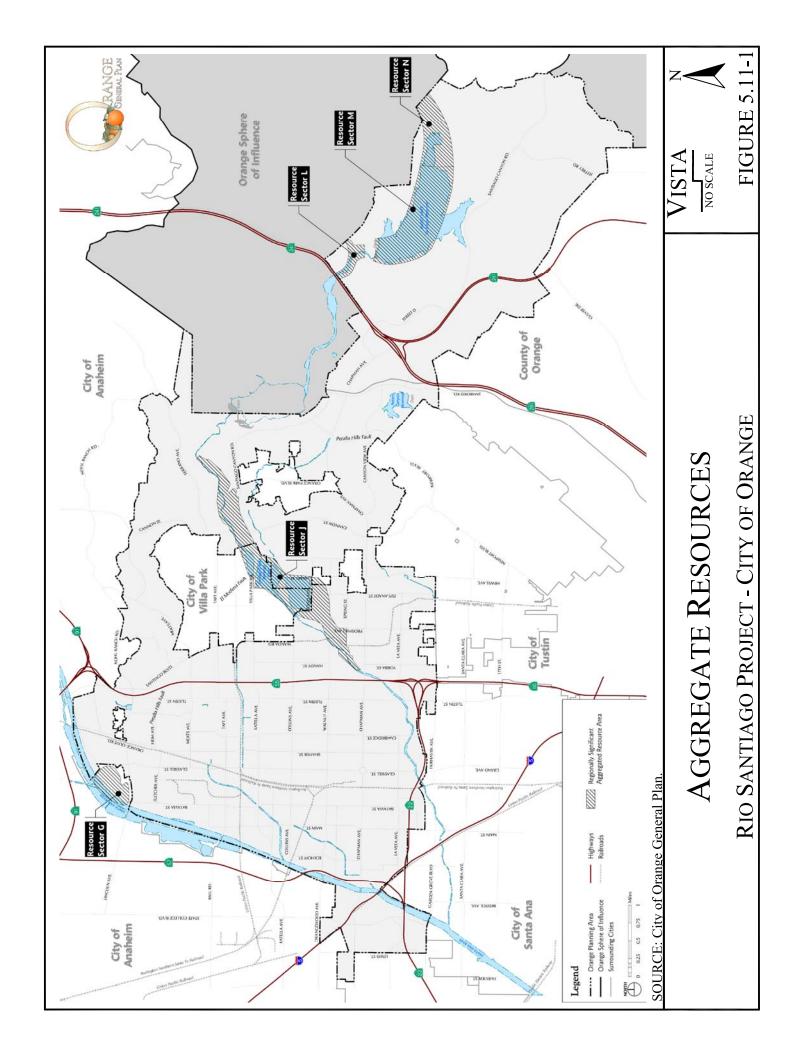
The existing zoning district classifications on the project site are R-1-8 (Single-Family Residential) and S-G (Sand and Gravel Extraction). The S-G zoning designation allows for mineral resource extraction.

5.11.4 Significance Thresholds

The following thresholds of significance have been established for the evaluation of the proposed project's potential mineral resource impacts consistent with Appendix G of the State CEQA Guidelines:

Threshold MIN-A Would the proposed project 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?

Threshold MIN-B Would the proposed project 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?



5.11.5 Evaluation of Potential Project Impacts

This section will evaluate whether the proposed project would potentially have a substantial adverse effect on mineral resources. This evaluation assumes that the project will be implemented consistent with the Project Description, including all Project Design Features (PDF's).

Project Design Features

There are no PDF's associated with this environmental issue area.

Regional

Threshold MIN-A	Would the proposed project 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?
. <u> </u>	[CEQA Geology Threshold 12(a)]

The proposed project is planned as a resource area in the City's General Plan Land Use Element. A portion of the project site is located within resource Sector J (Designation of Regional Significant Construction Aggregation Resource Areas in the Orange County-Temescal Valley and San Gabriel Valley Production-consumption Regions), and experienced historic sand and gravel mining operations.

Appendix G, Geotechnical Investigation, of this Draft EIR, states that the majority of the project site has been mined of economic aggregate deposits. The remaining on-site deposits that are of potential economic value are infeasible to mine due to: limited volume of the localized deposits, expense of removing the overburden (pond deposits), and difficulty associated with excavation logistics. The loss of the project site's value as access to mineral resources 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. Access would remain available to any resources in the vicinity from adjacent public lands and rights-of-way. Therefore, the loss of mineral resources would be considered a less than significant impact and no mitigation measures would be required.

Level of Significance

The proposed project would have a less than significant impact to regional mineral resources and no mitigation measures would be required.

Local

Threshold MIN-B	Would the proposed project 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?
	[CEQA Geology Threshold 12(b)]

The proposed project would result in the loss of availability of a locally-important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan. However, this analysis demonstrates that the loss would be less than significant. The City's General Plan Land Use Element protects aggregate resource areas from premature urbanization. The "Resource Area" land use

designation, which applies to portions of the project site, allows for aggregate extraction or recreation uses. The proposed General Plan Amendment (GPA) would amend the Land Use Element Map to designate the proposed project site as Open Space (OS), Open Space – Park (OS –P), and Medium Density Residential (MDR).

Additionally, the proposed project would change the existing zoning district classifications on the project site from R-1-8 (Single-Family Residential) and S-G (Sand and Gravel Extraction) to P-C (Planned Community District). The S-G zoning designation allows for mineral resource extraction. The proposed P-C designation would not allow for future mineral resource extraction.

The applicable General Plan goals and polices related to mineral resources are addressed in Section 5.10 Land Use and Planning; and, specifically within Table 5.10-2, Project Consistency with the City of Orange General Plan. The City's General Plan policies protect aggregate resource areas from premature urbanization. However Appendix G, Geotechnical Investigation, of this Draft EIR, states that the majority of the project site has been mined of economic aggregate deposits as defined in Technical Appendix G, Geotechnical Investigation. The remaining on-site deposits that are of potential economic value are infeasible to mine due to: limited volume of the localized deposits, expense of removing the overburden (pond deposits), and difficulty associated with excavation logistics. Based on this information, the mining operations have closed and it is not premature to develop the site. Therefore, existing City land use regulations applicable to the project site shall be revised accordingly with the proposed project.

Therefore, with the approval of the proposed GPA, the remaining mineral resources would not be delineated in the City's general plan, specific plan, or other land use plan and a less than significant impact would occur and no mitigation measures would be required.

Level of Significance

The proposed project would have a less than significant impact to local mineral resources and no mitigation measures would be required.

5.11.6 Evaluation Summary

Table 5.11-1, *Evaluation Summary Table – Mineral Resources*, summarizes potentially significant project impacts from this Draft EIR.

Table 5.11-1: Evaluation Summary Table – Mineral Resources

Threshold	Potential Impact	Mitigation Measure	Level of Significance
Regional	Less than significant	None required	Less than significant
Local	Less than significant	None required	Less than significant