3.11 Mineral Resources

This section evaluates the potential impacts to mineral resources that could result from the proposed PWIMP.

3.11.1 Introduction

This evaluation of local mineral and energy resources was completed using information collected from the California Department of Conservation's Division of Oil, Gas, and Geothermal Resources. Information from the California Geological Survey, the City's existing Oxnard 2030 General Plan, and the City's May 2017 *CEQA Guidelines* were also reviewed. Key Terms and concepts include the following:

- **Minerals.** Any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances, including, but not limited to, coal, peat, and bituminous rock, but excluding geothermal resources, natural gas, and petroleum. Gold, sand, gravel, clay, crushed stone, limestone, diatomite, salt, borate, potash, etc. are examples of minerals.
- **Mineral Resource Zone.** An area or land where deposits of commercially viable mineral or aggregated deposits are known to exist. This designation is applied to sites determined by the State Division of Mines and Geology as being a resource of regional significance, and is intended to help maintain the quarrying operations and protect them from encroachment of incompatible land uses.
- **Mining.** The act or process of extracting resources, such as coal, oil, or minerals from the earth. The term also includes quarrying; well operation; milling, such as crushing, screening, washing and floatation; and other preparation customarily done at the mine site or as part of a mining activity

3.11.2 Regulatory Context

Relevant State and local guidelines specific to mineral and energy resource issues are discussed in this section.

3.11.2.1 State Regulations

California Surface Mining and Reclamation Act of 1975 (SMARA). The loss of regionally significant mineral resource deposits to land uses that preclude mining activities is one of the main emphases that SMARA was designed to address. The law specifically mandates a two-phased process, commonly referred to as classification-designation, for mineral resources. The California Geological Survey (previously called the California Division of Mines and Geology) is responsible under SMARA for carrying out the classification phase of the process.

The California Mining and Geology Board is responsible for implementing the second phase. The second phase allows the designation of areas within a production-consumption (P-C) region that contain significant deposits of Portland cement concrete (PCC)-grade aggregate (valued for its versatility and its importance in construction) that may be needed to meet the region's

future demand (California Department of Conservation, 1986).

Regulations provided under SMARA require the State Geologist to classify lands into Mineral Resource Zones (MRZ) based on the known or estimated mineral resource potential of that land. The classification process is based solely on geology, without regard to land use or land ownership. The primary goal of mineral land classification is to help ensure that the mineral resource potential of lands is recognized and considered in the land use planning process. The MRZ categories are as follows:

- 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 significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- 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.

In addition to mineral resource conservation, the SMARA regulates surface mining operations within California. The California Mining and Geology Board have established reclamation regulations that fulfill the reclamation requirements of SMARA. These regulations are summarized below.

Annual Mining Report. SMARA requires that a mining report be submitted annually and include such information as the amount of land disturbed during the previous year, acreage reclaimed during the previous year, and amendments to local reclamation plans.

Reclamation Plan. Before a mining project is approved by a local jurisdiction, a reclamation plan must be prepared and approved. In general, the reclamation plan must include and satisfy the following requirements:

- Maximum anticipated depth of extraction;
- A description of the reclamation land use;
- A description of the manner in which reclamation will be accomplished;
- A description of the manner in which affected streambed channels and streambanks will be rehabilitated to a condition that minimizes erosion;
- Final slope stability as determined by a registered geotechnical engineer;
- Compaction of areas sited for roads, buildings, or other improvements; and
- Location of planned temporary stream or watershed diversions. Reclamation plans are also required to include performance standards for:
    - Revegetation;
    - Drainage and erosion controls;
    - Reclamation of prime agricultural land and other agricultural land;

- Stream protection, including protection of surface water and groundwater; and
- Topsoil salvage.

3.11.2.2 Local Regulations

Detailed below is a summary of the local regulations.

Ventura County - Mineral Resource Management Plan. The County of Ventura has adopted a Mineral Resource Management Plan with the following policies requiring:

- Establishment of land use categories to allow timely mineral extraction in areas classified as MRZ-2 or designated to be of regional or statewide significance and the designation of land use zones to preserve mineral extraction access.
- Establishment of buffer zones around MRZ-2 Zones to allow the continued extraction of minerals and to avoid land use incompatibilities between mining activities and land uses surrounding the MRZ-2 Zones.

According to the plan, compatible land uses include the following:

- Very Low Density Residential (0.1 units/acre)
- Extensive Industrial
- Recreation/Open Space
- Agriculture

City of Oxnard - Oxnard 2030 General Plan. The combined Open Space/Conservation Element's of the City's existing 2030 General Plan contains an objective and several policies pertinent to mineral resources.

3.11.3 Environmental Setting

Important mineral/sand/gravel deposits are primarily located along the Santa Clara River channel, along Route 101 (Ventura Freeway) corridor and along the eastern edge of the City extending as far west as Oxnard Boulevard in several areas. These local resources are described in greater detail below. The location of these important sand/gravel deposits and existing oil wells within the Planning Area is identified in Figure 3.11-1.

Sand and Gravel Resources. Areas of significant mineral deposits within the City's Planning Area are identified as MRZ-2 and MRZ-3 areas. The City's MRZ-2 area encompasses the course of the Santa Clara River through the City and also a corridor of land along U.S. Route 101 (Ventura Freeway) from the Santa Clara River eastward to approximately Del Norte Avenue. MRZ-3 areas are located south of the Santa Clara River (west of Ventura Freeway) and a large area bordering State Route 1 through the center of the Planning Area.

Oil and Gas Resources. Four oil and gas fields are located within the City's current Planning Area: West Montalvo, El Rio, Santa Clara Avenue and Oxnard. The West Montalvo Field includes the area along the coastline and upstream from the mouth of the Santa Clara River and currently contains 29 active wells and 24 inactive or shut-in wells. The West Montalvo Field is the only local field to increase the number of active wells in recent years. The Santa Clara Avenue

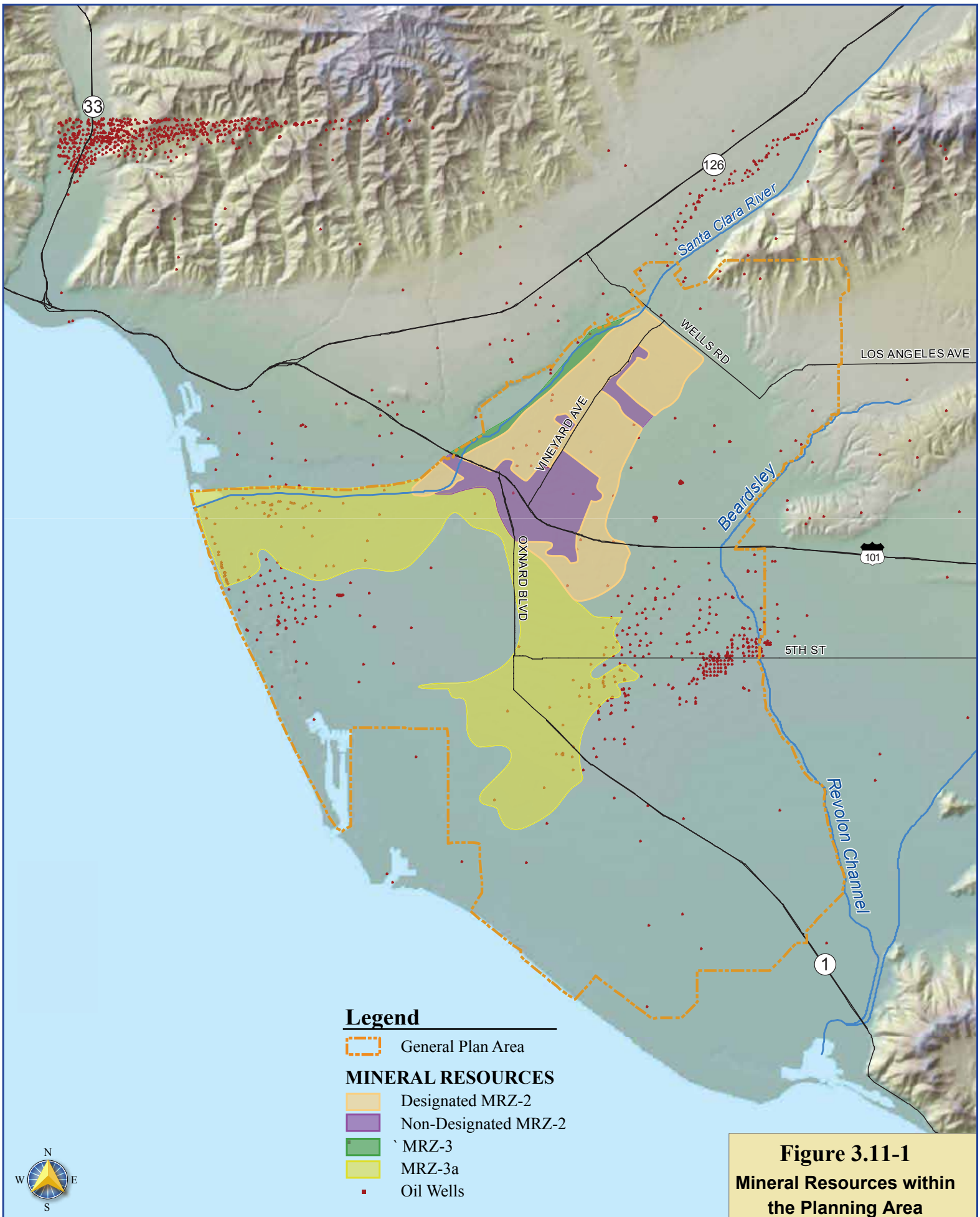

Figure 3.11-1
Mineral Resources within the Planning Area

Source: USGS, 1993; City of Oxnard, 2005; and ESA, 2006

Field, located near Nyeland Acres, contains approximately 18 active oil and gas wells and 12 inactive wells. The Oxnard Field contains 38 active oil and gas wells and 59 inactive wells. The El Rio Field is located at the crossing of Ventura Freeway and the Santa Clara River. However, no recent production data is available for this field.

An additional 50 abandoned oil well sites are located around the City's Planning Area but not within the identified oil fields shown discussed above. Major petroleum companies with leases in the Planning Area include Chevron, Shell, Texaco, Mobil, and Western LNG. The remainder of the leases is with smaller independent companies. (City of Oxnard 2030 General Plan).

3.11.4 Impact Analyses

This section includes a discussion of the relevant significance criteria, the approach and methodology to the analyses, and any identified impacts and mitigation measures.

3.11.4.1 Significance Criteria

Significance thresholds below are based on Appendix G (Environmental Checklist Form) of the *CEQA Guidelines* and modified from the City's *May 2017 CEQA Guidelines*, which indicates that a potentially significant impact on cultural and tribal resources would occur if the PWIMP would:

- Result in the loss of availability of a known mineral resource of value to the region or state; and/or
- Result in the loss of availability of a locally important mineral resource recovery site delineated in the 2030 General Plan or other adopted land use plan.

3.11.4.2 Approach and Methodology

As described in Chapter 2, Project description, the City's PWIMP is comprised of improvements to the City's Water Supply System, Recycled Water System, Wastewater System, and Stormwater System through build-out of the City's 2030 General Plan. However, the design details, final options, and the timing of construction phases are not precisely known, despite the best estimates provided in the schedules in Chapter 2. Further, it is not practical or prudent to try to provide project-level or detailed quantitative analysis at this time as many of the details are not known and the timing will likely change and/or the requirements for project-level analysis could change and be different in the future. As such, the environmental impact analysis for this section has been prepared at a programmatic level of detail and it addresses the full range of potential environmental effects associated with implementation of the PWIMP, but the analysis is more qualitative and general. Specifically, the analysis focuses on providing a discussion on potential significant impacts and provides broad mitigation measures that can and should be implemented at the project-level. This approach is consistent with the State CEQA Guidelines provisions for a Program EIR, as described in Section 15168, which suggests that the level of detail is dictated by "ripeness"; detailed analysis should be reserved for issues that are ripe for consideration.

In considering how the above significance criteria apply to the PWIMP, this analysis shows the location of identified mineral resources in the PWIMP Planning Area as shown above on Figure 3.11-1. If a PWIMP project would occur within, or block access to, an area designated as MRZ-2, or other known mineral resources, then a significant impact could occur.

Due to the nature of the proposed project, geology, soil, and mineral resource discussions will vary negligibly between project construction and operation. Therefore, the impact assessment discussion for this resource area is applicable to both construction and operation of PWIMP elements.

3.11.4.3 Impacts and Mitigation Measures

Based on the significance criteria and approach and methodology described above, the potential impacts are discussed below.

Impact 3.11-1: Construction and operation of the PWIMP could result in the loss of availability of a known mineral resource of value to the region or state. The potential temporary construction and long-term operational impacts are discussed below.

Temporary Construction and Long-Term Operational Impacts

The construction and operation of the PWIMP and individual facilities would not be located in areas that have known mineral resources of value, including MRZ-2 and any oil and gas fields. Most of the PWIMP facilities would be located in existing disturbed areas where there are no known minerals or would not interfere with mineral and/or oil and gas extraction. Further, the new proposed facilities would not be located in areas that have known mineral resources of value, including MRZ-2 and any oil and gas fields. As a result, the construction and/or operation of the PWIMP facilities and activities would have no impact to mineral resources of value and/or oil and gas reserves.

Significance Determination: No Impact.

Impact 3.11-2: Construction and operation of the PWIMP could result in the loss of availability of a locally important mineral resource recovery site delineated in the 2030 General Plan or other adopted land use plan. The potential temporary construction and long-term operational impacts are discussed below.

Temporary Construction and Long-term Operational Impacts

The construction and operation of the PWIMP and individual facilities would not be located in areas that have known mineral resources of value, including MRZ-2 and any oil and gas fields that are delineated in the 2030 General Plan and/or other adopted land use plans. Most of the PWIMP facilities would be located in existing disturbed areas where there are no known minerals or would not interfere with mineral and/or oil and gas extraction. Further, the new proposed facilities would not be located in areas that have known mineral resources of value, including MRZ-2 and any oil and gas fields. As a result, the construction and/or operation of the PWIMP facilities and activities would have no impact to mineral resources of value and/or oil and gas reserves.

Significance Determination: No Impact.

3.11.5 Cumulative Effects

The construction and operation of the PWIMP and individual facilities would not be located in areas that have known mineral resources of value, including MRZ-2 and any oil and gas fields. Most of the PWIMP facilities would be located in existing disturbed areas where there are no known minerals or would not interfere with mineral and/or oil and gas extraction. Further, the new proposed facilities would not be located in areas that have known mineral resources of value, including MRZ-2 and any oil and gas fields. As a result, the construction and/or operation of the PWIMP facilities and activities would have no impact, including cumulative impacts, to mineral resources of value and/or oil and gas reserves.