

3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

3.0 APPROACH TO THE ENVIRONMENTAL ANALYSIS

3.0.1 INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines (State CEQA Guidelines) require the environmental analysis for an environmental impact report (EIR) to include an evaluation of potentially significant effects on the environment associated with the project and to identify feasible mitigation for those effects. All phases of a proposed project, including planning, acquisition, development, and operation, are evaluated in the analysis. California Code of Regulations (CCR) Title 14, Section 15126.2 (14 CCR Section 15126.2) states that:

An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, and human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected.

An EIR must also discuss inconsistencies between the proposed project and applicable general plans and regional plans (14 CCR Section 15125[d]).

According to 14 CCR Section 15126.4, an EIR must describe potentially feasible measures that could minimize significant adverse impacts (Section 15126.4[a][1]) and measures that are fully enforceable through permit conditions, agreements, or other legally binding process (Section 15126.4[a][2]). Mitigation measures are not required for effects that are found to be less than significant.

The Council on Environmental Quality (CEQ) regulations for implementing the National Environmental Policy Act (NEPA) (the “NEPA regulations”) specify that a federal agency preparing an environmental impact statement (EIS) must consider the effects of the proposed action and alternatives under consideration on the environment; these include effects on ecological, aesthetic, and historical and cultural resources, and economic, social, and health effects (defined below). An EIS must also discuss possible conflicts with the objectives of federal, state, regional, and local land use plans, policies, or controls for the area concerned; energy requirements and conservation potential; urban quality; the relationship between short-term uses of the environment and long-term productivity; and irreversible or irretrievable commitments of resources. An EIS must identify relevant, reasonable mitigation measures that are not already included in the proposed action or alternatives under consideration that could avoid, minimize, rectify, reduce, eliminate, or compensate for the project’s adverse environmental effects (40 Code of Federal Regulations [CFR] 1502.14, 1502.16, 1508.8).

This draft document is known as a draft EIR/EIS (DEIR/DEIS). The following discussion introduces Chapter 3 of this DEIR/DEIS, which addresses the affected environment, environmental consequences, and mitigation measures for each environmental issue area, and explains the organization and general assumptions used in the

analysis. The reader is referred to the individual technical sections regarding specific assumptions and methodology and significance criteria (thresholds of significance) used in the analysis and determination of significance of impacts.

Sections 3.1 through 3.16 of this DEIR/DEIS present a discussion of existing conditions, environmental impacts associated with implementation of the proposed project and alternatives under consideration, mitigation measures to avoid or reduce the level of impact, and residual significant impacts (i.e., impacts that would be significant and unavoidable despite the imposition of feasible mitigation measures). Issues evaluated in these sections consist of a full range of environmental topics originally identified for review in the notice of preparation (NOP) prepared under CEQA requirements for the project and identified in scoping comments on the NOP and notice of intent (NOI), as required under NEPA. The NOP and NOI are included within the scoping report prepared for the project (Appendix B). Sections 3.1–3.16 each include the components described below.

3.0.2 SECTION CONTENTS AND DEFINITION OF TERMS

The environmental setting, impacts, and mitigation measures required by CEQA have been prepared using NEPA terminology (e.g., affected environment, environmental consequences, and mitigation measures). This chapter is organized by issue area, generally corresponding to topics in the CEQA Environmental Checklist (State CEQA Guidelines Appendix G, as amended), with the addition of “Environmental Justice,” which is required in the NEPA analysis pursuant to Presidential Executive Order 12898. As described below, each section follows the same format.

AFFECTED ENVIRONMENT

The “Affected Environment” subsection provides an overview of the baseline physical environmental conditions (i.e., the environmental baseline) on the project site and surrounding area as appropriate, in accordance with NEPA regulations (40 CFR 1502.10) and 14 CCR Section 15125, at the time the NOP was published on December 12, 2003. The State CEQA Guidelines also specify that the description of the physical environmental conditions at the time of the NOP is normally to serve as the baseline physical condition by which a lead agency determines whether impacts of a project are considered significant.

The baseline environmental conditions assumed in this DEIR/DEIS consist of existing conditions at the time the NOP was published (prior to removal of dredge tailings at the project site), with recognition that since publication of the NOP, Conditional Use Permits have been approved to remove the existing piles of dredge tailings from the project site, and that approval of other such permits is pending. Currently, Teichert Aggregates, Inc. (Teichert) holds a County of Sacramento Conditional Use Permit (No. 98-UPB-0503) for surface mining on 180 acres of the eastern portion of the project site (City of Rancho Cordova 2004) (see Exhibit 2-19 in Chapter 2, “Alternatives”). In June 2005, the City of Rancho Cordova (City) approved a second Conditional Use Permit application by Teichert to remove portions of the dredge tailings on the western portion of the project site in the proposed Phase 1 development area. In the future, the City expects to receive an Implementation Permit application from Granite Construction Company to remove additional dredge tailings from the central portion of the Rio del Oro project site. The proposed removal of additional dredge tailings will be subject to separate environmental review (not part of this project).

Although NEPA permits the use of future conditions after the initiation and/or completion of ongoing activities as a potential baseline, the City and USACE chose to use the most conservative approach in this DEIR/DEIS analysis, which is existing site conditions at the time that the NOP was published (prior to removal of dredge tailings). In other words, this DEIR/DEIS could have analyzed the project’s potential effects as compared to a baseline environmental setting that included any changes made to the existing setting since December 12, 2003. Instead, this document treats the baseline as the setting before initiation of any mining activities that have resulted in a removal of aggregate material from the project site.

This approach is consistent with the State CEQA Guidelines (14 CCR Section 15125), which state that the description of the physical environmental conditions in the vicinity of the project, as they exist at the time that the NOP is published, is the environmental setting that will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. This approach also has the virtue of avoiding the potential confusion that might result from using different baselines for CEQA and NEPA purposes.

These pending and approved Conditional Use and Implementation Permits would result in an alteration of the expected baseline conditions at the time of Rio del Oro project construction. Approximately 70% of the project site is composed of mine tailings (piles of cobblestones laid down in rows) that have formed rolling ridges covered with vegetation (see exhibits in Section 3.11, “Visual Resources”). In certain areas, these dredge tailings form broad, green mounds that are up to 30 feet tall. Cottonwood trees, shrubs, and annual grasses are growing in the dredge tailings. Mining would occur in areas where no sensitive biological resources are present. If biological resources are present, no mining would occur within an established 250-foot buffer of the sensitive resources. The project site would radically change from low-lying tailings mounds to a flat landscape, except where sensitive biological resources are present. (See also “On-Site Mining Activities Under Existing [2005] and Future Baseline Conditions [No Project Alternative]” discussed in Chapter 2, “Alternatives.”)

As mentioned above, the environmental baseline is the context against which potential project impacts are evaluated.

REGULATORY FRAMEWORK

The “Regulatory Framework” subsection identifies the plans, policies, laws, regulations, and ordinances that are relevant to each topical section and describes required permits and other approvals necessary to implement the project. As noted above, the EIR/EIS needs to address possible conflicts between the proposed action or alternatives under consideration and the objectives of federal, state, regional, or local formally adopted land use plans, policies, or controls for the area. Appendix F lists the relevant policies and objectives of the *Rancho Cordova General Plan* (City General Plan), as specified by City staff members.

Conflicts with any federal, state, or local formally adopted land use plans, policies, or controls for the area are considered appropriate topics under NEPA and must be addressed in the EIS (40 CFR 1502.16[c]). The City has analyzed the project for consistency with the policies of the City General Plan and standard City conditions of approval that are directly applicable to the project (see Appendix F). According to State CEQA Guidelines Section 15125(d), an EIR “shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans.” The final authority for interpreting policy statements and determining the project’s consistency with adopted policies rests with the City Council.

ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

The “Environmental Consequences and Mitigation Measures” subsection identifies the impacts of the project on the existing human and natural environment, in accordance with NEPA regulations (40 CFR 1502.16) and the State CEQA Guidelines (CCR Sections 15125 and 15143). The following discussions are included in this subsection.

- ▶ **Thresholds of Significance** provide criteria established by the lead agencies to define at what level an impact would be considered significant. Under CEQA, criteria are defined by a lead agency based on examples found in CEQA or the State CEQA Guidelines; scientific and factual data relative to the lead agency’s jurisdiction; regulatory performance standards of federal, state, regional, or local agencies; City goals, objectives, and policies (e.g., City General Plan); views of the public in the affected area; the policy/regulatory environment of affected jurisdictions; or other factors.

- ▶ **Analysis Methodology** describes the methods, process, procedures, and/or assumptions used to formulate and conduct the impact analysis.
- ▶ **Impact Analysis** provides an assessment of the potential impacts of the project (including off-site infrastructure improvements) and alternatives on the affected environment. This assessment also specifies why impacts are found to be significant and unavoidable, significant or potentially significant, or less than significant, or why there is no environmental impact. The program-level impact analysis, which covers the entire 3,828-acre specific plan area, is prepared in accordance with NEPA regulations (40 CFR 1500.4[i], 1502.4[b], and 1502.20) and the State CEQA Guidelines (CCR Sections 15152 and 15168). The project-level analysis is prepared in accordance with NEPA and the State CEQA Guidelines (14 CCR Section 15161); this level of impact analysis covers the 1,100-acre development Phase 1, including establishment of the wetland preserve for the entire specific plan area, to support the Department of the Army Section 404 permit under the federal Clean Water Act.
- ▶ **Project impacts** are organized under “Program Level Impacts and Mitigation Measures,” “Project-Level Impacts and Mitigation Measures,” and “Cumulative Impacts.” Project impacts are organized into three categories: direct, indirect, and cumulative impacts. Direct impacts are those that would be caused by the action and would occur at the same time and place. Indirect effects are reasonably foreseeable consequences that may occur at a later time, or at a distance that is removed from the project site. Examples of indirect effects include growth-inducing effects and other effects related to changes in land use patterns, population density, or growth rate, and related effects on the physical environment. A cumulative impact is an impact that would result from the incremental impact of the action when compounded with other past, present, and reasonably foreseeable future actions.

The impacts are listed numerically and sequentially throughout each section. For example, impacts in Section 3.3 are identified as 3.3-1, 3.3-2, and so on and are identified by the alternative that is applicable to the impact. For example, “PP” refers to the Proposed Project Alternative, “HD” refers to the High Density Alternative, “IM” refers to the Impact Minimization Alternative, “NF” refers to the No Federal Action Alternative, and “NP” refers to the No Project Alternative. An impact statement precedes the discussion of each impact and provides a summary of the impact. The discussion that follows the impact statement includes the evidence on which a conclusion is based regarding the level of impact. Impact conclusions are made using the significance criteria described above and include consideration of the “context” of the action and the “intensity” (severity) of its effects in accordance with NEPA guidance (40 CFR 1508.27).

The level of impact of the Proposed Project Alternative and alternatives under consideration is determined by comparing estimated effects with baseline conditions. Under CEQA, the environmental setting as it exists at the time the NOP is published (as defined above and as described in the “Affected Environment” sections of Chapter 3) normally represents baseline physical conditions. Under NEPA, the No Action Alternative (expected future conditions without the project) is the baseline against which the effects of a proposed action and action alternatives are compared. Although, in some instances, a NEPA “no action” scenario can involve significant anticipated changes to existing conditions based on actions taken by nonfederal parties, here the NEPA no action scenario is the same as the CEQA no project scenario. This approach, being conservative from an impact assessment standpoint, is permissible under NEPA and avoids any confusion that might be caused if this document used separate CEQA and NEPA baselines. Expected future conditions without the project are equivalent to no development. In this DEIR/DEIS, for all topics, conditions under the No Project Alternative are considered to be substantially equivalent to existing conditions, with the exception of the approved and pending mining applications to remove the dredge tailings.

- ▶ **Mitigation measures** to avoid, minimize, rectify, reduce, or compensate for significant and potentially significant impacts of the project, in accordance with the State CEQA Guidelines (14 CCR Sections 15002[1][a][3], 15021[a][2], and 15091[a][1]) and with NEPA regulations (40 CFR Part 1508, Section 20), where feasible, are recommended for each significant impact. Each mitigation measure is identified

numerically to correspond with the number of the impact being reduced by the measure. For example, Impact 3.3-1 would be mitigated by Mitigation Measure 3.3-1. Where no mitigation is required because the impact conclusion is “less than significant,” then the statement “no mitigation measures are required” is provided. Where no feasible mitigation is available to reduce impacts to a less-than-significant level, the impacts are identified as remaining “significant and unavoidable” and the statement “no mitigation measures are available” is provided with an explanation. Where no further mitigation is required because the mitigation would be carried out by another agency, as outlined in a previous certified CEQA document, then the statement “no further mitigation measures are required” is provided. Significant and unavoidable impacts are also summarized in Chapter 4, “Other Statutory Requirements,” under the subsection “Unavoidable Adverse Environmental Effects.”

- ▶ The **Residual Significant Impacts** subsection identifies any significant impacts that would still be significant even after implementation of the mitigation measures.

3.0.3 TERMINOLOGY USED TO DESCRIBE IMPACTS

IMPACT LEVELS

The EIR/EIS for the project uses the following terminology to denote the significance of environmental impacts of the project:

- ▶ **No impact** indicates that the construction, operation, and maintenance of the project would not have any direct or indirect effects on the environment. It means no change from existing conditions. This impact level does not need mitigation.
- ▶ A **less-than-significant impact** is one that would not result in a substantial or potentially substantial adverse change in the physical environment. This impact level does not require mitigation, even if feasible, under CEQA.
- ▶ A **significant impact** is defined by CEQA Section 21068 as one that would cause “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.” Levels of significance can vary by project, based on the change in the existing physical condition. This EIR/EIS uses the CEQA definition of significant impact because it is more stringent than that of NEPA. Under CEQA, mitigation measures or alternatives to the proposed project must be provided, where feasible, to reduce the magnitude of significant impacts.
- ▶ A **potentially significant impact** is one that, if it were to occur, would be considered a significant impact as described above; however, the occurrence of the impact cannot be immediately determined with certainty. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.
- ▶ A **significant and unavoidable impact** is one that would result in a substantial or potentially substantial adverse effect on the environment, and that could not be reduced to a less-than-significant level even with any feasible mitigation. Under CEQA, a project with significant and unavoidable impacts could proceed, but the lead agency would be required to prepare a “statement of overriding considerations” in accordance with State CEQA Guidelines Section 15093, explaining why the lead agency would proceed with the project in spite of the potential for significant impacts.
- ▶ A **beneficial impact** is an impact that is considered to cause a positive change or improvement in the environment and for which no mitigation measures are required.
- ▶ An impact may have a level of significance that is too uncertain to be reasonably determined, which would be designated **too speculative for meaningful evaluation**, in accordance with State CEQA Guidelines

Section 15145. Where some degree of evidence points to the reasonable potential for a significant effect, the DEIR/DEIS may explain that a determination of significance is uncertain, but is still assumed to be “potentially significant,” as described above. In other circumstances, after thorough investigation, the determination of significance may still be too speculative to be meaningful. This is an effect for which the degree of significance cannot be determined for specific reasons, such as because aspects of the impact itself are either unpredictable or the severity of consequences cannot be known at this time.

Two school impacts (Potential Land Use Conflict with California Department of Education Minimum Site Criteria for Siting the Proposed Elementary School and Proposed High School/Middle School) described in Section 3.1, “Land Use,” are assumed to be potentially significant because it is unclear whether further environmental review by the California Department of Education would identify potentially significant land use conflicts and mitigation measures. The level of significance of this impact cannot be adequately determined until Folsom-Cordova Unified School District conducts a separate, site-specific environmental review. CDE minimum site criteria identify various factors that must be considered in selecting a school site to protect the health and safety of students and staff. As described in more detail in this DEIR/DEIS, the designated elementary and middle school/high school sites would likely meet most of the minimum site criteria (e.g., proximity to high-voltage power lines, proximity to railroad tracks). However, factors such as the presence of aggregate mining operations east of the project site may require additional assessment based on CDE’s evaluation of the minimum site criteria.

IMPACT MECHANISMS

Mechanisms that could cause impacts are discussed for each issue area. General categories of impact mechanisms are construction of the project and activities related to future operations, as described in Chapter 2, “Alternatives.”

If the project is approved, site work could begin as early as summer/fall 2007 and completion by 2014 depending on the timing of environmental and regulatory approvals and market conditions. The environmental analysis focuses on baseline at the time the NOP was published (2003), as updated to account for Conditional Use and Implementation Permits issued for mining activities (2005). The project is expected to be built out over 25–30 years, with Phase 1 buildout by 2014. For transportation and circulation, the environmental analysis also addresses a future baseline (2014) in which it is anticipated that major regional transportation improvements would be implemented (Appendix I). Project effects fall into the following three categories:

- ▶ A **temporary effect** would occur only during construction or demolition. The environmental analysis addresses potentially significant impacts from the direct effects of construction at the project site, including demolition of existing structures and buildings, direct effects associated with site development and required on- and off-site infrastructure improvements, and indirect construction impacts associated with the proposed construction staging areas, fill activities, and construction traffic. While the construction impact analysis is focused on development Phase 1, these impacts are also expected for subsequent development phases (2–5) of the project.
- ▶ A **short-term effect** would last from the time construction ceases to within 3 years following construction.
- ▶ A **long-term effect** would last longer than 3 years following construction. In some cases, a long-term effect could be considered a permanent effect.
- ▶ A **direct effect** is an effect that would be caused by an action and would occur at the same time and place as the action.
- ▶ An **indirect effect** is an effect that would be caused by an action but would occur later in time, or at another location, yet is reasonably foreseeable in the future.

In accordance with Public Resources Code Section 21081.6(a), the City Council, if it approves the project, will adopt a mitigation monitoring and reporting program (MMRP) at the time that it certifies the EIR. The City

Council will also be required to adopt findings identifying each significant effect of the project and the extent to which feasible mitigation measures have been adopted. (Public Resources Code Section 21081.) USACE will also issue a Record of Decision (ROD) that will reflect USACE's final decision, the rationale behind the decision, and a commitment to monitoring and mitigation. According to Section 1505.2 of the NEPA regulations adopted by the CEQ, the ROD must do all of the following:

- (a) State what the decision was.
- (b) Identify all alternatives considered by the agency in reaching its decision, specifying the alternative or alternatives which were considered to be environmentally preferable. An agency may discuss preferences among alternatives based on relevant factors including economic and technical considerations and agency statutory missions. An agency shall identify and discuss all such factors including any essential considerations of national policy which were balanced by the agency in making its decision and state how those considerations entered into its decision.
- (c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation. The purpose of the MMRP prepared under CEQA is to ensure that the mitigation measures adopted as part of project approval will be complied with when the project is implemented. The MMRP will identify each of the mitigation measures and describe the party responsible for monitoring, the timeframe for implementation, and the program for monitoring compliance.

The following terms are also used in the impact analysis:

- ▶ A **cumulative impact** is a project impact that is cumulatively considerable (and thus significant) when compounded with impacts from other past, present, and reasonably foreseeable future projects. A project's incremental effects are not "cumulatively considerable" solely because other projects would have a significant cumulative impact; rather, the project would also need to contribute considerably to worsening these impacts.
- ▶ **Construction** applies to activities associated with ground disturbance, construction of new structures and infrastructure, and the demolition of existing structures and buildings.
- ▶ **Preproject conditions** refers to conditions before construction, which is assumed to be land contoured at natural grade from removal of dredge tailings. It is assumed that more than 763 acres of the dredge tailings could be removed if all three Conditional Use and Implementation Permits are approved. Dredge tailings would not be removed within 250 feet of sensitive biological resources.
- ▶ **No mitigation measures are required** is stated in the discussion of mitigation if the impact is considered minimal or less than significant and does not require mitigation.
- ▶ **No feasible mitigation measures are available** is stated in the discussion of mitigation if the impact is considered significant and unavoidable, and there is no feasible mitigation available to reduce the magnitude of the impact to a less-than-significant level. Several times the phrase "**no mitigation measures are required/available**" is stated because the alternatives under consideration have different mitigation requirements. For example, an alternative under consideration may result in a significant impact that cannot be reduced to a less-than-significant level because no feasible mitigation measures are available, whereas the No Project Alternative may result in a less-than-significant impact where no mitigation is required. Because of these differing impact conclusions, the phrase "no mitigation measures are required/available" is stated.
- ▶ **No further mitigation measures are required** is stated in the discussion of mitigation if the responsibility for mitigation implementation will be carried out by an agency outlined in a previously certified CEQA document (separate from the project) and no further mitigation is required by project implementation.