

SECTION 4.0 ENVIRONMENTAL IMPACT ANALYSIS OF ALTERNATIVES AND MITIGATION

This section has been revised in response to comments received on the Draft EIS/EIR (April 2009), and based on additional independent review by the lead agencies (U.S. Army Corps of Engineers and California Department of Fish and Game). The revised or additional text is shown in double-underline; deleted text is shown in ~~strikeout~~. Revised or new figures or tables (if applicable) are indicated by the addition of the following text to the figure or table title: **(Revised)** or **(New)**. The primary change made to this section is the addition of an evaluation of the Draft LEDPA, described below in **Subsection 4.0.6**.

4.0.1 SCOPE OF THE EIS/EIR ANALYSIS

Section 4.0 provides an introduction to the environmental impact analysis of alternatives and mitigation section for each of the following environmental issue areas addressed in this EIS/EIR (**Sections 4.1** through **4.20**):

- 4.0 Environmental Impact Analysis
 - 4.1 Surface Water Hydrology and Flood Control
 - 4.2 Geomorphology and Riparian Resources
 - 4.3 Water Resources
 - 4.4 Water Quality
 - 4.5 Biological Resources
 - 4.6 Jurisdictional Waters and Streams
 - 4.7 Air Quality
 - 4.8 Traffic
 - 4.9 Noise
 - 4.10 Cultural Resources
 - 4.11 Paleontological Resources
 - 4.12 Agricultural Resources
 - 4.13 Geology and Geologic Hazards
 - 4.14 Land Use
 - 4.15 Visual Resources
 - 4.16 Parks, Recreation, and Trails
 - 4.17 Hazards, Hazardous Materials, and Public Safety
 - 4.18 Public Services
 - 4.19 Socioeconomics and Environmental Justice
 - 4.20 Solid Waste

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4.0.2 SECTION FORMAT

Each environmental impact analysis section begins with an introduction to each environmental issue area. The introduction includes a description of the proposed Project's relationship to the Newhall Ranch Specific Plan and the Valencia Commerce Center (VCC) and Entrada planning areas, which are encompassed in the Project area. Following the introduction, each section contains: (a) a description of both the applicable regulatory setting and methodology, if applicable; (b) a description of the existing environmental conditions; (c) a listing of the applicable impact significance criteria; (d) an evaluation of the impacts of the proposed Project (Alternative 2), a "No Action/No Project" alternative (Alternative 1), and five Project alternatives (Alternatives 3-7); (e) identification of mitigation measures; (f) a summary of significance findings; and (g) a listing of significant unavoidable impacts, if any.

4.0.3 IMPACT TERMINOLOGY

As stated above, this is a joint EIS/EIR, prepared under the direction of the U.S. Army Corps of Engineers (Corps) as the federal lead agency and the California Department of Fish and Game (CDFG) as the state lead agency. Both agencies have obligations to disclose all impacts resulting from both their permitted activities and the underlying development that would be facilitated by approval of the proposed Project and alternatives.

Under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), the terms "effects" and "impacts" are used synonymously (40 C.F.R. § 1508.8). Direct or primary impacts are those caused on-site by the project itself, and that occur at the same time and place. Indirect impacts are those caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Under CEQA and NEPA, indirect impacts also are referred to as secondary effects. (Cal. Code Regs., tit. 14, § 15358, subd. (a)(1)(2).) Under NEPA, the Corps impact terminology application is slightly different. For example, the Army Corps' Standard Operating Procedures, a national policy guidance document, defines "direct impacts are those that happen in direct response to the permitted activity" while "indirect impacts . . . are those removed in time and/or distance in relation to the permitted activity. (Army Corps of Engineers, Standard Operating Procedures for the Regulatory Program (Oct. 15, 1999), p. 1.)¹ Under the Corps' procedures, the direct impact of construction of a dam is the loss of habitat within the dam footprint, while indirect impacts of dam construction include potential inundation of the area behind the dam. (Corps Standard Operating Procedures, p. 1.) Thus, here, the Corps would, for example, define direct impacts to only cover activities such as construction of the Resource Management and Development Plan (RMDP) facilities, while using the term indirect impacts to cover build-out of the Specific Plan. In contrast, CDFG would normally consider the RMDP construction activities and the Specific Plan build-out to both be direct impacts of the proposed Project.

¹ After circulation of the Draft EIS/EIR in April 2009, the Standard Operating Procedures (SOP) for the Corps' Regulatory Program were updated (see SOP, dated July 1, 2009). On page 17, the updated SOP defines both "direct effects" and "indirect effects." The definitions of those terms used above are similar to those defined in the July 2009 SOP.

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Regardless of the definitional differences, under both NEPA and CEQA, the Corps and CDFG must identify and analyze all impacts resulting from a proposed project and its alternatives, whether direct or indirect, and identify feasible, reasonable, and practical mitigation measures to avoid or minimize those identified impacts. (See 40 C.F.R. § 1502.16; Cal. Code Regs., tit. 14, §§ 15126.2 and 15126.4.) All impacts, whether classified as direct or indirect, must be analyzed at the same level and mitigation must be identified. To satisfy both the Corps and CDFG's informational and analytical needs in one document, this EIS/EIR utilizes the following format in analyzing the potentially significant impacts resulting from the proposed Project and the alternatives:

- (a) **Direct Impacts.** The analysis of direct impacts focuses on the temporary and permanent impacts resulting from the development and use of infrastructure facilities proposed by the RMDP and the establishment of spineflower preserves proposed by the Spineflower Conservation Plan (SCP) within the Project area. This analysis reflects the Corps' jurisdictional limitations required by the Corps' procedures.
- (b) **Indirect Impacts.** Implementation of the proposed Project (RMDP/SCP) and alternatives would facilitate or enable development within the approved Specific Plan area, the VCC planning area, and a portion of the Entrada planning area. This facilitated development is a reasonably foreseeable consequence of approving the proposed Project or the alternatives. Thus, each environmental issue area in **Section 4.0** analyzes the facilitated development as indirect impacts of the proposed Project. Similar to the example from the Corps' Standard Operating Procedures, cited above, direct impacts of the RMDP component of the proposed Project may include any potential loss of sensitive habitat within the footprint of infrastructure improvements (bridges, bank stabilization, *etc.*) in the Specific Plan area, while indirect impacts may include potential loss of additional habitat due to the Specific Plan development facilitated by the proposed Project.
- (c) **Secondary Impacts.** The analysis of secondary impacts from implementation of the proposed Project and alternatives focuses on those reasonably foreseeable impacts that occur off-site or at a later point in time. Please note that the use of the term "secondary impacts" is not ordinarily used by the Corps and CDFG. Normally, the Corps and CDFG would consider secondary impacts as synonymous with indirect impacts. For purposes of this EIS/EIR, however, the Corps is referring to indirect *off-site* impacts as "secondary impacts," and CDFG is following this protocol as well. Regardless of the terminology used, all such impacts are analyzed at the same level.
- (d) **Aggregated Impacts.** The environmental issue areas in **Section 4.0** aggregate, where appropriate, the direct and indirect impacts of the proposed Project, generally in a summary table form. In addition, some environmental issue areas include secondary impacts in the aggregate total. The aggregation of impacts is provided for disclosure and information purposes.

4.0.4 OTHER TERMINOLOGY

Section 4.0 utilizes other terminology to describe environmental effects of the proposed Project and the alternatives. This other terminology is described below:

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- (a) **Cumulative Impacts.** Under CEQA, "cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (Cal. Code Regs., tit. 14, § 15355.) CEQA requires that cumulative impacts be discussed when the "project's incremental effect is cumulatively considerable." (Cal. Code Regs., tit. 14, § 15130, subd. (a).) NEPA regulations define "cumulative impact" as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency ([f]ederal or non-[f]ederal) or person undertakes such other actions." (40 C.F.R. § 1508.7.) NEPA states that "[c]umulative impacts can result from individually minor but collectively significant actions taking place over a period of time." (40 C.F.R. § 1508.7.) In this EIS/EIR, cumulative impacts resulting from the proposed Project and alternatives are addressed separately in **Section 6.0**, Cumulative Impacts.
- (b) **Impact Significance Criteria.** In **Section 4.0**, each environmental issue area lists the significance criteria used by the Corps and CDFG to determine at what level an impact would be considered significant. The significance criteria is generally derived from Appendix G of the State CEQA Guidelines. The Corps is using the CEQA significance criteria for purposes of this joint EIS/EIR; however, the Corps generally will not adopt this criteria, and have applied additional federal requirements as appropriate in the EIS/EIR. In other limited circumstances, one or more of the environmental issue areas in **Section 4.0** utilize other impact significance criteria, in addition to those in Appendix G, based on factual or scientific information, or criteria based on regulatory standards.
- (c) **Significant Impact.** A project impact is considered significant if it would result in a substantial adverse change in the physical environment. Impact significance criteria (defined above) are identified and project impacts are evaluated in the context of the identified significance criteria.
- (d) **Less-Than-Significant Impact.** A project impact is considered less-than-significant when it does not reach the impact significance criteria; and, therefore, would not cause a substantial change in the physical environment. As a result, no mitigation is required or necessary.
- (e) **Mitigation Measures.** Mitigation measures must be feasible, practical, reasonable, and roughly proportional to the impacts of a proposed project. The mitigation also must avoid, minimize, rectify and/or restore, reduce, or compensate for identified significant impacts to the physical environment.
- (f) **Significant Unavoidable Impact.** A project impact is considered significant and unavoidable if it would result in a substantial adverse change in the physical environment that cannot be feasibly/reasonably avoided or mitigated to a less-than-significant level if the selected project is approved and implemented. Under CEQA, a Statement of Overriding Considerations must be adopted if a proposed project results in one or more significant unavoidable impacts. NEPA has no similar "overriding considerations" requirement.

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4.0.5 MITIGATION FRAMEWORK

Each environmental issue area analyzed in **Section 4.0** includes a description of mitigation measures. The framework for the discussion of mitigation measures falls into two categories, mitigation already required at the local level, and additional mitigation proposed by this EIS/EIR. This mitigation framework is described below:

- (a) **Mitigation Measures Already Required.** The Project area encompasses the approved Specific Plan area, the VCC planning area, and a portion of the Entrada planning area. Mitigation measures already have been required for the previously approved Specific Plan in environmental documentation certified by Los Angeles County. This previously adopted mitigation is summarized in table form in the "Introduction" subsection of each environmental issue area in **Section 4.0**. In addition, each environmental issue area in **Section 4.0** includes a "Mitigation Measures" subsection that lists *verbatim* the Specific Plan mitigation measures adopted by Los Angeles County, because such measures are pre-existing requirements applicable to the Specific Plan site.

Further, Los Angeles County imposed mitigation measures in a certified EIR for the VCC commercial/industrial complex currently under development by the applicant. This previously adopted mitigation also is summarized in table form in the "Introduction" subsection of each environmental issue area in **Section 4.0**. However, it should be noted that Los Angeles County has not adopted any new or additional mitigation measures applicable to the VCC planning area at this time. As explained in this EIS/EIR, the applicant has recently submitted to Los Angeles County the last tentative parcel map needed to complete build-out of the remaining undeveloped portion of the VCC planning area. The County will require preparation of an EIR in conjunction with the applicant's development application, which is expected to include additional mitigation for the VCC planning area.

As to the Entrada planning area, the applicant has submitted development applications, which cover the portion of the Entrada planning area facilitated by the SCP component of the proposed Project. However, as of this writing, Los Angeles County has not yet issued or approved an EIR for any portion of Entrada; as a result, there is no underlying local environmental documentation with adopted mitigation for any portion of the Entrada planning area.

- (b) **Additional Mitigation Measures Proposed by the EIS/EIR.** Most environmental issue areas analyzed in **Section 4.0** identify additional mitigation measures proposed by this EIS/EIR.

4.0.6 DRAFT LEDPA

The Corps has completed the draft 404(b)(1) alternatives analysis, which was prepared pursuant to the CWA section 404(b)(1) Guidelines. The Guidelines include several restrictions on discharges, and one of those restrictions prohibits any discharge if practicable alternatives exist that would have the least adverse impact on the aquatic environment, while avoiding other significant environmental consequences. In other words, a project resulting in the discharge must be the "least environmentally damaging practicable alternative" (LEDPA).

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The Corps' draft 404(b)(1) alternatives analysis, found in **Appendix F1.0** of the Final EIS/EIR, identifies the Draft LEDPA being considered by the Corps. (At the end of the required 30-day comment period, the Corps will prepare a concise record of its decision, including preparation of a final 404(b)(1) alternatives analysis.)

For information purposes, the Draft LEDPA is a modified version of Draft EIS/EIR Alternative 3. However, as a result of the agency and public review process, the Draft LEDPA includes additional avoidance of waters of the United States along the Santa Clara River and tributaries, increased spineflower preserve acreage in the Potrero, San Martinez Grande, Grapevine Mesa, and Airport Mesa areas, based on input received from CDFG, and larger riparian corridors within five major tributaries. As in Alternative 3, there would only be two bridges crossing the Santa Clara River (Commerce Center Drive Bridge and the Long Canyon Road Bridge), and the Potrero Canyon Road Bridge would not be constructed, reducing impacts to jurisdictional waters and wetlands in the Santa Clara River and lower Potrero Canyon. In addition, a 19-acre wetland mitigation area would be established in lower Potrero Canyon, contiguous with the existing lower mesic meadow (cismontane alkali marsh). In two major tributary drainages, Long and Potrero canyons, most of the existing drainages would be filled and modified so that there would not be a loss of Corps jurisdiction. In the three other major tributary drainages, Lion, San Martinez Grande, and Chiquito canyons, the Draft LEDPA would incorporate limited channel grading to expand the drainage and adjacent riparian areas and realign their banks. The remainder of the jurisdictional areas in Lion, San Martinez Grande and Chiquito Canyon would be avoided.

Overall, of the 660.1 acres of waters of the United States on the Project site, implementation of the Draft LEDPA would result in the permanent fill of 66.3 acres of waters of the United States (29 percent reduction in acreage compared to the proposed Project). The Draft LEDPA would temporarily disturb an additional 1.1 acres when compared to Alternative 3 (2 percent less than the proposed Project). The mitigation associated with the Draft LEDPA would ensure a no net loss of acreage and functions and values of waters of the United States. For purposes of CDFG's streambed jurisdiction under Fish & Game Code section 1600, *et seq.*, the Draft LEDPA would reduce related jurisdictional impacts by 34.4 acres compared to the proposed Project.

In addition, the Draft LEDPA would increase the acreage within the spineflower preserves from 167 acres to 247 acres. Under the Draft LEDPA, the acreage of occupied spineflower habitat protected would increase from 13.88 acres under the proposed Project to 13.97 acres, while the area of impacted occupied habitat would be decreased from 6.36 acres to 5.87 acres. The Draft LEDPA would result in a greater level of spineflower protection than the proposed SCP, with increased preservation of occupied habitat and less loss when compared to the proposed Project.

The Draft LEDPA also would facilitate development within the RMDP planning area (*i.e.*, Specific Plan area), including 19,812 residential units and 5.41 msf of commercial/industrial/business park floor area. Development in the SCP planning area (the Entrada and VCC planning areas) under the Draft LEDPA would be the same as provided under both the proposed Project and Alternative 3. Thus, in total, the Draft LEDPA, which would facilitate development within the Specific Plan site and not change the

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development within Entrada and VCC, would result in 21,537 dwelling units and 9.26 msf of commercial uses on the entire Project site. When compared to the proposed Project, the Draft LEDPA results in 1,073 fewer total dwelling units, and a reduction of 0.14 msf of commercial uses.

As required by NEPA, the Draft EIS/EIR evaluated a range of alternatives to the proposed Project, including Alternative 3 (Elimination of Planned Potrero Bridge and Additional Spineflower Preserve), which considered the development of 21,558 dwelling units and 9.33 msf of commercial square feet on the Project site. With these development characteristics, Alternative 3 is similar to the overall development characteristics of the Draft LEDPA; however, the Draft LEDPA would provide 621 fewer residential units and 0.07 fewer msf of commercial uses than Alternative 3.

The Draft EIS/EIR contemplated that, in addition to the NEPA alternatives analysis, the Corps would consider alternatives pursuant to the CWA section 404(b)(1) Guidelines and that this required analysis would be completed concurrently with the EIS/EIR and provided as an appendix in the Final EIS/EIR (see, e.g., Draft EIS/EIR, Executive Summary, p. ES-12). Consistent with that process, the Corps has selected the Draft LEDPA based on the Corps' draft 404(b)(1) alternatives analysis. This separate analysis, found in **Appendix F1.0** of the Final EIS/EIR, contains a thorough assessment of the process undertaken by the Corps to arrive at the Draft LEDPA, consistent with the CWA section 404(b)(1) Guidelines. In addition, the Corps has required that the Draft LEDPA be fully described in revised **Section 3.0**, Description of Alternatives, of the Final EIS/EIR. The Corps has also required that the Draft LEDPA be comparatively evaluated, by environmental category, to the other NEPA alternatives. This comparative assessment is found in revised **Section 5.0**, Comparison of Alternatives, of the Final EIS/EIR.

In general, the Draft LEDPA's impacts are the same as Alternative 3 with respect to water quality; traffic; cultural resources; agricultural resources; visual resources; parks, recreation and trails; and socioeconomics and environmental justice.

The Draft LEDPA and Alternative 3 also have slightly less impacts compared to the proposed Project (Alternative 2) with respect to water resources; biological resources; jurisdictional waters and streams; air quality; and noise.

In addition, the Draft LEDPA and Alternative 3 have substantially similar impacts when compared to the proposed Project (Alternative 2) with respect to surface water hydrology and flood control; geomorphology and riparian resources; paleontological resources; geology and geologic hazards; land use; hazards, hazardous materials, and public safety; public services; solid waste services; and global climate change.

For further information regarding the Draft LEDPA, which is similar to Alternative 3, please refer to the environmental analysis of Alternative 3 found in **Section 4.1** through **Section 4.20** of the Final EIS/EIR.