RESOLUTION OF THE BOARD OF SUPERVISORS OF

ORANGE COUNTY, CALIFORNIA

November 5, 2002

WHEREAS, on August 2, 2001 the County issued a Notice of Preparation/Initial Study for the Saddleback Meadows Project and caused that Notice of Preparation to be distributed to all responsible agencies, trustee agencies and interested parties; and

WHEREAS, the comments on the Notice of Preparation were considered by the County in preparing Draft Revised Subsequent EIR 566;

WHEREAS, a Notice of Completion for the DEIR was filed on April 26, 2002 giving public notice of the availability of the DEIR for review and comment; and

WHEREAS, copies of the DEIR were circulated for public review and comment between April 26, 2002 and August 24, 2002; and

WHEREAS, public comments have been received on the DEIR, and responses to those comments have been prepared and provided to the Planning Commission in a separately bound document entitled "Responses to Comments on the Final Revised Subsequent Environmental Impact Report No. 566 for the Saddleback Meadows Project": (the "Responses to Comments"); and

WHEREAS, consistent with CEQA Guidelines Section 15132, the DEIR and appendices, the Responses to Comments and all County Planning and Development Services Department (PDSD) Staff Reports to the Planning Commission and Board of Supervisors, including all minutes, transcripts, attachments, incorporation, and references, comprise the proposed Final Environmental Impact Report for the Project, and contain all information specified by that CEQA Guidelines section; and

WHEREAS, the Planning Commission held noticed public hearings on July 16, 2002 and August 28, 2002 to receive and consider public testimony with respect to the Saddleback Meadows Project; and

WHEREAS, as a result of comments and testimony received on the Saddleback Meadows Project, refinements have been made to the Project to address environmental, social, economic, and other concerns, as explained in the Responses to Comments; and

WHEREAS, the Amendment to the Foothill/Trabuco Specific Plan was presented to the Planning Commission and was reviewed in the July 16, 2002 and August 28, 2002 Staff Reports addressing those actions; and

WHEREAS, the PDSD prepared a proposed Final EIR for Planning Commission review as an advisory body to the Board of Supervisors on such matters; and

WHEREAS, the Planning Commission reviewed all environmental documentation comprising the Final EIR and can recommend that the Board find that the Final EIR considers all environmental effects of the proposed project and is complete and adequate and fully complies with all requirements of CEQA and the CEQA Guidelines; and

WHEREAS, the Planning Commission is an advisory body to the Board of Supervisors on this matter; and

WHEREAS, the Planning Commission has recommended by 3-2 vote that the Board of Supervisors find this EIR adequate and complete, and certify it as a Final EIR in compliance with CEQA Guidelines Section 15091; and

WHEREAS, a mitigation monitoring and reporting program has been drafted to meet the requirements of Public Resources Code Section 21081.6 as a Mitigation Measure Monitoring Program. This program is designed to ensure compliance with project changes imposed and mitigation measures imposed to avoid or substantially lessen the significant effects identified in the Final EIR. The mitigation monitoring report, which is included in the Final EIR and incorporated herein by reference, defines the following for each mitigation measure:

1. Method and Timing for Verification – In each case, a method and time for verifications of the mitigation, or review of evidence that mitigation has taken place, is provided. The method and verification points selected are designed to ensure that impact related components or project implementation are adequately addressed and do not proceed without establishing that the mitigation is assured.

2. Responsible Person – In each case, a public official is named in the mitigation measure as responsible for ensuring that the mitigation is carried out. To guarantee that the mitigation measure will

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not be inadvertently overlooked in connection with the issuance of a later permit, the supervising public official who grants the permit called for in the performance is named.

3. Definition of Mitigation – In each case (except where a mitigation, such as a geotechnical report, is a well-known procedure or term of art), the mitigation measure contains the criteria for mitigation, either in the form of adherence to certain adopted regulations or identification of the steps to be taken in mitigation; and

WHEREAS, Section 21081 of CEQA and Section 15091 of the CEQA Guidelines require that the Board of Supervisors make one or more of the following findings prior to approval of a project for which an EIR has been completed, identifying one or more significant effects of the Project, along with statements of facts supporting each finding:

Finding 1 – Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the EIR.

Finding 2 – Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Finding 3 – Specific economic, legal, social, technological or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR; and

WHEREAS, the Board contemplates and directs continuing compliance with CEQA and the CEQA Guidelines in the implementation of the phases and elements of the project; and

WHEREAS, attached to this Resolution and incorporated herein by reference are Exhibit A "Findings of Fact and Statement of Overriding Considerations for the Final Environmental Impact Report No. 566 (SCH #1996121072)" and Exhibit B "Mitigation Monitoring Program".

NOW THEREFORE, BE IT RESOLVED THAT:

1. The Board of Supervisors certifies the Final EIR prepared for the Saddleback Meadows Project as complete and adequate in that it addresses all environmental effects of the proposed project and fully complies with the requirements of the California Environmental Quality Act and CEQA Guidelines. The Final EIR is composed of the following elements:

a. Draft Revised Subsequent EIR No. 566 for the Saddleback Meadows Project;

b. Technical Appendices to Draft EIR;

c. Comments received on the Draft EIR and responses to those comments;

d. Mitigation Monitoring Program;

e. PDSD staff reports to the Planning Commission dated July 16, 2002 and August 28, 2002;

f. All Planning Commission minutes and resolutions;

g. All Board of Supervisors Agenda Staff Reports, resolutions, minutes, and findings;

h. All attachments, incorporation, and references delineated in a. through g. above. (All of the above information referred to in this resolution has been or will be on file with the Clerk of the Board of Supervisors, Building 10, Civic Center Plaza, Santa Ana, California and the County of Orange Planning and Development Services Department, 300 N. Flower Street, Santa Ana, California.)

2. The Board of Supervisors makes the findings contained in the attached "Findings of Fact and Statement of Overriding Considerations for the Final Environmental Impact Report No. 566 (SCH # 1996121072)" with respect to significant impacts identified in the Final EIR and finds that each fact in support of the findings is true and is based upon substantial evidence in the record, including the Final EIR. The "Findings of Fact and Statement of Overriding Considerations for the Final Environmental Impact Report No. 566 (SCH #1996121072)" is attached hereto (Exhibit A) and incorporated herein by this reference.

3. The Board finds that the Final EIR has identified all significant environmental effects of the project and that there are no known potential environmental impacts not addressed in the Final EIR.

4. The Board finds that all significant effects of the project are set forth in the "Findings of Fact and Statement of Overriding Considerations for the Final Environmental Impact Report No. 566 (SCH #1996121072)" and the Final EIR.

5. The Board finds that although the Final EIR identifies certain significant environmental effects that will result if the project is approved, all significant effects which can feasibly be mitigated or avoided have been reduced to an acceptable level by the incorporation of project design features,

standard conditions and requirements, and by the imposition of mitigation measures on the approved project. A listing of mitigation measures is incorporated in the findings in Exhibit A as part of the Mitigation Monitoring Program (Exhibit B to the Resolution).

6. The Board finds that the Final EIR has described reasonable alternatives to the project that could feasibly obtain the basic objectives of the project (including the "No Project" Alternative), even when these alternatives might impede the attainment of project objectives and might be more costly. Further, the Board finds that a good faith effort was made to incorporate suggested alternatives in the preparation of the Draft Revised Subsequent EIR and that a reasonable range of alternatives were considered in the review process of the Final EIR and ultimate decisions on the project.

7. This Board finds that no substantial evidence has been presented which would call into question the facts and conclusions in the EIR.

8. This Board finds that no significant new information has been added to this EIR pursuant to CEQA Guidelines Section 15088.5 such that further recirculation for additional public review is necessary.

9. This Board finds that, although Final EIR 566 identifies certain significant environmental effects that may occur if the Saddleback Meadows Project is approved, all significant effects that can feasibly be mitigated or avoided have been reduced to an acceptable level by the imposition of mitigation measures set forth in the "Mitigation Monitoring Program", attached hereto and marked as Exhibit B.

10. This Board finds that the "Mitigation Monitoring Program Final Environmental Impact Report 566", attached hereto and marked as Exhibit B, establishes a mechanism and procedures for implementing and verifying the mitigations pursuant to Public Resources Code 21081.6.

11. This Board adopts the "Mitigation Monitoring Program Final Environmental Impact Report 566", attached hereto and marked as Exhibit B and made a part hereof. These mitigation measures shall be incorporated into the Saddleback Meadows Project prior to or concurrent with project implementation.

12. This Board finds that the unavoidable significant adverse effects of the Foothill/Trabuco Specific Plan Amendment for the Saddleback Meadows Project as identified in Exhibit A, that have not

been reduced to a level of less than significant, have been lessened in their severity by the imposition of the mitigation measures identified in Exhibit B. This Board finds that the remaining unavoidable significant impacts are clearly outweighed by the economic, social, and other benefits of the Foothill/Trabuco Specific Plan Amendment for the Saddleback Meadows Project, as set forth in the "Statement of Overriding Considerations", attached hereto and incorporated into Exhibit A and made a part hereof.

13. This Board adopts the recitation of overriding considerations which justify approval of Foothill/Trabuco Specific Plan Amendment for the Saddleback Meadows Project notwithstanding certain unavoidable significant environmental effects which cannot feasibly be substantially mitigated as set forth in the "Statement of Overriding Considerations", included in attached Exhibit A and made a part hereof.

14. This Board finds that refinements that have been made in the Project do not amount to significant new information concerning the Project, nor has any significant new information concerning the Project become known to the Board of Supervisors through the public hearings held on the project, or through the comments on the DRSEIR and Responses to Comments.

15. This Board finds that Final EIR 566 reflects the independent review and judgment of the County of Orange.

16. This Board finds that Final EIR 566 serves as adequate and appropriate environmental documentation for the Foothill/Trabuco Specific Plan Amendment for the Saddleback Meadows Project.

BE IT FURTHER RESOLVED THAT, this Board of Supervisors hereby certifies Final EIR 566 as complete and adequate in that Final EIR 566 addresses all environmental effects of the Foothill/Trabuco Specific Plan Amendment for the Saddleback Meadows Project and Fully complies with the requirements of the CEQA Statute, the CEQA Guidelines, and the County's environmental analysis procedures.

BE IT FURTHER RESOLVED THAT, the Board of Supervisors certifies that Final EIR 566 has been completed in compliance with CEQA, was presented to the Board, and that this Board reviewed and considered the information contained in Final EIR 566 prior to approving the Saddleback Meadows Project.

The foregoing was passed and adopted by the following vote of the Orange County Board of Supervisors, on November 05, 2002, to wit:

AYES:	Supervisors:	TODD SPITZER, CHARLES V. SMITH, CYNTHIA P. COAD
NOES:	Supervisor(s):	THOMAS W. WILSON
EXCUSED:	Supervisor(s):	JAMES W. SILVA
ABSTAINED:	Supervisor(s):	

Cynthia P. Coad

CHAIR

STATE OF CALIFORNIA)
)
COUNTY OF ORANGE)

I, DARLENE J. BLOOM, Clerk of the Board of Orange County, California, hereby certify that a copy of this document has been delivered to the Chair of the Board and that the above and foregoing Resolution was duly and regularly adopted by the Orange County Board of Supervisors .

IN WITNESS WHEREOF, I have hereto set my hand and seal.

DARLENE J. BLOOM
Clerk of the Board
County of Orange, State of California

Resolution No: 02-347

Agenda Date: 11/05/2002

Item No: 101

I certify that the foregoing is a true and correct copy of the Resolution adopted by the Board of Supervisors, Orange County, State of California

DARLENE J. BLOOM, Clerk of the Board of Supervisors

By: _____
Deputy

A. Aerial Photo
B. Draft Resolution Certifying RSEIR 566, including:
  Exhibit A: Statement of Facts & Findings and
    Overriding Considerations
  Exhibit B: Mitigation & Reporting Program
C. Draft Ordinance Amending F/TSP (P. C. Recommendation)
D. Draft Ordinance Amending F/TSP (Staff Alternative)
E. Draft Resolution Approving Area Plan 98-2, including:
  Appendix A: Findings
  Appendix B: Conditions of Approval
F. F/TSP Review Board Comments
G. Existing BWR District Regulations
H. RE & PD District Regulations
I. Appeal Letter & Staff Response
J. Consistency Checklist
K. Planning Commission Minutes and Resolutions
L. Current Planning Reports
M. Environmental Planning Reports, including:
- Table 1 Summary of Facts and Findings
- Biological Opinion of October 26, 2001
- Wildlife Agencies letter dated June 26, 2002
- Dr. Dennis Murphy letter dated July 5, 2002
- Connor, Blake & Griffin, LLP letter dated August 8, 2002
- Connor, Blake & Griffin, LLP letter dated August 21, 2002
- TPG Management, Inc. letter dated July 31, 2002
- Responses to Commissioner Goacher's Comments

N. Area Plan 98-2 for 283 Units
O. Revised Subsequent EIR 566
- Volume 1
- Volume 2
- Volume 3
- Response to Comments
- Additional Viewshed Analysis

ATTACHMENT A

AERIAL PHOTO


SADDLE CREEK
LIVE OAK CANYON RD.
LIVE OAK PLAZA
EL TORO ROAD
ABBEY
SADDLEBACK MEADOWS
VALLEY VISTA WAY
MONASTERY
ONEILL REGIONAL PARK

FINDINGS OF FACT
And
STATEMENT OF OVERRIDING CONSIDERATIONS
For The
FINAL ENVIRONMENTAL IMPACT REPORT (FEIR 566)

1. INTRODUCTION

The Final Revised Subsequent Environmental Impact Report Number 566 (hereafter "Final EIR" or "FEIR") has been prepared pursuant to the California Environmental Quality Act to address the potential environmental effects of the proposed Saddleback Meadows project located in an unincorporated area of the County of Orange (hereafter "proposed project") and considered by the County in connection with its public consideration of requested approvals for the proposed project. The Draft EIR also analyzed the environmental effects of a range of project alternatives as well. The Final EIR and its separately bound technical appendices are incorporated herein by reference as though fully set forth.

1.1 PURPOSE AND LEGAL AUTHORITIES

The California Environmental Quality Act (hereafter "CEQA") was adopted in 1970 and is codified in California Public Resources Code §§ 21000 *et seq.* CEQA is an important environmental law applicable to most public agency decisions to carry out, authorize or approve projects that could have adverse effects on the environment. CEQA does not directly regulate project implementation or approvals through substantive standards or prohibitions, but rather CEQA generally requires only that agencies inform themselves about the potential environmental effects of a proposed project, carefully consider all pertinent environmental information before they act, provide the public an opportunity to review and comment on any environmental issues, and include conditions or other requirements to avoid or reduce potential significant adverse effects of the project or action when feasible. The County of Orange ("County") has adopted environmental protection procedures implementing CEQA and the state administrative guidelines issued pursuant to CEQA. The procedures for the County provide for the protection and enhancement of the environment by establishing principles, objectives, criteria, definitions and procedures for evaluation of both public and private projects, implementing CEQA and the state guidelines and providing for the preparation and evaluation of environmental documents in accordance therewith. The County's consideration of Findings of Fact and a Statement of Overriding Considerations are key steps in the process of considering the approval of the Proposed Project while concurrently protecting and enhancing the environment. The applicable standards and scope of the County's responsibilities are detailed in the following excerpts from the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, §§ 15000 *et seq.* ("Guidelines")).

Guidelines §15040. Authority Provided by CEQA.

(a) CEQA is intended to be used in conjunction with discretionary powers granted to public agencies by other laws.

(b) CEQA does not grant an agency new powers independent of the powers granted to the agency by other laws.

(c) Where another law grants an agency discretionary powers, CEQA supplements those discretionary powers by authorizing the agency to use the discretionary powers to mitigate or avoid significant effects on the environment when it is feasible to do so with respect to projects subject to the powers of the agency. Prior to January 1, 1983, CEQA provided implied authority for an agency to use its discretionary powers to mitigate or avoid significant effects on the environment. Effective January 1, 1983, CEQA provides express authority to do so.

(d) The exercise of the discretionary powers may take forms that had not been expected before the enactment of CEQA, but the exercise must be within the scope of the power.

(e) The exercise of discretionary powers for environmental protection shall be consistent with express or implied limitations provided by other laws.

Guidelines § 15041. Authority to Mitigate.

Within the limitations described in Section 15040,

(a) A lead agency for a project has authority to require feasible changes in any or all activities involved in the project in order to substantially lessen or avoid significant effects on the environment, consistent with applicable constitutional requirements such as the "nexus" and "rough proportionality" standards established by case law (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. City of Tigard,* (1994) 512 U.S. 374; *Ehrlich v. City of Culver City,* (1996) 12 Cal. 4th 854).

(b) When a public agency acts as a responsible agency for a project, the agency shall have more limited authority than a lead agency. The responsible agency may require changes in a project to lessen or avoid only the effects, either direct or indirect, of that part of the project which the agency will be called on to carry out or approve.

(c) With respect to a project which includes housing development, a lead or responsible agency shall not reduce the proposed number of housing units as a mitigation measure or alternative to lessen a particular significant effect on the environment if that agency determines that there is another feasible, specific

mitigation measure or alternative that would provide a comparable lessening of the significant effect.

Guidelines § 15042. Authority to Disapprove Projects.

A public agency may disapprove a project if necessary in order to avoid one or more significant effects on the environment that would occur if the project were approved as proposed. A lead agency has broader authority to disapprove a project than does a responsible agency. A responsible agency may refuse to approve a project in order to avoid direct or indirect environmental effects of that part of the project, which the responsible agency would be called on to carry out or approve. For example, an air quality management district acting as a responsible agency would not have authority to disapprove a project for water pollution effects that were unrelated to the air quality aspects of the project regulated by the district.

Guidelines § 15043. Authority to Approve Projects Despite Significant Effects.

A public agency may approve a project even though the project would cause a significant effect on the environment if the agency makes a fully informed and publicly disclosed decision that:

(a) There is no feasible way to lessen or avoid the significant effect (see Section 15091); and

(b) Specifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project. (See Section 15093.)

Guidelines § 15090. Certification of the Final EIR.

(a) Prior to approving a project the lead agency shall certify that:

(1) The final EIR has been completed in compliance with CEQA;

(2) The final EIR was presented to the decision-making body of the lead agency and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and

(3) The final EIR reflects the lead agency's independent judgment and analysis.

(b) When an EIR is certified by a non-elected decision-making body within a local lead agency that certification may be appealed to the local lead agency's elected decision-making body, if one exists. For example, certification of an EIR for a tentative subdivision map by a city's planning commission may be appealed to the city council. Each local lead agency shall provide for such appeals.

Guidelines § 15091. Findings.

(a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:

(1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.

(2) Such changes or alternations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

(b) The findings required by subsection (a) shall be supported by substantial evidence in the record.

(c) The finding in subsection (a)(2) shall not be made if the agency making the finding has concurrent jurisdiction with another agency to deal with identified feasible mitigation measures or alternatives. The finding in subsection (a)(3) shall describe the specific reasons for rejecting identified mitigation measures and project alternatives.

(d) When making the findings required in subsection (a)(1), the agency shall also adopt a program for reporting on or monitoring the changes, which it has either required in the project or made a condition of approval to avoid or substantially lessen significant environmental effects. These measures must be fully enforceable through permit conditions, agreements, or other measures.

(e) The public agency shall specify the location and custodian of the documents or other materials, which constitute the record of the proceedings upon which its decision is based.

(f) A statement made pursuant to Section 15093 does not substitute for the findings required by this section.

Guidelines § 15092. Approval.

(a) After considering the final EIR and in conjunction with making findings under Section 15091, the lead agency made decide whether or how to approve or carry out the project.

(b) A public agency shall not decide to approve or carry out a project for which an EIR was prepared unless either:

(1) The project as approved will not have a significant effect on the environment, or

(2) The agency has:

(A) Eliminated or substantially lessened all significant effects on the environment where feasible as shown in findings under Section 15091, and

(B) Determined that any remaining significant effects on the environment found to be unavoidable under Section 15091 are acceptable due to overriding concerns as described in Section 15093.

(c) With respect to a project, which includes housing development, the public agency shall not reduce the proposed number of housing units as a mitigation measure if it determines that there is another feasible specific mitigation measure available that will provide a comparable level of mitigation.

1.2 ENVIRONMENTAL IMPACT PROCESS

In accordance with CEQA, the DEIR was distributed to various public agencies, citizen groups and interested individuals on April 26, 2002 for a period of 45 days (see DEIR Appendix A.1 for a distribution list). The comment period closed June 10, 2002. However, the comment review period was extended an additional two-weeks per requests from California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) (see DEIR Appendix A.1). Thus, the comment review period closed on June 24, 2002. Orange County Planning and Development Services Department received a total of 27 letters from responsible agencies and special interest groups (see DEIR Appendix A.2).

1.3 DESCRIPTION OF PROPOSED PROJECT

The proposed project includes the phased development of 299 detached single-family residential units on a 222-acre site. Gross residential density for the proposed project would be 1.4 dwelling units per acre with an average lot size of 6,672 square feet and a minimum lot size of 5,000 square feet. The homes would be located on the relatively

level area in a broad crescent shape that flows along the southern and eastern sides of the site, while the steep terrain of the central canyon area has been left as open space.

Total developed area would be approximately 66.9 acres and the single-family residential units would occupy a total of 47.9 acres or 21.6 percent of the site. Total open space would be approximately 70 percent (155.1 acres) of the site.

However, Alternative 8 would both fulfill the project objectives and incrementally lessen the impact on the physical environment as compared with the proposed project. Alternative 8 includes the development of 283 single-family residential units on the project site. This alternative was developed to further reduce the biological impacts associated with the proposed project. Under Alternative 8, half of the ephemeral ponds on the site would remain, as compared to the proposed project.

Alternative 8 would result in approximately 21 percent of the site used for residential lots, and open space areas would slightly increase by approximately 2.3 acres. As with the proposed project, homes would be located on the relatively level area in a broad crescent shape that flows along the southern and eastern sides of the site.

1.4 DISCRETIONARY ACTIONS

Implementation of the Saddleback Meadows project requires the following discretionary approvals by the County of Orange:

Zone Change (ZC) 98-3: Required to amend the F/TSP ("Bridlewood Residential District") (Specific Plan Amendment), page III-20 (Section III.D.3.0 through 3.4) to provide as follows.

The Residential Estates (Planned Development) District Regulations of the Zoning Code shall apply to the Bridlewood Residential District. As long as the site is developed in accordance with Area Plan 98-2 and Vesting Tentative Tract Map 15230, the project site shall be exempt from all of the Regulations and Guidelines included in this Specific Plan. After the Planning Commission's consideration, the zone change was recommended to exclude the exemption of the project site from the Specific Plan regulations and guidelines, as it was found that the project otherwise complied with the Specific Plan regulations and guidelines.

Area Plan (AP) 98-2: Required to provide a master concept plan for the proposed project. Project specific details to be included in the area plan include architectural and landscape design guidelines and development standards, vehicular and pedestrian circulation features, infrastructure requirements, resource enhancement provisions and project phasing. Other features of the project including oak tree preservation/removal, open space dedication and park requirements will also be regulated by the Area Plan.

Vesting Tentative Tract Map 15230/Tentative Tract Map 15784: Required to subdivide the project site into legal lots for residential, streets, infrastructure, and natural open space.

Non-County discretionary permits required prior to project implementation include:

- Department of Fish and Game (CDFG) – 1603 Streambed Alteration Agreement
- U.S. Fish and Wildlife Service (USFWS) – Section 7 Consultation/4(d) Rule
- U.S. Army Corps of Engineers (USACE) – Section 404 Individual Permit
- California Regional Water Quality Control Board, San Diego Region (RWQCB) – National Pollution Discharge Elimination System (NPDES) Construction Stormwater Discharge Permit; Section 401 Water Quality Certification
- South Coast Air Quality Management District (SCAQMD) Authority to Construct/Operate Permit.

1.5 ENVIRONMENTAL SETTING

The project site is located within the Foothill/Trabuco Specific Plan (F/TSP) and the Aliso Creek Corridor Specific Plan, approximately ½ mile southerly of El Toro Road/Live Oak Canyon Road intersection in east-central unincorporated Orange County. The Saddleback Meadows site is situated amid the lower, southwestern foothills of the Santa Ana Mountains and is currently being used for horse and cattle grazing. Development on-site is limited to a small corral in the western portion of the site, remnants of several houses, and a few un-maintained access roads.

The entire project site is currently zoned "S" – Foothill/Trabuco Specific Plan and with an "SR" – Sign Restriction overlay district. A final Subdivision Map for 705 manufactured housing/mobile home units was recorded on the property in 1988.

1.6 PURPOSE OF CEQA FINDINGS

The County Board of Supervisors is considering approval of the project. This document has been prepared to explain the rationale that the County has used in making particular findings of the effects created by the project. CEQA findings play an important role in the consideration of projects for which an EIR is prepared. Under PRC § 21081 and Guidelines § 15091 above, where a final EIR identifies one or more significant environmental effects, a project may not be approved until the public agency makes written findings supported by substantial evidence in the administrative record as each of the significant effects. In turn, the three possible findings specified in Guidelines § 15091 (a) are:

(1) Changes or alterations have been required in, or incorporated into, the project, which avoid or substantially lessen the significant environmental effect as identified the final EIR.

(2) Such changes or alteration are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measure or project alternatives identified in the final EIR.

In turn, Guidelines § 15092 (b) provides that no agency shall approve a project for which an EIR was prepared unless either:

(1) The project as approved will not have a significant effect on the environment, or
(2) The agency has:
  (A) Eliminated or substantially lessened all significant effects on the environment where feasible as shown in findings under Section 15091, and
  (B) Determined that any remaining significant effects on the environment found to be unavoidable under Section 15091 are acceptable due to overriding concerns as described in Section 15093.

Based on the foregoing, the Guidelines do not provide a bright distinction between the meaning of "avoid" or "substantially lessen." The applicable Guidelines are based on PRC § 21081, which uses the phrase "mitigate or avoid", and hence it is generally considered that to "avoid" is to include changes or alterations that result in the significant effect being reduced to below a level of significance. In contrast, the phrase, "substantially lessen" is used to describe changes or alterations that materially reduce the significant effect, but not below a level of significance, thus, while mitigated, the effect remains significant. These Findings will distinguish, for the purposes of clarity, between the effects that have been "avoided" (thereby reduced below a level of significance) and those that have been "substantially lessened" (and thus remain significant).

In combination with the mitigation and monitoring program discussed immediately below, the following Findings and Statement of Overriding Considerations are binding obligations of the project to implement all required mitigation measures.

1.7 MITIGATION MONITORING PROGRAM

Pursuant to Public Resources Code section 21081.6, the County has also adopted a detailed mitigation monitoring program prepared by the EIR consultant under the direction of the County. The program is designed to assure that all mitigation measure as hereafter required are in fact implemented on a timely basis as the Proposed Project progresses through its development and construction phases. Compliance with the Mitigation and Monitoring Program is a condition of any County approvals and incorporated herein by this reference.

1.8 RECORD OF PROCEEDINGS

For all purposes of CEQA compliance, including these Findings of Fact and Statement of Overriding Considerations, the administrative record of all County proceedings and decisions regarding the environmental analysis shall include the following:

- The Draft and Final EIR, together with all appendices and technical reports referred to therein, whether separately bound or not;
- All reports, letters, applications, memoranda, maps or other planning and engineering documents prepared by the County, planning consultant, environmental consultant, project applicant or others presented to or before the decision-makers as determined by the County Clerk;
- All letters, reports or other documents submitted to the County by members of the public or public agencies in connection with the County's environmental analysis;
- All minutes of any public workshops, meetings or hearings, including the scoping sessions, and any recorded or verbatim transcripts/videotapes thereof;
- Any letters, reports or other documents or other evidence submitted into the record at any public workshops, meetings or hearings; and
- Matters of common general knowledge to the County, which they may consider, including applicable state or local laws, ordinances and policies, the General Plan and all applicable planning programs and policies of the County.

The custodian of the full administrative record shall be the County of Orange, Planning & Development Services Department.

2. FINDINGS REGARDING PROJECT IMPACTS, REQUIRED MITIGATION MEASURES AND SUPPORTING FACTS

The Board of Supervisors has reviewed the proposed FEIR prepared to evaluate the proposed project including Alternative 8 and has considered the public record on the project as earlier described in these findings.

These findings summarize the data and conclusions contained in the DEIR, the various responses to comments and administrative record. The DEIR, the various responses to comments and administrative record are incorporated into these findings as set forth in full.

Consistent with the requirements of CEQA Guidelines, the DEIR for the proposed project including Alternative 8 discusses environmental effects in proportion to their severity and probability of occurrence. To that end, the EIR recognizes that certain areas of impact from the project are unlikely to occur, or if potentially occurring can be mitigated to a level of insignificance by imposition of standard conditions for permits associated with the project.

The FEIR identified a number of potentially significant adverse effects to the physical environment as a result of the project. The FEIR also identified mitigation measures that would reduce or eliminate potential adverse effects to a level of insignificance. These effects and the mitigation measures are summarized below.

All mitigation measures have been written as a monitoring program pursuant to Public Resources Code section 21081.6. The drafting of these measures has been designed to ensure compliance during project implementation as explained further in the FEIR. A mitigation monitoring program and checklist has been attached to this resolution.

These findings merely summarize data in the EIR administrative record for purposes of identifying the significant impacts and mitigation measures for the project. The FEIR, with all the referenced contents, is incorporated by reference into these findings as substantial evidence therefore, as set forth fully in the findings.

2.1 ENVIRONMENTAL IMPACTS NOT REQUIRING MITIGATION

2.1.1 LAND USE

Impact

Less than substantial.

Findings

Upon adoption of the requested Zone Change, the proposed project would achieve consistency with the F/TSP. The proposed project and Alternative 8 would be consistent with the General Plan and other adopted plans and policies for the project area. In addition, due to a natural space buffer, implementation of the proposed project or Alternative 8 would not result in significant land use compatibility impacts to the Rama Krishna Monastery or St. Michael's Abbey.

Project Design Features

PDF 1-1 The proposed project or Alternative 8 as designed is compatible with existing surrounding residential areas with minimum 5,000 square foot single-family detached residential lots.

PDF 1-2 The proposed project or Alternative 8 development as designed provides an average 1,200 foot natural open space buffer between the proposed development area and St. Michael's Abbey, and a 2,000 foot natural open space buffer between the proposed project and the Rama Krishna Monastery. The project also proposes berming and landscape screening to further shield views of the project.

Standard County Conditions

The following standard county conditions are designed specifically to mitigate project impacts related to land.

SC 1-1 Prior to the issuance of any building permits for residential construction, the developer shall comply with Board of Supervisors Resolution 82-1368 (Buyer Notification Program) which requires the developer to prepare a map denoting the existing and proposed land uses, arterial highways, and public facilities within the surrounding area for the approval of the Manager, PDS/Current Planning Services Division. The map content, display, and distribution shall be in accordance with the Buyer Notification Program guidelines approved by the Board of Supervisors and available at the Development Processing Center.

SC 1-2 If appropriate, prior to the issuance of any certificates of use and occupancy, the developer shall provide evidence to the Manager, PDS/Building Inspection Services Division, that the Department of Real Estate has been notified that the project area is within the boundaries of a Community Facilities District (CFD), and will be subject to special taxes for public facilities and/or services.

Mitigation Measures

With implementation of Project Design Features and Standard County Conditions, no additional mitigation measures would be required.

Factual Support and Rationale

The property is surrounded by numerous uses. The project's neighbors include St. Michael's Abbey, which includes a high school preparatory school; Santiago Canyon Estates, a recently developed 78-unit single family residential project; a 23 acre triangle recently approved for commercial development; the Hidden Ridge/Hidden Hills development which contains 230 residential units; the O'Neill Regional Park (a wilderness area); a Rama Krishna Monastery which includes a series of structures for worship, residence, a kitchen and storage; and the Portola Hills Planned Community which has most of the 2,818 detached and attached dwelling units, a County fire station, elementary school, and natural open space. Because there are numerous and similar developments in the community, development, and specifically development of this nature is not foreign to the area.

The project site is partially located within the Aliso Creek Corridor Specific Plan, with the Specific Plan's boundary formed by the Aliso Creek watershed limits.

The entire project site is currently zoned "S"-F/TSP with "SR"-Sign Restriction overlay district. The Bridlewood/Saddleback Meadows Residential District was established

within the Foothill-Trabuco Specific Plan, adopted December 1991, to recognize the existing zoning and tract map approvals for the Bridlewood/Saddleback Meadows property.

Ultimately, the proposed use is not incompatible with the neighboring uses because: (1) the proposed project has a lower gross density than the surrounding area projects, and the project would therefore not cause significant urban growth beyond what was already envisioned; (2) 83.25 acres of the site (under the proposed project, 88.2 acres under Alternative 8) would be dedicated by the applicant to the County for use by the neighboring O'Neill Regional Park, and conforms to planned uses adjacent to the project; and (3) topographic and natural space buffering would mitigate inconsistent use with the nearby Rama Krishna Monastery and St. Michael's Abbey.

Further, the proposed project or Alternative 8 substantially complies with the previously approved and Recorded Map 10692, with respect to proposed residential gross density and providing for the provision of a substantial increase in open space and the presence of a wildlife corridor as outlined in the F/TSP. As such, the proposed project including Alternative 8 is exempt from these regulations and guidelines contained in the F/TSP.

The Aliso Creek Corridor Specific Plan pre-dates both the F/TSP and Recorded Tract Map 10692 and has not been updated to reflect those approved land uses; however the proposed project would not conflict with several aspects of the Aliso Creek Corridor Specific Plan as it incorporates regional riding and hiking trail connections into its design. In addition, the project would preserve recreational open space and conserve the natural features of the Aliso Creek Corridor. Therefore, the proposed project and Alternative 8 would be in conformance with the Aliso Creek Corridor Specific Plan.

Cumulative Impact

Implementation of the proposed project or Alternative 8 and related projects would result in the cumulative loss of open space and increased urbanization within the F/TSP area and Orange County. However, because the urban growth conforms to the General Plan and is therefore foreseen, the growth would be considered adverse, but not significant.

2.1.2 HYDROLOGY

Impact

Implementation of the proposed project or Alternative 8 would result in the introduction of impervious surfaces (streets, driveways, residential units) and would result in a decrease in the area available for storm water percolation and a subsequent increase in stormflow runoff.

Findings

With the implementation of Project Design Features and Standard County Conditions, the proposed project or Alternative 8 would not have a significant impact on hydrology.

Project Design Features

PDF 3-1 A master drainage concept has been incorporated into the project design to mitigate hydrology impacts to existing OCFCDs requirements and standards. The master drainage concept proposes a series of storm drains, catch basins, inlet/outlet structures, energy dissipators and slope drains to control project drainage. In addition a riverine water quality filtration system is proposed adjacent to the primary on-site spine road to cleanse low flow urban runoff pollutants. The proposed storm drain system, constructed of reinforced concrete pipe (RCP), is a series of storm drains that discharge at four distinct points. Discharge Point 1 is composed of a 96-inch double corrugated steel pipe and is located at the existing facility "J01" per SD plan # J01-701-15. Discharge Point 2 is composed of an existing 24-inch RCP, line "B", per SD plan # J01-701-15. Discharge Point 3 is also composed of an existing 24-inch RCP, lines "A", "B", "C", per implementation plans Tract 12724. Discharge Point 4 drains to Oso Creek in natural drainage course. This Project Design Feature is being prepared in consultation with USACE.

Standard County Conditions

SC 3-1 Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the issuance of any grading permits, whichever comes first, the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division:

Prepare a drainage study determining the effect the proposed development and associated drainage patterns will have on existing drainage facilities. The study shall include an analysis of erosion and sediment transport impacts due to increased flows from the project site, and utilize Orange County Flood Control District's Criteria and Standards where applicable, per the *1986 Orange County Hydrology Manual* and its *Addendum No. 1.*

Mitigate either by on-site retardation or by providing improvements appropriately to impacted existing drainage facilities.

SC 3-2 Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the issuance of any grading permits, whichever comes first, the applicant shall, in a manner meeting

the approval of the Manager, PDS/Subdivision and Grading Services Division:

1) Design and convey construction funds for surface drainage improvements; and

2) Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and

3) Dedicate the associated easements to the County of Orange, if determined necessary.

SC 3-3 Prior to the issuance of any certificates of use and occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, PF&R/Construction Division. Prior to the issuance of any certificates of use and occupancy, the applicant shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange or the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting of any said easements, the subdivider shall furnish a copy of the proposed and approved easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval. A copy of the approved easement shall be furnished to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificate of use and occupancy.

SC 3-4 Prior to the recordation of a final tract/parcel map or prior to the issuance of any grading permit, whichever comes first, and if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations.

SC 3-5 Prior to issuance of any building permits, the applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division, including payment of fees and the construction of the necessary facilities.

SC 3-6 Potential to impact the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 3-7 Prior to the issuance of a subdivision map, the subdivider shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange of the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting of any of said easements, the subdivider shall furnish a copy of the proposed easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval.

SC 3-8 Prior to the recordation of a final tract/parcel map, Regional Facility/Aliso Creek shall be improved by the construction of fee related improvements and right-of-way dedicated to the Orange County Flood Control District in a manner meeting the approval of the PDS/Subdivision and Grading Services Division.

Mitigation Measures

With implementation of Project Design Features and Standard County Conditions for development, no additional mitigation measures would be required.

Factual Support and Rationale

Although implementation of the proposed project or Alternative 8 would increase impervious surfaces and stormflow runoff, drainage leaving the site would continue to follow natural drainage patterns. Further, implementation of the proposed project or Alternative 8 would also result in the revegetation of over 44 acres of the property that is currently overgrazed and subject to high runoff and erosion.

Storm drains, catch basins and inlet/outlet structures designed to accommodate a 100-year storm event will be constructed. Actual predicted runoff from the property in the current degraded condition is in fact an estimated 20 to 30 percent higher than the values determined by County mandated runoff coefficients. Moreover, with the implementation of Project Design Features and Standard County Conditions no significant impacts to hydrologic conditions would occur.

Cumulative Impact

Implementation of the proposed project or Alternative 8, in conjunction with related projects located within the watershed of both Aliso and Oso Creeks, would result in increased flows and increased urban runoff. However, all related project would be required to mitigate impacts and therefore, cumulative impacts would not be significant.

2.1.3 PUBLIC SERVICES – POLICE PROTECTION

Impact

The additional population generated by the proposed project or Alternative 8 would increase the need for additional police protection services. Based on the officer ratio of one per 1,000 residents, the increase would not warrant a full-time additional officer. However, based on staffing methodology employed by the Orange County Sheriff-Coroner's Department, the increase in population would add approximately 300 more service calls per year, requiring four additional deputies to be added to the department. The demand for police services would be slightly less under Alternative 8, due to a decrease in units and associated population. Moreover, based on its size and location, the proposed project or Alternative 8 may impact existing response times with additional traffic congestion.

Findings

With implementation of Standard County Conditions for development, no significant impacts are expected to occur.

Project Design Features

There are no Project Design Features related to police protection services.

Standard County Conditions

SC 13-1 The OCSCD shall be consulted during final project design to minimize security related impacts.

SC 13-2 Prior to the issuance of the first building permit, the project applicant shall enter into an agreement to: (1) participate in funding the provision of the Saddleback Sheriff's Station; and (2) fund the provision of patrol and investigator cars needed to serve the project.

Mitigation Measures

With implementation of Standard County Conditions for development, no additional mitigation measures would be required.

Factual Support and Rationale

The additional service calls the proposed project or Alternative 8 is expected to generate would require one additional deputy sheriff per shift plus a relief, for a total of four additional deputies. However, implementation of the proposed project or Alternative 8 would serve to increase the existing funding mechanisms (i.e., property taxes) for any additional officers required to serve the project area. Moreover, compliance with the

Standard County Conditions would prevent any significant impacts. Such conditions include: 1) consultation with OCSCD regarding security during final project design; and, 2) the applicant must enter into an agreement to: (a) participate in funding the Saddleback Sheriff's Station; and (b) fund the patrol and investigator cars needed to serve the project. Moreover, implementation of the traffic-related mitigation measures in Section 4.5 would reduce impacts on all affected intersections to less than significant. Therefore, no significant impact with regard to emergency access would result.

Cumulative Impact

With the other related projects, the cumulative residential population increase would require approximately 3.8 additional police officers in order to meet OCSCD standards. However, as with the proposed project or Alternative 8, implementation of the related projects would serve to increase the existing funding mechanisms (i.e., property taxes) for any additional officers required to serve the project area. Therefore, any cumulative impacts would not be considered significant.

2.1.4 PUBLIC SERVICES - SCHOOLS

Impact

Based on the current student generation factors for single-family residential uses, an estimated 169 total students would be generated by the proposed project, thereby impacting an already over-crowded Saddleback Valley Unified School District (SVUSD) school system. Alternative 8 would result in an estimated 159 new students.

Findings

Schools within the SVUSD are currently operating at over-capacity. Payment of development fees as required by state law would provide funding to mitigate the project-specific impacts of students generated by the proposed project or Alternative 8. Therefore, impacts to schools would be less than significant.

Project Design Features

PDF 14-1 A *School Impact Mitigation Agreement* has been negotiated with SVUSD to mitigate project impacts.

Standard County Conditions

SC 14-1 Prior to the issuance of building permits, the applicant shall pay all applicable school fees required in accordance with state law. Current school impact fees are $2.05 per square foot of residential.

Mitigation Measures

With the implementation of the Project Design Feature and Standard County Condition, no mitigation measures would be required.

Factual Support and Rationale

The project site is within the territorial boundaries of three SVUSD schools, two of which are already overcrowded and which are currently meeting overcrowding needs through the use of portable classrooms. Implementation of the proposed project or Alternative 8 would require additional portable classrooms in order to meet class size reduction standards. However, the School Facilities Act (Government Code section 65995 *et seq.*) was enacted to allow school districts to assess developer fees to help cover the cost of constructing or reconstructing school facilities necessary to accommodate increases in student population. Here, the project applicant has already negotiated a School Facilities Mitigation Agreement with SVUSD, agreeing to pay school impact fees at $8,086 per residential dwelling unit (the Standard County Condition is $2.05 per square foot of residential space). Payment of these development fees would offset the impacts posed by the additional students generated by the proposed project or Alternative 8. Therefore, the proposed project or Alternative 8 would not result in significant impacts related to schools.

Cumulative Impact

Of the seven other related projects, four are not expected to directly generate students, but a small additional increase in students may result if employees associated with new commercial development move into the area. However, such increases are not anticipated to be significant.

The other three related projects, however, are projected to generate approximately 497 students among them. Area schools would not be able to accommodate the additional students associated with these projects. The proposed project or Alternative 8, in combination with District-wide growth, would cumulatively impact the ability of SVUSD to adequately provide school services. However, as with the proposed project or Alternative 8, all related projects would be required to pay applicable developer fees to offset these impacts. Therefore, cumulative impacts to schools would not be significant.

2.1.5 PUBLIC SERVICES - LIBRARIES

Impact

Implementation of the proposed project or Alternative 8 would increase the demand for library services, thereby increasing the need for additional facilities and materials (e.g., books, periodicals, audio tapes, videos, etc.).

Findings

The proposed project or Alternative 8 would not result in significant impacts related to library services or required facilities.

Project Design Features

There are no Project Design Features related to provision of library services.

Standard County Conditions

There are no Standard County Conditions related to provision of library services.

Mitigation Measures

No mitigation measures are required.

Factual Support and Rationale

The Orange County Public Library (OCPL) operates library facilities and services county-wide. Based on the established OCPL standards, the proposed project would result in the need for an additional 177 square feet of library space and 1,323 additional library items. Alternative 8 would result in slightly less, and require 167 square feet of library space and 1,253 additional library materials.

The project site is currently served by the Rancho Santa Margarita branch library, which is not adequate, per OCPL standards, to meet the current service population. However, a new facility, the 10,000-square-foot Foothill Ranch branch library, is currently under construction and scheduled to open this year. The opening of the Foothill Ranch library would allow the existing library facilities to meet OCPL standards without further mitigation.

Cumulative Impact

The cumulative increase in population due to the proposed project or Alternative 8 and the other related projects would result in a further increase in the need for additional library space and additional library items in order to meet OCPL standards. However, as with the proposed project or Alternative 8, all related project would be required to mitigate impacts. Further the opening of the new Foothill Ranch library, cumulative impacts to libraries would not be significant.

2.1.6 UTILITIES AND SERVICE SYSTEMS - ELECTRICITY

Impact

The additional population generated by the proposed project would consume an increased amount of electricity from Southern California Edison Company (SCE), which provides electrical service to the project site.

Findings

It is not anticipated that development of the proposed project or Alternative 8 would significantly impact the supply of electricity or exceed the planned capacity of existing electricity distribution systems. Therefore, the proposed project or Alternative 8 is not anticipated to result in significant impacts related to electrical services.

Project Design Features

PDF 19-1 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Standard County Conditions

SC 19-1 Prior to the issuance of a building permit, project proponent shall consult with the local gas and electric companies regarding feasible energy conservation features that should be included in the design of the proposed project. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 19-2 Prior to the issuance of a building permit, the project proponent shall incorporate passive or natural heating and cooling opportunities in the design of the proposed project including but not limited to the following: solar energy use; thermal insulation; tinted or solar reflective glass; orientation to sunlight; use of deciduous trees in landscaping; installation of roof fans; utilize fluorescent lighting, switches and thermostat, utilize time-controlled lighting; and, utilize AC units with 100 percent outdoor air economize. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Mitigation Measures

The proposed project or Alternative 8 would have no significant impacts on SCE's ability to supply electricity to the project area. Compliance with Standard County Conditions would further ensure impacts related to electrical services would not be significant.

Factual Support and Rationale

Based on the standard electrical consumption factor for residential land uses (i.e., 5,626.50 kWh/unit/year), the proposed project would consume an estimated 1,682,324 kWh of electricity per year. Alternative 8 would result in a decreased consumption of approximately 134,400 kWh of electricity a year, as compared to the proposed project. SCE indicates that this demand is within the parameters of the overall projected load growth it is planning to meet. In addition, should shortage of energy and/or generating capacity ever occur, it would apportion its available supply as set forth in its Rule No. 14, *Shortage of Supply and Interruption of Delivery*. SCE further indicates the proposed project or Alternative 8 would also be required to comply with the energy conservation standards set forth in the California Administrative Code.

In addition, the proposed project or Alternative 8 will be required to comply with Project Design Features requiring all utilities to be installed by the applicant in accordance with County requirements as well as Standard County Conditions requiring the applicant to: 1) consult with local gas and electric companies regarding feasible energy conservation features to be included in the project design; and, 2) incorporate passive or natural heating and cooling devices into the project design.

Cumulative Impact

Together, the proposed project or Alternative 8 and the related projects would result in an increase in the amount of electricity consumed per year. However, according to SCE staff, demands for additional electrical infrastructure in the project vicinity are not expected to result in a significant impact upon SCE electrical facilities or existing electrical supplies. Moreover, each of the related projects would be subject to State Energy Conservation Standards on a project-by-project basis, as stipulated in Title 24.

2.1.7 Utilities and Service Systems – Natural Gas

Impact

The additional population generated by the proposed project or Alternative 8 would consume an increased amount of natural gas from the Southern California Gas Company (The Gas Company), which provides natural gas service to the project site.

Findings

The proposed project or Alternative 8 would not substantially increase the demand for natural gas resources such that existing or planned capacity of distribution systems or available supply would be exceeded and no significant impacts upon natural gas resources would occur. Therefore, the proposed project or Alternative 8 would not result in significant impacts related to natural gas services.

Project Design Features

PDF 20-1 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Standard County Conditions

SC 20-1 The applicant shall provide for all lines and mains necessary to provide natural gas to the project.

SC 20-2 The applicant shall obtain required permits and follow Southern California Gas Company, State and County regulations and requirements regarding natural gas service.

Mitigation Measures

With the implementation of the Project Design Feature and Standard County Conditions, no mitigation would be necessary.

Factual Support and Rationale

Based on the standard natural gas consumption factor for single family residential land uses, the proposed project would consume an estimated 23,914 thousand cubic feet (Mcf) of natural gas per year. Alternative 8 would result in a decreased consumption of approximately 1,280 Mcf of natural gas per year, as compared to the proposed project. Although no natural gas facilities are located on the project site at this time, The Gas Company indicated that sufficient natural gas facilities exist in the project vicinity and gas service to the site could be provided in accordance with the California Public Utilities Commission (CPUC). Large pipeline capacity and open access have contributed to the long-term supply availability of natural gas, and recoverable reserves and resources total more than a 70-year supply.

Further, the project's natural gas needs would be met without substantial expansion of existing facilities. In addition, the proposed project would be required to comply with State Energy Conservation Standards as stipulated in Title 24 of the California Administrative Code, which would further reduce impacts on natural gas distribution facilities and supplies.

Cumulative Impact

The proposed project or Alternative 8 and related projects would be expected to cumulatively increase the consumption of natural gas per year. However, as stated above, reserves and resources of natural gas total more than a 70-year supply, and new development in the project area would likewise be required to comply with the State Energy Conservation Standards in Title 24. Therefore, no significant cumulative impacts are anticipated to be created upon natural gas resources.

2.1.8 UTILITIES AND SERVICES SYSTEMS – SOLID WASTE

Impact

The additional population generated by the proposed project or Alternative 8 would result in a increased demand for solid waste service. Solid waste service to the site is provided by Waste Management of Orange County (WMOC).

Findings

Given the current capacity of the County landfill system serving the site, the incremental increase in solid waste generation by the proposed project or Alternative 8 is considered less than significant. Further, incorporation of the Standard County Conditions would ensure impacts associated with the proposed project or Alternative 8 would be less than significant.

Project Design Features

There are no Project Design Features related to the provisions of solid waste collection and treatment services.

Standard County Conditions

SC 18-1 Prior to the approval of a building permit the applicant shall submit a Recycling/Source Reduction Plan to the Manager, PDS/Environmental and Project Planning Services Division, for review and approval. Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during and following construction of the project. A note on the building plans and certified by a licensed engineer shall substantiate the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 18-2 Prior to the approval of a Site Development Permit the applicant shall submit a Recycling/Source Reduction Plan to the Manager, EMA/Project Planning Division, for review and approval. Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during the following construction of the project.

SC 18-3 Prior to the issuance of any precise grading permit, a site plan delineating the capacity, number, and location of all proposed solid waste and recyclable collection areas shall be submitted to the Manager, Current Planning, for review and approval.

Mitigation Measures

With implementation of Standard County Conditions, impacts associated with the proposed project or Alternative 8 would be less than significant, and no additional mitigation is necessary.

Factual Support and Rationale

Based on the standard generation factor for single-family residential land uses, the proposed project would generate approximately 3,657 pounds of solid waste per day (approximately 1.83 tons). Alternative 8 would result in a decrease of approximately 196 pounds of solid waste per day (approximately 0.1 tons). WMOC indicates that the proposed project would not adversely affect its ability to provide solid waste collection services to the project area. Refuse would be transported to one of three active landfills in Orange County. The life expectancy for these landfills exceeds the 15-year threshold established by the California Integrated Waste Management Board.

Cumulative Impact

The proposed project or Alternative 8 and related projects would cumulatively generate approximately 15,491 pounds (7.8 tons) of solid waste per day. This is less than the cumulative authorized, maximum solid waste disposal rate of 20,500 tons per day for the three landfills that would serve the site.

In addition, as with the proposed project or Alternative 8, each related project would be subject to applicable policies of the County which prohibit the disposal of household hazardous wastes and promote curbside recycling efforts, thereby further reducing

demands upon solid waste disposal facilities. Therefore, no significant impacts with regard to cumulative solid waste generation would occur.

2.1.9 AESTHETICS/VISUAL

Impact

Implementation of the proposed project or Alternative 8 would modify the site from open space to a developed residential neighborhood and potentially introduce elements that would substantially detract from the existing aesthetic character or primary aesthetic resources on the area.

Findings

The proposed project or Alternative 8 would not introduce elements that would substantially detract from the existing aesthetic character or primary aesthetic resources of the area. The height and bulk of structural elements proposed would be compatible, and create a visual relationship, with existing development in the project vicinity.

Project Design Features

PDF 9-1 A minimum of 70 percent of the total site acreage shall be maintained as permanent open space.

PDF 9-2 No development shall occur on or adjacent to "Major Ridgelines" as designated by the F/TSP Resources Overlay Component, Exhibit II-6.

PDF 9-3 The F/TSP scenic corridor setback requirements of 100 feet from Santiago Canyon Road and El Toro Canyon Road and 50 feet from Live Oak Canyon Road shall be maintained. Both natural and manufactured scenic corridor setback areas shall be placed within County Scenic Preservation Easement Areas. Public area landscaping standard conditions shall be applicable within these scenic easement areas.

PDF 9-4 The Grading Plan landscape/revegetation plan prepared for the proposed project includes a native vegetation restoration program. In addition, on-site landscape screening is proposed to further reduce visual impacts, both subject to the approval of the Manager, PFRD/HBP Program Management and Coordination.

PDF 9-5 All public utilities shall be situated underground.

PDF 9-6 Where feasible, drainage devices (terrace drains, benches, and intervening terraces) shall be bermed.

PDF 9-7 Concrete drainage swales and other similar drainage infrastructure shall be tinted with an appropriate earth tone to effectively conceal them from surrounding view.

PDF 9-8 The water tank shall be bermed, landscaped and painted to blend with the surrounding environment.

PDF 9-9 The following features shall be incorporated into the project design to reduce impacts associated with light and glare:

- Street lights shall only be installed at intersections and as required to ensure public safety.
- Low intensity halogen lamps shall be used.
- Street lights shall be shielded to direct the light beam downward and to avoid direct glare into open space areas and adjacent property.

Standard County Conditions

SC 9-1 Prior to the recordation of applicable subdivision maps (Vesting Tentative Tract Maps, VTTM), the project applicant shall make an irrevocable offer of large cohesive areas of permanent natural open space for dedication to the County of Orange, or within scenic preservation easements for manufactured areas per the F/TSP, in a manner meeting the approval of the Manager, PFRD/Harbors, Beaches and Parks/Program Management and Coordination, consistent with County Standard Conditions for dedication of preservation easements. The exact locations of areas to be dedicated to the County and smaller areas that will be the responsibility of either the Homeowner's Association (HOA) or individual adjacent homeowners shall be established as part of the VTTM review process.

SC 9-2 Public Areas shall be landscaped, equipped for irrigation, and improved in accordance with an approved plan as stated below:

1) Preliminary Plan – Prior to the recordation of a subdivision map (except maps for financing and conveyance only), the subdivider shall enter into an agreement and post financial security guaranteeing landscape improvement and maintenance thereof based on a preliminary landscape plan showing major plant material and uses, and a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Harbors, Beaches and Parks Program Management and Coordination Division.

Said plan shall take into account the approved landscape plan, the County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).

2) Detailed Plan – Prior to the issuance of any building permit(s), the applicant shall submit a detailed landscape plan for approval to Manager, PDS/Subdivision and Grading Services, in consultation with the Manager PFRD/Harbors, Beaches and Parks Program Management and Coordination Division. Detailed plans shall show the detailed irrigation and landscaping design.

3) Installation Certification – Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, the applicant shall install said improvements and have the installation certified by a licensed landscape architect or licensed landscape contractor, as having been installed in accordance with the approved detailed plans. The applicant shall furnish said certification, including an irrigation management report for each landscape irrigation system, and any other required implementation report determined applicable to Manager, Construction and Manager, PDS/Building Inspection Services Division, prior the issuance of any certificates of use and occupancy.

SC 9-3

1) Prior to the issuance of grading permits, the applicant shall prepare a detailed landscape plan for privately maintained areas. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required as taking into account approved preliminary landscape plan (if any), County Standard Plans, adopted planned community regulations, scenic corridor and requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services.

2) Prior to the issuance of certificates of use and occupancy, applicant shall install said landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan. The applicant shall furnish said certification, including an irrigation management report determined applicable, to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use.

SC 9-4 Prior to the issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that direct rays are confined to the property in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

Mitigation Measures

With implementation of Project Design Features and Standard County Conditions, no additional mitigation measures would be required.

Factual Support and Rationale

The proposed project or Alternative 8 would be consistent with the aesthetic-related goals of the F/TSP. The design of the proposed project and Alternative 8 focus on preservation of major landforms and protection of existing scenic resources. The proposed project or Alternative 8 would also be consistent with the Resources Overlay Component of the F/TSP, which incorporates specific policies for natural resources that combine to create the unique visual character of the project area. The F/TSP requires roadway setbacks from Live Oak Canyon Road, Santiago Canyon Road, and El Toro Road, all designated scenic corridors. These would be maintained and exceeded in some areas.

The proposed project or Alternative 8 would not have a substantial negative aesthetic effect. As depicted in the visual simulations, Saddleback Meadows would be low-density and rural in character and would not conflict with the surrounding environment. The proposed project would preserve more than 70 percent of the property in permanent open space and Alternative 8 would preserve approximately 71 percent. With implementation of the Project Design Features and Standard County Conditions both project-specific and cumulative impacts to aesthetic resources would be mitigated to a less than significant level.

Cumulative Impact

The location of the related projects are sufficiently distant and/or in isolated viewsheds, such that they would not contribute cumulatively with the proposed project or Alternative 8 to aesthetic and view impacts. Continued development and urbanization of the Specific Plan area adjacent to the Saddleback Meadows area over time is resulting in a more urban setting. Given the evolving developed nature of the project locale, the combined effect on the views in the vicinity are similar to the project's impacts themselves, therefore, cumulative impacts are not considered significant.

2.2 SUCCESSFUL MITIGATION - INSIGNIFICANT ENVIRONMENTAL IMPACTS AFTER MITIGATION

2.2.1 GEOPHYSICAL RESOURCES

Impact

Implementation of the proposed project or Alternative 8 would result in persons being exposed to seismic hazards. The geological and physical features of the site would be modified by construction, grading and development of single-family homes.

Findings

Compliance with all applicable building and seismic regulations would ensure that no significant adverse seismic impacts occur. Compliance with Project Design Features, Standard County Conditions, and mitigation measures would ensure that impacts would not be significant.

Project Design Features

PDF 2-1 A remedial grading mitigation plan has been designed to stabilize the project site, in accordance with OCPDS requirements. The plan is depicted in FEIR Figure 4.2.5 and proposes measures including shear keys, buttresses, and removals/recompaction to reduce hazards associated with landslides, erosion and subsidence.

Standard County Conditions

SC 2-1 Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, PDS/Subdivision and Grading Services Division for approval. The report shall include the information and be in a form as required by the Grading Manual.

SC 2-2 Prior to the issuance of any grading permits, the Manager, PDS/Subdivision and Grading Services Division, shall determine if the proposed grading complies with the grading illustrated in the plans approved by the decision-maker with regard to grading concepts, slope heights, slope ratios, and pad elevations and configuration. Significant deviations shall be reviewed by the decision-maker for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised application per Orange County Zoning Code Section 7-9-139 and 7-9-150.

SC 2-3 Prior to the issuance of the first grading permit, for projects located immediately adjacent to or including portions of regional parks, significant open space corridors, or other environmentally sensitive areas, the project

proponent shall provide evidence acceptable to the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Harbors Beaches & Parks, Program Management and Coordination Division, that graded areas will be compatible with natural land characteristics of the adjacent open space areas including techniques to enhance a smooth and gradual transition, urban edge treatment plans and incorporating view enhancement through architectural and design techniques.

Substantial conformance with the approved Tentative Tract Map shall be considered acceptable evidence of compliance.

SC 2-4 Prior to the issuance of any grading permit, off-site grading and/or drainage shall be conducted in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-5 Prior to the issuance of a grading permit, substantial compliance with the following in the grading plan shall be certified by a registered engineer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

- Fill soils shall be placed in layers that are less than eight inches thick and moisture-conditioned generally one to two percent above optimum moisture content. The existing diatomaceous soils shall be moisture-conditioned to 125 percent of optimum moisture content.
- For preliminary earthwork computations, the following shrinkage/bulking factors are recommended for the on-site material (these do not include handling losses): Bedrock – five percent bulking; slopewash – five percent shrinkage; and Other Soils – 15 percent shrinkage. Grading plans shall include an area where finish grades can be raised or lowered to accommodate changes in actual material quantities.
- Dewatering shall be achieved using sumps and pumps located strategically within the excavated area. However, the excavation shall be carefully observed; if the conditions warrant, supplementary dewatering provisions shall be made. It is the responsibility of the contractor to provide an adequate dewatering system during construction. Dewatering activities shall comply with all applicable federal, state and County requirements.

Seismic Conditions

SC 2-6 Conformance with the Uniform Building Code and Orange County codes shall insure that seismic considerations are incorporated into the structural designs. All recommendations of the geotechnical report shall be incorporated and utilized in the final construction plans for the parcels in a

manner meeting the approval of the Manager, PDS/Building Permit Services Division. Larger buildings, structures with extraordinary architectural configurations, or those of tilt-up construction may require seismic analysis.

SC 2-7 The seismic exposure of the site shall be considered in the design of the proposed structures in a manner meeting the approval of the Manager, PDS/Building Permit Services Division.

SC 2-8 Geologic inspections shall be required during site grading for each parcel to confirm the absence of major faults in the local area in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-9 Prior to the issuance of any grading permits, if review of the grading plan for this property by the Manager, PDS/Subdivision and Grading Services Division, indicates significant deviation from the proposed grading illustrated on the approved tentative tract map, specifically with regard to slope heights, slope ratios, and pad elevations and configuration, the plan shall be reviewed by the Subdivision Committee for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised tentative tract map; or, if a final tract/parcel map has been recorded, a new tentative tract/parcel map or a site development permit application per Orange County Zoning Code Section 7-9-139 and 7-9-150. Additionally, a new environmental assessment and determination is required.

SC 2-10 Prior to the issuance of any grading permit, if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the affected property owners for off-site grading and/or drainage. The owner/applicant shall record said letters of consent for off-site drainage and/or cross-lot drainage prior to recordation of the tract/parcel map or prior to the issuance of any grading permit, whichever comes first.

SC 2-11 Prior to the issuance of any preliminary grading permits, the subdivider shall request that the Vector Control District initiate the survey process of the tract/parcel map site to determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-12 Prior to issuance of grading permits, a Water Quality Management Plan (WQMP) shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division. The WQMP shall

identify, at a minimum, the application and incorporation of those routine structural and non-structural BMPs outlined in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix G detailing implementation of BMPs not dependent on specific land uses, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 2-13 Prior to the recordation of a subdivision map, the applicant shall submit, a "Hazardous Materials Assessment" and a "Disclosure Statement" covering the property (both fee and easement) which will be offered for dedication or dedicated to the County of Orange, for review and approval by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Monitoring Programs.

Mitigation Measures

Grading

M 2-1 Multiple cuts and fills (2.45 million cubic yards) to achieve planned elevations and profiles, and associated access roadways shall be required.

M 2-2 Remedial grading (6.8 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills shall be required. Back cut failure guidelines shall be provided to the Grading Services Division prior to issuance of grading permits.

M 2-3 Removal (clean out) of all or major portions of the graded materials and softer alluvium and colluvium and soft/loose landslide materials under most of the variable thickness fills shall be required.

M 2-4 Installation of appropriate subdrain systems within natural drainage courses and within stability, buttress and shear key fills prior to fill placement shall be required.

M 2-5 Adequate foundation and slab subgrade conditioning for the proposed development, including over excavation, capping and measures related to expansive soils shall be required.

M 2-6 Achieving suitable surface gradients to preclude ponding anywhere on-site and to control water run-off via paved/closed drainage devices shall be required.

Compaction

M 2-7 Wherever structural fills are to be placed, the upper six to eight inches of the exposed subgrade (after stripping and/or over excavation/clean-out)

shall first be scarified and reworked. In general, the dry density of the in-situ (native) material shall be at least 85 percent of maximum. Most removals of alluvium shall be totally removed and recompacted. No alluvial removal shall remain in developed areas. In the event that lower densities are determined by field testing to exist, the depth of over excavation will be determined on-site, given due consideration to the geology of the exposed material, as well as its relative location. It is expected that typical depths of over excavation will be on the order of four to five feet.

M 2-8 Fill shall be placed in lifts of six to eight inches (loose) in thickness. Rocks exceeding four inches in maximum dimension shall not be incorporated within the upper fill zone (approximately three feet) where foundations and most utility systems are expected to be housed.

M 2-9 In all fill areas where active gradients are steeper than 5:1 (horizontal:vertical), those surfaces shall be prepared to receive fill by excavating standard keyways and benches in a stair-step configuration.

M 2-10 Any loosening of reworked or in-place native material, consequent to weathering and/or passage of construction traffic, shall be made competent.

M 2-11 Temporary fills, typically associated with access ramps built to accommodate grading equipment shall be subject to removal when their use is discontinued.

M 2-12 The depths of excavation shall be subject to on-site monitoring by the Soil Engineer, during the actual removal operations. Any surface or subsurface obstructions, or questionable material encountered during grading, shall be brought immediately to the attention of the Soil Engineer, for his determination as to proper exposure, removal and/or processing as directed.

Material Selection

M 2-13 After the site has been stripped of any debris, vegetation and organic soils, such exposed on-site areas shall be considered satisfactory for reuse in the construction of on-site fills, provided the organic content does not exceed three percent by volume. It is recommended that highly expansive soils not be placed within the upper four to five feet thick zone underlying final pad and street grades. More importantly, no such soil is to be placed (as backfill) within a horizontal distance equal to the wall height immediately behind retaining walls.

M 2-14 Any objectionable material, as determined by the Soil Engineer, shall be subject to relocation in deeper fill areas or removal off-site.

Compaction Requirements

M 2-16 Reworking/compaction shall include water addition or drying-out as needed, to bring the soils close to their optimum moisture content. All such reworked soils, placed as structural fills, shall be densified to achieve at least 90 percent relative compaction with reference to the laboratory compaction standard. The optimum moisture content and maximum dry density, for each identified soil type, will be determined in the laboratory in accordance with ASTM Test Designation D1557.

Shrinkage/Subsidence

M 2-17 For preliminary earthwork computations, an approximate (overall) shrinkage factor of 12 percent shall be required, for the existing site soils. The above value does not include allowance for stripping nor handling losses.

M 2-18 Subsidence shall be assumed as ¾ to 1 ½ inches for grading design purposes.

Excavating Conditions

M 2-19 Excavation of on-site soils shall be accomplished with standard heavy-duty earthmoving or trenching equipment. Some hard cemented sandstone beds were encountered during the field exploration on portions of the site and some minor, isolated blasting may be required to remove these hard materials.

M 2-20 Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within two to five days after exposure. Additional nuisance water (seepage) is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher site elevations as well as in cuts made late in the year. All nuisance water shall be accommodated in accordance with County requirements.

Expansion Potential

M 2-21 On-site materials are considered to be moderately expansive, generally. Soils of high and low expansivity are expected to comprise less than 25 percent of the overall pad areas. The expansivity of the actual soils placed within structural areas shall be verified during grading, prior to construction.

Utility Trenching

M 2-22 The typical walls of temporary construction trenches shall stand nearly vertical, with only minor sloughing, provided the total depth does not exceed four to five feet. Shoring of excavation walls and/or flattening of side slopes may be required, if greater depths are necessary.

M 2-23 Trenches shall be located so as not to impair the bearing capacity nor settlement under planned foundations. As a guide, trenches shall be aligned perpendicular to foundations, and the Structural Engineer so informed to modify the foundation at the crossing, as needed. All other trenches shall observe a lateral offset equal to their total depth.

M 2-24 Existing soils shall be utilized for trench backfill, provided they are essentially free of organic materials and oversized materials (rock, gravel, etc. in excess of one inch maximum size, unless within an approved soil matrix). Compaction shall be accomplished entirely by mechanical means, subject to on-site assessment during pipeline installation.

Surface Drainage

M 2-25 Positive surface gradients shall be provided away from slope tops per approved grading plans and adjacent to the future buildings, so as to direct surface water run-off away from structural areas and toward suitable discharge facilities.

Sulphate Content

M 2-26 The soils sulphate content shall be ascertained during the concluding stages of rough grading, and the type of cement to be used determined at that time.

Grading Control

M 2-27 All grading and earthwork shall be subject to on-going testing and observation by the applicant's geotechnical consultant, including engineers, engineering geologists and/or technicians.

Slabs-on-Grade

M 2-28 Concrete slabs shall be founded on approved (reworked) in-place soils and/or on properly compacted fill. The subgrade shall be proof-rolled just prior to construction to provide a firm, unyielding surface, especially if the surface has been disturbed by the passage of time and/or exposure to construction traffic.

M 2-29 Floor slabs shall be at least four inches thick. The Finished Floor Level shall be at least six inches above highest adjacent exterior grade. Joints shall be provided.

M 2-30 If flooring that will be affected by moisture is to be used, the slab shall be underlain by two inches of sand, with a 10-mil plastic sheet between the sand and the subgrade.

M 2-31 Precautions in respect of expansive soils shall be taken.

Foundations

M 2-32 The proposed structures shall be supported on conventional spread footings, supported into approved compacted fill and/or reworked native material.

Long Term Settlements

M 2-33 The grading concept, as presently proposed, includes several areas where deep fill will result, exceeding 50 feet in depth. These soil masses may experience significant settlements, with time, of four to six inches or more. Such downward movements can be tolerated by most improvements, provided these occur at a reasonably uniform rate and rather evenly over a well-distributed area. However, the degrees and rates of settlement shall be analyzed during the final design phase.

Phasing of Earthwork

M 2-34 Unstable Ground: Initial stability evaluations have determined that several natural slopes subject to grading are inherently unstable. Removals, therefore, shall be planned and carried out with care in order to minimize deep-seated, in-construction failures. Statistically, about 10 percent of back cuts for buttresses will fail during grading. Construction techniques shall be planned and carried out to either reduce the risk of back cut failures, or as a minimum to confine such failures to the limits of grading. Such techniques could include slotted or segmented back cuts. Schedule and budget contingencies shall be made to accommodate the increase time and effort of such techniques and as may be necessary to repair minor back cut failures ("pop outs").

M 2-35 Required Clean-Out Work: Prior to improving the gross stability of hillsides, clean-out work will be necessary along their lowest (toe) elevations. Whereas such selective removals are essential prior to placement of additional fill, this process can trigger undesired slippage. Therefore, selective unloading of the slide mass shall be required before stabilization can effectively begin.

M 2-36 Slide Unloading: Where existing slope faces are marginally safe in their present condition, the higher portions of each such slide shall require removals toward the top, prior to clean-out, and subsequent loading at the toe.

M 2-37 In the geotechnical report submitted per SC 2-1, the applicant shall provide evidence to the satisfaction of the Manager, PDS/Subdivision and Grading Services Division that existing landslides in the undistrubed areas of the property will not be impacted by the discharge of project dry weather flows or storm water runoff and that new instability problems will not be created by rising ground water levels due to infiltration of irrigation and other new sources of water.

Cumulative Impact

Impacts related to geology and soils are primarily based upon site-specific conditions. No soils would be moved off-site. All cumulative development would be subject to similar requirements to those imposed and implemented on the proposed project or Alternative 8 and would be required to adhere to applicable regulations, standards, and procedures. The proposed project or Alternative 8 would not result in significant cumulative impacts with regard to geophysical resources.

2.2.2 WATER QUALITY

Impact

Implementation of the proposed project or Alternative 8 would result in grading and construction of single-family homes. Potentially, if unmitigated, by removing vegetation, erosion can occur, thereby causing serious local problems due to downstream sediment damages. Another concern is that pollutants (e.g., oil, fertilizers, and animal wastes) would run off into either Aliso or Oso Creek. These would potentially excerbate the impaired water quality of Aliso Creek and hinder public agency efforts to improve water quality.

Findings

With the implementation of Project Design Features, Standard County Conditions, and mitigation measures, impacts to water quality would be less than significant.

Project Design Features

The following Project Design Features shall be implemented to remove low flow urban runoff pollutants:

PDF 4-1 The southwest and southeast quadrants of the development, approximately 80 percent of the residential lots and streets, shall be served by a riverine system

designed to provide a natural cleansing of the urban run-off (see FEIR Figure 4.3.2).

PDF 4-2 The riverine system shall collect low flows at strategically located catch basins and underground pipes and convey the low flows to a vegetated swale. This swale is located parallel to and along the north side of the project's spine road (see FEIR Figure 4.3.2). The swale design shall filter pollutants from low flows. It shall also allow dissipation of a portion of the flows through percolation and evaporation. The downstream terminus of the riverine system shall be a vegetated earthen retention basin.

PDF 4-3 The project shall be designed to minimize or eliminate dry season flows from reaching Aliso and Oso Creeks. The design shall be focused on controlling irrigation practices within the project in order to minimize or eliminate irrigation water runoff.

The property is currently plagued by excessive erosion since the vegetation has been stripped by years of cattle grazing. To reduce storm water runoff by up to 30 percent and significantly reduce erosion potential, and eliminate excessive erosion, the following would restore the natural watershed:

PDF 4-4 The portion of the property that will not be disturbed by grading, approximately 30 percent of the total property, shall be restored by cessation of cattle grazing.

PDF 4-5 Annual grasslands and artichoke thistle shall be replaced with coastal sage scrub and oak woodlands as part of the biological resources restoration program.

PDF 4-6 Existing disturbed coastal sage scrub shall be enhanced as outlined in the biological resources restoration program.

PDF 4-7 40 percent of the property will be disturbed by grading but will be dedicated as permanent open space. These areas shall be revegetated with coastal sage scrub and oak woodlands ensuring that these graded areas are not subject to erosive runoff.

To limit impervious areas to less than 17 percent of the property and minimize impervious areas, the following Project Design Feature shall be implemented:

PDF 4-8 The use of larger lots (5,000 square foot minimum, nearly 6,700 square foot average) and narrower private streets as shown on the Tentative Tract Map shall minimize impervious areas.

To ensure that the natural drainages are receiving no more runoff than they can accommodate and ensuring that natural riparian habitat continues to receive an adequate supply of water, the following Project Design Features shall be implemented:

PDF 4-9 The storm drain system shall be designed to mimic natural drainage patterns as closely as possible.

PDF 4-10 The storm drain outlets shall be provided to return runoff into each natural drainage that intersects the development area.

PDF 4-11 Appropriate energy dissipaters shall be installed at each outlet to reduce flows to non-erosive velocities.

The current cattle grazing on the property is a source of fecal contamination of the project soil and drainages and incrementally contributes to the level of bacterial indicators in Aliso Creek.

PDF 4-12 The cattle grazing operation shall be terminated.

Stormceptors are in-line storm drain devices designed to separate trash, sediment and oil from low-flow runoff flowing through underground storm drain pipes. The trapped sediment and oil are then removed during routine maintenance and disposed of at an approved landfill. The following Project Design Features shall be implemented:

PDF 4-13 All storm drain pipe flows within the northeastern quadrant, the remaining 20 percent of the development, shall pass through strategically located stormceptors prior to discharging into project open space areas, and therefore remove trash, sediment, and oil from low-flow runoff (dry season flows and low flow wet season flows) prior to discharge into the resource protection areas. The stormceptors shall be able to remove up to 80 percent of the total sediment load (TSL).

PDF 4-14 Stormceptors shall also remove free oil from storm water during normal flow conditions.

In order to minimize excessive soil erosion and runoff from the remaining disturbed areas, prolonged soil stabilization and sediment removal shall be directed to locations where sediments shall be removed prior to discharge into water courses with the following Project Design Feature:

PDF 4-15 Sand bag debris dams and temporary sand bag sediment catchment areas shall be installed at catch basins during construction.

Monitoring, inspection, and maintenance shall be implemented with the following Project Design Features:

PDF 4-16 Structural BMPs shall be routinely monitored and maintained sufficiently for their effectiveness. Structural BMPs, such as the stormceptors and the riverine system, shall be privately owned, operated, and maintained by the homeowner's association (HOA) or a community services district.

PDF 4-17 A detailed plan for maintenance, inspection and for assessing the effectiveness of the BMPs including testing shall be included in the project's final SWPPP and the WQMP. The final plans shall be prepared and approved by the applicable County departments and regional jurisdictions prior to the recordation of a subdivision map, or issuance of precise grading permits or building permits.

PDF 4-18 Proposed Riverside fairy shrimp basins (see FEIR Section 4.8) shall be isolated from urban runoff and excess irrigation.

Standard County Conditions

Along with the proposed structural BMPs, non-structural BMPs shall be implemented to minimize the source of pollutants. Both the non-structural BMPs shall be incorporated as part of the SWPPP and the WQMP required to be approved by the County. Final selection and design of structural and non-structural BMP's shall be refined during the preparation of the project's grading and drainage plans. In addition to these plans, the implementation of the project shall be controlled by the County of Orange through compliance with the conditions of approval for the Tentative Tract Map. Compliance with the following Standard County Conditions would minimize the source of pollutants:

SC 4-1 Prior to issuance of grading permits, the project applicant shall obtain coverage under the NPDES Statewide Industrial Storm water Permit for General Construction Activities from the State Water Resources Control Board. Evidence this has been attained shall be submitted to the Manager PDS/Subdivision and Grading Services Division.

SC 4-2 Prior to issuance of a grading permit, the project applicant shall submit for approval by the County, a WQMP specifically identifying BMPs that will be used on-site to control predictable pollutant runoff.[1] The WQMP shall identify at a minimum the routine structural and non-structural measures specified in the Countywide NPDES DAMP Appendix G which details implementation of the BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, etc.); and shall reference the location(s) of structural BMPs. The following routine non-structural BMPs shall be included as part of the final WQMP: N-1 (Education for Property Owners); N-2 (Activity Restrictions); N-3 (Common Area

[1] *The Preliminary Storm Water Management and Water Quality Management Plan included in Appendix E of this Draft Revised Subsequent EIR would serve as the basis for the WQMP.*

Landscape Management); N-4 (BMP Maintenance); N-11 (Common Area Litter Control); N-14 (Common Area Catch Basin Inspection); and N-15 (Street Sweeping Private Streets and Parking Lots).

The following structural BMP's shall be included as part of the final WQMP: S-1 (Filtration, including the proposed riverine and in-line filtration system); S-2 (Common Area Efficient Irrigation, see PDF 4-3); S-3 (Common Area Runoff-minimizing Landscape Design, see PDF 4-3); S-4 (Community Car Wash Racks); S-12 (Energy Dissipaters, see PDF 4-11); S-13 (Catch Basin Stenciling); and S-15 (Inlet Trash Racks). Further, the Special Structural BMPs identified for the project (as defined in DAMP Appendix G), such as stormceptors, will be included as part of the final WQMP.

To the extent feasible and consistent with County codes, policies, and practices, approaches outlined in the *Start at the Source Manual* shall be incorporated into the proposed project's final design.

SC 4-3 Potential for the proposed project or Alternative 8 to impact sediment loading on down stream Aliso Creek shall be reduced through engineering design techniques (primarily upsizing of on-site drainage conduits to pass sediment-laden flow from upstream natural areas through the project) incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.

SC 4-4 Runoff Management And Water Quality Plan: Prior to the recordation of the first final map (either for conveyance or development), or prior to the issuance of any rough or precise grading permit (except for any publicly financed infrastructure), whichever occurs first, the land owner/applicant shall prepare, and receive approval from the Manager, Subdivision and Grading Services Division, in consultation with the Environmental Resources and Flood Program Sections of the PFRD Program Development Division (PDD) of, a Runoff Management Plan (RMP), including a WQMP, covering the subject property. The RMP shall include the locations of all permanent large-scale BMPs, including filtration devices, such as constructed wetlands, water quality basins, detention basins, debris basins, grass/bioswales, energy dissipaters, catch basin inserts, and other BMPs.

SC 4-5 Master Infrastructure Improvements: Prior to the recordation of the first final map (either for conveyance or development), or prior to the issuance of any rough or precise grading permit, whichever occurs first, the land owner shall design and construct all applicable master infrastructure improvements identified in the approved RMP, including debris basins, bioswales, energy dissipaters, drainage pipes, and other improvements, and shall provide all necessary dedications, all in a manner meeting the approval of the Manager, Subdivision and Grading Services Division.

SC 4-6 Final Map Note For Retention Basins/Wetlands: Prior to the recordation of each final map (either for conveyance or development), a note shall be placed on the applicable final map where appropriate, indicating that retention basins and/or constructed wetlands will be required on the property in accordance with the approved RMP and WQMP, in a manner meeting the satisfaction of the Manager, Subdivision and Grading Services Division.

Mitigation Measures

Implementation of the above listed Project Design Features and Standard County Conditions would mitigate potential water quality impacts of the proposed project or Alternative 8 to a less than significant level. However, the following mitigation is proposed to facilitate the implementation of alternate and/or supplemental regional water quality mitigation as determined appropriate by the County:

M 4-1 The applicant shall have the option to research off-site water quality improvements to determine the technical and economic feasibility of implementing improvements that have regional water quality benefits and can also mitigate project-related impacts. Such off-site water quality improvements, if any, shall be consistent with the requirements of the new storm water NPDES permit for South Orange County (Section F-1 of Order 2002-001). This effort shall be coordinated with the County's PFRD, Environmental Resources Division. If the County determines that off-site mitigation improvements achieve the same or greater water quality benefits to Aliso Creek, such a program may be implemented in-lieu of some or all of the on-site filtration basins proposed for the project.

Factual Support and Rationale

With a goal to reduce, control, prevent, remove or eliminate pollution Best Management Practices (BMP's) would be implemented as part of the development of the proposed project or Alternative 8. For example, runoff would be either filtered through "stormceptors" before entering into the stream bed or would be filtered through a riverine urban runoff water quality filtration system. Ponds and swales would be incroporated to the maximum extent feasible in the development area within many small-scale features, such as, medians, parkways, and other developed open space to maximize the opportunity for removal of bacterial indicators and toxic constituents prior to outletting in the natural drainages.

Other pollution control procedures include reducing erosion by replacing annual grasslands and artichoke thistle with coastal sage scrub and oak woodlands and by reducing cattle grazing. Further, coastal sage scrub will be planted in areas disturbed by grading. Prolonged soil stabilization and sediment removal will also be directed to disturbed areas.

Further, Standard County Conditions require a storm water permit to be issued before grading begins and a permit identifying BMPs that will be used on-site to control predictable pollutant runoff.

Because these, and other similar pollution cutting procedures are taken, any potential increased pollution that would occur because of the proposed project or Alternative 8 should substantially decrease. As such, the proposed project or Alternative 8 would not exacerbate the already impaired water quality of Aliso Creek and would not hinder public agency efforts to improve Aliso Creek. Implementation of the proposed project or Alternative 8 would not significantly alter ground water quality.

Cumulative Impact

Ultimate development as planned in the watershed in conjunction with the proposed project or Alternative 8 would potentially impact both surface water and groundwater quality. Without controls, both short-term construction related impacts and long-term impacts due to pollutants in urban runoff could substantially impact water quality. However, as with the proposed project or Alternative 8, related project would be required to mitigate impacts to less than significant. Therefore, the cumulative impacts would be less than significant.

2.2.3 TRANSPORTATION/TRAFFIC

Impact

Implementation of the proposed project would result in the generation of approximately 3.590 average daily trips (ADT). Implementation of Alternative 8 would generate approximately 3,384 trips per day, a decrease of approximately 206 trips per day as compared to the proposed project.

During the construction phase of the proposed projec or Alternative 8, traffic would be affected along streets adjacent to the project site, and grading and construction vehicles would affect traffic to varying degrees during these phases.

Findings

Upon implementation of Project Design Features, Standard County Conditions, and mitigation measures, project specific and cumulative impacts to transportation and traffic associated with the proposed project or Alternative 8 would be less than significant.

Project Design Features

PDF 5-1 The entry street shall be designed as a Collector roadway providing two exiting lanes and two entering lanes with a median.

PDF 5-2 The entry street shall be designed to include a traffic signal, a crosswalk for the Live Oak Canyon Trail, and a southbound left-turn pocket and a northbound right-turn lane.

PDF 5-3 The applicant shall construct an access road leading to the proposed water tank.

PDF 5-4 The applicant shall provide an emergency-only access via Valley Vista Way.

Standard County Conditions

SC 5-1 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Programs listed below, in a manner meeting the approval of the Manager, PF&R/Programs Division:

- Santiago Canyon Road Fee Program
- El Toro Road Fee Program
- Foothill/Eastern Road Fee Program
- Foothill Circulation Phasing Plan (FCCP)

SC 5-2 Prior to the issuance of any grading permits, adequate sight distance shall be provided at all driveway intersections per Standard Plan 1117, in a manner meeting the approval of the Manager, PDSD, Subdivision and Grading Services. This includes any necessary revisions to the plan such as removing slopes or other encroachments from the limited use area.

SC 5-3 Prior to the recordation of the final tract/parcel map or the issuance of any building permits, whichever occurs first, the subdivider shall provide plans and specifications meeting the approval of the Manager, PDS/Subdivision and Grading Services Division for the design of the internal circulation system.

SC 5-4 Prior to the issuance of any certificates of use and occupancy, the developer shall construct the approved internal circulation improvements in a manner meeting the approval of the Manager, PDSD/Subdivision and Grading. Further, a copy of the approved plans shall be furnished to the Manager, PDS/Building Inspection Services division, prior to the issuance of any certificates of use and occupancy.

SC 5-5 Prior to issuance of building permits, applicant shall design road improvements and dedicate additional, if necessary, right-of-way along the El Toro Road frontage, per the F/TSP (Exhibit II-8, Recreation Plan) including sufficient width for a standard Class II bike lane, across the property frontage along the ultimate alignment meeting the approval of the Manager, of PFRD/HBP Program Management and Coordination. The

project applicant shall complete grading of the ultimate right-of-way prior to the issuance of use and occupancy.

Mitigation Measures

Although with implementation of Project Design Features and Standard County Conditions, the proposed project or Alternative 8 would not result in significant impact, the following mitigation measures have been included to ensure impacts remain at a less than significant level:

M 5-1 Verification of adequate parking and traffic signing/striping shall be analyzed for the project site in conjunction with approval of the site plan.

M 5-2 The entry street to Saddleback Meadows shall be designed as an augmented Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The Collector cross-section shall be maintained from approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway.

M 5-3 The applicant shall provide a traffic signal at the main project access point to El Toro Road, pedestrian buttons and separate equestrian-height buttons on the north and south sides of the entry road (to accommodate the Live Oak Canyon Trail), a crosswalk for the trail, and trail warning signage.

M 5-4 The proposed project or Alternative 8 shall pay its fair share of the shortfall of the Santiago Canyon Road Major Thoroughfare and Bridge Fee Program.

M 5-5 The proposed project or Alternative 8 shall pay its fair share of the improvement of the following intersections: Portola Parkway at Glenn Ranch Road, Portola Parkway at Foothill Transportation (FTC), and the Portola Parkway at El Toro Road.

Factual Support and Rationale

With the proposed improvements, the study intersections in the project area would operate at Level of Service D or better during peak hours including existing traffic, traffic associated with ambient growth, related project and with the proposed project or Alternative 8. Six intersections are projected to exceed LOS "D" in 2025 with and without the proposed project or Alternative 8. These include:

- El Toro Road at Ridgeline Road
- El Toro Road at Valley Vista Way
- El Toro Road at Glenn Ranch Road
- Portola Parkway at Glenn Ranch Road
- Portola Parkway at Foothill Transportation Corridor (FTC)

- Portola Parkway at El Toro Road.

Improvements to the three intersections along El Toro Road are included in the El Toro Road Fee Program; therefore, proposed project or Alternative 8 impacts are mitigated by participating in the program and paying the required fee. The three Portola Parkway intersections are not currently part of any fee program. Project impacts can be mitigated by payment of the project's fair share of the cost to improve the intersections. Participation in the program would mitigate the impacts to less than significant.

Traffic circulation within the site would consist of a system of private streets with a primary spine street (56-foot right-of-way) and a series of cul-de-sacs (41-, 45-, and 52-foot right-of-way).

Site access would be provided via a gate-guarded private street off El Toro Road. Emergency access would be via a private gate leading into the project site and would be connected to Valley Vista Way within the Hidden Ridge/Hidden Hills community.

Cumulative Impact

The project level analysis is based on methodologies, which incorporate the cumulative effects of traffic from general growth, per County standards and anticipated nearby projects. As stated above, these impacts would be mitigated through participation in the El Toro Road Fee Program. No significant cumulative impacts would occur.

2.2.4 AIR QUALITY

Impact

Construction and operation of the proposed project or Alternative 8 would generate pollutant emissions from the following activities: (1) grading operations/soil disturbance; (2) emissions from construction activity and vehicular trips; (3) fugitive dust emissions from construction activity; (4) erosion "spill-over" from construction activity; (5) application of architectural surface treatments; and (6) vehicular exhaust (traffic) from project operation.

Findings

With incorporation of the Standard County Conditions and recommended mitigation measures, short-term construction activity air quality impacts would not be significant. Long Term, project-specific operational impacts would be less than South Coast Air Quality Management District ("SCAQMD") significance thresholds and, therefore would not be significant. However, since the project site is located within a non-attainment air basin, the project's incremental contribution to cumulative impacts is considered a significant adverse air quality impact.

Project Design Features

There are no Project Design Features related to air quality.

Standard County Conditions

SC 6-1 Grading and excavation shall be halted during period of high winds. According to AQP Measure F-4, high winds are defined as 25 mph or greater. This level occurs only under unusually extreme conditions, such as Santa Ana wind conditions. Notations in the above format, included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

SC 6-2 Prior to issuance of grading permits, the project applicant shall demonstrate measures to ensure compliance with SCAQMD Rule 403, and shall identify the dust suppression measures, such as regular watering, which shall be implemented to reduce emissions during construction and grading in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. This will help reduce the short-term impacts from particles, which could result in nuisances that are prohibited by Rule 403.

Mitigation Measures

Construction Activities

The following mitigation measures are recommended to reduce air quality impacts associated with construction activities to less than significant:

M 6-1 The simultaneous daily disturbance area shall be limited to the extent feasible (15-acres or less, if possible).

M 6-2 Enhanced dust control measures shall be implemented including the following:

- Water active construction areas at least twice daily;
- Cover haul trucks or maintain at least two feet of freeboard;
- Pave or apply water four times daily to unpaved parking or staging areas;
- Sweep or wash any site access points within 30 minutes of visible dirt deposition on any public roadway;
- Cover or water twice daily any on-site stockpiles of debris, dirt or other dusty material;
- Suspend operations on any unpaved surface if winds exceed 25 mph;
- Regulate the maximum travel speed on unpaved surfaces to 15 mph or less.

M 6-3 Low-NOx, 90-day tune-ups shall be conducted on off-road equipment.

M 6-4 Idling time shall be limited to 10 minutes for trucks and heavy equipment.

M 6-5 Lane closure shall be limited to off-peak travel periods.

M 6-6 Construction vehicles shall be parked off traveled roadways.

M 6-7 Dirt hauled off-site shall be wet down or covered.

M 6-8 Access points shall be washed or swept daily.

M 6-9 Receipt of materials shall be scheduled during non-peak hours to the extent feasible.

M 6-10 The construction site shall use sandbags for erosion control.

Operational Activities

Although all project-related impacts are less than significant, the following mitigation is recommended due to the non-attainment status of the Basin:

M 6-11 Traffic flow at the project access shall be maintained at acceptable levels of service through mitigation measure identified in the project traffic study.

M 6-12 Homes shall include the option of being pre-wired for 220 V electric vehicle charging systems encourage trip elimination or trip diversion to alternative transportation.

Factual Support and Rationale

The "approved" land use for the project site presumably incorporated into the 1994 AQMP/SIP (the current adopted plan) is for a 705-unit manufactured housing subdivision. To the extent that the proposed project or Alternative 8 represents a lower intensity of development than anticipated in the General Plan, it is, by inference, consistent with the AQMP.

Construction activity dust impacts derive almost exclusively from the largest diameter material that has a residence time of only a few seconds. The primary zone of impact from heavy particulates is less than 100 feet from the source. Because the existing adjoining land uses (including St. Michael's Abbey, the Rama Krishna Monastery, Hidden Hills/Hidden Ridge, and Portola Hills) are located beyond the typical zone of impact of 100 feet.

Further, emissions from construction vehicles would be insignificant, as the total improved footage from simultaneous construction of the entire project would be less than the stated threshold. With the use of a comprehensive dust control program, construction activity air

quality impacts in the project vicinity can be maintained at less than significant levels. Because the construction equipment would be operating for only a limited time, the exhaust would have limited health effects.

Total air pollutant emissions associated with operation of the proposed project or Alternative 8 would not exceed the SCAQMD significance thresholds. Therefore implementation would not result in significant operational air quality impacts.

Increased area wide traffic and associated congestion is offset by continued improvements in vehicular CO emissions per average vehicle. Future CO levels for the year 2025 with the proposed project or Alternative 8 and with anticipated intersection improvements are generally similar to those in 2002. Maximum localized CO levels would increase from 4.7 ppm in 2002 to 6.8 ppm in 2025. However, hourly background levels of 4 ppm would drop if the trend from the last decade continued. Thus, the increased pollution would be minimal.

Cumulative Impact

Since the project site is located within a non-attainment air basin, the project's incremental contribution to cumulative impacts is considered a significant adverse air quality impact.

2.2.5 NOISE

Impact

Implementation of the proposed project or Alternative 8 would result in short-term noise impacts associated with construction activities and long-term impacts associated with increased traffic noise.

Findings

Implementation of the proposed project or Alternative 8 would not result in significant short-term noise impacts associated with construction activities, due to intervening terrain and compliance with County noise ordinance. Implementation of Standard County Conditions would minimize the project impacts related to construction thereby creating a less than significant impact. Traffic noise would not result in significant impact. Implementation of the above mitigation measures would ensure that on-site noise exposure associated with the proposed project would ensure that on-site noise exposure associated with the proposed project or Alternative 8 would not be significant.

The project noise impact study indicates a less than significant noise impact from cumulative noise impacts would primarily occur as a result of increased traffic from related projects. However, increases in noise levels due to the proposed project would not create a discernable change in noise levels. Therefore, due to the project site locations, increases from traffic associated with related projects would not impact project

residents. Implementation of the proposed project or Alternative 8 would not result in a cumulative adverse significant impact upon the noise environment.

Project Design Features

There are no Project Design Features related to noise.

Standard County Conditions

SC 7-1 Prior to issuance of grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that excavation, grading and other construction-related activities shall be restricted to daytime hours as promulgated in the County's Codified Ordinance Division 6 (Noise Control).

SC 7-2 Prior to the issuance of grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Divisions, that:

- Construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling shall be equipped with properly operating and maintained mufflers;
- Operations shall comply with Orange County Codified Division 6 (Noise Control);
- Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

Notations in the above format, appropriately identified and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.

SC 7-3 Residential lots and dwellings shall be sound attenuated against present and projected noise (the sum of all noise impacting the project), so as not to exceed a composite interior standard of 45 dBA CNEL for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas. Evidence that these standards are satisfied in the manner consistent with Zoning Code Section 7-9-137.5 shall be provided by a County-certified acoustical consultant as follows:

- Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permit Services Division, the applicant shall submit an acoustical analysis report to the Manager, PDS/building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures, if required. Acoustical design features to achieve interior noise standards may be

included in the report, in which case it may also satisfy the statement that follows;

- Prior to the issuance of building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures to satisfy the exterior and interior noise standards to the Manager, PDS/Building Permits Services Division, for approval along with satisfactory evidence that indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project;

- Prior to the issuance of building permits, the applicant shall show freestanding acoustical barriers (if applicable) on the project's plot plan illustration height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 7-4 Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permits Services Division, an acoustical analysis report shall be submitted to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy SC 7-5 below.

SC 7-5 Prior to the issuance of any building permits for residential construction, an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards shall be submitted for review and approval to the Manager, PDS/Building Permits Services Division, along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project.

SC 7-6 Prior to the issuance of any building permits, all freestanding acoustical barriers must be shown on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 7-7 Prior to the issuance of any certificates of use and occupancy, the developer shall produce evidence acceptable to the Manager, PDS/Building Inspection Services Division, that information stating this property is subject to the overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station) has been provided to the Department of Real Estate of the State of California for inclusion into the Final Subdivision Public Report.

SC 7-8 Prior to the issuance of any certificates of use and occupancy, the applicant shall post aircraft noise impact notification signs in all sales offices associated

with new residential development located within an aircraft 63 dB CNEL contour. The number and location of said signs shall be as approved by the Manager, PDS/Building Permits Services Division.

SC 7-9 Prior to the issuance of any building permit, an aviation easement over this property shall be offered for dedication to the County of Orange in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.

SC 7-10 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that all construction equipment, stationary or mobile, shall be equipped with properly operating and maintained mufflers.

Mitigation Measures

The following mitigation measures are recommended to further reduce impacts with regard to noise:

Construction Activities

M 7-1 All mass construction grading shall be completed before any homes are constructed.

M 7-2 All construction and general maintenance activities, except in an emergency, shall be limited to the hours of 7 A.M. to 8 P.M. Monday through Saturday and shall utilize the quietest equipment available.

M 7-3 All on-site construction equipment shall have properly operating mufflers.

M 7-4 All construction staging areas shall be as far away as possible from any surrounding completed development.

Operational Activities

M 7-5 Aircraft noise has subsided with the elimination of military aviation in Orange County. Given, however that a commercial airport may eventually replace the departed military operations at El Toro, enhanced acoustical window treatment is recommended as follows:

- All operable windows exceeding six square feet of total glazing shall be rated STC = 25 or greater.

Factual Support and Rationale

Implementation of the proposed project or Alternative 8 would not result in significant short-term noise impacts associated with construction activities, due to intervening terrain and compliance with the County Noise Ordinance. In areas of greater concentration of site-related traffic, high non-project related traffic levels would substantially mask any small noise contribution. Any detectable project-related noise increases would only occur in areas of low baseline traffic volumes. The maximum project-related noise impact of 1.3 dB would occur along El Toro Road at the site entrance; this is not a perceptible noise increase. Further, adherence to Standard County Conditions and implementation of recommended mitigation measures would ensure a less than significant impact relating to noise levels associated with the proposed project or Alternative 8.

Cumulative Impact

Cumulative noise impacts would primarily occur as a result of increased traffic from related projects. However, increases in noise levels due to the proposed project would be less than 1.3 dB along El Toro Road at the site entrance and would not create a discernable change in noise levels. Therefore due to the project site location, increases from traffic associated with related projects would not impact project residents. Implementation of the proposed project would not result in a cumulative adverse significant impact upon the noise environment.

2.2.6 BIOLOGICAL RESOURCES

Impact

Direct and indirect impacts would occur with implementation of the proposed project or Alternative 8. All areas to be modified, including remedial slopes and fuel modification zones, are interpreted as direct impacts. Fuel management zones are considered direct impacts, because of the lack of regulatory control in the removal of native vegetation. Both on- and off-site impacts are considered in this analysis.

Indirect impacts are impacts to the biological resources that result from adjacent direct impacts. Though these impacts may not initially be evident, over time they may occur due to the relative proximity of development or disturbance. Examples of indirect impacts include habitat fragmentation, habitat insularization, edge effect, exotic species invasion, lighting, domestic pet intrusion/predation, and increased human intrusion.

Direct Impact

Total direct impacts to sensitive vegetation communities/habitats would be approximately 163.52 acres (155.52 on-site/8.0 off-site) with implementation of the proposed project. With implementation of Alternative 8, total direct impacts would be 158.17 acres (150.17 on-

site/8.0 off-site). Under Alternative 8, more mitigation could be accomplished on-site instead of at off-site mitigation banks.

Impacts to sensitive vegetation communities/habitats would be as follows:

- Ephemeral Ponds. Approximately 0.40 acre of ephemeral ponds would be directly and significantly impacted by the proposed project. Under Alternative 8 approximately 0.24 acre of ephemeral ponds would be directly impacted.
- Mule Fat Scrub. Approximately 1.82 acres of mule fat scrub habitat would be directly and significantly impacted on-site. An additional 0.1 acre would be impacted off-site by the proposed project. Under Alternative 8 approximately 1.41 acres would be directly and significantly impacted on-site and an additional 0.1 acre would be impacted off-site.
- Southern Sycamore Riparian Woodland. Approximately 0.1 acre of southern sycamore riparian woodland habitat would be directly and significantly impacted by the proposed project. Alternative 8 would have similar impacts.
- Venturan-Diegan Coastal Sage Scrub (including disturbed). Approximately 40.8 acres of Venturan-Diegan coastal sage scrub habitat would be directly and significantly impacted on-site. An additional 2.9 acre would be impacted off-site by the proposed project. Under Alternative 8 approximately 40.7 acres would be directly and significantly impacted on-site and an additional 2.9 acres would be impacted off-site.
- Coast Live Oak Woodland. Approximately 5.4 acres of coast live oak woodland habitat and 181 coast live oak trees would be directly and significantly impacted on-site. An additional 0.1 acre would be impacted off-site by the proposed project. Under Alternative 8 approximately 5.12 acres would be directly and significantly impacted on-site and an additional 0.1 acre would be impacted off-site.
- Southern Mixed Chaparral. Approximately 3.7 acres of southern mixed chaparral habitat would be directly and significantly impacted on-site. An additional 1.5 acres would be impacted off-site by the proposed project. Under Alternative 8 approximately 2.4 acres would be directly and significantly impacted on-site and an additional 1.5 acres would be impacted off-site.
- Annual Grassland. Approximately 100.3 acres of non-native grassland would be directly impacted by the project grading on-site. An additional 3.4 acres would be impacted off-site. These impacts would not be considered significant. Under Alternative 8 approximately 100.1 acres would be directly and significantly impacted on-site and an additional 3.4 acres would be impacted off-site.
- Agriculture. Approximately 3.0 acres of agricultural habitat would be impacted by the proposed project. These impacts would not be considered significant. Under Alternative 8 approximately 0.4 acres would be impacted.

In addition to the above impacted habitats, areas identified as streambed under CDFG jurisdiction occur on-site. Approximately 1.45 acres of streambed would be impacted by the proposed project. These impacts would be significant. Alternative 8 would have similar impacts.

Direct impacts would not occur to any federal- or state-listed endangered or threatened plant species. Three sensitive plant species would be impacted by the proposed project or Alternative 8: (1) the intermediate flowered mariposa lily; (2) Catalina mariposa lily; and (3) small-flowered microseris. Impacts to these species are not considered significant, due to their low sensitivity status.

The Riverside fairy shrimp and the western spade foot toad would be directly and significantly impacted by the proposed project or Alternative 8 as a result of impacts to the ephemeral ponds. However, under Alternative 8, a greater number of ephemeral ponds would be preserved (four in Alternative 8 versus two in the proposed project) and half of the existing habitat for the Riverside fairy shrimp would be preserved. Impacts to the orange-throated whiptail, coast cactus wren, and Cooper's hawk are not considered significant, due to their low sensitivity status. There is a potential for raptor species to nest in trees in the eucalyptus woodlands on-site, the riparian areas, or in some cases on the ground. These nests, if present and active, require protection under the federal MBTA.

Indirect Impact

Indirect impacts are impacts to biological resources that result from adjacent direct impacts. Though these impacts may not initially be evident, over time they may occur due to the relative proximity of development or disturbance. Examples of indirect impacts include habitat fragmentation, habitat insularization, edge effect, exotic species invasion, lighting, domestic pet intrusion/predation, and increased human intrusion.

The proposed project and Alternative 8 have been designed to allow for a local wildlife movement corridor adjacent to the east side of the property. In making this finding, the Board exercised its discretion as to a disagreement among experts and adopts the expert analysis presented by the project applicant. This would maintain connectivity of the Aliso Creek Greenway to the Cleveland National Forest. The proposed project and Alternative 8 also provide an east-west corridor through the main central drainage to provide connectivity from the Aliso Creek Greenbelt to the open space east of the property. Additionally, the proposed project and Alternative 8 include coast live oak woodland habitat along a riparian system and coastal sage scrub. Six new ephemeral ponds would be provided by the proposed project within these corridors, while four new ponds would be provided in Alternative 8.

The project has been designed to minimize many of these indirect effects by preserving a significant proportion of sensitive habitats on-site in one contiguous area. This would minimize habitat fragmentation and edge effects while providing corridors for wildlife. No significant indirect impacts would occur.

Findings

With implementation of the Project Design Features, Standard County Conditions and mitigation measures, no significant impacts to biological resources would occur.

Project Design Features

The following Project Design Features have been incorporated into the project design to minimize impacts to on-site biological resources, including the requirements of the County of Orange, the USFWS, the USACE and the CDFG requirements. The Project Design Features for the proposed project are shown in FEIR Figure 4.8.7 and summarized in FEIR Table 4.8.3.

PDF 8-1 The project applicant has proposed a biological resource mitigation plan, which has been incorporated into the proposed site plan, to mitigate direct and indirect impacts to on-site biological resources. The biological resource mitigation plan has been reviewed by the effectual regulatory agencies and a biological opinion has been issued by USFWS. The biological resource mitigation plan mitigates project related impacts to wetland/riparian habitats, sensitive upland habitats and wildlife movement. Specific details/mitigation ratios for the proposed project are included in FEIR Appendix I.2. The biological resource mitigation plan for the proposed project is shown in FEIR Figure 4.8.7 and summarized in FEIR Table 4.8.3.

Jurisdictional Resources: Habitat on-site affected by USACE and CDFG jurisdiction include ephemeral ponds, mule fat scrub, southern sycamore riparian woodland. Additionally, impacts to ephemeral drainages (non-vegetated Waters of the United States) are covered under USACE and CDFG jurisdiction and mitigation requirements for the project have been determined as part of the USACE 404, California RWQCB 401, and CDFG 1603 permitting processes. Mitigation for impacts to these areas will occur on-site and off-site. Detailed descriptions of mitigations for jurisdictional areas are described in the *Saddleback Meadows Conceptual Mitigation and Monitoring Plan for CDFG Jurisdictional Areas* (FEIR Appendix I.2). This plan has been developed with six specific objectives:

1) On-site Wetland Preservation - Within open space on-site, maximize the protection, to the extent practicable, of existing jurisdictional areas (i.e., ephemeral ponds and drainages, along with surrounding wetland vegetation);

2) On-site Wetland Creation - Maximize on-site creation of ephemeral ponds and wetlands;

3) On-site Streambed Creation - Stream courses will be reconstructed in their original location as part of the remedial grading (this shall occur within areas of remedial grading that are outside of the conventional grading

limits);

4) Off-site Wetland Creation, Enhancement, and Preservation – Preserve, create, and enhance as much wetland vegetation in suitable off-site areas as is hydrologically feasible;

5) Off-site Streambed Preservation – Mitigate remaining impacts to streambeds through acquisition of streambeds at an off-site location.

6) On-site, mitigation for the loss of 0.40 acre of ephemeral ponds shall be mitigated at a 2.88:1 ratio, or a total of 1.15 acres; under Alternative 8, mitigation for the loss of 0.24 acres shall be mitigated at a 3.4:1 ratio, or a total of 0.82 acre. A total of 1.15 acres of ephemeral ponds will be created (FEIR Figure 4.8.7), 0.82 acres under Alternative 8. Impacts to 2.63 acres of wetland vegetation (1.92 acres of mule fat scrub, 0.61 acre of oak woodland, and 0.1 acre of sycamore woodland) will be mitigated at a 3:1 ratio with the on-site preservation of 1.38 acres of mule fat scrub and sycamore woodland, creation of an additional 2.87 acres of wetlands, the on-site preservation of 1.18 acres of mule fat scrub, the off-site creation of 1.24 acres of riparian habitat at Hidden Ranch (FEIR Figure 4.8.7), and the off-site preservation and enhancement of 2.6 acres of riparian habitat. Under Alternative 8, there shall be an on-site preservation of 1.59 acres of mule fat scrub and 0.2 acre of sycamore woodland. Impacts to 2.22 acres of wetland vegetation (1.51 acres of mule fat scrub, 0.61 acre of oak woodland, and 0.1 acre of sycamore woodland) shall be mitigated with the onsite creation of 2.42 acres of wetlands, and the off-site preservation and enhancement of 3.44 acres of riparian habitat at Hidden Ranch.

Creation of ponds and streambeds and the surrounding wetland vegetation on-site requires the excavation, grading, and contouring in disturbed upland areas or areas disturbed by remedial grading to form basins or streambeds, and revegetating the margin of these areas with riparian cuttings, plantings and seeds of native understory species. The depth and shape of the constructed basins will be based on the contours of the existing ponds. In addition, soils from the bottom of the existing ponds will be collected prior to impacts and the collected soils will be used to inoculate the created ponds. Approximately 0.86 acre of mule fat scrub will be created around the pond margins, under either the proposed project or Alternative 8. Additional mitigation measures include the installation of fencing to deter vandalism and other disturbance of the mitigation site. The fencing around the ponds will be maintained until mitigation success criteria have been met and will be of a five-strand rounded wire design. Creation and enhancement of riparian and oak woodland habitat off-site is proposed on the Hidden Ranch property and will focus on areas previously disturbed by years of cattle grazing.

Impacts to 1.45 acres of CDFG-jurisdictional streambeds shall be mitigated for on-site by the creation of streambeds within areas proposed for remedial grading previously supporting streambeds (0.44 acre), and off-site by purchase

of 1.01 acre of existing streambeds at either the Viejo or Hidden Ranch Mitigation Banks or other site acceptable to the County. Impacts shall be mitigated at a 1:1 ratio for a total of 1.45 acres. Alternative 8 will have similar impacts to CDFG-jurisdictional streambeds and the same mitigation measures.

The plan provides information on the construction, maintenance, and monitoring of the on-site mitigation area as well as a description of the project goals and final success criteria. Open space endowment shall provide the long-term maintenance of the ephemeral fairy shrimp ponds (see FEIR Appendix I.4 which includes the Biological Opinion for details of long-term maintenance). The on- and off-site mitigation areas will be monitored for five years or until project specific success criteria outlined in this plan are achieved, the created Riverside fairy shrimp habitat will be monitored for ten years.

Upland Mitigation: Impacts to coastal sage scrub and coast live oak woodland require mitigation. These communities shall be mitigated for both on- and off-site. The following describes how mitigation is proposed to occur for each of these habitats.

Project impacts to coastal sage scrub habitats shall be mitigated for by preservation of 29.9 acres on-site, creation of 33.0 acres of additional habitat on-site in areas currently supporting disturbed vegetation or areas proposed for remedial grading outside of brush management zones, enhancement of 6.7 acres of disturbed sage scrub on-site (FEIR Figure 4.8.7), and purchasing 14.8 acres of coastal sage scrub at an off-site location. Alternative 8 impacts to coastal sage scrub habitats shall be mitigated by preservation of 29.9 acres on-site, creation of 36.0 acres of additional habitat on-site in areas currently supporting disturbed vegetation or areas proposed for remedial grading outside of brush management zones, enhancement of 6.5 acres of disturbed sage scrub on-site (FEIR Figure 4.8.7), and purchasing 6.0 acres of coastal sage scrub at an off-site location. Details of mitigation for Venturan-Diegan transitional coastal sage scrub are presented in the Coastal Sage Scrub Restoration Plan for Saddleback Meadows (FEIR Appendix I.2). The goal of the plan is to outline the procedure for creating sage scrub habitat and for enhancing the value of existing coastal sage scrub habitat within the project site. Together these measures are intended to serve as mitigation for impacts to sage scrub habitat. This plan also provides criteria and recommendations for the maintenance and management of created and enhanced sage scrub habitat. The final goal of this plan is to create habitat that, after five years, is on its way to approaching the function and value of surrounding mature sage scrub habitat.

Project impacts to 5.5 acres of coast live oak woodland would be mitigated for by on-site preservation of 7.8 acres of coast live oak woodland, on-site creation of 13.5 acres of habitat, and off-site creation of an additional 3.0 acres (a ratio of 3:1). Alternative 8 impacts to 5.12 acres of coast live oak woodland would be mitigated by on-site preservation of 8.1 acres of coast live oak woodland,

on-site creation of 12.66 acres of habitat, and off-site creation of an additional 3.0 acres (a ratio of 3:1). The impacted trees (*Quercus agrifolia*) would also be replaced at the same ratio and 543 individuals would be planted under either the proposed project or Alternative 8. Details of mitigation for coast live oak woodlands are presented in the *Coastal Sage Scrub Restoration Plan for Saddleback Meadows* (FEIR Appendix I.3).

Sensitive Plants and Animals/Raptor Habitat: Riverside fairy shrimp were observed in the ephemeral ponds. Impacts to fairy shrimp on-site would be mitigated in conjunction with the ephemeral pond mitigation discussed in the restoration plan for wetland impacts (FEIR Appendix I.2). Impacts to the spadefoot toad would also be mitigated through implementation of this restoration plan. Additionally, spadefoot toads, toadlets and tadpoles would relocated to existing and created ponds from impacted ponds prior to initiating grading. Mitigation is not required for the other sensitive plant and animal species impacted by the project due to their low sensitivity status.

Mitigation for cumulative impacts to raptor foraging habitat (coastal sage scrub and grassland habitats, primarily) would be met in conjunction with the coastal sage scrub habitat mitigation discussed above for each habitat.

A potential exists for raptor species to be nesting on-site during the time when most raptors breed (December to June). A pre-construction survey for raptor species shall be conducted if construction occurs during the breeding season. If raptors are present then construction crews shall provide a noise buffer of 300 feet around active raptor nests or avoid construction in those areas until the nesting process is complete (young birds have left the nest). Potentially, other measures may be possible to attenuate noise and dust effects on the nest. If raptors are not nesting on-site, construction may proceed without need for further measures.

PDF 8-2 A wildlife movement corridor has been incorporated into the Tentative Tract Map to accommodate primary wildlife movement on-site. This corridor will range in width from 1,000 feet at the project site's westerly and easterly boundaries to a minimum 400 feet wide.[2]

Standard County Conditions

SC 8-1 Pursuant to Section 711.4 of the Fish and Game Code, the applicant shall comply with the requirements of AB 3158, prior to the filing of the Notice of Determination for the project, in a manner meeting the approval of the Manager, PDS/Environmental and Project Planning Services Division.

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[2] *The 400-foot wide corridor does not include the 50-foot buffer zones on either side of the corridor.*

SC 8-2 Prior to the issuance of any grading permits, the applicant shall obtain a Streambed Alteration Agreement covering the affected water courses and wetland areas within the proposed project area from the CDFG. All streambed alteration activities shall be carried out in accord with the requirements of an approved Streambed Alteration Agreement.

SC 8-3 Prior to the issuance of any grading permits, the applicant shall obtain the necessary individual or nationwide permit (pursuant to Section 404 of the Federal Clean Water Act) covering all affected wetland areas from the USACE, Los Angeles District. All wetland areas shall be subject to the specifications of the 404 permit as determined by the USACE. A copy of the 404 permit shall be submitted with the first grading permit application for the proposed project to the Manager, PDS/Subdivision and Grading Services Division.

SC 8-4 Prior to the issuance of a grading permit, as required by participation in the Natural Community Conservation Planning/Coastal Sage Scrub (NCCP) agreement signed by the County on May 1, 1992, the project applicant shall provide an accounting summary, in acres or portions thereof, of coastal sage scrub scheduled to be impacted by removal through grading in a manner meeting the approval of the Environmental Planning Services Manager.

SC 8-5 Prior to the issuance of any grading permit, approval of any activity that involves removal of any native vegetation from subject site including clearing, grubbing, mowing, disking, trenching, grading, fuel modification, or other related construction-related activities, the applicant shall obtain written proof from the USFWS that said activity complies with the federal ESA. This evidence shall be submitted to the Manager, PDS/Subdivision and Grading Services Division, for review and acceptance, in consultation with the Environmental Planning Services Manager.

A Biological Opinion issued by the USFWS shall be considered written proof.

SC 8-6 Prior to the issuance of grading permits, the applicant shall submit a landscape and tree preservation plan to the Manager, PFRD/Harbors Beaches and Parks, Program Management and Coordination Division, for review and approval in accordance with the following guidelines:

1) To the maximum extent feasible, all existing native and exotic trees and other significant vegetation shall be preserved in conjunction with any development activity.

   Substantial compliance to the approved Tentative Tract Map shall be deemed to be the maximum extent feasible.

2) A tree preservation plan shall be prepared by a landscape architect for all development projects which identifies the location, size and species of all trees having a trunk diameter of five inches or greater (measured at four and one-half feet above ground level) and shrubs having a trunk or branch diameter of three inches or greater. The plan shall show which plants are proposed for removal and where transplanted and/or replacement plants would be located. Tree preservation plans shall be approved prior to issuance of grading permits, or where grading permits are not required, prior to issuance of building permits.

3) Trees removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement per County Standard Conditions of Approval Manual criteria for Tree Preservation Plans in accordance with the Tree Replacement Scale below. All trees planted within the project shall be considered in determining compliance with the replacement ratios. The following sliding scale shall also be used for trees to determine if more than the minimum number of replacement trees are required.

Tree Replacement Scale

Trunk Diameter (inches) of Tree Removed at 4 ½ Feet Above Ground Level	Total Number of Replacement
5 to 11	5 (5-15 gal)
12 to 17	7 (7-15 gal)
18 to 23	10 (10-15 gal)
24 to 35	12 (12-15 gal)

Any oak exceeding 35 inches in diameter shall be preserved, transplanted or replaced by an identical species of equal or greater size in accordance with the provisions outlined in SC 8-7 (5) below. In the event that all required replacement trees would not fit on the property, increase in container size would be considered in conjunction with reductions in replacement quality.

4) Significant shrubs removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement by five-gallon plants at a minimum ratio of 3:1.

Restoration designs include these features.

5) All other plants not specified in SC 8-7 (3) and (4) above that are removed in accordance with an approved tree preservation plan shall be either transplanted to another location on the subject property or replaced by 15-gallon plants for trees and 5-gallon plants for shrubs at a minimum ratio of 1:1.

6) All transplanting of trees shall be performed by an experienced nursery or other landscape contractor, who shall care for the trees for at least six months after transplanting.

7) Prior to issuance of final certificates of use and occupancy, all transplanted or replacement trees and shrubs shall be installed in accordance with the tree preservation plan.

8) Oak trees shall not be subjected to increased runoff from irrigation systems, impermeable surfaces, storm drain discharge, etc.

9) Natural drainage courses and natural grades in proximity of, and providing seasonal irrigation to oak trees shall not be altered except as indicated on the approved Tentative Tract Map an in conformance to Section 404 and 1603 permits.

10) Grading, placement of fill, storage of building materials and heavy equipment, structural development, and hardscape (e.g., roads, sidewalks, patio slabs and pool decks) shall be prohibited within the drip line (outer edge of branches) of any tree. During grading and construction operations, all trees shall be temporarily fenced off with chain link fencing to protect such areas.

11) Use of pre-emergent weed killers shall be prohibited within 10 feet of the drip line trees.

12) Use of soil sterilizers shall be prohibited.

SC 8-7 Public Area Landscaping: Specify areas/lots to be dedicated or irrevocably offered to the County in easement for landscape maintenance purposes, scenic or resource preservation purposes or resource replacement shall be landscaped, equipped for irrigation, and improved in accordance with an approved plan as stated below:

1) Preliminary Plan – Prior to recordation of a subdivision map, an agreement shall be entered into and financial security posed guaranteeing landscape improvements and the maintenance thereof based on a preliminary landscape plan showing major plant material and uses, with a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Said plan shall take into account the approved landscape plan, the EMA Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and Specific Plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water

Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).

2) Detailed Plan - Prior to the issuance of any building permit(s), a detailed landscape plan shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks, Program Management and Coordination Division. Detailed plans shall show the detailed irrigation and landscaping design.

3) Installation Certification - Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, said improvements shall be installed and shall be certified by a licensed landscape architect or licensed landscape contractor, as required, as having been installed in accordance with the approved detailed plans. Said certification, including an irrigation management report for each landscape irrigation system, and any other required implementation report determined applicable, shall be furnished in writing to the Manager, PFR/Construction Division, and the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use and occupancy.

SC 8-8 Private Area Landscaping: Prior to the issuance of precise grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan approved by the Manager, PDSD/Subdivision and Grading. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), EMA Standard Plans, area plan 95-7, scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed by the future homeowners association and be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division.

1) Prior to the issuance of certificates of use and occupancy, applicant shall install said landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan.

2) Prior to the issuance of any certificates of use and occupancy, the applicant shall furnish said installation certification, including an irrigation management report for each landscape irrigation system,

and any other implementation report determined applicable, to the Manager, Building Inspection Services.

SC 8-9 Prior to the issuance of grading permits, the applicant shall provide additional evidence that the on-site coastal sage scrub habitat is not occupied by California gnatcatchers, in accordance with the USFWS issued BO.

A biologist certified by the USFWS to survey for gnatcatchers shall monitor grading of the project.

SC 8-10 Prior to the issuance of grading permits, the applicant shall provide appropriate measures to mitigate the project related impacts to on-site wildlife movement, to the satisfaction of the Environmental Planning Services Manager.

Substantial conformance to the approved Tentative Tract Map shall be deemed sufficient to mitigate said impacts.

SC 8-11 Prior to the issuance of grading permits, the applicant shall provide assurances to the satisfaction of the County NCCP coordinator and the Environmental Planning Services Manager, that the proposed project or Alternative 8 would participate in the NCCP planning process and not preclude the finalization of the Southern Subregional reserve component of the NCCP. Substantial conformance to the approved Tentative Tract Map shall be sufficient to demonstrate the project does not preclude said finalization.

Mitigation Measures

M 8-1 Backyard and street lighting shall be shielded to prevent light overspill into undisturbed open space areas.

M 8-2 Selected areas adjacent to undisturbed open space mitigation areas may require fencing to limit access to the proposed restoration and open space areas. Fencing would not be required where slopes are sufficiently steep enough to preclude access. A fencing plan shall be submitted to OCPDS prior to completion of restoration activities.

M 8-3 Silt fences shall be installed prior to grading around all construction areas on slopes within the watershed area of preserved and constructed ephemeral ponds, and Aliso Creek.

M 8-4 Prior to grading, all Plummer's mariposa lily bulbs shall be salvaged. The bulbs shall be stored at a qualified native plant nursery prior to transplanting them for on-site habitat enhancement. All transplanted bulbs shall be maintained, including weed control. Monitoring and reporting shall be conducted. A qualified biologist/botanist shall oversee all aspects of this mitigation plan including bulb collection and transplanting, per the recommendations of the

project biologist. The Plummer's mariposa lily mitigation plan shall be reviewed and approved by the Planning and Development Services Department, prior to issuance of grading permits.

Factual Support and Rationale

Implementation of the proposed project or Alternative 8 would not result in significant impacts to biological resources. The proposed project and Alternative 8 both comply with the Resource Overlay Component of the Foothill-Trabuco Specific Plan including wildlife corridors. The U.S. Fish and Wildlife Service has issued a Biological Opinion for Alternative 8 addressing impacts to Riverside fairy shrimp and critical habitat for the California gnatcatcher (FEIR Appendix I.4). The California Department of Fish and Game has issued a Streambed Alteration Agreement for impacts by Alternative 8 to jurisdictional streambeds (see FEIR (Response to Comments) Appendix B). Further, adherence to the Project Design Features, the Standard County Conditions, and implementation of recommended mitigation measures would ensure a less than significant impact to biological resources associated with the proposed project or Alternative 8.

Cumulative Impact

Individual site-specific project impacts in conjunction with the effects associated with past, present and future projects would result in cumulative impacts. Implementation of the proposed project in conjunction with identified related projects within the region would result in cumulative impacts to: (1) overall habitat (loss and degradation); (2) Riverside fairy shrimp; (3) jurisdictional areas; (4) oak woodland; and (5) wildlife movement. However, as with the proposed project, all identified related projects within the region would have to mitigate biological project impacts to less than significant.

2.2.7 RECREATION

Impact

Implementation of the proposed project or Alternative 8, would result in increased demands on existing local public recreational facilities.

Findings

With the implementation of the Project Design Features, Standard County Conditions and recommended mitigation measures, no significant unavoidable adverse impacts to recreation are anticipated with the proposed project or Alternative 8.

Project Design Features

PDF 11-1 The local east-west riding and hiking trail shall be constructed on-site, linking to the off-site Viewpoint Spur Trail, ultimately connecting the existing trail to

the Aliso Creek Riding and Hiking Trail via the Live Oak Canyon Regional Riding and Hiking Trail.

PDF 11-2 The Live Oak Canyon Regional Riding and Hiking Trail, as well as the local east-west riding and hiking trail connection to the off-site Viewpoint Spur Trail shall be located on-site within recreation easements for riding and hiking trails. The applicant shall dedicate a recreation easement for the trails, construct the trails and improvements, and required conditions. The recreation easements shall be dedicated per the County Standard Conditions of Approval Manual conditions for recreation easements for regional trails.

PDF 11-3 A Local Trail shall be designed and constructed per County of Orange standards for a regional riding and hiking trail. The trail shall be set back from the project's main road by at least 10 feet, to provide space for shade trees and landscaping. The trail shall connect to both the Viewpoint Spur Trail and the Live Oak Canyon Trail.

PDF 11-4 An Entry Riding and Hiking Rest Area shall be designed and constructed on the north side of the project entry road, near the project entrance. The rest area shall connect to the Local Trail.

PDF 11-5 A Ridgetop Rest Area shall be designed and constructed on the east side of the project site. The rest area shall connect to the Viewpoint Spur Trail via the Local Trail.

Standard County Conditions

SC 11-1 The proposed project or Alternative 8 shall pay in-lieu park fees in accordance with County of Orange Local Park Code subject to the approval of the Manager, PDSD/Current Planning Services prior to issuance of building permits.

SC 11-2 The applicant shall dedicate resource and scenic preservation easement areas in accordance with County of Orange Standard Conditions of Approval Manual for resource and scenic preservation easement criteria subject to the approval of the Manager, PFRD/HBP Program Management and Coordination, prior to recordation.

Mitigation Measures

The following mitigation measures shall be implemented and enforced through the provisions of existing codes and regulation to ensure that project impacts to recreation would be less than significant:

M 11-1 Prior to any grading and/or construction activities which precludes the utilization of either the Aliso Creek Class 1 Off-Road Bikeway, or the Live

Oak Canyon Regional Riding and Hiking Trail, a re-routing/detour plan shall be submitted to the approval of the Manager, PFRD/HBP Program Management and Coordination in conjunction with a County Property permit. The same condition shall also be applicable to the Class II On-Road Bikeway aligned along the northbound lane of El Toro Road contiguous to the proposed project.

M 11-2 Regional Trail Dedication: The Live Oak Canyon Regional Riding and Hiking Trail is proposed to follow the west side of the project site, from the southerly boundary of the subject property, northward to the Aliso Creek Trail undercrossing of El Toro Road. A recreation easement for this trail, including trail improvements, shall be dedicated to the County, in compliance with the following conditions:

1. Prior to the recordation of an applicable subdivision map, the subdivider shall:

   a. Irrevocably offer a recreation easement for the Live Oak Canyon Regional Riding and Hiking Trail in a manner meeting the approval of the Manager, PFRD/HBP Program Management and Coordination. The subdividers shall not grant any easement(s) over the property, subject to the recreation easement, unless such easements are first reviewed and approved by the Manager, HBP/Program Management and Coordination.

   b. Design the necessary improvements (both on- and off-site) for the trail, including, but not limited to, grading, erosion control, signage, and fencing, as applicable, in a manner meeting the approval of the Manager, PFRD/HBP Program Management and Coordination, in consultation with the Manager, Subdivision and Grading. Furthermore, the subdivider shall enter into an agreement, accompanied by financial security, with the County of Orange, to insure the installation of the necessary improvements.

2. Prior to the issuance of a grading permit, the grading plans shall be reviewed by the Manager, PFRD/HBP Program Management and Coordination, to ensure that the proposed grading provides for, will not interfere with, or preclude the installation of the riding and hiking trail in a location and in a manner meeting the approval of the Manager, HBP/Program Management & Coordination.

3. Prior to the issuance of final certificates of use and occupancy, and the release of financial security guaranteeing the riding and hiking trail improvements, the applicant shall install the riding and hiking trail improvements in a manner meeting the approval of the Manager, PFRD/HBP Program Management and Coordination, in consultation with the Manager, Construction.

M 11-3 Local Riding and Hiking Trail Dedication: A local riding and hiking trail is to be dedicated to the County within a recreation easement aligned east-west through the proposed project connecting the Live Oak Canyon Trail to the off-site Viewpoint Spur Trail (see FEIR Figure 4.11.2). Dedication of the recreation easement and improvements shall be done in compliance with the conditions listed above for regional trail dedications. Maintenance of the local trail shall be the responsibility of the applicant or its assigns.

M 11-4 Ridgetop Rest Area: A trail rest stop (Ridgetop Rest Area) shall be located at a high point about 700 feet south of the water tank site (in the northeast area of the project site) (see FEIR Figure 4.11.2). The subject rest stop and related amenities (e.g., benches, drinking fountain, water trough, landscaping, etc.) shall be constructed and dedicated to the County. The rest stop shall connect to the off-site Viewpoint Spur Trail via the Local Riding and Hiking Trail.

M 11-5 Entry Riding and Hiking Rest Area: A trail rest area (Entry Riding and Hiking Rest Area) is to be constructed and dedicated to the County. The rest area shall be located north of the project entry road, near the project entrance. The rest area shall include the following amenities: fencing, benches, a bike rack, a horse tie-up, and landscaping with shade trees. The rest area shall connect to the Local Trail.

Factual Support and Rationale

Implementation of the proposed project or Alternative 8 would not result in significant impacts to recreational resources. The proposed project and Alternative 8 comply with the Recreation Component of the F/TSP. Further, adherence to the Project Design Features, Standard County Conditions, and implementation of recommended mitigation measures would ensure a less than significant impact relating to recreational resources associated with the proposed project or Alternative 8.

Cumulative Impact

The proposed project or Alternative 8 and related projects would increase area population, which would contribute to the cumulative impact on local and regional recreational facilities. However, each related project would be required to mitigate for recreational impacts. Therefore, cumulative impacts to recreational facilities would not be significant.

2.2.8 PUBLIC SERVICES – FIRE PROTECTION

Impact

The additional population generated by the proposed project or Alternative 8 would increase the need for fire protection services to the project area, especially since the project site is located in an area classified as a "Special Fire Protection Area" by the

OCFA due to its topography, vegetation and climatic conditions. In addition, the OCFA has determined that although the proposed project or Alternative 8 would not result in a need for substantial expansion of existing facilities or personnel, additional fire suppression equipment may be necessary.

Findings

With the incorporation of the Project Design Features, Standard County Conditions and mitigation measure, the identified direct significant impact on fire protection services would be avoided and thereby reduced below a level of significance.

Project Design Features

PDF 12-1 A Fuel Modification Plan has been developed to provide a landscape transition area along the interface between residential development and adjacent open space to provide wildfire protection.

PDF 12-2 Automatic fire sprinkler systems shall be installed on all structures. Fire hydrants shall be spaced at 300-foot intervals instead of the minimum 600-foot spacing required for homes with automatic fire sprinkler systems.

PDF 12-3 A secondary emergency access is provided.

PDF 12-4 A water tank for local water supply shall be constructed.

Standard County Conditions

SC 12-1 Prior to the issuance of any certificates of use and occupancy, all on-site fire protection devices, including fire sprinklers, fire hydrants, alarm systems and fire suppression facilities, shall be installed and maintained in good condition by the property owner in a manner meeting the approval of the Fire Chief.

SC 12-2 Prior to the recordation of a final tract/parcel map, water improvement plans shall be submitted to and approved by the Fire Chief to ensure adequate fire protection and financial security is posted for the installation. The water system design, and location of valves, and the distribution of fire hydrants shall be approved by the Fire Chief.

SC 12-3 Prior to the issuance of any building permits, a plan ensuring compliance with OCFD water availability standards shall be submitted to and approved by the Orange County Fire Authority.

SC 12-4 Prior to the issuance of any building permits for combustible construction, a plan from the developer shall be submitted to and approved by the Fire Chief indicating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site.

SC 12-5 Prior to issuance of certificates of use and occupancy, emergency access shall be constructed in a manner meeting the approval of the Fire Chief.

SC 12-6 Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.

SC 12-7 Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.

SC 12-8 Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.

SC 12-9 Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to the Fire Chief for review and approval.

SC 12-10 Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be clearly marked.

SC 12-11 Prior to the issuance of any certificates of use and occupancy, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.

SC 12-12 Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief.

SC 12-13 Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manager, Environmental and Project Planning Services Division. The Planning and Development Section shall be contacted at (714) 744-0403 for requirements to be met and clearance of this condition. The plan shall also indicate the proposed means of achieving an acceptable level of risk to

structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants.

Substantial conformance to the approved Tentative Tract Map and the fuel modification plan shall be deemed to satisfy this condition.

SC 12-14 Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be necessary by the Fire Chief before the introduction of any combustible construction material into the project area.

SC 12-15 Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.

SC 12-16 Secured Fire Protection Agreement: Prior to grading, the applicant shall enter into a Secured Fire Protection Agreement with the OCFA

Mitigation Measures

M 12-1 Prior to the issuance of certificate of use or occupancy, the project applicant or developer shall provide evidence of disclosure to prospective buyers that may be outside of the response time standards of the OCFA.

Factual Support and Rationale

The OCFA already maintains certain standards for fire protection and emergency service personnel and apparatus to arrive on scene. Four OCFA fire stations will have initial response responsibilities for the project area, capable of provide adequate levels of response to most of the project area under the OCFA standards. Mitigation measure M 12-1 would require notice to any potential buyers who may be outside of the OCFA response guidelines. In any event, all applicable county fire code and ordinance requirements for construction, access water mains, fire hydrants, fire flows, brush clearance and fuel modification plans would be fully enforced, including a comprehensive fuel modification program. The project itself is not anticipated to have any significant impacts on response times. Moreover, implementation of the traffic-related mitigation measures in FEIR Section 4.5 would reduce impacts on all affected intersections to less than significant. Therefore, no significant impact with regard to emergency access would result.

Cumulative Impact

With the other related projects, the cumulative residential population increase expected to be served by these fire stations would increase the County's fire protection services load

to the project area. Additional staffing and/or equipment may be needed to meet this demand. However, as with the proposed project or Alternative 8, all the related projects would be individually subject to protection and safety measures to adequately mitigate fire protection. Therefore, no cumulative impacts are anticipated.

2.2.9 Utilities and Service Systems – Water Supply

Impact

The average annual water demand is estimated at 0.55 acre-feet per year (AF/YR) per single-family residential dwelling unit. Accordingly, the additional population generated by the proposed project is estimated to require and use approximately 165 AF/YR of water, thus necessitating construction of water system improvements including an extension of existing water lines to a proposed water tank, adjacent to the project property, and a booster pump station near the main water line connection. Implementation of Alternative 8 would result in a decrease of approximately 7,200 gallons for domestic water consumption per day.

Findings

The proposed project or Alternative 8 would not have a significant effect on the ability of the Trabuco Canyon Water District (TCWD) to meet demand for services in its service area and the project area. Moreover, implementation of the recommended Project Design Features, Standard County Conditions, and mitigation measures would ensure that the proposed project would not result in significant impacts related to water supply.

Project Design Features

PDF 16-1 The new booster pump station shall be paid for by the applicant and designed and function according to TCWD's guidelines and standards.

PDF 16-2 Operational capacities and pressure parameters for design of the booster pump station (approved by OCFA) shall be determined at design stage and shall incorporate, but not be limited to, the following requirements:

- It shall meet the maximum day demand for the "stand alone" zones of Saddleback Meadows with an operating time of 24 hours and without its largest unit in service.
- It shall be designed with a back-up generator for the booster pump, as well as fuel and maintenance provisions.
- It shall incorporate the typical three or four pump system with an alternating state sequence.
- It shall pump from TCWD's El Toro Road zone (1,165 feet HWL) to the storage facility (reservoir) proposed.

- It shall have the ability to refill the proposed reservoir, if it were empty, within 72 hours while also providing for maximum day demands on the water system during that time.

PDF 16-3 Water conservation measures to be implemented consist of water-conserving features in the design and construction of residential homes and uses, plus use of drought-tolerant plant materials in the slope and streetscape plantings. Proposed water conservation measures also include:

- Supply line pressure: Water pressure greater than 50 pounds per square inch (psi) reduced to 50 psi or less by means of pressure-reducing valves.
- Ultra-low-flush toilets: 1.5 gallon-per-flush toilets installed in all new construction.
- Landscape with low-water-using plants wherever feasible.
- Grouping of plants of similar water use to reduce over-irrigation of low-water-using plants.
- Extensive use of mulch as top cover to improve water-holding capacity of the soil.
- Installation of efficient irrigation systems that minimize runoff and evaporation, and maximize the amount of water reaching plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are proposed methods of increasing irrigation efficiency.

PDF 16-4 All design and landscape features shall comply with TCWD's guidelines and standards.

Standard County Conditions

SC 16-1 Prior to the issuance of any building permit(s), the applicant shall provide a report to the Manger, PDS/Building Permits Services Division, indicating that plans showing the location of proposed reclaimed water lines (if applicable) used to irrigate open space, other landscaped areas, have been submitted to and approved by the TCWD.

SC 16-2 Prior to the issuance of building permits, water conservation measures shall be incorporated into the development design plans and submitted for approval to the TCWD.

Mitigation Measures

Although no significant impacts are anticipated with the proposed project or Alternative 8, the following mitigation measures are recommended to further reduce water consumption and ensure impacts would be less than significant:

M 16-1 Prior to the issuance of any permits, the applicant shall prepare a Sub-Area Master Plan to define needed facility improvements, including water pump stations, reservoirs, pressure reducing valves and pipelines.

M 16-2 Prior to undertaking construction of the project, the applicant shall enter into an improvement agreement with TCWD to provide for the design, construction, installation, dedication and funding of all necessary master plan and in-tract storage facilities or alternatively pay TCWD's in-lieu water storage fees.

Factual Support and Rationale

TCWD provides water, reclaimed water and sewer service to approximately 10,300 residents in the southeastern portion of Orange County, including the project site. TCWD indicates that existing staff levels are adequate to serve the proposed project or Alternative 8.

TCWD also indicated it would be able to accommodate the required water supply demand of the proposed project or Alternative 8 and does not anticipate any water availability shortfalls which would affect its other demands, because it obtains water from a variety of sources, including local groundwater wells, State Project water, and inter-ties with other water purveyors. Moreover, TCWD currently maintains both a 14-inch and a 24-inch water mains along El Toro Road. Parallel 10-inch and 14-inch water lines are also located in Live Oak Canyon Road extending from Cook's Corner to Harris Grade Reservoir.

However, in order to adequately serve the project area, certain equipment improvements may be necessary. Accordingly, Project Design Features, Standard County Conditions and the recommended mitigation measures will be incorporated into the project to ensure facility upgrades and water conservation. First, because of elevation gain at the project site, a booster pump station near the main water line connection would be necessary to pump water to a reservoir located near the site. However, the applicant will pay for this device, and has already paid a $904,425 capital improvement fee to TCWD in 1988, and has already dedicated a site for a water tank. Second, prior to the issuance of any permits, a Sub-Area Master Plan would be prepared and financed by the developer to define necessary facility improvements, including water pump stations, reservoirs, pressure reducing valves and pipelines. Third, water conservation measures (such as low-flush toilets, the use of mulch as top-cover and efficient irrigation systems) will be implemented to foster water conservation. Accordingly, because the applicant has agreed to implement these devices, the project would likely not have a significant impact on TCWD ability to meet demand.

Cumulative Impact

Together, the proposed project or Alternative 8 and related projects would be expected to require additional water for domestic uses. As with the proposed project and Alternative

8, each related project would be subject to a review process and to appropriate water conservation requirements and mitigation measures. Therefore, the cumulative impact of the proposed project or Alternative 8 in combination with all of the related projects is not anticipated to result in a significant impact.

2.2.10 Utilities and Service Systems — Wastewater

Impact

Implementation of the proposed project would increase the demand for wastewater service to the project area. TCWD has established a discharge factor of 90 gallons per person, with three persons per residential unit. For the proposed project, then, the estimated project-related sewage discharge flow would be approximately 25,864,995 gallons per year. Implementation of Alternative 8 would result in a decrease of approximately 4,320 gallons of wastewater generation per day.

Findings

The proposed project or Alternative 8 would not have a significant effect on wastewater service systems. Proposed project area wastewater service demands would be met by the TCWD. Staff levels are adequate and upon implementation of the Project Design Feature and Standard County Condition, the proposed projects impacts to wastewater would be less than significant.

Project Design Features

PDF 17-1 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.

Standard County Conditions

SC 17-1 Prior to the issuance of a certificate of use and occupancy, sewer lines, connections and structures shall be installed in a manner meeting the approval of the Manager, HCA/Environmental Health.

- All wastewater facilities and lines shall be constructed and maintained to meet TCWD standards requirements.
- The project shall comply with all State of California Health and Safety Codes.
- All sewer lines shall be underground facilities.

Mitigation Measures

The following mitigation measure shall be implemented to further reduce potential impacts associated with wastewater:

M 17-1 Prior to the issuance of any permits, the applicant shall prepare a Sub-Area Master Plan to define needed facility improvements, including local collection lines.

Factual Support and Rationale

TCWD indicates that existing staff levels are adequate to serve the proposed project or Alternative 8, and sewer capacity in TCWD system has been guaranteed for this project. TCWD currently maintains an eight-inch diameter gravity sewer line in Santiago Canyon Road and another eight-inch line in Valley Vista Way. Both of these lines discharge into an existing 10-inch main, which eventually feeds to the 15-inch El Toro Road gravity sewer main. TCWD has reserved capacity of approximately 200,000 gallons per day for the project in this main. Other facilities, including a lift station and force mains, also already exist near the project site. In addition, a sewer connection fee of $973,528.58 was paid to TCWD when Tentative Tract Map No. 10692 was recorded in 1988.

Moreover, regional wastewater collection, treatment and disposal capacity rights were financed prior to recordation of the previous tract map through Assessment District No. 5. Following completion of the Sub-Area Master Plan, all fees and capacity charges would need to be reevaluated.

In any event, other requirements will improve wastewater issues. First, the Project Design Feature requires all utilities to be installed by the applicant in accordance with County requirements. Second, Standard County Condition SC 17-1 requires that prior to the issuance of a certificate of use and occupancy, sewer lines, connections and structures shall be installed in a manner meeting the approval of the Manager, HCA/Environmental Health; all wastewater facilities shall be constructed and maintained to TCWD standards and all sewer lines shall be underground facilities.

Cumulative Impact

Together, the proposed project or Alternative 8, and related projects would be expected to cumulatively generate approximately 118,015,085 gallons of wastewater per year. Existing facilities would accommodate the wastewater system requirements of proposed and approved projects within the project vicinity. As with the proposed project or Alternative 8, each related project would be subject to a review process and to appropriate mitigation measures. Therefore, no adverse cumulative impacts on existing sewage treatment and disposal facilities would occur.

2.2.11 CULTURAL /PALEONTOLOGICAL RESOURCES

Impact

Twelve sites were identified during the record search and field survey (CA-ORA-710, CA-ORA-711, CA-ORA-712, CA-ORA-713, CA-ORA-714, CA-ORA-715, CA-ORA-716, CA-ORA-1255, CA-ORA-1256, CA-ORA-1257, CA-ORA-1435H and CA-ORA-

1437). Without proper implementation of Project Design Features, Standard County Conditions, and mitigation measures, seven of these twelve sites (CA-ORA-711, CA-ORA-713, CA-ORA-714, CA-ORA-715, CA-ORA-1255, CA-ORA-1257 and CA-ORA-1437) would potentially be significantly impacted by the proposed project or Alternative 8. CA-ORA-1435H, while not directly impacted by the proposed project or Alternative 8, would be scheduled for demolition due to hazards associated with the buildings. The remaining sites were either not relocated or were mis-mapped and are not within the project area.

CA-ORA-710 and CA-ORA-711 have been determined to be important and warrant further investigation/excavation. Evaluation is ongoing and would continue during project construction as monitored by a qualified archaeologist. Because CA-ORA-710 is located in designated planned open space this site is considered significant/important and would be covered to preclude disturbance and would be further protected as part of a biological mitigation area. Additional mitigation would be needed if development plans change and the site would be disturbed. If grading operations at CA-ORA-711 uncover additional artifactual material, especially intact features, further data recovery work may be required.

The rock units underlying the project site have a history of fossil production dating from the 1930's and represent a significant scientific resource. The most abundant concentration of fossils appears to be located in the Topanga and undifferentiated Sespe Vaqueros Formations. Initial project site investigation has uncovered numerous fossil concentrations at various locations within the Sespe-Vaqueros Formation on the subject property. The Topanga Formation has yielded numerous occurrences of vertebrate fossils in boulders, which have apparently eroded from higher elevation. One of these boulders contains a portion of a baleen whale skull and another contains what appears to be the skeleton of a large toothed whale. Based on the abundance of observed fossils currently exposed on-site, it is anticipated that project grading and construction will unearth additional fossil concentrations, which may be destroyed without adequate precaution to document, recover and preserve what is found.

Findings

The proposed project and Alternative 8 may have a significant impact on archaeological site CA-ORA-711, unless data recovery excavation is preformed. All other archaeological sites have been deemed not important/significant. Project implementation would not impact any significant historical resources.

Disturbance of potential paleontological resources may occur with development of the proposed project or Alternative 8 without adequate mitigation.

Project Design Features

PDF 10-1 Site CA-ORA-710 shall be covered to preclude salvaging and will be further protected as part of a biological mitigation area. A qualified archaeologist

shall be present to monitor all activities (including earth-disturbing activities included for biological resource mitigation) to ensure that cultural resources will not be threatened or disturbed.

Standard County Conditions

Many of the following Standard County Conditions have been completed.

Archaeological/Historical Resources

SC 10-1 Prior to the issuance of any grading permit, a County-certified archaeologist shall certify that the project site has been surveyed in a manner which meets the approval of the Manager, PF&R/Harbors, Beaches and Parks Division. A report of the literature and records search and the field survey shall be submitted to and approved by the Manager, PF&R/Harbors, Beaches and Parks Division. Additional mitigation measures may be required depending upon the recommendations of this report.

SC 10-2 Prior to issuance of any grading permit, the applicant shall obtain approval from the Manager, HBP/Coastal and Historical Facilities of a report on a subsurface test level investigation of archaeological resources of archaeological resources surface collection as appropriate. The applicant shall retain a County-certified archaeologist to perform the investigation and collection and to prepare the report. The test level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations and cost estimates. Applicant shall implement the mitigation measures recommended in this report in a manner meeting the approval of the Manager HBP/Coastal and Historical Facilities.

The applicant shall prepare excavated materials to the point of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such a fee program is in effect at the time of presentation) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

SC 10-3 Prior to the issuance of any grading permit, the applicant shall obtain approval from the Manager, HBP/Coastal and Historical Facilities of a report of the pre-grade archaeological salvage operation. The applicant shall retain a County-certified archaeologist to conduct the pre-grade salvage excavation of the archaeological resources and prepare a report of the exposed resources.

The report shall include methodology, an analysis of artifacts found, a catalogue of artifacts, and their present repository.

The applicant shall prepare excavated materials to the point of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such a fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

SC 10-4 Prior to the issuance of any grading permit, the applicant shall provide written evidence to the Manager, Subdivision and Grading, that applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage.

Prior to the release of the grading bond the applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Applicant shall prepare excavated material to the point of identification. Applicant shall donate excavated finds for curatorial purposes to a suitable respository that will maintain the collection for future scientific study and exhibition within Orange County. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, HBP/Coastal and Historical Facilities. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

Paleontological Resources

SC 10-5 Prior to issuance of a grading permit, a County-certified paleontologist shall certify that the project site has been surveyed in a manner which meets the approval of the Manager, PF&R/Harbors, Beaches and Parks Division. In

addition, a field survey shall be conducted by a County-certified paleontologist unless the entire proposed project site has been documented as previously surveyed in a manner in which meets the approval of the Manger, PF&R/Harbors, Beaches and Parks Division. A report of the literature and records search and field survey shall be submitted to and approved by the Manager, PF&R/Harbors, Beaches and Parks Division. Future mitigation shall depend upon the recommendations of this report.

SC 10-6 Prior to the issuance of any grading permit, the project applicant shall obtain approval from Manager, HBP/Coastal and Historical Facilities of a report of the pre-grade paleontological salvage operation. The applicant shall retain a County-certified paleontologist to conduct pre-grade salvage excavation and prepare a report of the exposed resources. The report shall include methodology, an analysis of artifacts found, a catalogue of artifact, and their present repository. Applicant shall prepare excavated materials to the point of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

SC 10-7 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, Subdivision and Grading, that applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant, which ensure proper exploration and/or salvage.

Prior to the release of the grading bond the applicant shall submit the paleontologist's follow up report for approval by the Manager, HBP/Coastal and Historical Facilities. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point to of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by the HBP/Coastal and Historical Facilities. Applicant shall be

prepared to pay curatorial fees (if an applicable fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

Mitigation Measures

The following mitigation measures shall be implemented and enforced through the provision of existing codes and regulations in a manner acceptable to the Manager, PF&R/Harbors Beaches and Parks Division Facilities:

Archaeological/Historical Resources

M 10-1 Prior to site grading the project site shall be examined by a qualified archaeologist, all potential archaeological sites identified, and surface collection and documentation of artifacts conducted.

M 10-2 If the project archaeologist determines that a site is potentially of cultural worth, then additional excavation in a manner determined by the project archaeologist shall occur prior to further grading or construction activities at these locations.

M 10-3 During initial grading, the project site shall be monitored by a qualified archaeologist who shall have the authority to order a temporary cessation of grading activities and take appropriate action to preserve any culturally significant materials if uncovered.

M 10-4 If human remains of Native American origin are encountered during the project the County Coroner's Office and the Native American Heritage Commission shall be contacted for preservation and protection of the remains.

Paleontological Resources

M 10-5 A qualified paleontologist shall be retained to perform periodic inspections of excavations and, if necessary, salvage exposed fossils. The frequency of inspections will depend on the rate of excavation, the materials being excavated, and the abundance of fossils. Initially, monitoring shall be on a full time basis in all excavations because of the high potential for the discovery of fossils in all the rock units present in the study area.

M 10-6 The paleontologist shall be allowed to divert or direct grading in the area of an exposed fossil to facilitate evaluation and if necessary, salvage.

M 10-7 To recover small fossils, sediment samples shall be collected from promising horizons discovered during grading monitoring for processing through fine mesh screens. Once the samples have been screened, they shall be examined microscopically for small fossils.

M 10-8 Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository.

M 10-9 All fossils collected shall be donated to a suitable repository that will maintain the collection for future study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such a fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.

M 10-10 A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project.

Factual Support and Rationale

If the above mentioned Project Design Features, Standard County Conditions, and mitigation measures are taken, no significant adverse impact to archaeological or cultural resources is anticipated with the proposed project or Alternative 8. Nor will any significant adverse impacts to paleontological resources occur after the implementation of the proposed Project Design Features, Standard County Conditions, and mitigation measures.

Cumulative Impact

Although the cumulative total of all related project development creates the potential for additional impact to archaeological/historical resources, each project must develop adequate mitigation measures to substantially decrease or avoid impacts. The recommended mitigation measures for the proposed project would reduce the potential impact of site development, particularly to the known archaeological sites on the subject property. No significant cumulative impact to archaeological/historical resources would occur.

Although the cumulative total of all related project development creates the potential for additional impact to paleontological resources, each project must develop adequate mitigation measures to substantially decrease or avoid impacts. No significant cumulative impact to paleontological resources would occur.

3. FINDINGS CONCERNING FEASIBILITY OF PROJECT ALTERNATIVES

3.1 Introduction

The identification and analysis of alternatives is a fundamental concept under CEQA. This is evident in that the role of alternatives in an EIR is set forth clearly within the CEQA Statutes. Specifically, CEQA Statute Section 21002.1(a) states:

> "*The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.*"

The CEQA Guidelines require an EIR to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." (CEQA Guidelines Section 15126.6(a)). The CEQA Guidelines direct that selection of alternatives focus on those alternatives capable of eliminating any significant environmental effects of the project or of reducing them to a less-than significant level, even if these alternatives would impede to some degree the attainment of project objectives, or would be more costly. In cases where a project is not expected to result in significant impacts after implementation of recommended mitigation, review of project alternatives is still appropriate.

The range of alternatives required within an EIR is governed by the "rule of reason" which requires an EIR to include only those alternatives necessary to permit a reasoned choice. The discussion of alternatives need not be exhaustive. Furthermore, an EIR need not consider an alternative whose implementation is remote and speculative or whose effects cannot be reasonably ascertained.

Alternatives that were considered but were rejected as infeasible during the scoping process should be identified along with a reasonably detailed discussion of the reasons and facts supporting the conclusion that such alternatives were infeasible.

Based on the alternatives analysis, an environmentally superior alternative is designated among the alternatives. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)).

Applicable Standards

Under CEQA, whenever a public agency considers approving a project for which the EIR concludes that notwithstanding the incorporated mitigation measures, there will nonetheless remain significant impacts that are not avoided or lessened below a level of significance, the public agency must consider and make findings regarding the feasibility

of alternatives discussed in the EIR. As stated in CEQA (Public Resources Code §21002):

> "[It] is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or mitigation measures available which would substantially lessen the significant environmental effects of such projects....The legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such projects alternatives or mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

The determination of the infeasibility of alternatives is necessarily an evaluation of the many elements of specific economic, social or other considerations. (CEQA Guidelines §15091). Elsewhere in the CEQA Guidelines §15364, *"feasible" is defined as "...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."* At the same time, infeasibility is not equated with impossibility and case law recognizes that an alternative or mitigation measure may also be infeasible if it is undesirable or impractical from a policy standpoint. As an example, a conflict between project alternatives and a city's growth management policies and programs supported a finding of infeasibility in *City of Del Mar v. City of San Diego* (1982) 133 CA3d 401. The Court went on to describe the alternatives analysis under CEQA necessarily involves the balancing of economic, environmental, social and technological factors within the province of the decision makers.

In undertaking the comparative analysis called for under CEQA in considering the feasibility of project alternatives, it is also necessary to keep in mind the project objectives as expressed in the DEIR. The overall project objectives are set forth at page 2-9 of the DEIR as follows:

1. Develop a single-family, rural community that balances residential development with protection of on-site sensitive resources and values of the surrounding community.

2. Preserve the site's biotic and vegetative resources to the maximum extent feasible and mitigate impacted resources to the satisfaction of the County of Orange, and responsible state and federal resource agencies.

3. Minimize visual effects on surrounding properties through the use of creative grading and site planning/urban edge techniques.

4. Remediate and provide geotechnical stabilization for on-site landslide areas affecting the proposed development area and adjacent land use.

5. Minimize adverse effects on surrounding properties.

6. Ensure a fire-sage community through incorporation of an area-wide fuel modification program, design of adequate ingress/egress for emergency equipment and residents, and assurance of adequate fire-flow water supply.

7. Provide trail connections to the regional riding and hiking trail system.

8. Provide required infrastructure improvements to support the proposed development.

9. Provide an urban runoff water quality management system, upstream of Aliso Creek.

Findings on Project Alternatives

Pursuant to Section 15126(d) of the CEQA Guidelines, Chapter 5.0 of the DEIR describes and evaluates the relative environmental impacts of numerous project alternatives. In accordance with CEQA, alternatives are to be defined which are capable of either eliminating or reducing significant adverse impacts associated with the proposed project; and have the potential to feasibly attain the basic objectives of the proposed project.

Based on these criteria, the DEIR evaluated a range of potential project alternatives, including Alternative 1 - No Development Alternative; Alternative 2 - No Project Alternative; Alternative 3 - F/TSP EIR 531 Staff Alternative A; Alternative 4 - F/TSP EIR 531 Staff Alternative B; Alternative 5 - Cluster/Single Family/Multi-Family Residential Alternative; Alternative 6- 44/178 Alternative; Alternative 7 - Acquisition Alternative; and, Alternative 8 - Reduced Residential Alternative.

CEQA requires consideration of the No Project and No Project/No Development alternatives and the County selected the others on the basis they represent a reasonable range of alternative project proposals that appear to be potentially compatible with most of the overall Project Objectives. Applying the criteria discussed above for considering the feasibility of project alternatives and considering the totality of the information in the Final EIR, testimony and information received during the public hearings and the evidence in the administrative record as a whole, the County has determined that the identified project alternatives are feasible in light of the Project Objectives, the County's programs and policies and general legal principles applicable to a landowner's right or privilege to make beneficial use of its property in accordance with all applicable law, policies, standards and land use regulations uniformly applied. The factual support, reasoning and analysis supporting this conclusion will be set forth below with respect to each of the Project alternatives evaluated in the DEIR.

3.2 CRITERIA FOR ALTERNATIVE ANALYSIS

As stated above, pursuant to CEQA, one of the criteria for defining project alternatives is the potential to attain most of the project objectives. Established objectives of the project

applicant for the proposed project are detailed at page 2-9 of the DEIR. As also discussed above, a primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts in comparison to the proposed project. Previous documents prepared for the project recognized unavoidable adverse impacts, however, due to the change with the project since the prior documents and the issuance of a biological opinion by USFWS, the impact analysis, as detailed in Section 4.0 of the DEIR, concludes that the none of the environmental impacts would remain significant following the implementation of Project Design Features, Standard County Conditions and mitigation measures.

3.3 ALTERNATIVES ELIMINATED FROM CONSIDERATION

In addition to specifying that the EIR evaluate "a range of reasonable alternatives" to the proposed project, Section 15126 (c) of the CEQA Guidelines requires that an EIR identify any alternatives that were considered but were rejected as infeasible. The following alternatives were rejected from further analysis:

- **Golf Course Alternative**: A golf course alternative was considered for the project site that included an 18-hole golf course, driving range, clubhouse, conference/retreat center, and 45 resort casitas. However, upon review of this alternative it was determined that implementation of this alternative would result in a greater number of impacts as compared to the proposed project. Therefore, as this alternative would not reduce impacts, the golf course alternative was eliminated from further consideration.

- **Development of the Project at an Alternative Location**: As noted above, CEQA requires a discussion of alternatives to the project or its location, which are capable of avoiding or lessening significant impacts of the project. Of these alternatives, an EIR need only address those that could feasibly attain the objectives of the project. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the applicant can reasonably acquire, control or otherwise have access to the alternative site (CEQA Guidelines, Section 15126.6 (f)(1)).

  There are a limited number of potentially developable sites remaining in Orange County. Alternative sites within outlying areas of the County are neither within the control of the project applicant or likely to meet the objectives of the proposed project. It is speculative, but unlikely that the project applicant could assemble other contiguous properties within the area to accommodate the number and type or residences proposed for the project. Moreover, if such properties were identified and acquired by the applicant, the properties would likely have resources and environmental constraints similar to Saddleback Meadows. Development of the proposed project at an alternative location, therefore, is unlikely to be economically viable and would

probably not reduce environmental impacts in comparison to the proposed project.

3.4 EVALUATION OF ALTERNATIVES

This section provides an analysis of the environmental impacts anticipated for each alternative in comparison to the proposed project and determines whether the alternative could feasibly meet the objectives of the proposed project. The comparison assumes that mitigation measures equivalent to those included for the proposed project would be implemented for each alternative, unless otherwise indicated. Therefore, the analyses below focuses on the ability of the alternatives to reduce or eliminate the environmental impacts associated with the proposed project.

3.4.1 ALTERNATIVE 1 – NO DEVELOPMENT ALTERNATIVE

Under Alternative 1, the proposed project would not be developed and the recorded map would not be implemented. No further development within the project site would occur. The project site would remain undeveloped for the foreseeable future, with cattle grazing operations continuing.

Environmental Assessment

In comparison to the proposed project, implementation of Alternative 1 would eliminate adverse environmental impacts associated with the proposed project. However, under this alternative there would still be the potential for a landslide to occur that would adversely impact El Toro Road and adjoining properties. On-going use of the property in its existing condition would not require a zone change or F/TSP amendment. Alternative 1 would avoid any adverse or incremental impacts associated with land use and planning, geophysical resources (with the exception of slope stabilization), hydrology, water quality, transportation/traffic, air quality, noise, biological resources, aesthetics/visual resources, cultural resources, recreation, public services and utilities and service systems.

Ability to Reduce Environmental Impacts

Implementation of this alternative would eliminate the significant, adverse and unavoidable impacts of the proposed project, as well as result in an overall reduction of other less than significant project impacts. However, impacts regarding slope stabilization of areas on the project site would be greater under this alternative than the proposed project.

Ability to Attain Project Objectives

Orange County's current housing inventory cannot meet the growing demand. This alternative would not provide additional housing opportunities to assist in closing the gap between housing inventory and demand. It would not therefore, be consistent with the

goals of the Housing Element of the General Plan to "provide decent and adequate housing with respect to selection by type, price, and tenure...."

Similarly, this alternative would not attain the objectives of the applicant as included in FEIR Section 2.2.

3.4.2 ALTERNATIVE 2 – NO PROJECT ALTERNATIVE

The project site has a recorded final tract map permitting the development of 705 single-family manufactured housing units (Tract 10692 recorded December 16, 1988). Under Alternative 2, the project site would not change from the existing entitlement for 705 manufactured units (see FEIR Figure 5.1). As shown in FEIR Table 5.1, approximately 86 percent of the project site would be impacted, with approximately 14 percent of the site as natural open space.

FEIR Table 5.1
Alternative 2 Land Use Summary

Land Use	Area (acres)	Percent of Site
Residential Lots	69.1	31%
Commercial Lot	1.4	1%
Streets/ROW	23.5	11%
Recreation Areas (park/trails)	4.6	2%
Manufactured Slope	92.1	41%
Natural Open Space	31.3	14%
Total	**222.0**	**100%**

Under Alternative 2, the minimum lot size would be 2,630 square feet. It is assumed that the commercial lot included in this alternative would result in approximately 15,250 square feet of commercial space. Site access would be provided via El Toro Road, and secondary access, for emergency purposes, would be via Valley Vista Way. In addition to the residential component, this alternative also includes commercial uses. Conventional grading for this alternative would total approximately 3.7 million cubic yards, with remedial grading totaling approximately 10 million cubic yards.

Infrastructure improvements would be similar to those described for the proposed project, including the proposed 1.4 million gallon water tank and associated access road located off-site, adjacent to the northeast corner of the property.

Environmental Assessment

Land Use and Planning: The Bridlewood/Saddleback Meadows Residential District was established within the F/TSP to recognize the existing zoning and tract map approvals for the proposed project site. The development of 705 manufactured homes on the site is permitted by the current zoning. Therefore, this alternative would not require any of the approvals required for the proposed project, including: zone change, area plan, tentative tract map or vesting tentative tract map.

The proposed project site, under the recorded tract map, was originally required to designate 66 percent of the total units as affordable housing. Under the F/TSP, the mandatory requirement for affordable housing was removed from all F/TSP areas. Affordable housing provisions were deleted from the F/TSP due to the incompatibility of higher affordable housing project densities with the rural preservation goals. However, the proposed project site would be exempt from F/TSP, if developed in accordance with previous approvals (i.e., the 705 manufactured housing units).

Potential impacts regarding land use which may result with implementation of Alternative 2 include compatibility issues. Circumstances surrounding land use have changed significantly since the 705 project was approved. The project vicinity at that time, with the exception of St. Michael's Abbey and the Rama Krishna Monastery, was characterized as undeveloped natural environment. The project vicinity has become increasingly urban since the original approvals. In addition to the Abbey and Monastery, the area includes various single- and multi-family residential communities, a church, and proposed retail development (see FEIR Section 2.1.3). The development of Alternative 2 would not be compatible with the surrounding land uses.

The site was originally designated as an affordable housing site with a 66 percent affordable housing requirement. With the adoption of the F/TSP, the mandatory requirement for affordable housing was removed. However, the project site was exempted from plan provisions if developed in accordance with previous approvals. The F/TSP overriding goal is the preservation of the rural character of the area, and in that regard, deleted affordable housing provisions from the plan. This is due to the incompatibility of higher affordable housing project densities with rural preservation goals.

Implementation of Alternative 2 would be incompatible with existing surrounding land uses. In addition, this alternative would not be in conformance with F/TSP resource goals, objectives and policies. Therefore, impacts would be greater than those associated with the proposed project.

Geophysical Resources: As with the proposed project, implementation of Alternative 2 would result in changes to the project site's landforms and topographical features, and related impacts regarding soil stability on the site. However, impacts would be greater with this alternative as compared to the proposed project, resulting in essentially leveling the site to create a flat buildable pad areas to accommodate the manufactured housing units. Total conventional grading volumes would be 3.7 million cubic yards, as compared to 2.45 million cubic yards for the proposed project. In addition, remedial grading for this alternative would include the preserved open space areas and oak woodlands, due to landslides and unstable soil conditions of the site. Total remedial grading for Alternative 2 would be approximately 10 million cubic yards, as compared to 6.8 million cubic yards for the proposed project. The potential risk associated with seismic hazards and on-site soils would be greater under Alternative 2, as a greater number of people would be exposed.

Overall geophysical resource impacts would be greater for this alternative as compared to the proposed project.

Hydrology: As the ultimate area of disturbance would be greater than the proposed project, the increase in impervious area and associated increase in peak storm water runoff would also be greater. During construction, the disruption of soils may also affect the content of site runoff into the watershed area of Aliso Creek.

Hydrology impacts of Alternative 2 would be greater compared to the proposed project.

Water Quality: Grading volumes for this alternative would be greater as compared to the proposed project and related short-term, construction-related water quality impacts (erosion) would also be greater. Alternative 2 would include the necessary improvements, so that the post-development condition would be in conformance with County standards.

Overall, water quality impacts of Alternative 2 would be greater as compared to the proposed project.

Transportation/Traffic: Traffic volume estimates indicate that Alternative 2 would generate approximately 8,340 trips per day, an increase of 4,750 trips per day over the proposed project. This increased traffic may significantly impact the circulation patterns on El Toro and Live Oak Canyon Roads, contrary to the goals for the F/TSP. In addition, the designation of up to 66 percent of the units for affordable housing may increase the need for new or additional public transportation facilities to serve the project site. The closest bus stop is located approximately 2.25 miles southwest of the project site and OCTA has indicated that there are no plans to locate a bus route adjacent to the project site on El Toro Road.

Transportation/traffic impacts would be greater with implementation of Alternative 2 as compared to the proposed project.

Air Quality: Fugitive dust emissions associated with construction activities are based on total grading acreage. As Alternative 2 would result in a greater amount of disturbance compared to the proposed project, air quality impacts associated with construction activities would therefore, be greater.

As trip generation for this alternative would be greater than 4,000 trips per day, operational impacts associated with vehicular emissions would exceed the NO_X threshold of 55 pounds per day. Therefore, Alternative 2 would result in a potentially regionally significant air quality impact. As with the proposed project, no impacts with regard to a localized CO hot spots would be anticipated.

Air quality impacts associated with Alternative 2 would be greater as compared to the proposed project.

Noise: Noise impacts associated with construction activities would be similar to those discussed for the proposed project and no perceptible difference would occur at adjacent surrounding noise sensitive land uses. As the number of residential units and subsequent number of daily trips would be greater than the proposed project, operational noise impacts would also increase. However, this increase would not result in a noticeable difference. Therefore, operational noise impacts would be similar to those of the proposed project.

Construction and operational noise impacts associated with Alternative 2 would be similar to those of the proposed project.

Biological Resources: As the development area for Alternative 2 would be greater than the proposed project, impacts to biological resources would also increase. Implementation of this alternative would directly impact a majority of on-site biological resources including a significant strand of oak woodlands, coastal sage scrub habitat, ephemeral ponds and the Aliso Creek riparian habitat adjacent to and northwest of the project site.

The wildlife corridor included as part of the proposed project, that would connect the wilderness areas south and west of the site, would not be provided under this alternative. This would leave existing wildlife isolated in very restrictive open space areas.

Impacts to on-site and off-site biological resources with implementation of Alternative 2 would be greater than those associated with the proposed project.

Aesthetics/Visual: Under Alternative 2, approximately 90 percent of the project site would be developed, as compared to the proposed project in which approximately 30 percent of the site would be developed. This would significantly alter the views of the project site as viewed from the Monastery and Abbey located adjacent to the site.

Impacts with regard to aesthetic/visual resources would be greater from implementation of Alternative 2, as compared to the proposed project.

Cultural Resources: As the development area for Alternative 2 would be greater than the proposed project, impacts to cultural resources would also increase. Development of this alternative would require extensive monitoring to ensure that potential cultural resources would not be damaged or destroyed.

Impacts to cultural resources would be greater from implementation of Alternative 2 as compared to the proposed project.

Recreation: Implementation of Alternative 2 would provide six parks/recreation facilities on-site. Connections to regional riding, hiking and biking trail systems, included as part of the proposed project would not be provided. Alternative 2 would adversely affect the ability of the County to implement General Plan recreation goals.

Impacts with regard to recreational resources would be greater with implementation of Alternative 2 as compared to the proposed project.

Public Services – Fire Protection: The number of residential units and expected number of residential population would increase under Alternative 2, and the resulting demand on fire protection services would be greater. Impacts with regard to response times would be similar to those associated with the proposed project, as would fire protection services related to area wild fires. As with the proposed project, development of this alternative would require a fuel modification plan to minimize or retard the spread of dry brush and wildfire into the area.

Fire protection impacts would be greater than those associated with the proposed project.

Public Services – Police Protection: The number of residential units and expected number of residential population would increase under this alternative, by approximately 136 percent. Therefore, the resulting demand for police protection services would be greater. Impacts with regard to response times would be similar to those associated with the proposed project.

Police protection impacts would be greater than those associated with the proposed project.

Public Services – Schools: As the number of residential units and expected number of residential population would increase with implementation of Alternative 2, the resulting demand on school services would be greater. Based on student generation factors, implementation of this alternative would result in an estimated 399 new students (240 elementary students, 46 intermediate school students, and 113 high school students). Area schools would not have sufficient space to accommodate these students. As with the proposed project, payment of residential impact fees would offset these capacity impacts.

Impacts to school services within the project area would be greater with implementation of Alternative 2 as compared to the proposed project.

Public Services – Library: As the number of residential units and expected number of residential population would increase with implementation of Alternative 2, the resulting demand on library services would be greater. Based on County planning guidelines, this alternative (with an additional approximate population of 1,198) would result in the need for 240 square feet of library space, and 1,797 additional library materials (books, audio, etc.). As with the proposed project, new facilities (currently under construction) would be able to meet the increased library needs.

Impacts to library services within the project area would be greater with implementation of Alternative 2, as compared to the proposed project.

Utilities and Service Systems – Water Supply: As the number of residential units and expected number of residential population would increase with implementation of Alternative 2, the amount of water required would also increase. Implementation of Alternative 2 would result in an increase of approximately 182,700 gallons per year for domestic water consumption (based on 450 gallons per unit times 406 more units).

Water supply impacts would be greater with implementation of Alternative 2 as compared to the proposed project.

Utilities and Service Systems – Wastewater: As the number of residential units and expected number of residential population would increase with implementation of Alternative 2, the amount of wastewater generated would also increase. Implementation of Alternative 2 would result in an increase of approximately 109,620 gallons per year of wastewater generation (based on 270 gallons per unit times 406 more units).

Wastewater generation impacts would be greater with implementation of Alternative 2 as compared to the proposed project.

Utilities and Service Systems – Solid Waste: As the number of residential units and expected number of residential population would increase with implementation of Alternative 2, the amount of solid waste generated would also increase. Implementation of Alternative 2 would result in an increase of approximately 158 tons in solid waste generation (based on 65 pounds per unit per month times 406 more units).

Solid waste generation impacts would be greater with implementation of Alternative 2 as compared to the proposed project.

Utilities and Service Systems – Electricity: As the number of residential units and expected number of residential population would increase with implementation of Alternative 2, the amount of electricity required would also increase. Implementation of Alternative 2 would result in an increase of approximately 3,410,400 kWh of electricity per year (based on 700 kWh per unit per month times 406 more units).

Electricity supply impacts would be greater with implementation of Alternative 2 as compared to the proposed project.

Utilities and Service Systems – Natural Gas: As the number of residential units and expected number of residential population would increase with implementation of Alternative 2, the amount of natural gas required would also increase. Implementation of Alternative 2 would result in an increase of approximately 32,472 Mcf of natural gas consumption (based on 79.98 Mcf per unit times 406 more units).

Natural gas supply impacts would be greater with implementation of Alternative 2 as compared to the proposed project.

Ability to Reduce Environmental Impacts

Implementation of Alternative 2 would not eliminate any of the significant, adverse impacts of the proposed project. Overall, this alternative substantially increases impacts in comparison with the proposed project.

Ability to Attain Project Objectives

This alternative would not attain the applicant's objectives included in FEIR Section 2.2, with the exception of ensuring a fire safe community (Objective 6) and providing an urban runoff water quality management system (Objective 9).

3.4.3 ALTERNATIVE 3 – F/TSP EIR 531 STAFF ALTERNATIVE A

Alternative 3 would include the construction of 150 single-family residential lots, with minimum lot sizes of 20,000 square feet (see FEIR Figure 5.2). As shown in Table 5.2 of the FEIR, , approximately 40 percent (88.5 acres) of the project site would be used for the residential lots, with approximately 38 percent of the site as natural open space (84.1 acres).

FEIR Table 5.2
Alternative 3 Land Use Summary

Land Use	Area (acres)	Percent of Site
Single-family Lots	88.5	40%
Streets	17.8	8%
Manufactured Slope	31.6	14%
Natural Open Space	84.1	38%
Total	222.0	100%

Site access would be from El Toro Road via a double loaded roadway traversing the main ridgeline looping back through the oak woodland canyon connecting with the access road near the middle of the site. Secondary access, for emergency purposes, would be provided via El Toro Road, through St. Michael's Abbey property. Residential lot access would be provided either directly off the main road or from short cul-de-sac streets spaced throughout the site.

Grading for this alternative would be approximately 12.5 million cubic yards. Infrastructure improvements would be similar to those described for the proposed project.

Environmental Assessment

Land Use and Planning: The project site is located within the F/TSP planning area which permits the highest residential density, less than one acre per dwelling unit, not to exceed 705 residential units based on the previous tract map approval. In terms of gross residential density, Alternative 3 is in compliance with these provisions. However, the F/TSP also has as an overriding goal preserving significant landform, biological and

scenic resources. Alternative 3 would impact an incrementally reduced portion of the site (approximately 138 acres) as compared to the proposed project (approximately 160 acres). In addition, this alternative would remove oak woodlands, and provide less open space than the proposed project, contrary to F/TSP goals.

Land use and planning impacts would be greater with Alternative 3 than the proposed project.

Geophysical Resources: As with the proposed project, implementation of Alternative 3 would result in changes to the project site's landforms and topographical features, and related impacts regarding soil stability on the site. Total conventional grading volumes would be 2.5 million cubic yards, as compared to 2.45 million cubic yards for the proposed project. In addition, remedial grading for this alternative would include the preserved open space areas and oak woodlands, due to landslides and unstable soil conditions of the site. Total remedial grading for Alternative 3 would be approximately 10 million cubic yards, as compared to 6.8 million cubic yards for the proposed project. The potential risk associated with seismic hazards and on-site soils would be less under Alternative 3, as fewer people would be exposed.

Overall geophysical resource impacts would be greater for this alternative as compared to the proposed project.

Hydrology: Alternative 3 would result in an increase in impervious area (106.3 acres) compared to the proposed project (66.9 acres). Therefore, the associated increase in peak storm water runoff would also be greater. During construction, the disruption of soils may also affect the content of site runoff into the watershed area of Aliso Creek.

Hydrology impacts of Alternative 3 would be greater than the proposed project.

Water Quality: Grading volumes for this alternative would be greater as compared to the proposed project and related short-term, construction-related water quality impacts (erosion) would also be greater. Alternative 3 would include the necessary improvements so the post-development condition would be in conformance with County standards.

Overall, water quality impacts of Alternative 3 would be greater as compared to the proposed project.

Transportation/Traffic: Traffic volume estimates indicate that Alternative 3 would generate approximately 1,800 trips per day, a decrease of 1,790 trips per day as compared to the proposed project. This reduction in site generated vehicle trips would have a corresponding reduction in the potential impact of site development on the area circulation system.

Transportation/traffic impacts would be less with implementation of Alternative 3 as compared to the proposed project.

Air Quality: Fugitive dust emissions associated with construction activities are based on total grading acreage. As Alternative 3 would result in an incrementally reduced amount of disturbance compared to the proposed project, air quality (PM_{10}) impacts associated with construction activities would therefore be greater. Heavy equipment exhaust emissions are stated in the SCAQMD *CEQA Air Quality Handbook* to have a less than significant impact if the total developed square footage is less than 1.3 million square feet. The developed footage for this alternative is well below the threshold. Construction activity impact for this alternative, as with the proposed project would less than significant.

This alternative would include fewer residential lots, and generate less traffic to area roadways. Therefore, operational impacts associated with vehicular emissions would be reduced as compared to the proposed project. As with the proposed project, no impacts with regard to localized CO hot spots would be anticipated.

Construction related air quality impacts associated with Alternative 3 would be greater as compared to the proposed project, and operational impacts would be less.

Noise: Noise impacts associated with construction activities would be similar to those discussed for the proposed project and no perceptible difference would occur at adjacent surrounding noise sensitive land uses. As the number of residential units and subsequent number of daily trips would be less than the proposed project, operational noise impacts would also decrease. However, this decrease in traffic would not result in a noticeable reduction in noise impacts. Therefore, operational noise impacts would be similar to those of the proposed project.

Noise impacts associated with Alternative 3 would be similar to those of the proposed project.

Biological Resources: As the development area for Alternative 3 would be smaller than the proposed project, direct impacts to biological resources would also decrease. Implementation of this alternative would directly impact a majority of on-site biological resources including a significant strand of oak woodlands, coastal sage scrub habitat, and ephemeral ponds. The impacts to the Aliso Creek riparian habitat would be mitigated, similar to the proposed project.

The wildlife corridor and comprehensive habitat restoration plan included as part of the proposed project to connect the wilderness areas south and west of the site would not be provided under this alternative. This would leave existing wildlife isolated in restrictive open space areas, and result in failing to meet a goal of the NCCP program.

Impacts to on-site and off-site biological resources from implementation of Alternative 3 would be greater than those associated with the proposed project.

Aesthetics/Visual: Under Alternative 3, approximately 48 percent of the project site would be developed, as compared to the proposed project in which approximately 30

percent of the site would be developed. Although individual lot sizes would be larger uner Alternative 3, the overriding visual impact would cover a larger area. This would significantly alter the views of the project site as viewed from the Monastery and Abbey located adjacent to the site.

Impacts with regard to aesthetic/visual resources would be greater from implementation of Alternative 3, as compared to the proposed project.

Cultural Resources: As the development area for Alternative 3 would be greater than the proposed project, impacts to cultural resources would also increase. Development of this alternative would require extensive monitoring to ensure that potential cultural resources would not be damaged or destroyed.

Impacts to cultural resources would be greater from implementation of Alternative 3 as compared to the proposed project.

Recreation: Implementation of Alternative 3 would provide similar recreation facilities on-site as compared to the proposed project.

Impacts with regard to recreational resources would be similar with implementation of Alternative 3 as compared to the proposed project.

Public Services – Fire Protection: The number of residential units and expected number of residential population would decrease under Alternative 3, and the resulting demand on fire protection services would be less. Impacts with regard to response times would be similar to those associated with the proposed project, as would fire protection services related to area wild fires. As with the proposed project, development of this alternative would require a fuel modification plan to minimize or retard the spread of dry brush and wildfire into the area.

Fire protection impacts for Alternative 3 would be less than those associated with the proposed project.

Public Services – Police Protection: The number of residential units and expected number of residential population would decrease under this alternative, by approximately 50 percent. Therefore, the resulting demand for police protection services would be less. Impacts with regard to response times would be similar to those associated with the proposed project.

Police protection impacts for Alternative 3 would be less than those associated with the proposed project.

Public Services – Schools: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 3, the resulting demand on school services would be less. Based on student generation factors, implementation of this alternative would result in an estimated 85 new students (51

elementary students, 10 intermediate school students, and 24 high school students) However, area schools would not have sufficient space to accommodate these students. As with the propose project, payment of residential impact fees would offset these capacity deficits.

Impacts to school services within the project area would be less with implementation of Alternative 3 as compared to the proposed project.

Public Services – Library: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 3, the resulting demand on library services would be less. Based on County planning guidelines, this alternative (with an additional approximate population of 443) would result in an additional 87 square feet of library space, and 665 additional library materials (books, audio, etc.). As with the proposed project, the new facilities (currently under construction) would be able to meet the increased library needs.

Impacts to library services within the project area would be less with implementation of Alternative 3, as compared to the proposed project.

Utilities and Service Systems – Water Supply: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 3, the amount of water required would also be less. Implementation of Alternative 3 would result in an decrease of approximately 67,050 gallons per day for domestic water consumption (based on 450 gallons per unit times 149 fewer units).

Water supply impacts would be less with implementation of Alternative 3 as compared to the proposed project.

Utilities and Service Systems – Wastewater: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 3, the amount of wastewater generated would also be less. Implementation of Alternative 3 would result in an decrease of approximately 40,230 gallons per day of wastewater generation (based on 270 gallons per unit times 149 fewer units).

Wastewater generation impacts would be less with implementation of Alternative 3 as compared to the proposed project.

Utilities and Service Systems – Solid Waste: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 3, the amount of solid waste generated would also be less. Implementation of Alternative 3 would result in an decrease of approximately 58 tons per year in solid waste generation (based on 65 pounds per unit per month times 149 fewer units).

Solid waste generation impacts would be less with implementation of Alternative 3 as compared to the proposed project.

Utilities and Service Systems – Electricity: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 3, the amount of electricity required would also be less. Implementation of Alternative 3 would result in a decrease of approximately 1,251,600 kWh of electricity per year (based on 700 kWh per unit per month times 149 fewer units).

Electricity supply impacts would be less with implementation of Alternative 3 as compared to the proposed project.

Utilities and Service Systems – Natural Gas: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 3, the amount of natural gas required would also be less. Implementation of Alternative 3 would result in a decrease of approximately 11,917 Mcf of natural gas per year consumption (based on 79.98 Mcf per unit times 149 fewer units).

Natural gas supply impacts would be less with implementation of Alternative 3 as compared to the proposed project.

Ability to Reduce Environmental Impacts

Implementation of Alternative 3 would result in generally reduce impacts with regard to: transportation/traffic, air quality (operations), public services and utilities/service systems. Impacts would be greater for: land use and planning, geophysical resources, hydrology, water quality, air quality (construction), biological resources, aesthetics/visual resources, and cultural resources. Impacts to noise and recreation would be similar to those of the proposed project.

Ability to Attain Project Objectives

This alternative would not attain the applicant's objectives set forth in FEIR Section 2.2, with the exception of ensuring a fire safe community (Objective 6) and providing trail connections to the regional riding and hiking trail system (Objective 7).

3.4.4 ALTERNATIVE 4 – F/TSP EIR 531 STAFF ALTERNATIVE B

Implementation of Alternative 4 would result in site development occurring only on the western third of the project site (see FEIR Figure 5.3). Single-family residential units would be reduced from 299 to 100. Lot sizes would be a minimum of 4,000 square feet. As shown in FEIR Table 5.3, approximately five percent (11.2 acres) of the project site would be used for residential lots, with 85 percent (190.4 acres) of the site left as natural open space.

Primary access for Alternative 4 from El Toro Road would be provided by a two lane 60-foot roadway, terminating in a traffic circle, which surrounds an overview park. Residential lot access would be provided off secondary cul-de-sac streets located on the

south side of the primary tract road. Secondary access, for emergency use, would be provided at Valley Vista Way near the southwest corner of the project site.

FEIR Table 5.3
Alternative 4 Land Use Summary

Land Use	Area (acres)	Percent of Site
Single-family Lots	11.2	5%
Streets	5.6	3%
Manufactured Slope	14.8	7%
Natural Open Space	190.4	85%
Total	222.0	100%

Conventional grading for Alternative 4 would be approximately one million cubic yards. Remedial grading for this alternative would be approximately 2.0 million cubic yards of material.

Environmental Assessment

Land Use and Planning: Implementation of Alternative 4 would cluster all development on the western portion of the site, near El Toro Road. Though the proposed lot sizes are relatively small, the vast majority of the site would be retained in natural open space. Alternative 4 would preserve significant landform, biological, cultural, and scenic resources on-site in conformance with the F/TSP goals.

Land use and planning impacts would be less for this alternative as compared to the proposed project.

Geophysical Resources: As with the proposed project, implementation of Alternative 4 would result in changes to the project site's landforms and topographical features, and related impacts regarding soil stability on the site. Total conventional grading volumes would be one million cubic yards, as compared to 2.45 million cubic yards for the proposed project. Total remedial grading for Alternative 4 would be approximately 2.0 million cubic yards, as compared to 6.8 million cubic yards for the proposed project. The potential risk associated with seismic hazards and on-site soils would be less under Alternative 4, as fewer people would be exposed.

Overall geophysical resource impacts would be similar for this alternative as compared to the proposed project.

Hydrology: As the ultimate area of disturbance would be less than the proposed project, the increase in impervious area and associated increase in peak storm water runoff would also be less. During construction, the disruption of soils may also affect the content of site runoff into the watershed area of Aliso Creek.

Hydrology impacts of Alternative 4 would be reduced as compared to the proposed project.

Water Quality: Grading volumes for this alternative would be less as compared to the proposed project and related short-term, construction-related water quality impacts (erosion) would also be reduced. Alternative 4 would include the necessary improvements so that the post-development condition would be in conformance with County standards.

Overall, water quality impacts would be less under Alternative 4 as compared to the proposed project.

Transportation/Traffic: Alternative 4 would include fewer residential lots, and generate less traffic to area roadways. Traffic volume estimates indicate that Alternative 4 would generate approximately 1,200 vehicle trips per day, a decrease of 2,390 trips per day as compared to the proposed project. This reduction in site generated vehicle trips would have a corresponding reduction in the potential impact of site development on the area circulation system.

Transportation/traffic impacts would be less with implementation of Alternative 4 as compared to the proposed project.

Air Quality: Fugitive dust emissions associated with construction activities are based on total grading acreage. As Alternative 4 would result in a smaller amount of disturbance compared to the proposed project, air quality (PM_{10}) impacts associated with construction activities would therefore, be less. Heavy equipment exhaust emissions are stated in the SCAQMD *CEQA Air Quality Handbook* to have a less than significant impact if the total developed square footage is less than 1.3 million square feet. The developed footage for this alternative is well below the threshold. Construction activity impact for this alternative, as with the proposed project would less than significant.

Alternative 4 would generate less traffic to area roadways. Therefore, operational impacts associated with vehicular emissions would be reduced as compared to the proposed project. As with the proposed project, no impacts with regard to a localized CO hot spots would be anticipated.

Air quality impacts associated with Alternative 4 would be less as compared to the proposed project.

Noise: Noise impacts associated with construction activities would be similar to those discussed for the proposed project. However, a greater distance would be maintained from some of the surrounding noise sensitive land uses.

As the number of residential units and subsequent number of daily trips would be less than the proposed project, operational noise impacts would also decrease. However, this decrease in traffic would not result in a noticeable reduction in noise impacts. Therefore, operational noise impacts would be similar to those of the proposed project.

Noise impacts associated with Alternative 4 would be slightly less as compared to those of the proposed project.

Biological Resources: Development area for Alternative 4 would result in the preservation of the majority of the project site's open space. Connection between wilderness areas south and west of the site would be provided by this large open space area, eliminating the need to provide a wildlife movement corridor through developed portions of the property.

Impacts to on-site and off-site biological resources from implementation of Alternative 4 would be reduced as compared to those associated with the proposed project.

Aesthetics/Visual: Under Alternative 4, development would be clustered on the lower less visible portion of the site, preserving views of the topography and oak woodlands, as well as reducing the amount of visible built environment from surround viewsheds. Views from the Rama Krishna Monastery would be reduced.

Impacts with regard to aesthetic/visual resources would be reduced from implementation of Alternative 4, as compared to the proposed project.

Cultural Resources: As the development area for Alternative 4 would be smaller than the proposed project, impacts to cultural resources would also decrease. Development of this alternative would reduce the amount of monitoring to ensure that potential cultural resources would not be damaged or destroyed.

Impacts to cultural resources would be reduced from implementation of Alternative 4 as compared to the proposed project.

Recreation: Implementation of Alternative 4 would provide similar recreation facilities on-site as compared to the proposed project. Connection to the regional riding, hiking and biking trail system would be provided with this alternative.

Impacts with regard to recreational resources would be similar with implementation of Alternative 4 as compared to the proposed project.

Public Services – Fire Protection: The number of residential units and expected number of residential population would decrease under Alternative 4, and the resulting demand on fire protection services would be less. Impacts with regard to response times would be similar to those associated with the proposed project, as would fire protection services related to area wild fires. As with the proposed project, development of this alternative would require a fuel modification plan to minimize or retard the spread of dry brush and wildfire into the area.

Fire protection impacts would be less as compared to those associated with the proposed project.

Public Services – Police Protection: The number of residential units and expected number of residential population would decrease under this alternative, by approximately 67 percent. Therefore, the resulting demand for police protection services would be less. Impacts with regard to response times would be similar to those associated with the proposed project.

Police protection impacts would be less as compared to those associated with the proposed project.

Public Services – Schools: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 4, the resulting demand on school services would be less. Based on student generation factors, implementation of this alternative would result in an estimated 57 new students (34 elementary students, 7 intermediate school students, and 16 high school students). However, area schools would not have sufficient space to accommodate these students. As with the proposed project, payment of residential impact fees would offset these capacity deficits.

Impacts to school services within the project area would be less with implementation of Alternative 4 as compared to the proposed a project.

Public Services – Libraries: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 4, the resulting demand on library services would be less. Based on County planning guidelines, this alternative (with an additional approximate population of 295) would result in the need for 59 square feet of library space, and 443 additional library materials (books, audio, etc.). As with the proposed project, the new facilities (currently under construction) would be able to meet the increased library needs.

Impacts to library services within the project area would be less with implementation of Alternative 4, as compared to the proposed project.

Utilities and Service Systems – Water Supply: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 4, the amount of water required would also be less. Implementation of Alternative 4 would result in an decrease of approximately 89,550 gallons for domestic water consumption per day (based on 450 gallons per unit times 199 fewer units).

Water supply impacts would be less with implementation of Alternative 4 as compared to the proposed project.

Utilities and Service Systems – Wastewater: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 4, the amount of wastewater generated would also be less. Implementation of Alternative 4 would result in an decrease of approximately 53,730 gallons per day of wastewater generation (based on 270 gallons per unit times 199 fewer units).

Wastewater generation impacts would be less with implementation of Alternative 4 as compared to the proposed project.

Utilities and Service Systems – Solid Waste: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 4, the amount of solid waste generated would also be less. Implementation of Alternative 4 would result in an decrease of approximately 78 tons of solid waste generation per year (based on 65 pounds per unit per month times 199 fewer units).

Solid waste generation impacts would be less with implementation of Alternative 4 as compared to the proposed project.

Utilities and Service Systems – Electricity: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 4, the amount of electricity required would also be less. Implementation of Alternative 4 would result in a decrease of approximately 1,671,600 kWh of electricity per year (based on 700 kWh per unit per month times 199 fewer units).

Electricity supply impacts would be less with implementation of Alternative 4 as compared to the proposed project.

Utilities and Service Systems – Natural Gas: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 4, the amount of natural gas required would also be less. Implementation of Alternative 4 would result in an decrease of approximately 15,916 Mcf of natural gas consumption (based on 79.98 Mcf per unit times 199 fewer units).

Natural gas supply impacts would be less with implementation of Alternative 4 as compared to the proposed project.

Ability to Reduce Environmental Impacts

Implementation of Alternative 4 would reduce impacts for all environmental issue areas as compared to the proposed project, with the exception of recreation impacts, which would be similar.

Ability to Attain Project Objectives

Alternative 4 would meet all of the project applicants objectives included in FEIR Section 2.2.

3.4.5 ALTERNATIVE 5 – CLUSTER/SINGLE-FAMILY/MULTI-FAMILY RESIDENTIAL ALTERNATIVE

Alternative 5 would include 318 detached and attached dwelling units, within a reduced development impact area of approximately 110.5 acres (see FEIR Figure 5.4).

Specifically this alternative would result in the construction of 178 attached condominium units located on the western half of the project site and 140 single-family units, on 4,000 square foot lots, located along the eastern ridgeline. As shown in FEIR Table 5.4, approximately 26 percent of the site would be used for residential lots, with 50 percent of the site left as natural open space.

Primary access for this alternative would be provided from El Toro Road via a single main road traversing the project site and ending in a cul-de-sac near the northeast project boundary. Secondary access would be provided from Valley Vista Way through Hidden Ridge near the southwest corner of the project site.

FEIR Table 5.4
Alternative 5 Land Use Summary

Land Use	Area (acres)	Percent of Site
Single-family Lots	16.9	8%
Multi-family Lots	39.0	18%
Streets	11.1	5%
Manufactured Slope	43.5	19%
Natural Open Space	111.5	50%
Total	222.0	100%

Grading for Alternative 5 would include approximately 2.45 million cubic yards of conventional grading and 6.25 million cubic yards of remedial grading to stabilize the proposed slopes.

Environmental Assessment

Land Use and Planning: The proposed condominium units included in Alternative 5 would be contained in either two-plex or four-plex structures. This would create a more massive appearance then the single-family residences included as part of the proposed project. Development of the 178 attached residential units would be more urban in scale and appearance and may conflict with the F/TSP rural preservation goals. However, by providing a greater variety of housing types and price ranges, Alternative 5 would meet the housing goals of the General Plan.

Overall, land use and planning impacts would be greater for this alternative as compared to the proposed project.

Geophysical Resources: As with the proposed project, implementation of Alternative 5 would result in changes to the project site's landforms and topographical features, and related impacts regarding soil stability on the site. Total conventional grading volumes would be 2.45 million cubic yards, the same as for the proposed project. In addition, remedial grading for this alternative would include the preserved open space areas and oak woodlands, due to landslides and unstable soil conditions of the site. Total remedial grading for Alternative 5 would be approximately 6.25 million cubic yards, as compared to 6.8 million cubic yards for the proposed project. The potential risk associated with

seismic hazards and on-site soils would be greater under Alternative 5, as a greater number of people would be exposed.

Overall geophysical resource impacts would be similar for this alternative as compared to the proposed project.

Hydrology: As the ultimate area of disturbance would be similar to the proposed project, the increase in impervious area and associated increase in peak storm water runoff would also be similar. During construction, the disruption of soils may also affect the content of site runoff into the watershed area of Aliso Creek.

Hydrology impacts of Alternative 5 would be similar compared to those of the proposed project.

Water Quality: Grading volumes for this alternative would be slightly less than those of the proposed project and related short-term, construction-related water quality impacts (erosion) would also be reduced. Alternative 5 would include the necessary improvements, so that the post-development condition would be in conformance with County standards.

Overall, water quality impacts would be similar under Alternative 5 as compared to the proposed project.

Transportation/Traffic: Traffic volume estimates indicate that Alternative 5 would generate approximately 3,104 vehicle trips per day, a decrease of 486 trips per day as compared to the proposed project. Attached units generate traffic at eight vehicle trips per day per unit versus single-family lots at twelve vehicle trips per day per unit. This slight reduction in site generated vehicle trips would have a corresponding reduction in the potential impact of site development on the area circulation system.

Transportation/traffic impacts would be less with implementation of Alternative 5 as compared to the proposed project.

Air Quality: Fugitive dust emissions associated with construction activities are based on total grading acreage. As Alternative 5 would result in a smaller amount of disturbance compared to the proposed project, air quality (PM_{10}) impacts associated with construction activities would therefore, be less. Heavy equipment exhaust emissions are stated in the SCAQMD *CEQA Air Quality Handbook* to have a less than significant impact if the total developed square footage is less than 1.3 million square feet. The developed footage for this alternative is well below the threshold. Construction activity impact for this alternative, as with the proposed project would less than significant.

Alternative 5 would generate less traffic to area roadways. Therefore, operational impacts associated with vehicular emissions would be reduced as compared to the proposed project. As with the proposed project, no impacts with regard to localized CO hot spots would be anticipated.

Air quality impacts associated with Alternative 5 would be less as compared to the proposed project.

Noise: Noise impacts associated with construction activities would be similar to those discussed for the proposed project and no perceptible difference would occur at adjacent surrounding noise sensitive land uses. As the number of daily trips would be less than the proposed project, operational noise impacts would also decrease. However, this decrease in traffic would not result in a noticeable reduction in noise impacts. Therefore, operational noise impacts would be similar to those of the proposed project.

Noise impacts associated with Alternative 5 would be similar to those of the proposed project.

Biological Resources: The development area for Alternative 5 would result in approximately five percent more open space. An overall wider (700 foot) wildlife corridor between wilderness areas south and west of the site would be provided under this alternative. In addition, impacts to oak woodland would be incrementally reduced.

Impacts to on-site and off-site biological resources from implementation of Alternative 5 would be reduced as compared to those associated with the proposed project.

Aesthetics/Visual: Under Alternative 5, the attached units may create a more urban appearance, and therefore, be perceived, in terms of rural preservation goals for the area, as a significant adverse impact. However, this would be balanced by the small reduction in the alteration of the site's topography and scenic oak woodlands.

Impacts with regard to aesthetic/visual resources would be similar from implementation of Alternative 5, as compared to the proposed project.

Cultural Resources: As the development area for Alternative 5 would be slightly smaller than the proposed project, impacts to cultural resources would also decrease. Development of this alternative would reduce the amount of monitoring to ensure that potential cultural resources would not be damaged or destroyed.

Impacts to cultural resources would be reduced from implementation of Alternative 5 as compared to the proposed project.

Recreation: Implementation of Alternative 5 would shift the site development and associated remedial grading further west on the project site.

Impacts with regard to recreational resources would be greater with implementation of Alternative 5 as compared to the proposed project.

Public Services – Fire Protection: The number of residential units and expected number of residential population would increase under Alternative 5, and the resulting demand on fire protection services would be greater. Impacts with regard to response

times would be similar to those associated with the proposed project, as would fire protection services related to area wild fires. As with the proposed project, development of this alternative would require a fuel modification plan to minimize or retard the spread of dry brush and wildfire into the area.

Fire protection impacts would be greater from implementation of Alternative 5, than those associated with the proposed project.

Public Services – Police Protection: The number of residential units and expected number of residential population would increase under this alternative, by approximately six percent. Therefore, the resulting demand for police protection services would be greater. Impacts with regard to response times would be similar to those associated with the proposed project. Police protection impacts would be greater from implementation of Alternative 5, than those associated with the proposed project.

Public Services – Schools: As the number of residential units and expected number of residential population would increase with implementation of Alternative 5, the resulting demand on school services would be greater. Based on student generation factors, implementation of this alternative would result in an estimated 180 new students (108 elementary students, 21 intermediate school students, and 51 high school students). However, area schools would not have sufficient space to accommodate these students. As with the proposed project, payment of residential impact fees would offset these capacity deficits.

Impacts to school services within the project area would be greater with implementation of Alternative 5 as compared to the proposed project.

Public Services – Library: As the number of residential units and expected number of residential population would increase with implementation of Alternative 5, the resulting demand on library services would be greater. Based on County planning guidelines, this alternative (with an additional approximate population of 938) would result in an additional requirement of 188 square feet of library space, and 1,407 additional library materials (books, audio, etc.). As with the proposed project, the new facilities (currently under construction) would be able to meet the increased library needs.

Impacts to library services within the project area would be greater with implementation of Alternative 5, as compared to the proposed project.

Utilities and Service Systems – Water Supply: As the number of residential units and expected number of residential population would increase with implementation of Alternative 5, the amount of water required would also increase. Implementation of Alternative 5 would result in an increase of approximately 39,150 gallons per day for domestic water consumption (based on 300 gallons per unit times 19 more units).

Water supply impacts would be greater with implementation of Alternative 5 as compared to the proposed project.

Utilities and Service Systems – Wastewater: As the number of residential units and expected number of residential population would increase with implementation of Alternative 5, the amount of wastewater generated would also increase. Implementation of Alternative 5 would result in an increase of approximately 23,490 gallons per day of wastewater generation (based on 180 gallons per unit times 19 more units).

Wastewater generation impacts would be greater with implementation of Alternative 5 as compared to the proposed project.

Utilities and Service Systems – Solid Waste: As the number of residential units and expected number of residential population would increase with implementation of Alternative 5, the amount of solid waste generated would also increase. Implementation of Alternative 5 would result in an increase of approximately two tons (4,000 pounds) of solid waste generation (based on 50 pounds per unit per month times 19 more units).

Solid waste generation impacts would be greater with implementation of Alternative 5 as compared to the proposed project.

Utilities and Service Systems – Electricity: As the number of residential units and expected number of residential population would increase with implementation of Alternative 5, the amount of electricity required would also increase. Implementation of Alternative 5 would result in an increase of approximately 600,000 kWh of electricity per year (based on 500 kWh per unit per month times 19 more units).

Electricity supply impacts would be greater with implementation of Alternative 5 as compared to the proposed project.

Utilities and Service Systems – Natural Gas: As the number of residential units and expected number of residential population would increase with implementation of Alternative 5, the amount of natural gas required would also increase. Implementation of Alternative 5 would result in an increase of approximately 3,750 Mcf of natural gas consumption (based on 65 Mcf per unit times 19 more units).

Natural gas supply impacts would be greater with implementation of Alternative 5 as compared to the proposed project.

Ability to Reduce Environmental Impacts

Implementation of Alternative 5 would result in increased impacts with regard to: land use and planning, recreation, public services, and utilities/service systems. Reduced impacts would occur for: transportation/traffic, air quality, biological resources, and cultural resources. Impacts to geophysical resources, hydrology, water quality, noise, and aesthetics/visual resources would be similar to those of the proposed project.

Ability to Attain Project Objectives

Alternative 5 would generally meet all of the project applicant's objectives as stated in FEIR Section 2.2.

3.4.6 ALTERNATIVE 6 – 44/178 ALTERNATIVE

Under Alternative 6, the project site would be divided into two parcels, a "Development Parcel" and a "Conservation Parcel." The Conservation Parcel would be purchased by an interested party for the purposes of open space conservation. No development would occur in the Conservation Parcel. The Development Parcel would be developed with 127 single-family residential units on approximately 44-acres. The homes would be located in the extreme southwest corner of the property and continue along the southerly ridge easterly to the base of the easterly ridge. Land uses for this alternative are shown on FEIR Table 5.5 below.

FEIR Table 5.5
Alternative 6 Land Use Summary

Land Use	Area (acres)	Percent of Site
Development Area	44.0	20%
Natural Open Space	178.0	80%
Total	222.0	100%

Primary access for this alternative would be provided from El Toro Road via Valley Vista Way, which would continue along the project site's southerly flank terminating at a cul-de-sac about three-quarters of the way into the property. There would be no secondary access. This alternative would still include the off-site water tank and a 20-foot access road would be built across the Conservation Parcel from the cul-de-sac to the project site's northeast corner. Remedial grading would be required to stabilize the water tank site and the development parcel. Total grading for Alternative 6 would include approximately 1.6 million cubic yards.

Environmental Assessment

Land Use and Planning: Implementation of Alternative 6 would limit the development to the extreme southwest corner of the project site, with the vast majority of the site remaining as open space. Alternative 6 would preserve significant landform, biological, cultural, and scenic resources on-site in conformance with the F/TSP goals.

Land use impacts would be less for this alternative as compared to the proposed project.

Geophysical Resources: As with the proposed project, implementation of Alternative 6 would result in changes to the project site's landforms and topographical features, and related impacts regarding soil stability on the site. Total conventional grading volumes would be 1.6 million cubic yards, as compared to 2.45 million cubic yards for the proposed project. In addition, remedial grading would be required, to stabilize the water

tank site and the development parcel. The potential risk associated with seismic hazards and on-site soils would be less under Alternative 6, as fewer people would be exposed.

Overall geophysical resource impacts would be less for this alternative as compared to the proposed project.

Hydrology: As the ultimate area of disturbance would be less with implementation of Alternative 6 than for the proposed project, the increase in impervious surface and associated peak storm water runoff would also be less. During construction, the disruption of soils may also affect the content of site runoff into the watershed of Aliso Creek.

Hydrology impacts with implementation of Alternative 6 would be reduced as compared to the proposed project.

Water Quality: Grading volumes for this alternative would be less as compared to the proposed project and related short-term, construction related water quality impacts would also be reduced. Alternative 6 would include the necessary improvements so the post-development site conditions would be in conformance with County standards.

Overall water quality impacts with implementation of Alternative 6 would be reduced as compared to the proposed project.

Transportation/Traffic: Traffic volume estimates indicate that Alternative 6 would generate approximately 1,524 vehicle trips per day, a decrease of 2,066 trips per day as compared to the proposed project. This reduction in site generated vehicle trips would have a corresponding reduction in the potential impact of site development on the area circulation system.

Transportation/traffic impacts would be less with implementation of Alternative 6 as compared to the proposed project.

Air Quality: Fugitive dust emissions associated with construction activities are based on total grading acreage. As Alternative 6 would result in a smaller amount of disturbance compared to the proposed project, air quality (PM_{10}) impacts associated with construction activities would therefore, be less. Heavy equipment exhaust emissions are stated in the SCAQMD *CEQA Air Quality Handbook* to have a less than significant impact if the total developed square footage is less than 1.3 million square feet. The developed footage for this alternative is well below the threshold. Construction activity impact for this alternative, as with the proposed project would less than significant.

Alternative 6 would generate less traffic and therefore, operational impacts associated with vehicular emissions would be reduced as compared to the proposed project. As with the proposed project, no impacts with regard to localized CO hot spots would be anticipated.

Overall, air quality impacts associated with Alternative 6 would be less as compared to the proposed project.

Noise: Noise impacts associated with construction activities for Alternative 6 would be similar to those discussed for the proposed project, as essentially the same types of grading equipment, and vehicles would be used during construction. Although, a greater distance would be maintained from some of the surrounding noise sensitive land uses, due to the Conservation Parcel buffer, no perceptible difference would occur at adjacent surrounding noise sensitive land uses.

As the number of residential units and subsequent number of daily trips would be less than the proposed project, operational noise impacts would also decrease. However, this decrease in traffic would not result in a noticeable reduction in noise impacts. Therefore, operational noise impacts would be similar to those of the proposed project.

Noise impacts associated with Alternative 6 would be similar to those of the proposed project.

Biological Resources: Development of Alternative 6 would result in the preservation of the majority of the project site's open space. Connection between the wilderness areas south and west of the site would be provided by the large open space area, eliminating the need to provide a wildlife movement corridor through developed portions of the property.

Impacts to on-site and off-site biological resources from implementation of Alternative 6 would be reduced as compared to those associated with the proposed project.

Aesthetics/Visual: Under Alternative 6, development would be located on a less visible portion of the site, preserving views of the topography and oak woodlands, as well as reducing the amount of visible built environment from surround viewsheds.

Impacts with regard to aesthetic/visual resources would be reduced from implementation of Alternative 6, as compared to the proposed project.

Cultural Resources: As the development area for Alternative 6 would be smaller than the proposed project, impacts to cultural resources would also decrease. Development of this alternative would reduce the amount of monitoring to ensure that potential cultural resources would not be damaged or destroyed.

Impacts to cultural resources would be reduced from implementation of Alternative 6 as compared to the proposed project.

Recreation: Implementation of Alternative 6 would shift the site development further west on the project site. This would eliminate the ability to provide connections to the regional riding, hiking, and biking trail system.

Impacts to recreational resources would be greater with implementation of Alternative 6 as compared to the proposed project.

Public Services – Fire Protection: The number of residential units and expected number of residential population would decrease under Alternative 6, and the resulting demand on fire protection services would be less.

However, the layout of the "Development Area" under this alternative would not allow for secondary access for emergency vehicles and may require the acquisition of additional easements or other mitigation measures to ensure that adequate access to the project is provided. As with the proposed project, this alternative would require a fuel modification plan to minimize or retard the spread of dry brush and wildfire into the area.

Fire protection impacts would be greater with implementation of Alternative 6, compared to those associated with the proposed project.

Public Services – Police Protection: The number of residential units and expected number of residential population would decrease under this alternative, by approximately 57 percent. Therefore, the resulting demand for police protection services would be less. Impacts with regard to response times would be similar to those associated with the proposed project.

Police protection impacts would be less with implementation of Alternative 6, as compared to than those associated with the proposed project.

Public Services – Schools: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 6, the resulting demand on school services would be less. Based on student generation factors, implementation of this alternative would result in an estimated 71 new students (43 elementary students, 8 intermediate school students, and 20 high school students). However, area schools would not have sufficient space to accommodate these students. As with the proposed project, payment of residential impact fees would offset these capacity deficits.

Impacts to school services within the project area would be less with implementation of Alternative 6, as compared to the proposed project.

Public Services – Library: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 6, the resulting demand on library services would be less. Based on County planning guidelines, this alternative (with an additional approximate population of 375) would result in an additional 75 square feet of library space, and 563 additional library materials (books, audio, etc.). As with the proposed project, the new facilities (currently under construction) would be able to meet the increased library needs.

Impacts to library services within the project area would be less with implementation of Alternative 6, as compared to the proposed project.

Utilities and Service Systems – Water Supply: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 6, the amount of water required would also be less. Implementation of Alternative 6 would result in a decrease of approximately 77,400 gallons per day for domestic water consumption (based on 450 gallons per unit times 172 fewer units).

Water supply impacts would be less with implementation of Alternative 6 as compared to the proposed project.

Utilities and Service Systems – Wastewater: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 6, the amount of wastewater generated would also be less. Implementation of Alternative 6 would result in a decrease of approximately 46,440 gallons per day of wastewater generation (based on 270 gallons per unit times 172 fewer units).

Wastewater generation impacts would be less with implementation of Alternative 6 as compared to the proposed project.

Utilities and Service Systems – Solid Waste: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 6, the amount of solid waste generated would also be less. Implementation of Alternative 6 would result in a decrease of approximately 67 tons in solid waste generation (based on 65 pounds per unit per month times 172 fewer units).

Solid waste generation impacts would be less with implementation of Alternative 6 as compared to the proposed project.

Utilities and Service Systems – Electricity: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 6, the amount of electricity required would also decrease. Implementation of Alternative 6 would result in a decrease of approximately 1,444,800 kWh of electricity per year (based on 700 kWh per unit per month times 172 less units).

Electricity supply impacts would be less with implementation of Alternative 6 as compared to the proposed project.

Utilities and Service Systems – Natural Gas: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 6, the amount of natural gas required would also be less. Implementation of Alternative 6 would result in a decrease of approximately 13,757 Mcf of natural gas consumption per year (based on 79.98 Mcf per unit times 172 fewer units).

Natural gas supply impacts would be less with implementation of Alternative 6 as compared to the proposed project.

Ability to Reduce Environmental Impacts

Implementation of Alternative 6 would result in a reduction of impacts for all issue areas with the exception of noise (which would be similar) and recreation (which would increase) as compared to the proposed project.

Ability to Attain Project Objectives

Alternative 6 would generally meet all of the project applicant's objectives as stated in FEIR Section 2.2.

3.4.7 ALTERNATIVE 7 – ACQUISITION ALTERNATIVE

Under Alternative 7, the proposed project site would be acquired by another interested party in order to preserve the project site in its current condition. Under this alternative it is assumed that the proposed project site would not be developed and no further development within the project site would occur. The project site would remain in natural open space for the foreseeable future, without the current cattle grazing operations.

Environmental Assessment

In comparison to the proposed project, implementation of Alternative 7 would eliminate adverse environmental impacts associated with the proposed project. On-going use of the property in its existing condition would not require a zone change or F/TSP amendment. Alternative 7 would avoid any adverse or incremental impacts associated with land use and planning, geophysical resources (with the exception of slope stabilization), hydrology, water quality, transportation/traffic, air quality, noise, biological resources, aesthetics/visual resources, cultural resources, recreation, public services and utilities and service systems.

Ability to Reduce Environmental Impacts

Implementation of this alternative would eliminate the significant, adverse and unavoidable impacts of the proposed project, as well as result in an overall reduction of other less than significant project impacts. However, impacts regarding slope stabilization of areas on the project site would be greater under this alternative than the proposed project.

Ability to Attain Project Objectives

Orange County's current housing inventory cannot meet the growing demand. This alternative would not provide additional housing opportunities to assist in closing the gap between housing inventory and demand. It would not therefore, be consistent with the goals of the Housing Element of the General Plan to "provide decent and adequate housing with respect to selection by type, price, and tenure. . . ."

Similarly, this alternative would not attain the objectives of the applicant as included in FEIR Section 2.2.

3.4.8 ALTERNATIVE 8 – REDUCED RESIDENTIAL ALTERNATIVE

Under Alternative 8, 283 single-family residential units would be developed on the project site (see FEIR Figure 5.6). This alternative was developed to further reduce the biological impacts associated with the proposed project. Under Alternative 8, half of the ephemeral ponds on the project site would remain, as compared to the proposed project in which approximately one fourth of the on-site ponds would remain.

As shown in FEIR Table 5.6, approximately 21 percent of the site would be used for residential lots, with the majority of the site left as open space.

FEIR Table 5.6
Alternative 8 Land Use Summary

Land Use	Area (acres)	Percent of Site
283 Single-family Lots	46.2	21%
Streets	18.4	8%
Natural Resource Protection Area [a]	88.2	40%
Biological Mitigation Area [b]	9.2	4%
Scenic Preservation Area [c]	60.0	27%
Total	222.0	100%

[a] *Excludes manufactured slopes and fuel modification areas. Natural Resource Protection Area may include areas subject to remedial grading and biological enhancement.*

[b] *Includes biologically restored manufactured slopes outside fuel modification areas.*

[c] *Includes fuel modification areas owned and maintained by homeowner's association/community management district*

This alternative would require essentially the same access, circulation and infrastructure systems as the proposed project. Access would be provided via a controlled access private street off El Toro Road. Secondary access would be via Valley Vista Way. Open space areas would slightly increase by approximately 2.3 acres. Grading for this alternative would be similar to the proposed project and would include approximately 2.45 million cubic yards for conventional grading and 6.8 million cubic yards for remedial grading.

Environmental Assessment

Land Use and Planning: The project site is located within the F/TSP planning area which permits the highest residential density, not to exceed 705 residential units, based on the previous tract map approval. In terms of gross residential density, Alternative 8 is in compliance with these provisions. The F/TSP also includes the preservation of significant landforms, and biological and scenic resources. This alternative would preserve a similar amount of open space and result in similar impacts to scenic resources. A greater amount of biological resources would be preserved with this alternative, as compared to the proposed project.

Land use and planning impacts would be similar with Alternative 8 as compared to the proposed project.

Geophysical Resources: As with the proposed project, implementation of Alternative 8 would result in changes to the project site's landforms and topographical features, and related impacts regarding soil stability on the site. Total conventional and remedial grading volumes would be the same as for the proposed project. The potential risk associated with seismic hazards and on-site soils would be less under Alternative 8, as fewer people would be exposed.

Overall geophysical resource impacts would be similar for this alternative as compared to the proposed project.

Hydrology: Alternative 8 would result in a similar increase in impervious area as compared to the proposed project. Therefore, the associated increase in peak storm water runoff would also be similar.

Hydrology impacts from implementation of Alternative 8 would be similar to those of the proposed project.

Water Quality: Grading volumes for this alternative would be similar as compared to the proposed project. In addition, the infrastructure improvements included as part of the proposed project would also be implemented with Alternative 8.

Overall, water quality impacts from implementation of alternative 8 would be similar to those of the proposed project.

Transportation/Traffic: Traffic volume estimates indicate that Alternative 8 would generate approximately 3,384 trips per day, a decrease of approximately 206 trips per day as compared to the proposed project. This reduction in site generated vehicle trips would have a corresponding reduction in the potential impact of site development on the area circulation system.

Transportation/traffic impacts would be less with implementation of Alternative 8 as compared to those of the proposed project.

Air Quality: Fugitive dust emissions associated with construction activities are based on total grading acreage. As Alternative 8 would result in a similar amount of disturbance compared to the proposed project, air quality impacts associated with construction activities would therefore, be the same.

Operational impacts associated with vehicular emissions would be less than those of the proposed project. As with the proposed project, no impacts with regard to localized CO hot spots would be anticipated.

Overall, construction related air quality impacts associated with Alternative 8 would be similar as compared to the proposed project, and operational impacts would be slightly reduced.

Noise: Noise impacts associated with construction activities for Alternative 8 would be similar to those discussed for the proposed project, as essentially the same types of grading equipment, and vehicles would be used during construction. As the number of residential units and subsequent number of daily trips would be less than the proposed project, operational noise impacts would also decrease. However, this decrease in traffic would not result in a noticeable reduction in noise impacts. Therefore, operational noise impacts would be similar to those of the proposed project.

Noise impacts associated with Alternative 8 would be similar to those of the proposed project.

Biological Resources: As the development area for Alternative 8 would be slightly reduced, biological impacts would also be less. In addition, due to the site design for Alternative 8, a greater number of ephemeral ponds would be preserved. Half of the existing habitat for the Riverside fairy shrimp would be preserved. The wildlife movement corridor included as part of the proposed project, would also be implemented for Alternative 8. In addition, more of the mitigation could be accomplished on-site instead of creating off-site mitigation banks.

Impacts to biological resources from implementation of Alternative 8 would be reduced, as compared to the proposed project.

Aesthetics/Visual: Views of the project site under Alternative 8 would be similar to those described for the proposed project. Alternative 8 would include landform grading to screen off-site views of the developed area, similar to the proposed project.

Impacts with regard to aesthetic/visual resources would be similar from implementation of Alternative 8, as compared to the proposed project.

Cultural Resources: As the development area for Alternative 8 would be similar to the proposed project, impacts to cultural resources would also be the same. Development of this alternative would require the same amount of monitoring to ensure that potential cultural resources would not be damaged or destroyed.

Impacts to cultural resources would be similar to those of the proposed project.

Recreation: Implementation of Alternative 8 would provide similar recreation facilities on-site as compared to the proposed project. Connection to the regional riding, hiking, and biking trail system would be provided with this alternative.

Impacts to recreational resources would be similar with implementation of Alternative 8 as compared to the proposed project.

Public Services – Fire Protection: The number of residential units and expected number of residential population would decrease under Alternative 8, and the resulting demand on fire protection services would be less. Impacts with regard to response times would be similar to those associated with the proposed project, as would fire protection services related to area wild fires. As with the proposed project, development of this alternative would require a fuel modification plan to minimize or retard the spread of dry brush and wildfire into the area.

Fire protection impacts would be less as compared to those associated with the proposed project.

Public Services – Police Protection: The number of residential units and expected number of residential population would decrease under this alternative, by approximately five percent. Therefore, the resulting demand for police protection services would be slightly less. Impacts with regard to response times would be similar to those associated with the proposed project.

Police protection impacts would be less as compared to those associated with the proposed project.

Public Services – Schools: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 8, the resulting demand on school services would be less. Based on student generation factors, implementation of this alternative would result in an estimated 159 new students (96 elementary students, 18 intermediate school students, and 45 high school students). However, area schools would not have sufficient space to accommodate these students. As with the proposed project, payment of residential impact fees would offset these capacity deficits.

Impacts to school services within the project area would be less with implementation of Alternative 8 as compared to the proposed project.

Public Services – Library: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 8, the resulting demand on library services would be less. Based on County planning guidelines, this alternative (with an additional approximate population of 835) would result in an additional 167 square feet of library space, and 1,253 additional library materials (books,

audio, etc.). As with the proposed project, the new facilities (currently under construction) would be able to meet the increased library needs.

Impacts to library services within the project area would be less with implementation of Alternative 8, as compared to the proposed project.

Utilities and Service Systems – Water Supply: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 8, the amount of water required would also be less. Implementation of Alternative 8 would result in an decrease of approximately 7,200 gallons for domestic water consumption per day (based on 450 gallons per unit times 16 fewer units).

Water supply impacts would be less with implementation of Alternative 8 as compared to the proposed project.

Utilities and Service Systems – Wastewater: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 8, the amount of wastewater generated would also be less. Implementation of Alternative 8 would result in an decrease of approximately 4,320 gallons of wastewater generation per day (based on 270 gallons per unit times 16 fewer units).

Wastewater generation impacts would be less with implementation of Alternative 8 as compared to the proposed project.

Utilities and Service Systems – Solid Waste: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 8, the amount of solid waste generated would also be less. Implementation of Alternative 8 would result in a decrease of approximately six tons in solid waste generation (based on 65 pounds per unit per month times 16 fewer units).

Solid waste generation impacts would be less with implementation of Alternative 8 as compared to the proposed project.

Utilities and Service Systems – Electricity: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 8, the amount of electricity required would also be less. Implementation of Alternative 8 would result in a decrease of approximately 134,400 kWh of electricity per year (based on 700 kWh per unit per month times 16 fewer units).

Electricity supply impacts would be less with implementation of Alternative 8 as compared to the proposed project.

Utilities and Service Systems – Natural Gas: As the number of residential units and expected number of residential population would decrease with implementation of Alternative 8, the amount of natural gas required would also be less. Implementation of

Alternative 8 would result in a decrease of approximately 1,280 Mcf of natural gas consumption (based on 79.98 Mcf per unit times 16 fewer units).

Natural gas supply impacts would be less with implementation of Alternative 8 as compared to the proposed project.

Ability to Reduce Environmental Impacts

Implementation of Alternative 8 would result in a reduction of impacts to the following resources: transportation/traffic, air quality (operational), biological resources, public services, and utilities/service systems. All other resources areas would have impacts similar to those of the proposed project.

Ability to Attain Project Objectives

Alternative 8 would meet all of the project applicant's objectives as stated in FEIR Section 2.2.

3.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Section 15126.6(e) of the CEQA Guidelines requires an EIR to identify the environmentally superior alternative. An environmentally superior alternative is one that would reduce and/or eliminate unmitigated, significant environmental impacts associated with a proposed project without creating other significant impacts and without substantially reducing and/or eliminating environmental benefits attributable to the proposed project. If the environmental superior alternative is the No Project Alternative, CEQA requires that the EIR identify an environmentally superior alternative among the other alternatives.

A summary comparison of the potential impacts associated with the alternatives and the proposed project is provided in FEIR Table 5.7 (reproduced below). As shown in FEIR Table 5.7, Alternative 1, the No Development Alternative (No Project), would eliminate adverse environmental impacts of the proposed project, and is the environmentally superior alternative. Of the remaining alternatives, Alternative 7 would result in the greatest reduction in impacts compared to the proposed project, although it is similar in effect to Alternative 1. Alternative 4, the F/TSP EIR 531 Staff alternative would be the environmentally superior alternative among the non-no project alternatives. Although Alternative 4 is environmentally superior, it would be economically infeasible to develop. Land acquisition, engineering, construction, and implementation of mitigation measures could not be amortized over 100 single-family units. These costs, combined with mitigation costs, such as those associated with stabilizing the geotechnical hazards, would exceed project revenues.

FEIR Table 5.7
Comparison of Proposed Project and Alternative Impacts

Issue Area	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7	Alt. 8
Meet Project Objectives?	No	No	No	Yes	Yes	Yes	No	Yes
Land Use and Planning	-	+	+	-	+	-	-	S
Geophysical Resources	+	+	+	-	S	-	+	S
Hydrology	-	+	+	-	S	-	-	S
Water Quality	-	+	+	-	S	-	-	S
Transportation/ Traffic	-	+	-	-	-	-	-	-
Air Quality								
Construction	-	+	+	-	-	-	-	S
Operations	-	+	-	-	-	-	-	-
Noise	-	S	S	-	S	S	-	S
Biological Resources	-	+	+	-	-	-	-	-
Aesthetics/Visual Resources	-	+	+	-	S	-	-	S
Cultural Resources	-	+	+	-	-	-	-	S
Recreation	-	+	S	S	+	+	-	S
Public Services								
Fire Protection	-	+	-	-	+	+	-	-
Police Protection	-	+	-	-	+	-	-	-
Schools	-	+	-	-	+	-	-	-
Library	-	+	-	-	+	-	-	-
Utilities/Service Systems	-	+	-	-	-	-	-	-
Water Supply	-	+	-	-	-	-	-	-
Wastewater	-	+	-	-	-	-	-	-
Solid Waste	-	+	-	-	-	-	-	-
Electricity	-	+	-	-	-	-	-	-
Natural Gas								

S: Impacts would be similar to those of the proposed project.
(-): Impacts would be less than the proposed project.
(+): Impacts would be greater that the proposed project.

4. STATEMENT OF OVERRIDING CONSIDERATIONS

As discussed previously, the FEIR concludes that the proposed project and Alternative 8, even with incorporation of all feasible mitigation measures and consideration of alternatives, will nonetheless have significant cumulative impacts on air quality. The cumulative impacts arise from the marginal contribution that the proposed project or Alternative 8 will make, when combined with the impacts from existing and other future projects, to pre-existing conditions that currently fail to meet applicable standards. The County has adopted all feasible mitigation measures with respect to this impact, which may have substantially lessened the impacts, but have not been successful in reducing them below a level of significance.

The Board of Supervisors hereby declares that, pursuant to CEQA Guidelines sections 15062 and 15093, the Board of Supervisors has balanced the benefits of the proposed

project and of Alternative 8 against any unavoidable environmental impacts in determining whether to approve the project. If the benefits of the proposed project and of Alternative 8 outweigh the unavoidable adverse environmental impacts, those impacts may be considered acceptable.

The Board of Supervisors hereby declares that the Revised Subsequent EIR has identified and discussed significant effects, which may occur as a result of the project and of Alternative 8. With implementation of the mitigation measures discussed in the EIR, these effects can be mitigated to a level of less than significant except for unavoidable significant impact as discussed in the respective Findings of Fact.

The Board of Supervisors hereby declares that it has made a reasonable and good faith effort to eliminate or substantially mitigate the potential impacts resulting from the Saddleback Meadows project, as approved and conditioned.

The Board of Supervisors hereby declares that, having reduced the adverse significant environmental effects of the proposed project and of Alternative 8 to the extent feasible by adopting the proposed mitigation measures, having considered the entire administrative record on the proposed project and on Alternative 8, and having weighed the benefits of the proposed project and of Alternative 8 against their unavoidable adverse impacts after mitigation, the Board of Supervisors has determined that the following social, economic, and environmental benefits of the proposed project and of Alternative 8 outweigh the potential unavoidable adverse impacts and render those potential adverse environmental impacts acceptable based upon the following overriding considerations:

Elimination of Geotechnical Instability: The proposed project and Alternative 8 will stabilize existing unstable geotechnical conditions adjacent to El Toro Road. Due to unfavorable conditions on the site, the proposed project or Alternative 8 will require the implementation of corrective grading concepts such as the construction of buttresses and shear keys, placement of expansive materials in deep fills, buttressing of cut slopes where necessary, construction of canyon subdrains and back drains to minimize or eliminate the affects of ground water, removal and reworking of compressible materials and replacement with compacted fill, and construction of large buttress cuts in segments to reduce the possibility of backcut failure. This stabilization of a longstanding unstable condition will serve to eliminate a persistent potential for soil slippage and consequent damage to the project site as well as the adjacent area.

Water Quality Improvements: Under developed conditions, the existing terrain, which has been stripped of vegetation by years of cattle grazing and is therefore susceptible to high erosion and sediment yield, would be replaced by single-family lots and related infrastructure. Sediment yields from the project site would be reduced primarily by revegetation of the areas of open space. The master drainage concept for the proposed project includes a series of storm drains, catch basins, inlet/outlet structures, energy dissipaters and slope drains to control project drainage. In addition, a riverine water quality filtration system adjacent to the primary on-site road would cleanse low flow urban runoff pollutants.

Restoration of Sensitive Habitats: The proposed project has been designed to minimize impacts to sensitive habitats and provide for significant on-site preservation and off-site acquisition. Approximately 41.29 acres of sensitive habitat would be preserved on-site, 57.83 acres of on-site sensitive habitat would be created or enhanced, and 22.65 acres would be created, enhanced or preserved off-site. Similarly, Alternative 8 has been designed to minimize impacts to sensitive habitats and provide for significant on-site preservation and off-site acquisition. Approximately 43.09 acres of sensitive habitat would be preserved on-site, 57.58 acres of on-site sensitive habitat would be created or enhanced, and 12.44 acres would be created, enhanced, or preserved off-site.

In addition, the proposed project would preserve two existing ephemeral ponds and eight additional ponds would be constructed to provide habitat for the Riverside fairy shrimp. Alternative 8 would preserve four existing ephemeral ponds and four additional ponds would be constructed to provide habitat for the Riverside fairy shrimp.

The proposed project and Alternative 8 will also provide for the preservation of Plummer's mariposa lily on-site. Bulbs will be salvaged prior to grading, stored a qualified native plant nursery and transplanted for on-site habitat enhancement.

Local Wildlife Corridor: The proposed project and Alternative 8 will provide a local wildlife corridor to accommodate wildlife movement. The corridor ranges in width from 1,000 feet at the project site's westerly and easterly boundaries to a minimum 400-feet wide. This local corridor will also be enhanced with native plant materials.

Recreational Linkages: The proposed project and Alternative 8 will provide for the construction and dedication of the Live Oak Canyon Regional Riding and Hiking Trail aligned north-south from the Aliso Creek Trail. The proposed project and Alternative 8 will also provide construction and dedication of an east-west local riding and hiking trail connector to the off-site Viewpoint Spur Trail.

Commitment of Open Space: Approximately 70 percent of the site (155.1 acres) would be preserved as permanent open space. Alternative 8 would preserve 71 percent of the site (157.4 acres) as permanent open space.

Housing Opportunities: The proposed project and Alternative 8 will provide housing opportunities in an area, which currently lacks needed housing.

The Board of Supervisors hereby declares that the foregoing benefits provided to the public through approval and implementation of the proposed project or Alternative 8 outweigh the identified significant adverse environmental impacts of the proposed project and Alternative 8 which cannot be mitigated. The Board of Supervisors finds that each of the proposed project and Alternative 8 benefits outweigh the unavoidable adverse environmental effects identified in the Revised Subsequent EIR and therefore finds those impacts to be acceptable.

MITIGATION MONITORING PROGRAM
FINAL ENVIRONMENTAL IMPACT REPORT 566

State Clearing House No. 1996121072

for

SADDLEBACK MEADOWS

Planning Application 980103
Zone Change (ZC) 98-3
Area Plan (AP) 98-2
Tentative Tract Map 15784
Vesting Tentative Tract Map 15230

Lead Agency:

County of Orange

Planning and Development Services Department
Environmental Planning Services Division

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MITIGATION MONITORING PROGRAM OVERVIEW

INTRODUCTION

This Mitigation Monitoring Program has been developed to ensure that mitigation measures outlined in the Revised Subsequent Final EIR 566 for Saddleback Meadows and related permits are implemented as required. The Mitigation Monitoring Program has been prepared in conformance with Section 21081.6 of the Public Resources Code and the City of Orange Mitigation Monitoring requirements. Section 21081.6 of the State Public Resources Code states:

Section 1: Section 21081.6 is added to the Public Resources Code, to read:

(a) When making the findings required by Paragraph (1) of subdivision (a) of Section 21081 or when adopting a mitigated negative declaration pursuant to paragraph (2) of subdivision (c) of Section 21080, the following requirements shall apply:

(1) The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

(2) The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which it's decision is based.

(b) A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other public project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.

(c) Prior to the close of the public review period for a draft environment impact report or mitigated negative declaration, a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effect on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit the authority of the responsible agency or agency having jurisdiction over natural

resources, affected by a project, or the authority of the lead agency, to approve, conditions, or deny projects as provided by this division or any other provision of law.

The project design features, standard conditions of approval, and additional mitigation measures contained in this document are categorized according to the primary environmental impact designations listed in the DEIR 566. These include: land use, soils & geology, water & hydrology, transportation/circulation, air quality, noise, biological resources, aesthetics, cultural/scientific resources, recreation, hazards, public services, and public utilities and service systems. In all, 268 mitigation measures are contained in this document.

Mitigation Measures are apportioned into three (3) separate categories in the Draft EIR, outlined as follows:

- (PDF) – Project Design Features: provide mitigation through avoidance, reduction or offset of impacts. Because these features are part of the project design, they do not constitute additional mitigation measures, but are in effect mitigation through project design. These mitigation measures and other conditions of approval imposed in connection with prior approvals have been incorporated into the design of the proposed project as PDF's. The Orange County P&DS will ensure compliance with all PDF's through the standard procedures for the approval of permits and applications.

- (SC) – Standard County Conditions: Standard Conditions (SC) include project requirements mandated by the County of Orange and State and federal agencies with authorization for environmental regulations. Standard Conditions typically include project compliance with the County of Orange Standard Conditions of Approval, the Uniform Building Code, South Coast Air Quality Management District, school fees, Alquist-Priolo Act, requirements and other standard measures for hillside residential development projects, various development fees including fire, sheriff, schools, parks and transportation.

- (AM) – Additional Mitigation Measures: Project specific mitigation measures are prescribed as necessary to further mitigate project impacts beyond the mitigation provided by the PDF's and applicable Standard Conditions. For those impacts with no County Standard Conditions, project specific mitigation measures, will be imposed to reduce project impacts to the maximum extent possible.

In addition, to the mitigation measures contained in the Draft EIR, project specific conditions of approval (COP) have been developed for the Saddleback Meadows project and are also included in the mitigation monitoring program. In all, 268 mitigation measures are contained in this document.

Mitigation Matrix

In order to effectively track and document the status of mitigation measures, a mitigation matrix has been prepared and includes the following components:

- Mitigation Measures
- Timing of Verification
- Implementation Actions, conditions or Mechanism
- Method of Verification
- Responsible Party

Mitigation measure timing of verification has been apportioned into several specific timing increments. Of these, the most common are:

1. Prior to Map Recordation
2. Prior to Tentative Tract Map (TTM) approval
3. Prior to issuance of grading permit
4. During grading operations
5. Prior to completion of grading operations
6. Prior to issuance of building permit(s)
7. During construction
8. Prior to issuance of certificate of use and occupancy

Unless otherwise stated in the DEIR, preparation of all plans, exhibits, reports, or studies described herein and payment of any plan check fees are the responsibility of the Applicant. Plan checking and verification of mitigation compliance shall be the responsibility of the County of Orange.

Information pertaining to compliance with mitigation measures or any necessary modifications or refinements will be documented in the comments portion of the matrix.

Mitigation Monitoring Procedures

The Orange County Planning & Development Services is the designated lead agency for the Mitigation Monitoring Program. The County is responsible for review of all monitoring report, enforcement actions, and document disposition. The County will rely on information provided by the monitor as accurate and up to date and will field check mitigation measure status as required.

In-Field Monitoring

Project monitors shall exercise caution and professional practices at all times when monitoring construction. Protective wear (hard hats, glasses, etc.) shall be worn at all times in construction areas. Injuries shall be reported immediately to the mitigation monitor.

Coordination with Contractors

The construction manager/superintendent is responsible for coordination of contractors, and is also responsible for contractor completion of required measures in accordance with the provisions of this program.

Recognized Experts

The use of recognized experts as a component of the monitoring team is required to ensure compliance with scientific and engineering based mitigation measures. While the mitigation monitoring team recognized experts assess compliance with required mitigation measures, consultation with the County of Orange planning staff shall take place in the event of a dispute.

Arbitration/Dispute Resolution

If the mitigation monitor has identified an action which, in the opinion of the monitor, has not been implemented or has not been implemented correctly, the problem will be brought to the attention of the County of Orange for resolution. If the problem cannot be satisfactorily resolved by County staff, it will be brought before the Planning Director or designee for resolution. The County will have the authority to issue stop work orders until the dispute is resolved.

Enforcement

Agencies may enforce conditions of approval through their existing police power, using stop work orders, fines, infraction citations, loss of entitlements, refusal to issue building permits or certificates of use and occupancy or, in some cases, notice of violation for tax purposes. Criminal misdemeanor sanctions could be available where the agency has adopted an ordinance requiring compliance with the monitoring program, similar to the provision in many zoning ordinances which affirm the enforcement power to bring suit against violators of the ordinances provisions.

Matrix Acronym Key

ACOE	-	Army Corps of Engineers
AVR	-	Average Vehicle Ridership
BMP	-	Best Management Practices
CDFG	-	California Department of Fish & Game
CEQA	-	California Environmental Quality Act
CUO	-	Certificate of Use/Occupancy
DAMP	-	Drainage Area Management Plan
DEIR	-	Draft Environmental Impact Report
EPPD	-	Environmental Project Planning Division
FTSP	-	Foothill/Trabuco Specific Plan
IPM	-	Integrated Pest Management
HBP	-	Harbor, Beaches and Parks Division
LOMR	-	Letter of Map Revision
MEP	-	Maximum Extent Practicable

NOI	-	Notice of Intent
NPDES	-	National Pollutant discharge Elimination System
OCEMA	-	Orange County Environmental Management Agency
OCFA	-	Orange County Fire Authority
SCAQMD	-	South Coast Air Quality Management District
SVUSD	-	Saddleback Valley Unified School District
TCWD	-	Trabuco Canyon Water District
TDM	-	Transportation Demand Management
USGS	-	United States Geological Survey
VTTM	-	Vesting Tentative Tract Map
WQMP	-	Water Quality Management Plan

Mitigation Monitoring Program Matrix Legend

C	-	Completed
SR	-	Submit Report
FR	-	Field Report
D	-	Design
DR	-	Document Review
BP	-	Building Permit
GP	-	Grading Permit
MR	-	Map Recommendation
CO	-	Certificate of Occupancy
MBPSD	-	Manager, Building Permit Services Division
MPDS	-	Manager,Planning & Development Services
TM	-	Tentative Map
MSG	-	Manager Subdivision & Grading
MHBP	-	Manager Harbors, Beaches & Parks

Mitigation Monitoring Program Matrix Saddleback Meadows Final Revised Subsequent EIR SCH No. 1996121072 Mitigation Measure	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	Comments
4.1 LAND USE						
Project Design Features						
PDF 1-1 The proposed project as designed is compatible with existing surrounding residential areas with minimum 5,000 square foot single-family detached residential lots.	C	DR	D	Applicant	Y	
PDF 1-2 The proposed project development as designed provides an average 1,200 foot natural open space buffer between the proposed development area and St. Michael's Abbey, and a 2,000 foot natural open space buffer between the proposed project and the Rama Krishna Monastery. The project also proposes berming and landscape screening to further shield views of the project.	C	DR	D	Applicant	Y	
Standard County Conditions						
SC 1-1 Prior to the issuance of any building permits for residential construction, the developer shall comply with Board of Supervisors Resolution 82-1368 (Buyer Notification Program) which requires the developer to prepare a map denoting the existing and proposed land uses, arterial highways, and public facilities within the surrounding area for the approval of the Manager, PDS/Current Planning Services Division. The map content, display, and distribution shall be in accordance with the Buyer Notification Program guidelines approved by the Board of Supervisors and available at the Development Processing Center.	SR/BP	DR	BP	MPDS	N	
SC 1-2 If appropriate, prior to the issuance of any certificates of use and occupancy, the developer shall provide evidence to the Manager, PDS/Building Inspection Services Division, that the Department of Real Estate has been notified that the project area is within the boundaries of a Community Facilities District (CFD), and will be subject to special taxes for public facilities and/or services.	SR/CO	DR	CO	MPDS	N	
Mitigation Measures						
No additional mitigation measures	--	--	--	--	--	

Mitigation Monitoring Program Matrix Saddleback Meadows Final Revised Subsequent EIR SCH No. 1996121072	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
4.2 GEOPHYSICAL RESOURCES						
Project Design Features						
PDF 2-1 A remedial grading mitigation plan has been designed to stabilize the project site, in accordance with OCPDS requirements. The plan is depicted in Figure 4.2.5 and proposes measures including shear keys, buttresses, and removals/recompaction to reduce hazards associated with landslides, erosion and subsidence.	C	DR	GP	MPDS	Y	
Standard County Conditions						
SC 2-1 Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, PDS/Subdivision and Grading Services Division for approval. The report shall include the information and be in a form as required by the Grading Manual.	SR/GP	DR	GP		N	
SC 2-2 Prior to the issuance of any grading permits, the Manager, PDS/Subdivision and Grading Services Division, shall determine if the proposed grading complies with the grading illustrated in the plans approved by the decision-maker with regard to grading concepts, slope heights, slope ratios, and pad elevations and configuration. Significant deviations shall be reviewed by the decision-maker for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised application per Orange County Zoning Code Section 7-9-139 and 7-9-150.	SR/GP	DR	GP	MPDS	N	
SC 2-3 Prior to the issuance of the first grading permit, for projects located immediately adjacent to or including portions of regional parks, significant open space corridors, or other environmentally sensitive areas, the project proponent shall provide evidence acceptable to the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Harbors Beaches & Parks, Program Management and Coordination Division, that graded areas will be compatible with natural land characteristics of the adjacent open space areas	SR/GP	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix **Saddleback Meadows** **Final Revised Subsequent EIR** **SCH No. 1996121072** **Mitigation Measure**	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	Comments
including techniques to enhance a smooth and gradual transition, urban edge treatment plans and incorporating view enhancement through architectural and design techniques. Substantial conformance with the approved Tentative Tract Map shall be considered acceptable evidence of compliance.						
SC 2-4 Prior to the issuance of any grading permit, off-site grading and/or drainage shall be conducted in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.	SR/GP	DR	GP	MPDS	N	
SC 2-5 Prior to the issuance of a grading permit, substantial compliance with the following in the grading plan shall be certified by a registered engineer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. • Fill soils shall be placed in layers that are less than eight inches thick and moisture-conditioned generally one to two percent above optimum moisture content. The existing diatomaceous soils shall be moisture-conditioned to 125 percent of optimum moisture content. • For preliminary earthwork computations, the following shrinkage/bulking factors are recommended for the on-site material (these do not include handling losses): Bedrock – five percent bulking; slopewash – five percent shrinkage; and Other Soils – 15 percent shrinkage. Grading plans shall include an area where finish grades can be raised or lowered to accommodate changes in actual material quantities. • Dewatering shall be achieved using sumps and pumps located strategically within the excavated area. However, the excavation shall be carefully observed; if the conditions warrant, supplementary dewatering provisions shall be made. It is the responsibility of the contractor to provide an adequate dewatering system during construction. Dewatering activities shall comply with all applicable	SR/GP	DR		MPDS	N	

Mitigation Monitoring Program Matrix Saddleback Meadows Final Revised Subsequent EIR SCH No. 1996121072	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
federal, state and County requirements.						
❑ **SEISMIC CONDITIONS**						
SC 2-6 Conformance with the Uniform Building Code and Orange County codes shall insure that seismic considerations are incorporated into the structural designs. All recommendations of the geotechnical report shall be incorporated and utilized in the final construction plans for the parcels in a manner meeting the approval of the Manager, PDS/Building Permit Services Division. Larger buildings, structures with extraordinary architectural configurations, or those of tilt-up construction may require seismic analysis.	SR	DR	BP	MBPSD	N	
SC 2-7 The seismic exposure of the site shall be considered in the design of the proposed structures in a manner meeting the approval of the Manager, PDS/Building Permit Services Division.	SR	DR	BP	MBPSD	N	
SC 2-8 Geologic inspections shall be required during site grading for each parcel to confirm the absence of major faults in the local area in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.	FR	DR	GP	MPDS	N	
SC 2-9 Prior to the issuance of any grading permits, if review of the grading plan for this property by the Manager, PDS/Subdivision and Grading Services Division, indicates significant deviation from the proposed grading illustrated on the approved tentative tract map, specifically with regard to slope heights, slope ratios, and pad elevations and configuration, the plan shall be reviewed by the Subdivision Committee for a finding of substantial conformance. Failure to achieve such a finding will require processing a revised tentative tract map; or, if a final tract/parcel map has been recorded, a new tentative tract/parcel map or a site development permit application per Orange County Zoning Code Section 7-9-139 and 7-9-150. Additionally, a new environmental assessment and determination is required.	SR/GP	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix Saddleback Meadows Final Revised Subsequent EIR SCH No. 1996121072 Mitigation Measure	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	Comments
SC 2-10 Prior to the issuance of any grading permit, if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the affected property owners for off-site grading and/or drainage. The owner/applicant shall record said letters of consent for off-site drainage and/or cross-lot drainage prior to recordation of the tract/parcel map or prior to the issuance of any grading permit, whichever comes first.	SR/GP	DR	GP	MPDS	N	
SC 2-11 Prior to the issuance of any preliminary grading permits, the subdivider shall request that the Vector Control District initiate the survey process of the tract/parcel map site to determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.	SR/GP	DR	GP	MPDS	N	
SC 2-12 Prior to issuance of grading permits, a Water Quality Management Plan (WQMP) shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division. The WQMP shall identify, at a minimum, the application and incorporation of those routine structural and non-structural BMPs outlined in the Countywide NPDES Drainage Area Management Plan (DAMP) Appendix G detailing implementation of BMPs not dependent on specific land uses, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.	SR/GP	DR	GP	MPDS	N	
SC 2-13 Prior to the recordation of a subdivision map, the applicant shall submit, a "Hazardous Materials Assessment" and a "Disclosure Statement" covering the property (both fee and easement) which will be offered for dedication or dedicated to the County of Orange, for review and approval by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Monitoring Programs.	SR/MR	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix Saddleback Meadows Final Revised Subsequent EIR SCH No. 1996121072	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
Mitigation Measures						
❑ **GRADING**						
M 2-1 Multiple cuts and fills (2.45 million cubic yards) to achieve planned elevations and profiles, and associated access roadways shall be required.	SR	DR	GP	MPDS	N	
M 2-2 Remedial grading (6.8 million cubic yards) to stabilize the proposed slopes by means of buttresses, shear keys, and stabilization fills shall be required. Back cut failure guidelines shall be provided to the Grading Services Division prior to issuance of grading permits.	SR	DR	GP	MPDS	N	
M 2-3 Removal (clean out) of all or major portions of the graded materials and softer alluvium and colluvium and soft/loose landslide materials under most of the variable thickness fills shall be required.	SR	DR	GP	MPDS	N	
M 2-4 Installation of appropriate subdrain systems within natural drainage courses and within stability, buttress and shear key fills prior to fill placement shall be required.	SR	DR	GP	MPDS	N	
M 2-5 Adequate foundation and slab subgrade conditioning for the proposed development, including over excavation, capping and measures related to expansive soils shall be required.	SR	DR	GP	MPDS	N	
M 2-6 Achieving suitable surface gradients to preclude ponding anywhere on-site and to control water run-off via paved/closed drainage devices shall be required.	SR	DR	GP	MPDS	N	
❑ **COMPACTION**						
M 2-7 Wherever structural fills are to be placed, the upper six to eight inches of the exposed subgrade (after stripping and/or over excavation/clean-out) shall first be scarified and reworked. In general, the dry density of the in-situ (native) material shall be at least 85 percent of maximum. Most removals of alluvium shall be totally removed and recompacted. No alluvial removal shall	SR	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix **Saddleback Meadows** **Final Revised Subsequent EIR** **SCH No. 1996121072**	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
remain in developed areas. In the event that lower densities are determined by field testing to exist, the depth of over excavation will be determined on-site, given due consideration to the geology of the exposed material, as well as its relative location. It is expected that typical depths of over excavation will be on the order of four to five feet.						
M 2-8 Fill shall be placed in lifts of six to eight inches (loose) in thickness. Rocks exceeding four inches in maximum dimension shall not be incorporated within the upper fill zone (approximately three feet) where foundations and most utility systems are expected to be housed.	SR	DR	GP	MPDS	N	
M 2-9 In all fill areas where active gradients are steeper than 5:1 (horizontal:vertical), those surfaces shall be prepared to receive fill by excavating standard keyways and benches in a stair-step configuration.	SR	DR	GP	MPDS	N	
M 2-10 Any loosening of reworked or in-place native material, consequent to weathering and/or passage of construction traffic, shall be made competent.	SR	DR	GP	MPDS	N	
M 2-11 Temporary fills, typically associated with access ramps built to accommodate grading equipment shall be subject to removal when their use is discontinued.	SR	DR	GP	MPDS	N	
M 2-12 The depths of excavation shall be subject to on-site monitoring by the Soil Engineer, during the actual removal operations. Any surface or subsurface obstructions, or questionable material encountered during grading, shall be brought immediately to the attention of the Soil Engineer, for his determination as to proper exposure, removal and/or processing as directed.	SR	DR	GP	MPDS	N	
❑ **MATERIAL SELECTION**						
M 2-13 After the site has been stripped of any debris, vegetation and organic soils, such exposed on-site areas shall be considered satisfactory for reuse in the construction of on-site fills, provided	SR	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix **Saddleback Meadows** **Final Revised Subsequent EIR** **SCH No. 1996121072**	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
the organic content does not exceed three percent by volume. It is recommended that highly expansive soils not be placed within the upper four to five feet thick zone underlying final pad and street grades. More importantly, no such soil is to be placed (as backfill) within a horizontal distance equal to the wall height immediately behind retaining walls.						
M 2-14 Any objectionable material, as determined by the Soil Engineer, shall be subject to relocation in deeper fill areas or removal off-site.	SR	DR	GP	MPDS	N	
M 2-15 All borrow sites shall be approved by the Soil Engineer/Geologist prior to on-site delivery. This will permit the timely allocation of such available materials for use on the project site.	SR	DR	GP	MPDS	N	
❑ **COMPACTION REQUIREMENTS**						
M 2-16 Reworking/compaction shall include water addition or drying-out as needed, to bring the soils close to their optimum moisture content. All such reworked soils, placed as structural fills, shall be densified to achieve at least 90 percent relative compaction with reference to the laboratory compaction standard. The optimum moisture content and maximum dry density, for each identified soil type, will be determined in the laboratory in accordance with ASTM Test Designation D1557.	SR	DR	GP	MPDS	N	
❑ **SHRINKAGE/SUBSIDENCE**						
M 2-17 For preliminary earthwork computations, an approximate (overall) shrinkage factor of 12 percent shall be required, for the existing site soils. The above value does not include allowance for stripping nor handling losses.	SR	DR	GP	MPDS	N	
M 2-18 Subsidence shall be assumed as ¾ to 1 ½ inches for grading design purposes.	SR	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix Saddleback Meadows Final Revised Subsequent EIR SCH No. 1996121072	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
❑ **EXCAVATING CONDITIONS**						
M 2-19 Excavation of on-site soils shall be accomplished with standard heavy-duty earthmoving or trenching equipment. Some hard cemented sandstone beds were encountered during the field exploration on portions of the site and some minor, isolated blasting may be required to remove these hard materials.	SR	DR	GP	MPDS	N	
M 2-20 Heavy seepage was encountered, as indicated on the Boring Logs, at multiple elevations. Consequently, considerable water can be expected within planned excavations, typically reaching maximum discharge within two to five days after exposure. Additional nuisance water (seepage) is foreseen in nearly all major cuts decreasing in volume with time, and being less at higher site elevations as well as in cuts made late in the year. All nuisance water shall be accommodated in accordance with County requirements.	SR	DR	GP	MPDS	N	
❑ **EXPANSION POTENTIAL**						
M 2-21 On-site materials are considered to be moderately expansive, generally. Soils of high and low expansivity are expected to comprise less than 25 percent of the overall pad areas. The expansivity of the actual soils placed within structural areas shall be verified during grading, prior to construction.	SR	DR	GP	MPDS	N	
❑ **UTILITY TRENCHING**						
M 2-22 The typical walls of temporary construction trenches shall stand nearly vertical, with only minor sloughing, provided the total depth does not exceed four to five feet. Shoring of excavation walls and/or flattening of side slopes may be required, if greater depths are necessary.	SR	DR	GP	MPDS	N	
M 2-23 Trenches shall be located so as not to impair the bearing capacity nor settlement under planned foundations. As a guide, trenches shall be aligned perpendicular to foundations, and the	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
Structural Engineer so informed to modify the foundation at the crossing, as needed. All other trenches shall observe a lateral offset equal to their total depth.						
M 2-24 Existing soils shall be utilized for trench backfill, provided they are essentially free of organic materials and oversized materials (rock, gravel, etc. in excess of one inch maximum size, unless within an approved soil matrix). Compaction shall be accomplished entirely by mechanical means, subject to on-site assessment during pipeline installation.	SR	DR	GP	MPDS	N	
❑ **SURFACE DRAINAGE**						
M 2-25 Positive surface gradients shall be provided away from slope tops per approved grading plans and adjacent to the future buildings, so as to direct surface water run-off away from structural areas and toward suitable discharge facilities.	SR	DR	GP	MPDS	N	
❑ **SULPHATE CONTENT**						
M 2-26 The soils sulphate content shall be ascertained during the concluding stages of rough grading, and the type of cement to be used determined at that time.	SR	DR	GP	MPDS	N	
❑ **GRADING CONTROL**						
M 2-27 All grading and earthwork shall be subject to on-going testing and observation by the applicant's geotechnical consultant, including engineers, engineering geologists and/or technicians.	SR	DR	GP	MPDS	N	
❑ **SLABS-ON-GRADE**						
M 2-28 Concrete slabs shall be founded on approved (reworked) in-place soils and/or on properly compacted fill. The subgrade shall be proof-rolled just prior to construction to provide a firm, unyielding surface, especially if the surface has been disturbed by the passage of time and/or exposure to construction traffic.	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
M 2-29 Floor slabs shall be at least four inches thick. The Finished Floor Level shall be at least six inches above highest adjacent exterior grade. Joints shall be provided.	SR	DR	BP	MPDS	N	
M 2-30 If flooring that will be affected by moisture is to be used, the slab shall be underlain by two inches of sand, with a 10-mil plastic sheet between the sand and the subgrade.	SR	DR	BP	MPDS	N	
M 2-31 Precautions in respect of expansive soils shall be taken.	SR	DR	BP	MPDS	N	
❑ **FOUNDATIONS**						
M 2-32 The proposed structures shall be supported on conventional spread footings, supported into approved compacted fill and/or reworked native material.	SR	DR	GP	MPDS	N	
❑ **LONG TERM SETTLEMENTS**						
M 2-33 The grading concept, as presently proposed, includes several areas where deep fill will result, exceeding 50 feet in depth. These soil masses may experience significant settlements, with time, of four to six inches or more. Such downward movements can be tolerated by most improvements, provided these occur at a reasonably uniform rate and rather evenly over a well-distributed area. However, the degrees and rates of settlement shall be analyzed during the final design phase.	SR	DR	GP	MPDS	N	
❑ **PHASING OF EARTHWORK**						
M 2-34 Unstable Ground: Initial stability evaluations have determined that several natural slopes subject to grading are inherently unstable. Removals, therefore, shall be planned and carried out with care in order to minimize deep-seated, in-construction failures. Statistically, about 10 percent of back cuts for buttresses will fail during grading. Construction techniques shall be planned and carried out to either reduce the risk of back cut failures, or as a minimum to confine such failures to the limits of grading. Such techniques could include slotted or segmented	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
back cuts. Schedule and budget contingencies shall be made to accommodate the increase time and effort of such techniques and as may be necessary to repair minor back cut failures ("pop outs").						
M 2-35 Required Clean-Out Work: Prior to improving the gross stability of hillsides, clean-out work will be necessary along their lowest (toe) elevations. Whereas such selective removals are essential prior to placement of additional fill, this process can trigger undesired slippage. Therefore, selective unloading of the slide mass shall be required before stabilization can effectively begin.	SR	DR	GP	MPDS	N	
M 2-36 Slide Unloading: Where existing slope faces are marginally safe in their present condition, the higher portions of each such slide shall require removals toward the top, prior to clean-out, and subsequent loading at the toe.	SR	DR	GP	MPDS	N	
4.3 HYDROLOGY						
Project Design Features						
PDF 3-1 A master drainage concept has been incorporated into the project design to mitigate hydrology impacts to existing OCFCDs requirements and standards. The master drainage concept proposes a series of storm drains, catch basins, inlet/outlet structures, energy dissipators and slope drains to control project drainage. In addition a riverine water quality filtration system is proposed adjacent to the primary on-site spine road to cleanse low flow urban runoff pollutants. The proposed storm drain system, constructed of reinforced concrete pipe (RCP), is a series of storm drains that discharge at four distinct points. Discharge Point 1 is composed of a 96-inch double corrugated steel pipe and is located at the existing facility "J01" per SD plan # J01-701-15. Discharge Point 2 is composed of an existing 24-inch RCP, line "B", per SD plan # J01-701-15. Discharge Point 3 is also composed of an existing 24-inch RCP, lines "A", "B", "C", per implementation plans Tract 12724. Discharge Point 4 drains to Oso Creek in natural drainage course. This Project Design	C	DR	D	MPDS	Y	

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Mitigation Measure						**Comments**
Feature is being prepared in consultation with USACE.						
Standard County Conditions						
SC 3-1 Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the issuance of any grading permits, whichever comes first, the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division: 1) Prepare a drainage study determining the effect the proposed development and associated drainage patterns will have on existing drainage facilities. The study shall include an analysis of erosion and sediment transport impacts due to increased flows from the project site, and utilize Orange County Flood Control District's Criteria and Standards where applicable, per the *1986 Orange County Hydrology Manual* and its *Addendum No. 1*. 2) Mitigate either by on-site retardation or by providing improvements appropriately to impacted existing drainage facilities.	SR	DR	R	MPDS	N	
SC 3-2 Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the issuance of any grading permits, whichever comes first, the applicant shall, in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division: 1) Design and convey construction funds for surface drainage improvements; and 2) Design all necessary storm drain facilities extending to a satisfactory point of disposal for the proper control and disposal of storm runoff; and 3) Dedicate the associated easements to the County of Orange, if determined necessary.	SR	DR	R	MPDS	N	
SC 3-3 Prior to the issuance of any certificates of use and occupancy, said improvements shall be constructed in a manner meeting the approval of the Manager, PF&R/Construction	SR	DR	CO	MPDS	N	

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Mitigation Measure						**Comments**
Division. Prior to the issuance of any certificates of use and occupancy, the applicant shall not grant any easements over any property subject to a requirement of dedication or irrevocable offer to the County of Orange or the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting of any said easements, the subdivider shall furnish a copy of the proposed and approved easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval. A copy of the approved easement shall be furnished to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificate of use and occupancy.						
SC 3-4 Prior to the recordation of a final tract/parcel map or prior to the issuance of any grading permit, whichever comes first, and if determined necessary by the Manager, PDS/Subdivision and Grading Services Division, a letter of consent, in a form approved by the Manager, PDS/Subdivision and Grading Services Division, suitable for recording, shall be obtained from the upstream and/or downstream property owners permitting drainage diversions and/or unnatural concentrations.	SR	DR	R	MPDS	N	
SC 3-5 Prior to issuance of any building permits, or prior, whichever comes first, the applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division, including payment of fees and the construction of the necessary facilities.	SR	DR	BP	MPDS	N	
SC 3-6 Potential for the proposed project to impact the site's hydrology shall be reduced to a level of insignificance through engineering design and construction techniques incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.	SR	DR	GP	MPDS	N	
SC 3-7 Prior to the issuance of a subdivision map, the subdivider shall not grant any easements over any property subject to a	SR		R	MPDS	N	

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Mitigation Measure						**Comments**
requirement of dedication or irrevocable offer to the County of Orange of the Orange County Flood Control District, unless such easements are expressly made subordinate to the easements to be offered for dedication to the County. Prior to granting of any of said easements, the subdivider shall furnish a copy of the proposed easement to the Manager, PDS/Subdivision and Grading Services Division, for review and approval.						
SC 3-8 Prior to the recordation of a final tract/parcel map, Regional Facility/Aliso Creek shall be improved by the construction of fee related improvements and right-of-way dedicated to the Orange County Flood Control District in a manner meeting the approval of the PDS/Subdivision and Grading Services Division.	SR	DR	R	MPDS	N	
Mitigation Measures						
No mitigation measures would be necessary	--	--	--	--	--	
4.4 WATER QUALITY						
Project Design Features						
PDF 4-1 The southwest and southeast quadrants of the development, approximately 80 percent of the residential lots and streets, shall be served by a riverine system designed to provide a natural cleansing of the urban run-off (see Figure 4.3.2 included in the hydrology section of this document).	C	DR	R	MPDS	N	
PDF 4-2 The riverine system shall collect low flows at strategically located catch basins and underground pipes and convey the low flows to a vegetated swale. This swale is located parallel to and along the north side of the project's spine road (see Figure 4.3.2). The swale design shall filter pollutants from low flows. It shall also allow dissipation of a portion of the flows through percolation and evaporation. The downstream terminus of the riverine system shall be a vegetated earthen retention basin.	SR	DR	TM	MPDS	N	
PDF 4-3 The project shall be designed to minimize or eliminate dry season flows from reaching Aliso and Oso Creeks. The design shall be focused on controlling irrigation practices within the	SR	DR	TM	MPDS	N	

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Mitigation Measure						**Comments**
project in order to minimize or eliminate irrigation water runoff.						
PDF 4-4 The portion of the property that will not be disturbed by grading, approximately 30 percent of the total property, shall be restored by cessation of cattle grazing.	SR	DR	TM	MPDS	N	
PDF 4-5 Annual grasslands and artichoke thistle shall be replaced with coastal sage scrub and oak woodlands as part of the biological resources restoration program.	SR	DR	TM	MPDS	N	
PDF 4-6 Existing disturbed coastal sage scrub shall be enhanced as outlined in the biological resources restoration program.	SR	DR	TM	MPDS	N	
PDF 4-7 40 percent of the property will be disturbed by grading but will be dedicated as permanent open space. These areas shall be revegetated with coastal sage scrub and oak woodlands ensuring that these graded areas are not subject to erosive runoff.	SR	DR	TM	MPDS	N	
PDF 4-8 The use of larger lots (5,000 square foot minimum, nearly 6,700 square foot average) and narrower private streets as shown on the Tentative Tract Map shall minimize impervious areas.	SR	DR	TM	MPDS	N	
PDF 4-9 The storm drain system shall be designed to mimic natural drainage patterns as closely as possible.	SR	DR	TM	MPDS	N	
PDF 4-10 The storm drain outlets shall be provided to return runoff into each natural drainage that intersects the development area.	SR	DR	TM	MPDS	N	
PDF 4-11 Appropriate energy dissipaters shall be installed at each outlet to reduce flows to non-erosive velocities.	SR	DR	TM	MPDS	N	
PDF 4-12 The cattle grazing operation shall be terminated.	SR	DR	TM	MPDS	N	
PDF 4-13 All storm drain pipe flows within the northeastern quadrant, the remaining 20 percent of the development, shall pass through strategically located stormceptors prior to discharging into project open space areas, and therefore remove trash, sediment, and oil from low-flow runoff (dry season flows and low flow wet season flows) prior to discharge into the resource protection areas. The stormceptors shall be able to remove up to 80 percent of the total sediment load (TSL).	SR	DR	TM	MPDS	N	
PDF 4-14 Stormceptors shall also remove free oil from storm water	SR	DR	BP	MPDS	N	

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Mitigation Measure						**Comments**
during normal flow conditions.						
PDF 4-15 Sand bag debris dams and temporary sand bag sediment catchment areas shall be installed at catch basins during construction.	SR	DR	BP	MPDS	N	
PDF 4-16 Structural BMPs shall be routinely monitored and maintained sufficiently for their effectiveness. Structural BMPs, such as the stormceptors and the riverine system, shall be privately owned, operated, and maintained by the homeowner's association (HOA) or a community services district.	SR	DR	BP	MPDS	N	
PDF 4-17 A detailed plan for maintenance, inspection and for assessing the effectiveness of the BMPs including testing shall be included in the project's final SWPPP and the WQMP. The final plans shall be prepared and approved by the applicable County departments and regional jurisdictions prior to the recordation of a subdivision map, or issuance of precise grading permits or building permits.	SR	DR	BP	MPDS	N	
PDF 4-18 Proposed Riverside fairy shrimp basins (see Section 4.8) shall be isolated from urban runoff and excess irrigation.	SR	DR	BP	MPDS	N	
Standard County Conditions						
SC 4-1 Prior to issuance of grading permits, the project applicant shall obtain coverage under the NPDES Statewide Industrial Storm water Permit for General Construction Activities from the State Water Resources Control Board. Evidence this has been attained shall be submitted to the Manager PDS/Subdivision and Grading Services Division.	SR	DR	GP	MPDS	N	
SC 4-2 Prior to issuance of a grading permit, the project applicant shall submit for approval by the County, a WQMP specifically identifying BMPs that will be used on-site to control predictable pollutant runoff.[1] The WQMP shall identify at a minimum the routine structural and non-structural measures specified in the Countywide NPDES DAMP Appendix G which details	SR	DR	GP	MPDS	N	

[1] *The Preliminary Storm Water Management and Water Quality Management Plan included in Appendix E of this Draft Revised Subsequent EIR would serve as the basis for the WQMP.*

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Mitigation Measure						**Comments**
implementation of the BMPs whenever they are applicable to a project, the assignment of long-term maintenance responsibilities (specifying the developer, parcel owner, maintenance association, etc.); and shall reference the location(s) of structural BMPs. The following routine non-structural BMPs shall be included as part of the final WQMP: N-1 (Education for Property Owners); N-2 (Activity Restrictions); N-3 (Common Area Landscape Management); N-4 (BMP Maintenance); N-11 (Common Area Litter Control); N-14 (Common Area Catch Basin Inspection); and N-15 (Street Sweeping Private Streets and Parking Lots).						
SC 4-3 Potential for the proposed project to impact sediment loading on down stream Aliso Creek shall be reduced through engineering design techniques (primarily upsizing of on-site drainage conduits to pass sediment-laden flow from upstream natural areas through the project) incorporated into the project in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division.	SR	DR	GP	MPDS	N	
SC 4-4 Runoff Management And Water Quality Plan: Prior to the recordation of the first final map (either for conveyance or development), or prior to the issuance of any rough or precise grading permit (except for any publicly financed infrastructure), whichever occurs first, the land owner/applicant shall prepare, and receive approval from the Manager, Subdivision and Grading Services Division, in consultation with the Environmental Resources and Flood Program Sections of the PFRD Program Development Division (PDD) of, a Runoff Management Plan (RMP), including a WQMP, covering the subject property. The RMP shall include the locations of all permanent large-scale BMPs, including filtration devices, such as constructed wetlands, water quality basins, detention basins, debris basins, grass/bioswales, energy dissipaters, catch basin inserts, and other BMPs.	SR	DR	GP	MPDS	N	
SC 4-5 Master Infrastructure Improvements: Prior to the recordation of the first final map (either for conveyance or	SR	DR	R	MSG	N	

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development), or prior to the issuance of any rough or precise grading permit, whichever occurs first, the land owner shall design and construct all applicable master infrastructure improvements identified in the approved RMP, including debris basins, bioswales, energy dissipaters, drainage pipes, and other improvements, and shall provide all necessary dedications, all in a manner meeting the approval of the Manager, Subdivision and Grading Services Division.						
SC 4-6 Final Map Note For Retention Basins/Wetlands: Prior to the recordation of each final map (either for conveyance or development), a note shall be placed on the applicable final map where appropriate, indicating that retention basins and/or constructed wetlands will be required on the property in accordance with the approved RMP and WQMP, in a manner meeting the satisfaction of the Manager, Subdivision and Grading Services Division.	SR	DR	R	MSG	N	
Mitigation Measures						
M 4-1 The applicant shall have the option to research off-site water quality improvements to determine the technical and economic feasibility of implementing improvements that have regional water quality benefits and can also mitigate project-related impacts. Such off-site water quality improvements, if any, shall be consistent with the requirements of the new storm water NPDES permit for South Orange County (Section F-1 of Order 2002-001). This effort shall be coordinated with the County's PFRD, Environmental Resources Division. If the County determines that off-site mitigation improvements achieve the same or greater water quality benefits to Aliso Creek, such a program may be implemented in-lieu of some or all of the on-site filtration basins proposed for the project.	SR	DR	BP	MPDS	N	
4.5 TRANSPORTATION/TRAFFIC						
Project Design Features						
PDF 5-1 The entry street shall be designed as a Collector roadway	SR	DR	BP	MPDS	N	

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Mitigation Measure						**Comments**
providing two exiting lanes and two entering lanes with a median.						
PDF 5-2 The entry street shall be designed to include a traffic signal, a crosswalk for the Live Oak Canyon Trail, and a southbound left-turn pocket and a northbound right-turn lane.	SR	DR	BP	MPDS	N	
PDF 5-3 The applicant shall construct an access road leading to the proposed water tank.	SR	DR	BP	MPDS	N	
PDF 5-4 The applicant shall provide an emergency-only access via Valley Vista Way.	SR	DR	BP	MPDS	N	
Standard County Conditions						
SC 5-1 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Programs listed below, in a manner meeting the approval of the Manager, PF&R/Programs Division: • Santiago Canyon Road Fee Program • El Toro Road Fee Program • Foothill/Eastern Road Fee Program • Foothill Circulation Phasing Plan (FCCP)	SR	DR	BP	MPDS	N	
SC 5-2 Prior to the issuance of any grading permits, adequate sight distance shall be provided at all driveway intersections per Standard Plan 1117, in a manner meeting the approval of the Manager, PDSD, Subdivision and Grading Services. This includes any necessary revisions to the plan such as removing slopes or other encroachments from the limited use area.	SR	DR	GP	MPDS	N	
SC 5-3 Prior to the recordation of the final tract/parcel map or the issuance of any building permits, whichever occurs first, the subdivider shall provide plans and specifications meeting the approval of the Manager, PDS/Subdivision and Grading Services Division for the design of the internal circulation system.	SR	DR	R	MPDS	N	
SC 5-4 Prior to the issuance of any certificates of use and occupancy, the developer shall construct the approved internal circulation improvements in a manner meeting the approval of the Manager, PDSD/Subdivision and Grading. Further, a copy of the	SR	DR	CO	MPDS	N	

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Mitigation Measure						**Comments**
approved plans shall be furnished to the Manager, PDS/Building Inspection Services division, prior to the issuance of any certificates of use and occupancy.						
SC 5-5 Prior to issuance of building permits, applicant shall design road improvements and dedicate additional, if necessary, right-of-way along the El Toro Road frontage, per the F/TSP (Exhibit II-8, Recreation Plan) including sufficient width for a standard Class II bike lane, across the property frontage along the ultimate alignment meeting the approval of the Manager, of PFRD/HBP Program Management and Coordination. The project applicant shall complete grading of the ultimate right-of-way prior to the issuance of use and occupancy.	SR	DR	BP	MPFRD	N	
Mitigation Measures						
M 5-1 Verification of adequate parking and traffic signing/striping shall be analyzed for the project site in conjunction with approval of the site plan.	SR	DR	R	MPDS	N	
M 5-2 The entry street to Saddleback Meadows shall be designed as an augmented Collector roadway with a curb-to-curb width of 58 feet at its intersection with El Toro Road. This provides for two 12-foot exiting lanes and two 12-foot entering lanes with a 10-foot median. The Collector cross-section shall be maintained from approximately 160 feet where it could then be transitioned to a standard 40-foot wide curb-to-curb width Collector roadway.	SR	DR	R	MPDS	N	
M 5-3 The applicant shall provide a traffic signal at the main project access point to El Toro Road, pedestrian buttons and separate equestrian-height buttons on the north and south sides of the entry road (to accommodate the Live Oak Canyon Trail), a crosswalk for the trail, and trail warning signage.	SR	DR	BP	MPDS	N	
M 5-4 The project shall pay its fair share of the shortfall of the Santiago Canyon Road Major Thoroughfare and Bridge Fee Program.	SR	DR	R	MPDS	N	
M 5-5 The project shall pay its fair share of the improvement of the following intersections: Portola Parkway at Glenn Ranch	SR	DR	R	MPDS	N	

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Mitigation Measure						**Comments**
Road, Portola Parkway at Foothill Transportation (FTC), and the Portola Parkway at El Toro Road.						
4.6 AIR QUALITY						
Project Design Features						
No Project Design Features related to air quality.	--	--	--	--	--	
Standard County Conditions						
SC 6-1 Grading and excavation shall be halted during period of high winds. According to AQP Measure F-4, high winds are defined as 25 mph or greater. This level occurs only under unusually extreme conditions, such as Santa Ana wind conditions. Notations in the above format, included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.	SR	DR	GP	MPDS	N	
SC 6-2 Prior to issuance of grading permits, the project applicant shall demonstrate measures to ensure compliance with SCAQMD Rule 403, and shall identify the dust suppression measures, such as regular watering, which shall be implemented to reduce emissions during construction and grading in a manner meeting the approval of the Manager, PDS/Subdivision and Grading Services Division. This will help reduce the short-term impacts from particles, which could result in nuisances that are prohibited by Rule 403.	SR	DR	GP	MPDS	N	
Mitigation Measures						
M 6-1 The simultaneous daily disturbance area shall be limited to the extent feasible (15-acres or less, if possible).	SR	PR	GP	MPDS	N	
M 6-2 Enhanced dust control measures shall be implemented including the following: • Water active construction areas at least twice daily; • Cover haul trucks or maintain at least two feet of freeboard; • Pave or apply water four times daily to unpaved parking or staging areas; • Sweep or wash any site access points within 30 minutes of	SR	DR	SP	MPDS	N	

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Mitigation Measure						**Comments**
visible dirt deposition on any public roadway; • Cover or water twice daily any on-site stockpiles of debris, dirt or other dusty material; • Suspend operations on any unpaved surface if winds exceed 25 mph; • Regulate the maximum travel speed on unpaved surfaces to 15 mph or less.						
M 6-3 Low-NOx, 90-day tune-ups shall be conducted on off-road equipment.	SR	DR	GP	MPDS	N	
M 6-4 Idling time shall be limited to 10 minutes for trucks and heavy equipment.	SR	DR	GP	MPDS	N	
M 6-5 Lane closure shall be limited to off-peak travel periods.	SR	DR	GP	MPDS	N	
M 6-6 Construction vehicles shall be parked off traveled roadways.	SR	DR	GP	MPDS	N	
M 6-7 Dirt hauled off-site shall be wet down or covered..	SR	DR	GP	MPDS	N	
M 6-8 Access points shall be washed or swept daily.	SR	DR	GP	MPDS	N	
M 6-9 Receipt of materials shall be scheduled during non-peak hours to the extent feasible.	SR	DR	GP	MPDS	N	
M 6-10 The construction site shall use sandbags for erosion control.	SR	DR	GP	MPDS	N	
❑ OPERATIONAL ACTIVITIES						
M 6-11 Traffic flow at the project access shall be maintained at acceptable levels of service through mitigation measure identified in the project traffic study.	SR	DR	GP	MPDS	N	
M 6-12 Homes shall include the option of being pre-wired for 220 V electric vehicle charging systems encourage trip elimination or trip diversion to alternative transportation:	SR	DR	GP	MPDS	N	
4.7 NOISE						
Project Design Features						
There are no Project Design Features related to noise.	--	--	--	--	--	

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Mitigation Measure						**Comments**
Standard County Conditions						
SC 7-1 Prior to issuance of grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that excavation, grading and other construction-related activities shall be restricted to daytime hours as promulgated in the County's Codified Ordinance Division 6 (Noise Control).	SR	DR	GP	MPDS	N	
SC 7-2 Prior to the issuance of grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Divisions, that: • Construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling shall be equipped with properly operating and maintained mufflers; • Operations shall comply with Orange County Codified Division 6 (Noise Control); • Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings. Notations in the above format, appropriately identified and included with other notations on the front sheet of grading plans, will be considered as adequate evidence of compliance with this condition.	SR SR	DR DR	GP GP	MPDS MPDS	N N	
SC 7-3 Residential lots and dwellings shall be sound attenuated against present and projected noise (the sum of all noise impacting the project), so as not to exceed a composite interior standard of 45 dBA CNEL for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas. Evidence that these standards are satisfied in the manner consistent with Zoning Code Section 7-9-137.5 shall be provided by a County-certified acoustical consultant as follows: • Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permit Services Division, the applicant shall submit an acoustical analysis report to the Manager, PDS/building Permits Services Division, for	SR	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix **Saddleback Meadows** **Final Revised Subsequent EIR** **SCH No. 1996121072**	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures, if required. Acoustical design features to achieve interior noise standards may be included in the report, in which case it may also satisfy the statement that follows; • Prior to the issuance of building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures to satisfy the exterior and interior noise standards to the Manager, PDS/Building Permits Services Division, for approval along with satisfactory evidence that indicates that the sound attenuation measures specified in the approved acoustical report have been incorporated into the design of the project; • Prior to the issuance of building permits, the applicant shall show freestanding acoustical barriers (if applicable) on the project's plot plan illustration height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.						
SC 7-4 Prior to the issuance of grading permits, as determined by the Manager, PDS/Building Permits Services Division, an acoustical analysis report shall be submitted to the Manager, PDS/Building Permits Services Division, for approval. The report shall describe in detail the exterior noise environment and preliminary mitigation measures. Acoustical design features to achieve interior noise standards may be included in the report in which case it may also satisfy SC 7-5 below.	SR	DR	GP	MPDS	N	
SC 7-5 Prior to the issuance of any building permits for residential construction, an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards shall be submitted for review and approval to the Manager, PDS/Building Permits Services Division, along with satisfactory evidence which indicates that the sound attenuation measures specified in the approved	DR	DR	BP	MPDS	N	

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Mitigation Measure						**Comments**
acoustical report have been incorporated into the design of the project.						
SC 7-6 Prior to the issuance of any building permits, all freestanding acoustical barriers must be shown on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.	DR	DR	BP	MPDS	N	
SC 7-7 Prior to the issuance of any certificates of use and occupancy, the developer shall produce evidence acceptable to the Manager, PDS/Building Inspection Services Division, that information stating this property is subject to the overflight, sight, and sound of aircraft operating from (El Toro Marine Corps Air Station) has been provided to the Department of Real Estate of the State of California for inclusion into the Final Subdivision Public Report.	DR	DR	CO	MPDS	N	
SC 7-8 Prior to the issuance of any certificates of use and occupancy, the applicant shall post aircraft noise impact notification signs in all sales offices associated with new residential development located within an aircraft 63 dB CNEL contour. The number and location of said signs shall be as approved by the Manager, PDS/Building Permits Services Division.	DR	DR	CO	MPDS	N	
SC 7-9 Prior to the issuance of any building permit, an aviation easement over this property shall be offered for dedication to the County of Orange in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.	SR	DR	BD	MPDS	N	
SC 7-10 Prior to issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, PDS/Building Permits Services Division that all construction equipment, stationary or mobile, shall be equipped with properly operating and maintained mufflers.	SR	DR	BD	MPDS	N	

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Mitigation Measure						**Comments**
Mitigation Measures						
❑ **CONSTRUCTION ACTIVITIES**						
M 7-1 All mass construction grading shall be completed before any homes are constructed.	SR	DR	GP	MPDS	N	
M 7-2 All construction and general maintenance activities, except in an emergency, shall be limited to the hours of 7 a.m. to 8 p.m. Monday through Saturday and shall utilize the quietest equipment available.	SR	DR	GP	MPDS	N	
M 7-3 All on-site construction equipment shall have properly operating mufflers.	SR	DR	GP	MPDS	N	
M 7-4 All construction staging areas shall be as far away as possible from any surrounding completed development.	SR	DR	GP	MPDS	N	
❑ **OPERATIONAL ACTIVITIES**						
M 7-5 Aircraft noise has subsided with the elimination of military aviation in Orange County. Given, however that a commercial airport may eventually replace the departed military operations at El Toro, enhanced acoustical window treatment is recommend as follows: • All operable windows exceeding six square feet of total glazing shall be rated STC = 25 or greater.	SR	DR	GP	MPDS	N	
4.8 BIOLOGICAL RESOURCES						
Project Design Features						
PDF 8-2 A wildlife movement corridor has been incorporated into the Tentative Tract Map to accommodate primary wildlife movement on-site. This corridor will range in width from 1,000 feet at the project site's westerly and easterly boundaries to a minimum 400 feet wide.2	C	DR	TM	MPDS	Y	

[2] *The 400-foot wide corridor does not include the 50-foot buffer zones on either side of the corridor.*

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Mitigation Measure						**Comments**
☐ **STANDARD COUNTY CONDITIONS**						
SC 8-1 Pursuant to Section 711.4 of the Fish and Game Code, the applicant shall comply with the requirements of AB 3158, prior to the filing of the Notice of Determination for the project, in a manner meeting the approval of the Manager, PDS/Environmental and Project Planning Services Division.	SR	DR	R	MPDS	N	
SC 8-2 Prior to the issuance of any grading permits, the applicant shall obtain a Streambed Alteration Agreement covering the affected water courses and wetland areas within the proposed project area from the CDFG. All streambed alteration activities shall be carried out in accord with the requirements of an approved Streambed Alteration Agreement.	SR	DR	GP	MPDS	N	
SC 8-3 Prior to the issuance of any grading permits, the applicant shall obtain the necessary individual or nationwide permit (pursuant to Section 404 of the Federal Clean Water Act) covering all affected wetland areas from the USACE, Los Angeles District. All wetland areas shall be subject to the specifications of the 404 permit as determined by the USACE. A copy of the 404 permit shall be submitted with the first grading permit application for the proposed project to the Manager, PDS/Subdivision and Grading Services Division.	SR	DR	GP	MPDS	N	
SC 8-4 Prior to the issuance of a grading permit, as required by participation in the Natural Community Conservation Planning/Coastal Sage Scrub (NCCP) agreement signed by the County on May 1, 1992, the project applicant shall provide an accounting summary, in acres or portions thereof, of coastal sage scrub scheduled to be impacted by removal through grading in a manner meeting the approval of the Environmental Planning Services Manager.	SR	DR	GP	MPDS	N	
SC 8-5 Prior to the issuance of any grading permit, approval of any activity that involves removal of any native vegetation from subject site including clearing, grubbing, mowing, disking,	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
trenching, grading, fuel modification, or other related construction-related activities, the applicant shall obtain written proof from the USFWS that said activity complies with the federal ESA. This evidence shall be submitted to the Manager, PDS/Subdivision and Grading Services Division, for review and acceptance, in consultation with the Environmental Planning Services Manager. A Biological Opinion issued by the USFWS shall be considered written proof.						
PDF 8-1 The project applicant has proposed a biological resource mitigation plan, which has been incorporated into the proposed site plan, to mitigate direct and indirect impacts to on-site biological resources. The biological resource mitigation plan has been reviewed by the effectual regulatory agencies and a biological opinion has been issued by USFWS. The biological resource mitigation plan mitigates project related impacts to wetland/riparian habitats, sensitive upland habitats and wildlife movement. Specific details/mitigation ratios are included in Appendix I.2. The biological resource mitigation plan is shown in Figure 4.8.7 and summarized in Table 4.8.3.	SR	DR	GP	MPDS	N	
PDF 8-2 A wildlife movement corridor has been incorporated into the Tentative Tract Map to accommodate primary wildlife movement on-site. This corridor will range in width from 1,000 feet at the project site's westerly and easterly boundaries to a minimum 400 feet wide.3	SR	DR	TM	MPDS	N	
❑ **STANDARD COUNTY CONDITIONS**						
SC 8-1 Pursuant to Section 711.4 of the Fish and Game Code, the applicant shall comply with the requirements of AB 3158, prior to the filing of the Notice of Determination for the project, in a manner meeting the approval of the Manager,	SR	DR	TM	MPDS	N	

[3] *The 400-foot wide corridor does not include the 50-foot buffer zones on either side of the corridor.*

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Mitigation Measure						**Comments**
PDS/Environmental and Project Planning Services Division.						
SC 8-2 Prior to the issuance of any grading permits, the applicant shall obtain a Streambed Alteration Agreement covering the affected water courses and wetland areas within the proposed project area from the CDFG. All streambed alteration activities shall be carried out in accord with the requirements of an approved Streambed Alteration Agreement.	SR	DR	GP	MPDS	N	
SC 8-3 Prior to the issuance of any grading permits, the applicant shall obtain the necessary individual or nationwide permit (pursuant to Section 404 of the Federal Clean Water Act) covering all affected wetland areas from the USACE, Los Angeles District. All wetland areas shall be subject to the specifications of the 404 permit as determined by the USACE. A copy of the 404 permit shall be submitted with the first grading permit application for the proposed project to the Manager, PDS/Subdivision and Grading Services Division.	SR	DR	GP	MPDS	N	
SC 8-4 Prior to the issuance of a grading permit, as required by participation in the Natural Community Conservation Planning/Coastal Sage Scrub (NCCP) agreement signed by the County on May 1, 1992, the project applicant shall provide an accounting summary, in acres or portions thereof, of coastal sage scrub scheduled to be impacted by removal through grading in a manner meeting the approval of the Environmental Planning Services Manager.	SR	DR	GP	MPDS	N	
SC 8-5 Prior to the issuance of any grading permit, approval of any activity that involves removal of any native vegetation from subject site including clearing, grubbing, mowing, disking, trenching, grading, fuel modification, or other related construction-related activities, the applicant shall obtain written proof from the USFWS that said activity complies with the federal ESA. This evidence shall be submitted to the Manager, PDS/Subdivision and Grading Services Division, for review and acceptance, in consultation with the Environmental Planning Services Manager.	SR	DR	GP	MPDS	N	

Mitigation Monitoring Program Matrix Saddleback Meadows Final Revised Subsequent EIR SCH No. 1996121072	Implementation Actions, Conditions, or Mechanisms	Method of Verification	Timing of Verification	Monitoring Responsible Party	Mitigation Measure Completed (Y/N)	
Mitigation Measure						**Comments**
A Biological Opinion issued by the USFWS shall be considered written proof.						
SC 8-6 Prior to the issuance of grading permits, the applicant shall submit a landscape and tree preservation plan to the Manager, PFRD/Harbors Beaches and Parks, Program Management and Coordination Division, for review and approval in accordance with the following guidelines: 1) To the maximum extent feasible, all existing native and exotic trees and other significant vegetation shall be preserved in conjunction with any development activity. Substantial compliance to the approved Tentative Tract Map shall be deemed to be the maximum extent feasible. 2) A tree preservation plan shall be prepared by a landscape architect for all development projects which identifies the location, size and species of all trees having a trunk diameter of five inches or greater (measured at four and one-half feet above ground level) and shrubs having a trunk or branch diameter of three inches or greater. The plan shall show which plants are proposed for removal and where transplanted and/or replacement plants would be located. Tree preservation plans shall be approved prior to issuance of grading permits, or where grading permits are not required, prior to issuance of building permits.	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**

3) Trees removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement per County Standard Conditions of Approval Manual criteria for Tree Preservation Plans in accordance with the Tree Replacement Scale below. All trees planted within the project shall be considered in determining compliance with the replacement ratios. The following sliding scale shall also be used for trees to determine if more than the minimum number of replacement trees are required.

Tree Replacement Scale

Trunk Diameter (inches) of Tree Removed At 4 ½ Feet Above Ground Level	Total Number of Replacement
5 to 11	5 (5-15 gal)
12 to 17	7 (7-15 gal)
18 to 23	10 (10-15 gal)
24 to 35	12 (12-15 gal)

Any oak exceeding 35 inches in diameter shall be preserved, transplanted or replaced by an identical species of equal or greater size in accordance with the provisions outlined in SC 8-7 (5) below. In the event that all required replacement trees would not fit on the property, increase in container size would be considered in conjunction with reductions in replacement quality.

4) Significant shrubs removed in accordance with an approved tree preservation plan shall be replaced by a combination of transplanting to another location on the subject property and/or replacement by five-gallon plants at a minimum ratio of 3:1.

Restoration designs include these features.

5) All other plants not specified in SC 8-7 (3) and (4) above

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Mitigation Measure						**Comments**
that are removed in accordance with an approved tree preservation plan shall be either transplanted to another location on the subject property or replaced by 15-gallon plants for trees and 5-gallon plants for shrubs at a minimum ratio of 1:1. 6) All transplanting of trees shall be performed by an experienced nursery or other landscape contractor, who shall care for the trees for at least six months after transplanting. 7) Prior to issuance of final certificates of use and occupancy, all transplanted or replacement trees and shrubs shall be installed in accordance with the tree preservation plan. 8) Oak trees shall not be subjected to increased runoff from irrigation systems, impermeable surfaces, storm drain discharge, etc. 9) Natural drainage courses and natural grades in proximity of, and providing seasonal irrigation to oak trees shall not be altered except as indicated on the approved Tentative Tract Map an in conformance to Section 404 and 1603 permits. 10) Grading, placement of fill, storage of building materials and heavy equipment, structural development, and hardscape (e.g., roads, sidewalks, patio slabs and pool decks) shall be prohibited within the drip line (outer edge of branches) of any tree. During grading and construction operations, all trees shall be temporarily fenced off with chain link fencing to protect such areas. 11) Use of pre-emergent weed killers shall be prohibited within 10 feet of the drip line of any individual tree and within any natural drainage course that seasonally irrigates trees. Use of soil sterilizers shall be prohibited.						
SC 8-7 Public Area Landscaping: Specify areas/lots to be dedicated or irrevocably offered to the County in easement for landscape maintenance purposes, scenic or resource preservation purposes or resource replacement shall be landscaped, equipped for	SR	DR	R	MPDS	N	

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Mitigation Measure						**Comments**
irrigation, and improved in accordance with an approved plan as stated below: 1) Preliminary Plan – Prior to recordation of a subdivision map, an agreement shall be entered into and financial security posed guaranteeing landscape improvements and the maintenance thereof based on a preliminary landscape plan showing major plant material and uses, with a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks Division. Said plan shall take into account the approved landscape plan, the EMA Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and Specific Plan requirements, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan). 2) Detailed Plan - Prior to the issuance of any building permit(s), a detailed landscape plan shall be submitted to and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFR/Harbors Beaches and Parks, Program Management and Coordination Division. Detailed plans shall show the detailed irrigation and landscaping design. 3) Installation Certification - Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, said improvements shall be installed and shall be certified by a licensed landscape architect or licensed landscape contractor, as required, as having been installed in accordance with the approved detailed plans. Said certification, including an irrigation management report for each landscape irrigation system, and any other required						

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Mitigation Measure						**Comments**
implementation report determined applicable, shall be furnished in writing to the Manager, PFR/Construction Division, and the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use and occupancy.						
SC 8-8 Private Area Landscaping: Prior to the issuance of precise grading permits, landscaping for privately maintained areas shall be designed in accordance with a plan approved by the Manager, PDSD/Subdivision and Grading. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), EMA Standard Plans, area plan 95-7, scenic corridor and Specific Plan requirements, Grading and Excavation Code erosion control requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation Plan). Said plan shall be reviewed by the future homeowners association and be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division. 1) Prior to the issuance of certificates of use and occupancy, applicant shall install said landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan. 2) Prior to the issuance of any certificates of use and occupancy, the applicant shall furnish said installation certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, to the Manager, Building Inspection Services.	SR	DR	GP	MPDS	N	
SC 8-9 Prior to the issuance of grading permits, the applicant shall provide additional evidence that the on-site coastal sage scrub habitat is not occupied by California gnatcatchers, in accordance	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
with the USFWS issued BO. A biologist certified by the USFWS to survey for gnatcatchers shall monitor grading of the project.						
SC 8-10 Prior to the issuance of grading permits, the applicant shall provide appropriate measures to mitigate the project related impacts to on-site wildlife movement, to the satisfaction of the Environmental Planning Services Manager. Substantial conformance to the approved Tentative Tract Map shall be deemed sufficient to mitigate said impacts.	SR	DR	GP	MPDS	N	
SC 8-11 Prior to the issuance of grading permits, the applicant shall provide assurances to the satisfaction of the County NCCP coordinator and the Environmental Planning Services Manager, that the proposed project would participate in the NCCP planning process and not preclude the finalization of the Southern Subregional reserve component of the NCCP. Substantial conformance to the approved Tentative Tract Map shall be sufficient to demonstrate the project does not preclude said finalization.	SR	DR	GP	MPDS	N	
Mitigation Measures						
M 8-1 Backyard and street lighting shall be shielded to prevent light overspill into undisturbed open space areas.	SR	DR	BP	MPDS	N	
M 8-2 Selected areas adjacent to undisturbed open space mitigation areas may require fencing to limit access to the proposed restoration and open space areas. Fencing would not be required where slopes are sufficiently steep enough to preclude access. A fencing plan shall be submitted to OCPDS prior to completion of restoration activities.	SR	DR	BP	MPDS	N	
M 8-3 Silt fences shall be installed prior to grading around all construction areas on slopes within the watershed area of preserved and constructed ephemeral ponds, and Aliso Creek.	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
4.9 AESTHETICS/VISUAL						
Project Design Features						
PDF 9-1 A minimum of 70 percent of the total site acreage shall be maintained as permanent open space.	C	DR	TM	MPDS	Y	
PDF 9-2 No development shall occur on or adjacent to "Major Ridgelines" as designated by the F/TSP Resources Overlay Component, Exhibit II-6.	C	DR	TM	MPDS	Y	
PDF 9-3 The F/TSP scenic corridor setback requirements of 100 feet from Santiago Canyon Road and El Toro Canyon Road and 50 feet from Live Oak Canyon Road shall be maintained. Both natural and manufactured scenic corridor setback areas shall be placed within County Scenic Preservation Easement Areas. Public area landscaping standard conditions shall be applicable within these scenic easement areas.	C	DR	TM	MPDS	Y	
PDF 9-4 The Grading Plan landscape/revegetation plan prepared for the proposed project includes a native vegetation restoration program. In addition, on-site landscape screening is proposed to further reduce visual impacts, both subject to the approval of the Manager, PFRD/HBP Program Management and Coordination.	SR	DR	GP	MHBP	N	
PDF 9-5 All public utilities shall be situated underground.	SR	DR	GP	MHBP	N	
PDF 9-6 Where feasible, drainage devices (terrace drains, benches, and intervening terraces) shall be bermed.	SR	DR	GP	MHBP	N	
PDF 9-7 Concrete drainage swales and other similar drainage infrastructure shall be tinted with an appropriate earth tone to effectively conceal them from surrounding view.	SR	DR	GP	MHBP	N	
PDF 9-8 The water tank shall be bermed, landscaped and painted to blend with the surrounding environment.	SR	DR	GP	MHBP	N	
PDF 9-9 The following features shall be incorporated into the project design to reduce impacts associated with light and glare: • Street lights shall only be installed at intersections and as required to ensure public safety. • Low intensity halogen lamps shall be used.	SR	DR	GP	MHBP	N	

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Mitigation Measure						**Comments**
• Street lights shall be shielded to direct the light beam downward and to avoid direct						
Standard County Conditions						
SC 9-1 Prior to the recordation of applicable subdivision maps (Vesting Tentative Tract Maps, VTTM), the project applicant shall make an irrevocable offer of large cohesive areas of permanent natural open space for dedication to the County of Orange, or within scenic preservation easements for manufactured areas per the F/TSP, in a manner meeting the approval of the Manager, PFRD/Harbors, Beaches and Parks/Program Management and Coordination, consistent with County Standard Conditions for dedication of preservation easements. The exact locations of areas to be dedicated to the County and smaller areas that will be the responsibility of either the Homeowner's Association (HOA) or individual adjacent homeowners shall be established as part of the VTTM review process.	SR	DR	R	MPDS	N	
SC 9-2 Public Areas shall be landscaped, equipped for irrigation, and improved in accordance with an approved plan as stated below: 1) Preliminary Plan – Prior to the recordation of a subdivision map (except maps for financing and conveyance only), the subdivider shall enter into an agreement and post financial security guaranteeing landscape improvement and maintenance thereof based on a preliminary landscape plan showing major plant material and uses, and a cost estimate for the landscape improvements. The preliminary plan and cost estimates shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services Division, in consultation with the Manager, PFRD/Harbors, Beaches and Parks Program Management and Coordination Division. Said plan shall take into account the approved landscape plan, the County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, Water Conservation Measures contained in	SR	DR	R	MPDS	N	

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Mitigation Measure						**Comments**
Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan). 2) Detailed Plan – Prior to the issuance of any building permit(s), the applicant shall submit a detailed landscape plan for approval to Manager, PDS/Subdivision and Grading Services, in consultation with the Manager PFRD/Harbors, Beaches and Parks Program Management and Coordination Division. Detailed plans shall show the detailed irrigation and landscaping design. 3) Installation Certification – Prior to the issuance of final certificates of use and occupancy and the release of the financial security guaranteeing the landscape improvements, the applicant shall install said improvements and have the installation certified by a licensed landscape architect or licensed landscape contractor, as having been installed in accordance with the approved detailed plans. The applicant shall furnish said certification, including an irrigation management report for each landscape irrigation system, and any other required implementation report determined applicable to Manager, Construction and Manager, PDS/Building Inspection Services Division, prior the issuance of any certificates of use and occupancy.						
SC 9-3 1) Prior to the issuance of grading permits, the applicant shall prepare a detailed landscape plan for privately maintained areas. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required as taking into account approved preliminary landscape plan (if any), County Standard Plans, adopted planned community regulations, scenic corridor and requirements, Subdivision Code, Zoning Code, and conditions of approval, Water Conservation Measures contained in Board Resolution 90-487 (Water Conservation Measures) and Board Resolution 90-1341 (Water Conservation Implementation	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
Plan). Said plan shall be reviewed and approved by the Manager, PDS/Subdivision and Grading Services. 2) Prior to the issuance of certificates of use and occupancy, applicant shall install said landscaping and irrigation system and shall have a licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan. The applicant shall furnish said certification, including an irrigation management report determined applicable, to the Manager, PDS/Building Inspection Services Division, prior to the issuance of any certificates of use.						
SC 9-4 Prior to the issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that direct rays are confined to the property in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.	SR	DR	BP	MPDS	N	
Mitigation Measures						
No additional mitigation measures would be required.	--	--	--	--	--	
4.10 CULTURAL/PALEONTOLOGICAL RESOURCES						
Project Design Features						
PDF 10-1 Site CA-ORA-710 shall be covered to preclude salvaging and will be further protected as part of a biological mitigation area. A qualified archaeologist shall be present to monitor all activities (including earth-disturbing activities included for biological resource mitigation) to ensure that cultural resources will not be threatened or disturbed.	SR	DR	GP	MPDS	N	
Standard County Conditions						
☐ **ARCHAEOLOGICAL/HISTORICAL RESOURCES**						
SC 10-1 Prior to the issuance of any grading permit, a County-certified archaeologist shall certify that the project site has been surveyed in a manner that meets the approval of the Manager, PF&R/Harbors, Beaches and Parks Division. A report of the	SR	DR	GP	MPFR	N	

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Mitigation Measure						**Comments**
literature and records search and the field survey shall be submitted to and approved by the Manager, PF&R/Harbors, Beaches and Parks Division. Additional mitigation measures may be required depending upon the recommendations of this report.						
SC 10-2 Prior to issuance of any grading permit, the applicant shall obtain approval from the Manager, HBP/Coastal and Historical Facilities of a report on a subsurface test level investigation of archaeological resources of archaeological resources surface collection as appropriate. The applicant shall retain a County-certified archaeologist to perform the investigation and collection and to prepare the report. The test level report shall evaluate the site including discussion of significance (depth, nature, condition and extent of the resources), final mitigation recommendations and cost estimates. Applicant shall implement the mitigation measures recommended in this report in a manner meeting the approval of the Manager HBP/Coastal and Historical Facilities. The applicant shall prepare excavated materials to the point of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such a fee program is in effect at the time of presentation) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.	SR	DR	GP	MPFR	N	
SC 10-3 Prior to the issuance of any grading permit, the applicant shall obtain approval from the Manager, HBP/Coastal and Historical Facilities of a report of the pre-grade archaeological salvage operation. The applicant shall retain a County-certified archaeologist to conduct the pre-grade salvage excavation of the archaeological resources and prepare a report of the exposed	SR	DR	GP	MPFR	N	

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Mitigation Measure						**Comments**
resources. The report shall include methodology, an analysis of artifacts found, a catalogue of artifacts, and their present repository. The applicant shall prepare excavated materials to the point of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such a fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.						
SC 10-4 Prior to the issuance of any grading permit, the applicant shall provide written evidence to the Manager, Subdivision and Grading, that applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. Prior to the release of the grading bond the applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. Applicant shall prepare excavated material to the point	SR	DR	GP	MPFR	N	

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of identification. Applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, HBP/Coastal and Historical Facilities. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.						
❑ **PALEONTOLOGICAL RESOURCES**						
SC 10-5 Prior to issuance of a grading permit, a County-certified paleontologist shall certify that the project site has been surveyed in a manner that meets the approval of the Manager, PF&R/Harbors, Beaches and Parks Division. In addition, a field survey shall be conducted by a County-certified paleontologist unless the entire proposed project site has been documented as previously surveyed in a manner in which meets the approval of the Manger, PF&R/Harbors, Beaches and Parks Division. A report of the literature and records search and field survey shall be submitted to and approved by the Manager, PF&R/Harbors, Beaches and Parks Division. Future mitigation shall depend upon the recommendations of this report.	SR	DR	GP	MPFR	N	
SC 10-6 Prior to the issuance of any grading permit, the project applicant shall obtain approval from Manager, HBP/Coastal and Historical Facilities of a report of the pre-grade paleontological salvage operation. The applicant shall retain a County-certified paleontologist to conduct pre-grade salvage excavation and prepare a report of the exposed resources. The report shall include methodology, an analysis of artifacts found, a catalogue	SR	DR	GP	MPFR	N	

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Mitigation Measure						**Comments**
of artifact, and their present repository. Applicant shall prepare excavated materials to the point of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.						
SC 10-7 Prior to the issuance of any grading permit, the project applicant shall provide written evidence to the Manager, Subdivision and Grading, that applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant, which ensure proper exploration and/or salvage. Prior to the release of the grading bond the applicant shall submit the paleontologist's follow up report for approval by the Manager, HBP/Coastal and Historical Facilities. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point to of identification. The applicant shall donate excavated finds for curatorial purposes to a suitable repository that will maintain the collection for future scientific study and exhibition within Orange County. These actions, as well as final mitigation and disposition of the	SR	DR	GP	MPFR	N	

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Mitigation Measure						**Comments**
resources, shall be subject to approval by the HBP/Coastal and Historical Facilities. Applicant shall be prepared to pay curatorial fees (if an applicable fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.						
Mitigation Measures						
❑ **ARCHAEOLOGICAL/HISTORICAL RESOURCES**						
M 10-1 Prior to site grading the project site shall be examined by a qualified archaeologist, all potential archaeological sites identified, and surface collection and documentation of artifacts conducted.	SR	DR	GP	MPFR	N	
M 10-2 If the project archaeologist determines that a site is potentially of cultural worth, then additional excavation in a manner determined by the project archaeologist shall occur prior to further grading or construction activities at these locations.	SR	DR	GP	MPFR	N	
M 10-3 During initial grading, the project site shall be monitored by a qualified archaeologist who shall have the authority to order a temporary cessation of grading activities and take appropriate action to preserve any culturally significant materials if uncovered.	SR	DR	GP	MPFR	N	
M 10-4 If human remains of Native American origin are encountered during the project the County Coroner's Office and the Native American Heritage Commission shall be contacted for preservation and protection of the remains.	SR	DR	GP	MPFR	N	
❑ **PALEONTOLOGICAL RESOURCES**						
M 10-5 A qualified paleontologist shall be retained to perform periodic inspections of excavations and, if necessary, salvage exposed fossils. The frequency of inspections will depend on the rate of excavation, the materials being excavated, and the	SR	DR	GP	MPFR	N	

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abundance of fossils. Initially, monitoring shall be on a full time basis in all excavations because of the high potential for the discovery of fossils in all the rock units present in the study area.						
M 10-6 The paleontologist shall be allowed to divert or direct grading in the area of an exposed fossil to facilitate evaluation and if necessary, salvage.	SR	DR	GP	MPFR	N	
M 10-7 To recover small fossils, sediment samples shall be collected from promising horizons discovered during grading monitoring for processing through fine mesh screens. Once the samples have been screened, they shall be examined microscopically for small fossils.	SR	DR	GP	MPFR	N	
M 10-8 Fossils shall be prepared to the point of identification and catalogued before they are donated to their final repository.	SR	DR	GP	MPFR	N	
M 10-9 All fossils collected shall be donated to a suitable repository that will maintain the collection for future study and exhibition within Orange County. Applicant shall be prepared to pay curatorial fees (if an applicable fee program has been adopted by the Board of Supervisors, and such a fee program is in effect at the time of presentation of the materials) to the County repository for the long-term curation and maintenance of donated collections, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities.	SR	DR	GP	MPFR	N	
M 10-10 A report detailing the results of these efforts, listing the fossils collected, and naming the repository shall be submitted to the lead agency at the completion of the project.	SR	DR	GP	MPFR	N	
4.11 RECREATION						
Project Design Features						
PDF 11-1 The local east-west riding and hiking trail shall be constructed on-site, linking to the off-site Viewpoint Spur Trail, ultimately connecting the existing trail to the Aliso Creek Riding and Hiking Trail via the Live Oak Canyon Regional Riding and Hiking Trail.	SR	DR	GP	MHBP	N	
PDF 11-2 The Live Oak Canyon Regional Riding and Hiking Trail,	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
as well as the local east-west riding and hiking trail connection to the off-site Viewpoint Spur Trail shall be located on-site within recreation easements for riding and hiking trails. The applicant shall dedicate a recreation easement for the trails, construct the trails and improvements, and required conditions. The recreation easements shall be dedicated per the County Standard Conditions of Approval Manual conditions for recreation easements for regional trails.						
PDF 11-3 A Local Trail shall be designed and constructed per County of Orange standards for a regional riding and hiking trail. The trail shall be set back from the project's main road by at least 10 feet, to provide space for shade trees and landscaping. The trail shall connect to both the Viewpoint Spur Trail and the Live Oak Canyon Trail.	SR	DR	GP	MPDS	N	
PDF 11-4 An Entry Riding and Hiking Rest Area shall be designed and constructed on the north side of the project entry road, near the project entrance. The rest area shall connect to the Local Trail.	SR	DR	GP	MPDS	N	
PDF 11-5 A Ridgetop Rest Area shall be designed and constructed on the east side of the project site. The rest area shall connect to the Viewpoint Spur Trail via the Local Trail.	SR	DR	GP	MPDS	N	
Standard County Conditions						
SC 11-1 The proposed project shall pay in-lieu park fees in accordance with County of Orange Local Park Code subject to the approval of the Manager, PDSD/Current Planning Services prior to issuance of building permits.	SR	DR	GP	MPDS	N	
SC 11-2 The applicant shall dedicate resource and scenic preservation easement areas in accordance with County of Orange Standard Conditions of Approval Manual for resource and scenic preservation easement criteria subject to the approval of the Manager, PFRD/HBP Program Management and Coordination, prior to recordation.	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
Mitigation Measures						
M 11-1 Prior to any grading and/or construction activities which precludes the utilization of either the Aliso Creek Class I Off-Road Bikeway, or the Live Oak Canyon Regional Riding and Hiking Trail, a re-routing/detour plan shall be submitted to the approval of the Manager, PFRD/HBP Program Management and Coordination in conjunction with a County Property permit. The same condition shall also be applicable to the Class II On-Road Bikeway aligned along the northbound lane of El Toro Road contiguous the proposed project.	SR	DR	GP	MPDS	N	
M 11-2 Regional Trail Dedication: The Live Oak Canyon Regional Riding and Hiking Trail is proposed to follow the west side of the project site, from the southerly boundary of the subject property, northward to the Aliso Creek Trail undercrossing of El Toro Road. A recreation easement for this trail, including trail improvements, shall be dedicated to the County, in compliance with the following conditions: 1) Prior to the recordation of an applicable subdivision map, the subdivider shall: a) Irrevocably offer a recreation easement for the Live Oak Canyon Regional Riding and Hiking Trail in a manner meeting the approval of the Manager, PFRD/HBP Program Management and Coordination. The subdividers shall not grant any easement(s) over the property, subject to the recreation easement, unless such easements are first reviewed and approved by the Manager, HBP/Program Management and Coordination. b) Design the necessary improvements (both on- and off-site) for the trail, including, but not limited to, grading, erosion control, signage, and fencing, as applicable, in a manner meeting the approval of the Manager, PFRD/HBP Program Management and Coordination, in consultation with the Manager, Subdivision and	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
Grading. Furthermore, the subdivider shall enter into an agreement, accompanied by financial security, with the County of Orange, to insure the installation of the necessary improvements. 2) Prior to the issuance of a grading permit, the grading plans shall be reviewed by the Manager, PFRD/HBP Program Management and Coordination, to ensure that the proposed grading provides for, will not interfere with, or preclude the installation of the riding and hiking trail in a location and in a manner meeting the approval of the Manager, HBP/Program Management & Coordination. 3) Prior to the issuance of final certificates of use and occupancy, and the release of financial security guaranteeing the riding and hiking trail improvements, the applicant shall install the riding and hiking trail improvements in a manner meeting the approval of the Manager, PFRD/HBP Program Management and Coordination, in consultation with the Manager, Construction.						
M 11-3 Local Riding and Hiking Trail Dedication: A local riding and hiking trail is to be dedicated to the County within a recreation easement aligned east-west through the proposed project connecting the Live Oak Canyon Trail to the off-site Viewpoint Spur Trail (see Figure 4.11.2). Dedication of the recreation easement and improvements shall be done in compliance with the conditions listed above for regional trail dedications. Maintenance of the local trail shall be the responsibility of the applicant or its assigns.	SR	DR	GP	MPDS	N	
M 11-4 Ridgetop Rest Area: A trail rest stop (Ridgetop Rest Area) shall be located at a high point about 700 feet south of the water tank site (in the northeast area of the project site) (see Figure 4.11.2). The subject rest stop and related amenities (e.g., benches, drinking fountain, water trough, landscaping, etc.) shall be constructed and dedicated to the County. The rest stop shall connect to the off-site Viewpoint Spur Trail via the Local Riding	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
and Hiking Trail.						
M 11-5 Entry Riding and Hiking Rest Area: A trail rest area (Entry Riding and Hiking Rest Area) is to be constructed and dedicated to the County. The rest area shall be located north of the project entry road, near the project entrance. The rest area shall include the following amenities: fencing, benches, a bike rack, a horse tie-up, and landscaping with shade trees. The rest area shall connect to the Local Trail.	SR	DR	GP	MPDS	N	
4.12 PUBLIC SERVICES – FIRE PROTECTION						
Project Design Features						
PDF 12-1 A Fuel Modification Plan has been developed to provide a landscape transition area along the interface between residential development and adjacent open space to provide wildfire protection.	CO	DR	TM	MPDS	Y	
PDF 12-2 Automatic fire sprinkler systems shall be installed on all structures. Fire hydrants shall be spaced at 300-foot intervals instead of the minimum 600-foot spacing required for homes with automatic fire sprinkler systems.	SR	DR	CO	MPDS	N	
PDF 12-3 A secondary emergency access is provided.	SR	DR	CO	MPDS	N	
PDF 12-4 A water tank for local water supply shall be constructed.	SR	DR	CO	MPDS	N	
Standard County Conditions						
SC 12-1 Prior to the issuance of any certificates of use and occupancy, all on-site fire protection devices, including fire sprinklers, fire hydrants, alarm systems and fire suppression facilities, shall be installed and maintained in good condition by the property owner in a manner meeting the approval of the Fire Chief.	SR	DR	CO	MPDS	N	
SC 12-2 Prior to the recordation of a final tract/parcel map, water improvement plans shall be submitted to and approved by the Fire Chief to ensure adequate fire protection and financial security is posted for the installation. The water system design, and location of valves, and the distribution of fire hydrants shall be approved by the Fire Chief.	SR	DR	CO	MPDS	N	

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Mitigation Measure						**Comments**
SC 12-3 Prior to the issuance of any building permits, a plan ensuring compliance with OCFD water availability standards shall be submitted to and approved by the Orange County Fire Authority.	SR	DR	BP	MPDS	N	
SC 12-4 Prior to the issuance of any building permits for combustible construction, a plan from the developer shall be submitted to and approved by the Fire Chief indicating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site.	SR	DR	BP	MPDS	N	
SC 12-5 Prior to issuance of certificates of use and occupancy, emergency access shall be constructed in a manner meeting the approval of the Fire Chief.	SR	DR	CO	MPDS	N	
SC 12-6 Prior to the issuance of any preliminary grading permits, applicant shall request that the Manager, HCA/Environmental Health, determine if vector control measures are necessary. If warranted, such measures shall be conducted by the developer in a manner meeting the approval of the Manager, HCA/Environmental Health.	SR	DR	GP	MPDS	N	
SC 12-7 Prior to the issuance of any building permits for combustible construction, a letter and plan from the developer shall be submitted stating that water for fire fighting purposes and an all weather fire access road shall be in place before any combustible materials are placed on the site. Said letter shall be approved by the Fire Chief prior to the issuance of any building permits.	SR	DR	BP	MPDS	N	
SC 12-8 Prior to the issuance of any building permits on those lots determined applicable by the Fire Chief, plans for an automatic fire sprinkler system shall be submitted to and approved by the Fire Chief prior to installation. This system shall be operational prior to the issuance of a certificate of use and occupancy.	SR	DR	BP	MPDS	N	
SC 12-9 Prior to the issuance of any building permits, the applicant shall submit a detailed letter of intended use for each building to	SR	DR	BP	MPDS	N	

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Mitigation Measure						**Comments**
the Fire Chief for review and approval.						
SC 12-10 Prior to the issuance of any grading permits, preliminary plans for all street and courts, public or private, shall be submitted to and approved by the Fire Chief. The plans shall include the plan view, sectional view, and indicate the width of the street or court measured flow line to flow line. All proposed fire apparatus turnarounds shall be clearly marked.	SR	DR	GP	MPDS	N	
SC 12-11 Prior to the issuance of any certificates of use and occupancy, street improvement plans with fire lanes shown shall be submitted to and approved by the Fire Chief. The plans shall indicate the locations of red curbing and signage, and provide a drawing of the proposed signage with the height, stroke and color of lettering and the contrasting background color.	SR	DR	CO	MPDS	N	
SC 12-12 Prior to the issuance of any grading permits, construction details for any emergency access gate shall be submitted to and approved by the Fire Chief.	SR	DR	GP	MPDS	N	
SC 12-13 Prior to the issuance of any grading permits, a fuel modification plan and program shall be submitted and approved by the Fire Chief in consultation with the Manager, Environmental and Project Planning Services Division. The Planning and Development Section shall be contacted at (714) 744-0403 for requirements to be met and clearance of this condition. The plan shall also indicate the proposed means of achieving an acceptable level of risk to structures by vegetation, include the method (mechanical or hand labor) for removal of flammable vegetation and provide for the planting of drought tolerant fire resistant plants. Substantial conformance to the approved Tentative Tract Map and the fuel modification plan shall be deemed to satisfy this condition.	SR	DR	GP	MPDS	N	
SC 12-14 Prior to the issuance of any building permits, the developer shall have completed, under the supervision of the Fire Chief, that portion of the approved fuel modification plan determined to be	SR	DR	BP	MPDS	N	

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necessary by the Fire Chief before the introduction of any combustible construction material into the project area.						
SC 12-15 Prior to the issuance of any certificates of use and occupancy, the remaining fuel modification shall be installed and completed under the supervision of the Fire Chief. Further, the installed fuel modification shall be established to a degree meeting the approval of the Fire Chief.	SR	DR	CO	MPDS	N	
Mitigation Measures						
M 12-1 Prior to the issuance of certificate of use or occupancy, the project applicant or developer shall provide evidence of disclosure to prospective buyers that may be outside of the response time standards of the OCFA.	SR	DR	CO	MPDS	N	
4.13 PUBLIC SERVICES – POLICE PROTECTION						
Project Design Features						
There are no Project Design Features related to police protection.	--	--	--	--	--	
Standard County Conditions						
SC 13-1 The OCSCD shall be consulted during final project design to minimize security related impacts.	SR	DR	CO	MPDS	N	
SC 13-2 Prior to the issuance of the first building permit, the project applicant shall enter into an agreement to: (1) participate in funding the provision of the Saddleback Sheriff's Station; and (2) fund the provision of patrol and investigator cars needed to serve the project.	SR	DR	BP	MPDS	N	
Mitigation Measures						
No additional mitigation measures would be required	--	--	--	--	--	
4.14 PUBLIC SERVICES – SCHOOLS						
Project Design Features						
PDF 14-1 A School Impact Mitigation Agreement has been negotiated with SVUSD to mitigate project impacts.	SR	DR	BP	MPDS	N	
Standard County Conditions						
SC 14-1 Prior to the issuance of building permits, the applicant shall pay all applicable school fees required in accordance with state	SR	DR	BP	MPDS	N	

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Mitigation Measure						**Comments**
law. Current school impact fees are $2.05 per square foot of residential.						
Mitigation Measures						
No mitigation measures would be required	--	--	--	--	--	
4.15 PUBLIC SERVICES – LIBRARIES						
Project Design Features						
There are no Project Design Features related to the provision of library services.	--	--	--	--	--	
Standard County Conditions						
There are no Standard County Conditions related to the provision of library services to the project.	--	--	--	--	--	
Mitigation Measures						
No mitigation measures are required.	--	--	--	--	--	
4.16 UTILITIES AND SERVICE SYSTEMS – WATER SUPPLY						
Project Design Features						
PDF 16-1 The new booster pump station shall be paid for by the applicant and designed and function according to TCWD's guidelines and standards.	SR	DR	BP	MPDS	N	
PDF 16-2 Operational capacities and pressure parameters for design of the booster pump station (approved by OCFA) shall be determined at design stage and shall incorporate, but not be limited to, the following requirements: • It shall meet the maximum day demand for the "stand alone" zones of Saddleback Meadows with an operating time of 24 hours and without its largest unit in service. • It shall be designed with a back-up generator for the booster pump, as well as fuel and maintenance provisions. • It shall incorporate the typical three or four pump system with an alternating state sequence. • It shall pump from TCWD's El Toro Road zone (1,165 feet HWL) to the storage facility (reservoir) proposed. • It shall have the ability to refill the proposed reservoir, if it	SR	DR	BP	MPDS	N	

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Mitigation Measure						**Comments**
were empty, within 72 hours while also providing for maximum day demands on the water system during that time.						
PDF 16-3 Water conservation measures to be implemented consist of water-conserving features in the design and construction of residential homes and uses, plus use of drought-tolerant plant materials in the slope and streetscape plantings. Proposed water conservation measures also include: • Supply line pressure: Water pressure greater than 50 pounds per square inch (psi) reduced to 50 psi or less by means of pressure-reducing valves. • Ultra-low-flush toilets: 1.5 gallon-per-flush toilets installed in all new construction. • Landscape with low-water-using plants wherever feasible. • Grouping of plants of similar water use to reduce over-irrigation of low-water-using plants. • Extensive use of mulch as top cover to improve water-holding capacity of the soil. • Installation of efficient irrigation systems that minimize runoff and evaporation, and maximize the amount of water reaching plant roots. Drip irrigation, soil moisture sensors, and automatic irrigation systems are proposed methods of increasing irrigation efficiency.	SR	DR	BP	MPDS	N	
PDF 16-4 All design and landscape features shall comply with TCWD's guidelines and standards.	SR	DR	BP	MPDS	N	
Standard County Conditions						
SC 16-1 Prior to the issuance of any building permit(s), the applicant shall provide a report to the Manger, PDS/Building Permits Services Division, indicating that plans showing the location of proposed reclaimed water lines (if applicable) used to irrigate open space, other landscaped areas, have been submitted to and approved by the TCWD.	SR	DR	BP	MPDS	N	

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Mitigation Measure						**Comments**
SC 16-2 Prior to the issuance of building permits, water conservation measures shall be incorporated into the development design plans and submitted for approval to the TCWD.	SR	DR	BP	MPDS	N	
Mitigation Measures						
M 16-1 Prior to the issuance of any permits, the applicant shall prepare a Sub-Area Master Plan to define needed facility improvements, including water pump stations, reservoirs, pressure reducing valves and pipelines.	SR	DR	GP	MPDS	N	
4-17 UTILITIES AND SERVICE SYSTEMS – WASTEWATER						
PDF 17-1 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.	SR	DR	R	MPDS	N	
Standard County Conditions						
SC 17-1 Prior to the issuance of a certificate of use and occupancy, sewer lines, connections and structures shall be installed in a manner meeting the approval of the Manager, HCA/Environmental Health. • All wastewater facilities and lines shall be constructed and maintained to meet TCWD standards requirements. • The project shall comply with all State of California Health and Safety Codes. • All sewer lines shall be underground facilities.	SR	DR	CO	MPDS	N	
Mitigation Measures						
M 17-1 Prior to the issuance of any permits, the applicant shall prepare a Sub-Area Master Plan to define needed facility improvements, including local collection lines.	SR	DR	GP	MPDS	N	
4.18 UTILITIES AND SERVICE SYSTEMS – SOLID WASTE						
Project Design Features						
There are no Project Design Features related to the provisions of solid waste collection and treatment services.	--	--	--	--	--	
Standard County Conditions						
SC 18-1 Prior to the approval of a building permit the applicant	SR	DR	BP	MPDS	N	

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shall submit a Recycling/Source Reduction Plan to the Manager, PDS/Environmental and Project Planning Services Division, for review and approval. Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during and following construction of the project. A note on the building plans and certified by a licensed engineer shall substantiate the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.						
SC 18-2 Prior to the approval of a Site Development Permit the applicant shall submit a Recycling/Source Reduction Plan to the Manager, EMA/Project Planning Division, for review and approval. Said plan shall provide a strategy to facilitate compliance with waste diversion levels as mandated by AB 939, and may include elements which demonstrate commitment to a project specific operation, coordination with existing local or regional programs, and the use of recycled materials during the following construction of the project.	SR	DR	BP	MPDS	N	
SC 18-3 Prior to the issuance of any precise grading permit, a site plan delineating the capacity, number, and location of all proposed solid waste and recyclable collection areas shall be submitted to the Manager, Current Planning, for review and approval.	SR	DR	GP	MPDS	N	
Mitigation Measures						
No additional mitigation is necessary	--	--	--	--	--	
4.19 UTILITIES AND SERVICE SYSTEMS – ELECTRICITY						
Project Design Features						
PDF 19-1 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.	SR	DR	GP	MPDS	N	
Standard County Conditions						
SC 19-1 Prior to the issuance of a building permit, project proponent shall consult with the local gas and electric companies	SR	DR	GP	MPDS	N	

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Mitigation Measure						**Comments**
regarding feasible energy conservation features that should be included in the design of the proposed project. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.						
SC 19-2 Prior to the issuance of a building permit, the project proponent shall incorporate passive or natural heating and cooling opportunities in the design of the proposed project including but not limited to the following: solar energy use; thermal insulation; tinted or solar reflective glass; orientation to sunlight; use of deciduous trees in landscaping; installation of roof fans; utilize fluorescent lighting, switches and thermostat, utilize time-controlled lighting; and, utilize AC units with 100 percent outdoor air economize. A note on the building plans and certified by a licensed engineer shall substantiate that the features have been incorporated into the building plans in a manner meeting the approval of the Manager, PDS/Building Permits Services Division.	SR	DR	GP	MPDS	N	
Mitigation Measures						
No mitigation would be necessary.	--	--	--	--	--	
4.20 UTILITIES AND SERVICE SYSTEMS – NATURAL GAS						
Project Design Features						
PDF 20-1 All utilities shall be installed by the applicant in accordance with Department/County requirements, per the requirements outlined on the Final Tract Map.	SR	DR	GP	MPDS	N	
Standard County Conditions						
SC 20-1 The applicant shall provide for all lines and mains necessary to provide natural gas to the project.	SR	DR	GP	MPDS	N	
SC 20-2 The applicant shall obtain required permits and follow Southern California Gas Company, State and County regulations and requirements regarding natural gas service.	SR	DR	GP	MPDS	N	
Mitigation Measures						
No mitigation would be necessary.	--	--	--	--	--	