

3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

Chapter 3 presents the environmental setting, impacts, and mitigation measures for the Syar Alexander Valley Instream Mining Project. Topics addressed in these sections are based primarily on the checklist in Appendix G of the State CEQA Guidelines and consistent with the aggregate resource management plan (ARM Plan) and Sonoma County Surface Mining and Reclamation Ordinance (SMARO). The environmental resource topics for each of these categories are presented below.

- 3.1 Geology, Minerals, and Soils
- 3.2 Hydrology and Water Quality
- 3.3 Vegetation and Wildlife
- 3.4 Fisheries
- 3.5 Cultural Resources
- 3.6 Traffic and Circulation
- 3.7 Air Quality
- 3.8 Aesthetics
- 3.9 Noise
- 3.10 Public Services and Utilities
- 3.11 Hazards and Hazardous Materials
- 3.12 Energy
- 3.13 Land Use and Agriculture
- 3.14 Recreation

Each of the above sections is divided into three parts: Setting, Regulatory Framework, and Potential Impacts and Mitigation Measures. These are described in further detail below. Cumulative effects for each of the environmental topics above are evaluated in Chapter 4.

Setting. The setting includes the regional setting and the local setting. The regional setting presents the existing conditions within the study area vicinity and/or greater Sonoma County for the environmental topic. The local setting provides the existing conditions specific to the study area for the environmental topic.

Regulatory Framework. Where the Project study area falls within the jurisdiction of federal, state, and local regulatory agencies, the project proponent would be subject to the laws, regulations, and policies of those agencies. These regulations are intended to guide development and/or to reduce adverse effects on sensitive resources, or offer general guidance on the protection of such resources. The regulatory framework sections summarize the laws, rules, and regulations that may apply to the project for each issue area. These rules may also set the standards (significance criteria or thresholds of significance, as described below) by which potential project impacts are evaluated.

Potential Impacts and Mitigation Measures. The “Potential Impacts and Mitigation Measures” section presents the significance criteria (also referred to as thresholds of significance under CEQA) against which potential impacts are evaluated, and a discussion of potential impacts that would result from implementation of the proposed project. The significance criteria are based primarily on Appendix G of the State CEQA Guidelines. As defined by Section 15064.7(a) of the State CEQA Guidelines, thresholds of significance are an identifiable quantitative, qualitative, or

performance standard for a particular environmental effect. Additional criteria have been provided by the County of Sonoma for some issue areas.

The significance criteria presented in this EIR provide the basis for determining whether the project would have significant environmental effects, and as such are presented before the evaluation of potential impacts in Sections 3.1 through 3.14.

In determining the significance of impacts, many CEQA documents generally categorize impacts as “significant” or “less than significant” based on stated significance criteria. CEQA defines significance as a substantial or potentially substantial adverse change to the environment (Section 15382). The following terms are used in this EIR to characterize project impacts:

- *Significant:* Adverse environmental effects would occur (impacts would exceed the significance criterion or threshold defined for each environmental issue), and no mitigation measures are available to reduce impacts to levels below the significance criterion.
- *Less than Significant:* Environmental effects would not exceed the significance criterion.
- *Less than Significant with Mitigation:* Adverse environmental effects would occur but mitigation measures would be implemented to reduce adverse effects to less-than-significant levels.
- *No Impact:* No adverse environmental effects would occur.

As described in Chapter 1, “Introduction and Project Description”, the ARM Plan PEIR addressed the environmental setting and impacts of mining under the ARM Plan, and imposed appropriate mitigation measures. This EIR provides a full and independent analysis of the proposed project, including its environmental setting, environmental impacts (including those related to the new proposed mining techniques and adaptive management strategy), and, applicable mitigation measures.

In addition, all mining-related activities (e.g., vegetation removal, installation of access road and temporary bridge[s], skimming, and river enhancement plan [REP] activities) are evaluated as part of overall operation, rather than separately as construction and operation. As such, all physical changes resulting from the proposed project are evaluated in terms of operational effects in this EIR.

As described in Chapter 1, “Introduction and Project Description,” “[a]n EIR must include a description of the physical environmental conditions in the vicinity of the project as they exist at the time the notice of preparation (NOP) is published, or if no NOP is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.”

All on-site impacts resulting from gravel mining would be considered new impacts because they would occur in an area that is at present undisturbed by mining, even though large portions of the study area have been mined in the past. Project impacts are evaluated against a baseline that consists of the current undisturbed site.

CEQA addresses the potential for mitigation to reduce environmental impacts. CEQA states that “an EIR shall describe feasible measures which could minimize significant adverse impacts” (State CEQA Guidelines, Section 15126.4[a][1]). Mitigation measures are intended to do one of the following:

- avoid the impact altogether by not taking a certain action or parts of an action;
- minimize impacts by limiting the degree or magnitude of the action and its implementation;
- rectify the impact by repairing, rehabilitating, or restoring the affected environment; or
- reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action.

Significant impacts that cannot be mitigated to less-than-significant levels are considered unavoidable.

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