

**Final Program Environmental Impact Report 589
(SCH Number 2003021141)**

**THE RANCH PLAN
General Plan Amendment/Zone Change (PA 01-114)**

Mitigation Monitoring and Reporting Program

County of Orange
Planning and Development Services
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INTRODUCTION

In accordance with the requirements of the CALIFORNIA PUBLIC RESOURCES CODE §21081.6, and as part of its certification of the adequacy of the Final Program Environmental Impact Report (EIR) No. 589 for the Ranch Plan General Plan Amendment/Zone Change (PA 01-114), the Board of Supervisors of the County of Orange adopts the following “Mitigation Monitoring and Reporting Program” (MMRP), which contains the mitigation program that has been incorporated through preparation of the Program EIR and response to comments during the public review process. The mitigation program includes Project Design Features (PDF), Standard Conditions (SC) and Mitigation Measures (MM), all of which have been identified measures to reduce potential adverse environmental impacts. These three components of the mitigation program are described below.

- **Project Design Features**—Project Design Features (PDFs) are specific design elements proposed by the project applicant that have been incorporated into the project to prevent the occurrence of, or reduce the significance of, potential environmental effects. Because PDFs have been incorporated into the project, they do not constitute mitigation measures as defined by CEQA. However, PDFs are identified in the mitigation monitoring program.
- **Standard Conditions and Regulations**—Standard conditions and regulations are based on local, state, or federal regulations or laws that are frequently required independently of CEQA review and also serve to offset or prevent specific impacts. Typical standard conditions and requirements include compliance with the provisions of the Uniform Building Code, South Coast Air Quality Management District Rules, local agency fees, etc. Additional conditions may be imposed on the project by government agencies during the approval process, as appropriate. The applicability of many of the standard conditions and regulations to the project would be finally determined at later phases of project approval in association with subsequent discretionary and administrative approvals. The County of Orange Standard Conditions that would be applied (as appropriate) to the project at subsequent levels of approval (i.e., grading permits and tract maps) are listed in this MMRP. These are separate discretionary actions, which will be subject to CEQA evaluation at a later time. When an adopted Orange County Standard Condition of Approval is identified, the number of the condition is listed in parentheses. It should be noted these standard conditions often identify lots that would be provided for public purposes. This level of information cannot be known until tract maps are proposed. However, the identification of the standard conditions was identified in Program EIR 589 to allow the reader an understanding of conditions that would be applied (as appropriate) to the project at subsequent levels of approval.
- **Mitigation Measures**—Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant through the application of PDFs, and standard conditions and regulations, project-specific mitigation measures have been identified.

Draft Program EIR 589 identified a number of mitigation measures that were applicable to the Ranch Plan project as proposed by the applicant (Alternative B-4). However, the Board of Supervisors adopted the County staff recommended Alternative B-10 Modified. Alternative B-10 Modified avoided impacts to certain resources; therefore, not all the mitigation measures proposed in Draft Program EIR 589 are required for the project as adopted. Additionally, there are project design features that were unique to the applicant’s proposal that have not been incorporated into the project as adopted. Specifically, the following measures are not applicable to the project as adopted:

- PDF 4.2-3 and SC 4.2-1 pertain to Williamson Act cancellation and are no longer applicable because the project as adopted does not provide for early cancellation of the Williamson Act contract.
- MM 4.9-4 and MM 4.9-12 provided mitigation for southwestern pond turtle breeding and estivation habitat, which would no longer be impacted.
- MM 4.9-5 provided mitigation for the western spadefoot toad breeding and estivation habitat associated with the stockpond in Planning Area 6, which would no longer be impacted.
- MM 4.9-6 provided mitigation for alkali wetlands in Planning Area 7, which would be avoided with Alternative B-10 Modified.
- MM 4.9-8, MM 4.9-9, MM 4.9-17 and MM 4.9-20 provided mitigation for populations of thread-leaved brodiaea, which would no longer be impacted.
- MM 4.9-10, MM 4.9-13, MM 4.9-18 and MM 4.9-21 provided mitigation for populations of many-stemmed dudleya, which would no longer be impacted.
- MM 4.9-11 and MM 4.9-14 provided mitigation for populations of Coulter's saltbush, which would no longer be impacted
- MM 4.9-15 provided for protection of gnatcatcher locations in the Lower Gabino subunit. This measure is no longer applicable because Alternative B-10 Modified does not propose development in this area.
- MM 4.9-34 provided for use of native habitats in the golf course in the Gabino sub-basin. This golf course will not be constructed as part of the adopted project.
- PDF 4.12-1 and SC 4.12-3 pertained to the regional park proposed by the applicant. This feature is not included in the adopted project.

The Board adopts this MMRP in its capacity as the lead agency for certification of Final Program EIR 589 in accordance with the provisions of the CALIFORNIA ENVIRONMENTAL QUALITY ACT ("CEQA") (CAL.PUB.RES.CODE §§21000, *et seq.*) and its implementing guidelines (14 CAL.CODE REGS. §§15000, *et seq.*) (the "CEQA GUIDELINES").

The principal purpose of the MMRP is to ensure that the Board-approved mitigation measures for the adopted Project are implemented and monitored for compliance during subsequent planning stages and, ultimately, during project implementation. In general, the County of Orange is responsible for overseeing implementation and completion of the adopted mitigation measures. This includes the review of all monitoring reports, enforcement actions, and document disposition, unless otherwise noted in the attached MMRP table. If an adopted mitigation measure is not being properly implemented, the designated monitoring personnel shall require corrective actions to ensure adequate implementation.

MITIGATION MONITORING AND REPORTING PROGRAM

The MMRP is provided in tabular format to facilitate effective tracking and documentation of the status of mitigation measures. The attached MMRP table provides the following monitoring information:

- *Mitigation Measure*—A list or inventory of all the adopted mitigation measures for the Project from Section 4.0 of the Final Program EIR 589, as revised or otherwise modified in the comments and responses to the Final EIR 589, or at meetings before the Orange County Planning Commission or the Orange County Board of Supervisors.
- *Implementing Action*—Identifies the method by which the adopted measure will be initiated by the applicant. Satisfactory completion of the measure will be verified by the Responsible Party.
- *Timing of Verification*—The appropriate time or phase for the implementation of each mitigation measure; and
- *Responsible Party*—The County Department or Departments responsible for overseeing the implementation and completion of each mitigation measure. Where consultation with other agencies is required the applicable agency is noted in parentheses. However, the responsibility to determine compliance with the mitigation measure lies with the County, as the lead agency for the project.

The following are acronyms used in the Mitigation Monitoring Matrix:

A

AGT Above Ground Tank
AMP Adaptive Management Program

B

BMPs Best Management Practices
BRCP Biological Resources Construction Plan

C

CARB California Air Resources Board
CC&Rs Conditions, Covenants, and Restrictions
CCR California Code of Regulations
CEQA California Environmental Quality Act
CLOMR Conditional Letter of Map Revision
CNEL Community Noise Impact Level
CPC Catalina Pacific Concrete
CUSD Capistrano Unified School District

D

DAMP Drainage Area Management Plan
dBA A-weighted decibel
DTSC Department of Toxic Substance Control

E

EIR Environmental Impact Report
ESA Environmental Site Assessment
ESCP Erosion and Sediment Control Plan

F

FCDM Flood Control Design Manual
FD/WQ Flow Duration/Water Quality
FEMA Federal Emergency Management Agency
FIIC Field Impact Insulation Class
FIRM Flood Insurance Rate Map
FP Flood Plain
FSTC Field Sound Transmission Class
FTC Foothill Transportation Corridor

G**H**

HBP Harbors, Beaches and Parks
HCP Habitat Conservation Plan
HSCP Health and Safety Contingency Plan

I

I-5 Interstate 5
IGCMP Integrated Golf Course Management Plan

K

kV Kilovolt

L	
LPP	Locally Preferred Plan
M	
MCB	Marine Corps Base
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MPAH	Master Plan of Arterial Highways
MPD	Master Plan of Drainage
MSAA	Master Streambed Alteration Agreement
MWD	Metropolitan Water District of Southern California
N	
NCCP/HCP	Natural Community Conservation Plan/Habitat Conservation Plan
NO _x	Nitrogen Oxides
NOI	Notice of Intent
O	
O&M	Operations and Maintenance
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
OCHCA	Orange County Health Care Authority
OCHM	Orange County Hydrology Manual
OCIWMD	Orange County Integrated Waste Management Department
OCSD	Orange County Sheriff's Department
P	
PA	Public Application
PAH	Polycyclic Aromatic Hydrocarbon
PC	Planned Community
PDF	Project Design Features
PDS	Planning and Development Services
PFRD	Public Facilities and Resources Department
PSD	Planning and Development Services
R	
RCUZ	Range Compatibility Use Zone
RDMD	Resources Development and Management Department
RMP	Runoff Management Plan
RMV	Rancho Mission Viejo
ROC	Reactive Organic Compounds
ROMP	Runoff Management Plan
RWQCB	Regional Water Quality Control Board
S	
SAMP	Special Area Management Plan
SAMP/MSAA	Special Area Management Plan/Master Streambed Alteration Agreement
SCAQMD	South Coast Air Quality Management District
SCRIP	South County Road Improvements Program
SDG&E	San Diego Gas and Electric
SDRWQCB	San Diego Regional Water Quality Control Board
SFPA	Special Fire Protection Area
SMWD	Santa Margarita Water District

SoCalGas	Southern California Gas Company
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan

T

TDM	Transportation Demand Management
TRM	Turf-Reinforced Mat
TRW	Northrup Grumman Space Technology
TTM	Tentative Tract Map

U

UBC	Universal Building Code
UST	Underground Storage Tanks

W

WDID	Waste Discharge Identification
WQMP	Water quality Management Plan

Z

ZC	Zone Change
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MITIGATION MONITORING AND REPORTING PROGRAM
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
LAND USE AND RELATED PLANNING PROGRAMS				
<p>PDF 4.1-1 Prior to approval of the first Master Area Plan, the landowner shall enter into an agreement with the County regarding the 15,132-acre RMV Open Space. The agreement shall address:</p> <ul style="list-style-type: none"> • Method of preservation for this open space (i.e., conservation easement or similar mechanism) • Permitted uses within the open space as defined in the PC Text; • Non-permitted uses within the open space as defined in the PC Text; • Phasing of open space preservation areas. Phasing of open space areas will be consistent with development phasing; and • Funding mechanism for implementation of the Adaptive Management Program (AMP) as described in the Draft Program EIR. 	Execution of an Open Space Agreement between landowner and County	First Master Area Plan approval	<p>County of Orange Director of Planning & Development Services</p> <p>Area Plans are reviewed by Planning Commission</p>	
<p>PDF 4.1-2 A component of the <i>Ranch Plan Planned Community Program Text</i> is the provision for the processing of Master Area Plans, which would cover an entire Planning Area, as well as Subarea Plans for smaller areas within each Planning Area. These plans would address the project's compliance with the zoning regulations, as well as other applicable codes and requirements. The Master Area Plan shall cover the entire Planning Area and address the provisions for a Master Area Plan as defined in Section II.B.3a of the <i>Ranch Plan Planned Community Program Text</i>. In addition to a Master Area Plan, Subarea Plans addressing the provisions outlined in Section II.B.3b of the <i>Ranch Plan Planned Community Program Text</i> shall be required for all development</p>	Preparation of Master Area Plans and Subarea Plans	At time of Master Area Plan and Subarea Plan approvals, as applicable	<p>County of Orange Director of Planning & Development Services</p> <p>Area Plans are reviewed by Planning Commission</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
areas. Multiple Subarea Plans addressing portions of a Planning Area may be prepared, provided a Master area Plan for all development areas has been prepared. (The requirements for the Master Area Plan and the Subarea Plan are provided in Section 3.4.5.)				
PDF 4.1-3 The project proposes a mix of uses and housing densities, including estates, single-family conventional housing, multi-family units, senior housing, and apartments that would provide housing opportunities for a range of income levels. Of the 14,000 dwelling units proposed within the Ranch Plan PC Area, the Environmental Impact Report has analyzed the provision of approximately 6,000 senior citizen housing dwelling units. Each Master Area Plan shall provide a statistical table estimating the proposed senior citizen housing dwelling units by Planning Subarea. Each subsequent Subarea Plan shall then specify the location and number of Senior Housing dwelling units as regulated by Section III.A.5 of this Ranch Plan PC Text. An Annual Monitoring Report (per General Note 11) will be prepared each year as an inventory of dwelling units.	<p>Inclusion in Master Area Plans of a statistical table estimating proposed senior citizen housing dwelling units by planning Subarea</p> <p>Each subsequent Subarea Plan to specify the location and number of Senior Housing dwelling units</p> <p>Approval of Annual Monitoring Report</p>	<p>In conjunction with approval of Master Area Plans and Subarea Plans</p> <p>Annually review AMR</p>	<p>County of Orange Director of Planning & Development Services</p> <p>Area Plans are reviewed by Planning Commission</p>	
PDF 4.1-4 In conjunction with the processing of the site development permit for any golf course, the applicant will submit an Integrated Golf Course Management Plan (IGCMP), which will provide direction for the operation of the golf course. The IGCMP will provide overall structure and guidance for turf grass management that creates desirable playing conditions while protecting adjacent sensitive habitats and species. The IGCMP would:	Submittal of satisfactory Integrated Golf Course Management Plan	At times of Issuance of Site Development Permit	Manager, County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>a. Describe the cultural, mechanical, biological, fertilizer, and irrigation strategies necessary to achieve and maintain turf health and vigor.</p> <p>b. List anticipated pests, monitoring methods, area-specific damage thresholds, and control strategies for each identified pest.</p> <p>c. Provide information on the type and class of pesticide, selection considerations, methods and restrictions for application, and environmental considerations.</p> <p>d. Describe methods for monitoring chemicals in surface, storm, and groundwater. Mitigation and corrective actions would be identified.</p> <p>Implementation of the IGCMP will be the responsibility of the golf course operator. The IGCMP shall be approved by the County of Orange in accordance with the applicable water quality requirements. The County of Orange will not be responsible for the management or maintenance of the proposed facility.</p>				
MM 4.1-1 Prior to sale, lease, or rental of any residential structure or portion thereof within Planning Area 8, the applicant/owner shall provide to each prospective purchaser, lessee, or tenant a notice and statement of acknowledgment that shall be executed by the prospective purchaser, lessee or tenant that the property within Planning Area 8 may be subject to overflight and sound of military operations of MCB-Camp Pendleton. The form and method of distribution of said notice and statement of acknowledgment shall be as approved by the Manager, Building Permits.	Notice and Statement of Acknowledgement executed by to prospective purchaser, lessee, or tenant	Approval of Notice prior to issuance of first Building Permit in PA 8	Manager, Building Permits	
MM 4.1-2 At the time of Master Area Plan	Submittal of most current	Prior to Master Area Plan	County of Orange	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
approval for Planning Area 8, the Planning Director shall evaluate the most current RCUZ for MCB Camp Pendleton to ensure that noise sensitive land uses are not constructed in areas that would exceed state noise standards.	RCUZ for MCB Camp Pendleton with evaluation of noise impacts prepared by noise consultant	approval for PA 8	Director of Planning & Development Services Area Plans are reviewed by Planning Commission	
MM 4.1-3 Prior to the sale, lease or rental of any residential, commercial or industrial structure or portion thereof within Planning Area 5, the applicant/owner shall provide to each prospective purchaser, lessee, or tenant a notice and statement of acknowledgement that shall be executed by the prospective purchaser, lessee or tenant that the property within Planning Area 5 is located immediately adjacent to Prima Deshecha Landfill, a facility that will continue to operate until its scheduled closure in 2067 or until it reaches its design capacity in accordance with the 2001 General Development Plan and all subsequent amendments thereto. The form and method of distribution of said notice and statement acknowledging same shall be approved by the Director, Integrated Waste Management Department or his designee.	Statement of Acknowledgement executed by each prospective purchaser, lessee or tenant that the property within PA 5 is located immediately adjacent to Prima Deshecha Landfill	Approval of form of Notice and Acknowledgement prior to issuance of first Building Permit in PA 5, with periodic review of subsequent executed notices	County of Orange Director of Integrated Waste Management Department	
AGRICULTURE				
PDF 4.2-1 The project has incorporated provisions into the project design to continue the cattle ranching activities and maintain the agricultural operation on portions of The Ranch. The ongoing grazing will be conducted in compliance with the Grazing Management Plan proposed as part of the Adaptive Management Plan (Appendix J) to ensure protection of sensitive species.	Approval of Adaptive Management Plan that includes a Grazing Management Plan	PDF is effective for each portion of The Ranch at such time as that portion becomes subject to the requirements of the Adaptive Management Program (i.e., when phasing of open space occurs for first area); ongoing compliance to be documented annually as specified in the Grazing	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
PDF 4.2-2 The project provides for continued citrus production in Planning Areas 2, 7, and 10 and avocado orchards in Planning Areas 2 and 7. The location and amounts of the agricultural resources shall be identified as part of the Master Area Plan for Planning Areas 2, 7, and 10.	Submittal of documentation of compliance with the Ranch Plan Planned Community Program Text and Regulation #16 and Section III.H	Management Plan. In conjunction with the Master Area Plan approval for PAs 2, 7, and 10	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	
MM 4.2-1 Prior to planting of the planned orchards in Planning Area 7, a qualified biologist shall survey the site for listed species to avoid potential environmental impacts. Should any listed species be identified, the location of the planned orchards will be modified to avoid the resources or a mitigation plan consistent with the applicable requirements outlined in Section 4.9, Biological Resources, shall be developed and implemented.	Submittal of site survey identifying listed species at the location of the planned orchards with subsequent mitigation plan, if required	Prior to planting of the planned orchards in PA 7	County of Orange Director of Planning & Development Services	
POPULATION AND HOUSING				
PDF 4.3-1 The Ranch Plan would provide a slightly higher jobs/housing ratio than SCAG's assumed ratio for Orange County. This would increase the overall jobs/housing balance for southern Orange County, which is currently below the SCAG ratio.	No separate monitoring is required. Compliance is assured through project implementation and MMRP process.	N/A	N/A	No separate monitoring required.
PDF 4.3-2 Rancho Mission Viejo would relocate displaced residents prior to approval of demolition permits. Mitigation Measure 4.3-1 further supports this project design feature.	No separate monitoring is required. This project design feature would be monitored in conjunction with implementation of MM 4.3-1.	N/A	N/A	No separate monitoring required.
MM 4.3-1 In conjunction with approval of an Area Plan for those portions of Planning Areas 1 and 3 where existing residential units would be displaced, the applicant shall provide evidence of relocation of any remaining residents.	Submittal of evidence of relocation of any remaining residents	In conjunction with approval of an Subarea Plan for portions of PA 1 and PA 3 where existing residential units would be displaced	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
GEOLOGY AND SOILS				
PDF 4.4-1 The earth-fill dams located within the boundaries of the development areas that impound the existing on-site reservoirs shall be removed concurrent with grading.	Submittal of evidence of State of California Division of Dams approval of plans, as applicable	Prior to issuance of Grading Permit	County of Orange Director of Planning & Development Services (State of California Division of Dams)	
SC 4.4-1 Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager of Subdivision and Grading, for approval. The report shall meet the requirements outlined in the County of Orange Grading Code and Manual. (County of Orange Standard Condition of Approval, G01)	Submittal of satisfactory geotechnical report	Prior to the issuance of a grading permit	County of Orange Director of Planning & Development Services	
SC 4.4-2 Prior to the issuance of any grading permits, the Manager of Subdivision and Grading shall review the grading plan for conformance with the grading shown on the approved tentative map. If the applicant submits a grading plan which the Manager of Subdivision and Grading determines to show a significant deviation from the grading shown on the approved tentative map, specifically with regard to slope heights, slope ratios, pad elevations or configurations, the Subdivision Committee shall review the plan for a finding of substantial conformance. If the Subdivision Committee fails to make such a finding, the applicant shall process a revised tentative map; or, if a final map has been recorded, the applicant shall process a new tentative map or a site development permit application per Orange County Zoning Code Sections 7-9-139 and 7-9-150. Additionally, the applicant shall process a new environmental assessment for determination by the decision making entity. (County of Orange Standard Condition of Approval, G02)	Approval of grading plan demonstrating submittal conformance with the grading shown on the approved TTM	Prior to the issuance of a grading permit	County of Orange Director of Planning & Development Services Subdivision Committee review for substantial conformance, if required	
SC 4.4-3 Prior to the recordation of a subdivision map or prior to the issuance of	Recordation of a letter of consent from affected	Prior to the recordation of a subdivision map or prior	County of Orange Director of Planning	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
any grading permit, whichever comes first, and if determined necessary by the County of Orange Manager, Subdivision and Grading, the applicant shall record a letter of consent from the affected property owners permitting off-site grading, cross lot drainage, drainage diversions and/or unnatural concentrations. The applicant shall obtain approval of the form of the letter of consent from the Manager, Subdivision and Grading Services before recordation of the letter. (County of Orange Standard Condition of Approval, G04)	property owners if determined necessary by County of Orange Director of Planning & Development Services	to issuance of a Grading Permit, whichever comes first	& Development Services	
SC 4.4-4 Prior to issuance of grading permits, the Manager of Subdivision and Grading shall determine that the proposed grading is consistent with the grading depicted within the approved planning application. (County of Orange Standard Condition of Approval, G09)	Approval of grading plan	Prior to the issuance of grading permits	County of Orange Director of Planning & Development Services	
SC 4.4-5 The proposed development shall be designed in compliance with the Uniform Building Code (UBC), accepted industry standards, and the County's earthquake safety Municipal Code requirements.	Verification of design development compliance with the UBC and Municipal Code requirements	Prior to the issuance of building permits	County of Orange Director of Planning & Development Services	
MM 4.4-1 Prior to the approval of the first tentative tract map in each Planning Area, the applicant shall submit a geotechnical report to the Deputy Director, Planning and Development Services, for approval. The report shall meet the requirements outlined in the County of Orange Grading Code and Manual, and as appropriate, shall adequately address each of the following issues to the satisfaction of the Deputy Director, Planning and Development Services: a. Locate, define and map the activity status of any faults within the development area of the project site, and if any active faults are encountered, determine the appropriate structural setbacks.	Submittal of satisfactory of geotechnical report	Prior to the approval of the first tentative tract map in each Planning Area	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>b. Identify and map areas where grading activities may encounter unconsolidated soils (e.g., alluvial deposits, colluvium, native soil, debris flow deposits, etc.) susceptible to soil creep, liquefaction, landslides, or settlement. Define specific measures to be taken when such soils are encountered during grading (i.e., removal and replacement with compacted fill, slope stabilization, etc.).</p> <p>c. Identify and map areas where fill is to be placed on top of unconsolidated soils (e.g., alluvium, colluvium, landslide debris, etc.). Define specific measures to be taken when such fills are anticipated during grading (i.e., removal and re-compaction of unconsolidated soils, settlement monitoring in deep canyon areas, etc.).</p> <p>d. Locate and map all landslides within the development area of the project site and evaluate the lateral extent, depth and potential instability as a result of grading and the potential effects of settlement due to fill loads. Define specific measures to be taken during grading (i.e., bury under proposed fills, complete or partial removal, slope stabilization, avoidance, etc.).</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>e. Identify and map areas susceptible to debris flows and surficial slumping, including potential debris flow volumes. Define specific measures to be taken during grading (i.e., removal during mass grading, containment within a debris basin, etc.).</p> <p>Identify and map areas susceptible to expansive soils. Define specific measures to be taken during grading (i.e., pre-saturation of expansive soils during construction, reinforcement of building foundations and concrete slabs, removal and replacement with non-expansive granular soil beneath structures, etc.).</p>				
MM 4.4-2 Prior to issuance of grading permit for Planning Area 9, the applicant shall submit a geotechnical report to the Deputy Director, Planning and Development Services, for approval, and demonstrating that residential development shall be sited to avoid mapped landslides. The report shall meet the requirements outlined in the County of Orange Grading Code and Manual.	Submittal of satisfactory geotechnical report demonstrating that residential development shall be sited to avoid mapped landslides	Prior to issuance of a grading permit for development in PA 9	County of Orange Director of Planning & Development Services	
WATER RESOURCES				
PDF 4.5-1 Site Design Watershed Planning Principles. Land use planning guidance criteria were developed as part of the NCCP/HCP and SAMP/MSAA processes to assist in preserving the existing hydrologic functions within the watershed. These principles (the <i>Watershed Planning Principles</i>) were utilized as a framework to assist in planning the project to minimize project hydrologic impacts and to preserve the natural water resources.	Verification of design development consistency with the Draft NCCP/HCP and SAMP/MSAA (as applicable at the time of area plan approval)	Prior to approval of Master Area Plans and Subarea Plans	County of Orange Manager of Flood Control	
PDF 4.5-2 Flood Control Detention Facilities. Dedicated areas are to be provided throughout the project area to provide sufficient storage for runoff volumes to mitigate increases in peak discharges and	Approval of Runoff Management Plan (ROMP) (Master Area Plans) Submittal of documentation of	Prior to approval of Master Area Plans and Subarea Plans	County of Orange Manager of Flood Control Area Plans are	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
to offset impacts of existing development.	compliance with the approved ROMP (Subarea Plans)		reviewed by Planning Commission	
<p>PDF 4.5-3 Water Quality Management Plan. A conceptual Water Quality Management Plan (the <i>Draft WQMP</i>) has been developed for the proposed project in compliance with the Model Water Quality Management Plan requirements of the County of Orange DAMP. The <i>Draft WQMP</i> addresses the following elements:</p> <ul style="list-style-type: none"> • Site-design BMPs: Site design BMPs have been selected to address the creation of a hydrologically functional project design that seeks to mimic the natural hydrologic regime. • Source Control BMPs: Source controls BMPs (routine non-structural BMPs, routine structural BMPs, and BMPs for individual categories/project features) have been selected, including a combined flow and water quality control system to address hydrologic water balance and water quality treatment. • Urban Runoff and Stormwater Control Elements: Water balance and flow duration analyses and conceptual combined flow and water quality control systems have been prepared for each sub-basin. • Stormwater BMP Operation and Maintenance Program: An operation and maintenance program has been developed to address the following elements: Maintenance Responsibility, General Operation and Maintenance Activities, Routine Operation and Maintenance Activities and Major 	Approval of conceptual Water Quality Management Plan (WQMP)	Approved in conjunction with certification the Final Program EIR	County of Orange Manager, RDMD Watershed Group	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>Operation and Maintenance Activities.</p> <ul style="list-style-type: none"> Stormwater Monitoring Program: A stormwater monitoring program has been developed for the Water Quality BMPs. 				
<p>PDF 4.5-4 Water Conservation. Water captured in the combined flow and water quality control system and in flood control detention facilities, where possible, will be percolated, infiltrated and/or re-captured for re-use as a supplemental source of irrigation water.</p>	<p>Submittal of approved documentation of design compliance with Conceptual WQMP</p>	<p>Prior to Master Area Plan Approval</p>	<p>County of Orange Manager of Flood Control/ Manager, RDMD Watershed Group</p> <p>Area Plans are reviewed by Planning Commission</p>	
<p>SC 4.5-1 Drainage Study. 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 following drainage studies shall be submitted to and approved by the Manager, Subdivision and Grading:</p> <p>A. A drainage study of the project including diversions, off-site areas that drain onto and/or through the project, and justification of any diversions; and</p> <p>B. When applicable, a drainage study evidencing that proposed drainage patterns will not overload existing storm drains; and</p> <p>C. Detailed drainage studies indicating how the project grading, in conjunction with the drainage conveyance systems including applicable swales, channels, street flows, catch basins, storm drains, and flood water retarding, will allow building pads to be safe from inundation from rainfall runoff which may be expected from all storms up to and including the theoretical 100-year flood.</p>	<p>Submittal of satisfactory of drainage study</p>	<p>Prior to recordation of a Subdivision Map or issuance of a Grading Permit, whichever comes first</p>	<p>County of Orange Director of Planning & Development Services</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
SC 4.5-2 Drainage Improvements A. 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, Subdivision and Grading: <ol style="list-style-type: none"> 1) Design provisions for surface drainage; 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. 	Approval of storm drain drainage plans and offer(s) of dedication, if necessary	Prior to recordation of a Subdivision Map or Issuance of a Grading Permit, whichever comes first	County of Orange Director of Planning & Development Services	
B. Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or prior to the issuance of any certificates of use and occupancy, whichever occurs first, said improvements shall be constructed in a manner meeting the approval of the Manager, Construction.	Verification of construction of drainage improvement	Prior to recordation of a Subdivision Map or Issuance of a Certificate of Use and Occupancy, whichever comes first	County of Orange Manager of Construction	
SC 4.5-3 Drainage Improvements A. Prior to the issuance of any grading permits, the applicant shall in a manner meeting the approval of the Manager, Subdivision and Grading:	Submittal of satisfactory drainage plans	Prior to the issuance of Grading Permits	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
1) Design provisions for surface drainage; 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. B. 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, Construction.	Verification of installation of drainage improvement	Prior to the issuance of Certificates of Use and Occupancy	County of Orange Manager of Construction	
SC 4.5-4 Master Plan of Drainage. Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only), the subdivider shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, Subdivision and Grading, including payment of fees and the construction of the necessary facilities.	Verification of participation in Master Plan of Drainage (fees and/or improvements)	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	
SC 4.5-5 Subordination of Easements. Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only), the subdivider 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 any of said easements, the subdivider shall furnish a copy of the proposed easement to the Manager, Subdivision and Grading, for review and approval. The Santa Margarita Water District would restore other improvements or	Verification that any granted easements are subordinate to easements offered to County and provision of copy of said easement(s)	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services (Orange County Flood Control District and Santa Margarita Water District)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
facilities located within the easement, if it has consented to the location of such improvements or facilities to the extent that the exercise of its rights in connecting with the easement impacts other improvements of facilities located within the easement; however, in no event shall Santa Margarita Water District be responsible for the cost of relocating its facilities in event of conflicts with such improvements or facilities.				
SC 4.5-6 Regional Facility Improvements. Prior to the recordation of a subdivision map, the applicant shall improve Regional Facility _____ by the construction of _____ and dedicate right-of-way to the Orange County Flood Control District in a manner meeting the approval of the Manager, Subdivision and Grading.	Verification of construction and/or offer(s) of dedication for flood control improvements	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services (Orange County Flood Control District)	
SC 4.5-7 Runoff Management Plan. Prior to the issuance of any grading permits, applicant shall submit a Runoff Management Plan (RMP) to the Manager, Subdivision and Grading for review and approval.	Submittal of satisfactory Runoff Management Plan	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	
SC 4.5-8 Water Quality Management Plan. Prior to the recordation of any final subdivision map (except those maps for financing or conveyance purposes only) or the issuance of any grading or building permit (whichever comes first), the applicant shall submit for review and approval by the Manager, Inspection Services Division, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. This WQMP shall identify, at a minimum, the routine structural and non-structural measures specified in the current Drainage	Submittal of satisfactory Water Quality Management Plan	Prior to the recordation of a Subdivision Map or the issuance of any Grading of Building Permit, whichever comes first	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>Area Management Plan (DAMP). The WQMP may include one or more of the following:</p> <ul style="list-style-type: none"> Discuss regional water quality and/or watershed programs (if available for the project); Address Site Design BMPs (as applicable) such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas; Include the applicable Routine Source Control BMPs as defined in the DAMP. <p>Demonstrate how surface runoff and subsurface drainage shall be managed and directed to the nearest acceptable drainage facility (as applicable), via sump pumps if necessary.</p>				
<p>SC 4.5-9 Compliance with the WQMP. Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the WQMP in a manner meeting the satisfaction of the Manager, Inspection Services Division, including:</p> <ul style="list-style-type: none"> Demonstrate that all structural Best Management Practices (BMPs) described in the project's WQMP have been implemented, constructed and installed in conformance with approved plans and specifications; Demonstrate that the applicant has complied with all non-structural BMPs described in the project's WQMP; 	Verification of compliance with Water Quality Management Plan	Prior to the issuance of a Certificate of Use and Occupancy	County of Orange Manager of Building Inspection	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<ul style="list-style-type: none"> Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs for attachment to the WQMP; Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the incoming occupants; Agree to pay for a Special Investigation from the County of Orange for a date (12) twelve months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan; and Demonstrate that the applicant has agreed to and recorded one of the following: 1) the CC&R's (that must include the approved WQMP and O&M Plan) for the project Home Owner's Association; 2) a water quality implementation agreement that has the approved WQMP and O&M Plan attached; or 3) the final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan. 				
SC 4.5-10 Stormwater Pollution Prevention Plan. Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance under California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing in a manner meeting the satisfaction of the Manager, Building Permit Services. Projects subject to	Provision of Notice of Intent and verification of a copy of the Storm Water Pollution Prevention Plan (SWPPP); at the project site	Prior to the issuance of any Grading or Building Permits	County of Orange Manager of Building Inspection (Regional Water Quality Control Board)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for County review on request.				
SC 4.5-11 Erosion and Sediment Control Plan. Prior to the issuance of any grading or building permit, the applicant shall submit a Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Building Permit Services, to demonstrate compliance with local and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all BMPs will be maintained during construction of any future public right-of-ways. A copy of the current ESCP shall be kept at the project site and be available for County review on request.	Submittal of satisfactory Erosion and Sediment Control Plan (ESCP); verification of copy of ESCP at project site	Prior to the issuance of any Grading or Building Permits	County of Orange Manager of Building Permits	
SC 4.5-12 Development Within Floodplain. Prior to the recordation of a subdivision map (except maps for financing and conveyance purposes only) or the issuance of any grading or building permits, whichever occurs first, within the FP-2 Zoning District, the applicant shall submit all of the necessary documents to the Federal Emergency Management Agency (FEMA) to receive a Conditional Letter of Map Revision (CLOMR) of the Flood Insurance Rate Map (FIRM). Concurrently, the applicant shall submit to the Manager, Subdivision and Grading, three (3) sets of the calculations and plans showing the method of satisfying FEMA and FP-2 Zoning District	Submittal of a CLOMR and three sets of calculations	Prior to recordation of a subdivision map (except for financing purposes) or issuance of any grading permit or building permit, whichever comes first	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
Regulations, all in a manner meeting the approval of the Manager, Subdivision and Grading.				
<p>MM 4.5-1 Runoff Management Plan. Prior to the approval of the first Area Plan, or other planning level approval, for any part of the Ranch, the applicant shall prepare a detailed Runoff Management Plan ("ROMP") that shall be approved by the Manager, Flood Control Division, and the Manager, Watershed and Coastal Resources Division, and that meets the following standards and specifications:</p> <p>a. The ROMP shall cover the entire Ranch within the regional watersheds (San Juan Creek and San Mateo Creek) and sub-watersheds affected by the Area Plan or other planning level approval, and shall be consistent with Orange County criteria including the Orange County Hydrology Manual and its addendum ("OCHM), the Orange County Flood Control Design Manual ("FCDM), and any other County criteria and/or standards that are applicable.</p> <p>b. The ROMP shall separately cover the San Juan Creek watershed or the San Mateo Creek watershed, depending on the Ranch Plan development proposed and the regional and sub-watershed(s) affected. For the San Juan Creek watershed, the ROMP shall extend to the downstream boundary of the Ranch. For the San Mateo Creek watershed, the ROMP shall extend to the County border for those portions of the Ranch Plan area that are located within the watershed.</p> <p>c. The ROMP shall be separate from the preliminary analyses submitted as part of the GPA/ZC submittals using the U.S. Army Corps of Engineers HEC-1</p>	Submittal of satisfactory Runoff Management Plan with verification of subsequent implementing actions	Prior to the approval of the Master Area Plan or any Subarea Plans	County of Orange Manager of Flood Control and County of Orange Manager of Watershed and Coastal Resources	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>hydrology application.</p> <p>d. The ROMP shall be accomplished to a greater level of detail using criteria established by the OCHM and the FCDM.</p> <p>e. The ROMP shall re-evaluate and verify baseline conditions, project conditions for all phases of development, post-project conditions, impacts of the development through all phases and scenarios of development, and mitigation measures needed to ameliorate development impacts through all the phases and scenarios of development (including the full Ranch Plan development) within the affected watershed(s), all accomplished to criteria established by the OCHM and FCDM.</p> <p>f. The ROMP shall analyze existing conditions, potential impacts, and proposed mitigation measures for sediment mass balance, watershed sediment yield, sediment transport and the stability of the creek and watersheds and/or increased erosion potential and other hydraulic characteristics of the creeks and watersheds (San Juan Creek and San Mateo Creek) within the project site and off-site to the La Novia Bridge for development within the San Juan Creek watershed and to the County boundary for development within the San Mateo Creek watershed for all phases of the development.</p>				
<p>g. The ROMP shall analyze and demonstrate that development of the Ranch Plan will not produce adverse impacts during 2-, 5-, 10-, 25-, 50- and 100-year events, including but not limited</p>			Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>to increases in runoff peak discharge, increases in runoff volume, channel aggradation/degradation, erosion and channel stability within the project site and off-site from the headwaters of the watershed to the La Novia Bridge for development within the San Juan Creek watershed, and to the County boundary for development within the San Mateo watershed for portions of the streamcourse potentially impacted by the project development. The analyses set forth in the ROMP shall be for existing conditions and for all phases of development, including with and without required mitigation measures.</p> <p>h. The ROMP shall analyze in sufficient detail to enable the size and alignment of flood control and storm drain facilities, and site selection choices for the retarding basins, water quality detention basins and other mitigation measures to be more precisely evaluated and established. The ROMP should include the preparation of a water quality site design BMP concept plan. The applicant shall work with the County to provide the level of design detail in these facilities that is appropriate to the level of planning and approval at each project phase.</p>				

426

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
i. The ROMP shall include details as to the proposed future ownerships and maintenance responsibilities, and long term funding (including funding plans for maintenance) for the proposed ROMP flood control and storm drain facilities, retarding basins, and water quality detention basins.				
j. The ROMP shall include proposed Orange County Flood Control District (OCFCD) and/or County ownership facilities identified in sufficient detail with proposed configuration, sizes, alignment, rights-of-way widths, etc. for review and approval during the ROMP review process as to whether the ownership of proposed flood control/drainage facilities are to become OCFCD or County facilities.				
k. The ROMP shall provide that any proposed diversions between watersheds shall be subject to the approval of the Manager, Flood Control Division.				
l. The ROMP shall provide that any future revisions to the ROMP in order to accommodate land use changes or other issues that have the potential of modifying or invalidating previous conclusions regarding peak discharges and runoff volumes shall require the approval of the Manager, Flood Control Division.				
m. Consistent with the ROMP, and in order to mitigate project impacts on channel stability and erosion, the applicant shall implement a monitoring and accompanying mitigation program that provides, among other things, assurance				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>for provisions of dedication of any lands needed within the Ranch to accomplish necessary mitigations, if any. Said monitoring and mitigation program shall be subject to the approval of the Manager, Flood Control Division. Monitoring for project impacts shall be conducted for San Juan Creek and its major tributaries within and downstream of the Ranch to the La Novia Bridge; if the San Mateo Creek watershed is affected, the monitoring shall cover those portions of San Mateo Creek and its major tributaries that are within the County and that are likely to be impacted by the project. The monitoring activities shall continue during the project development phases and shall extend for a period of 10 years following the completion of the final grading of the last planning area of the Ranch Plan that includes at least two (2) storm events that generate discharges of at least 20 percent of computed 100-year high confidence discharges, all in a manner meeting the approval of the Manager, Flood Control Division. The accompanying mitigation program shall be based on a detailed study of the watershed and data collected from the monitoring program funded by the applicant. Said mitigation program shall be in addition to the mitigation measures (e.g., construction of flood control structures, setting up funds through bonds) formulated in the ROMP for items that are found to be not adequately mitigating development-related impacts. The applicant and the County/OCFCD will meet in good faith to formulate a plan</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>for remediating and/or improving any under-performing mitigation measures, all at no cost to the County/OCFCD.</p> <p>n. If a Locally Preferred Plan (LPP) is developed that contemplates or otherwise assumes Ranch Plan development within the San Juan Creek watershed, the County and the applicant may pursue an alternative mitigation measure strategy based on the LPP that includes (i) mitigation measures within the Ranch and (ii) participation in offsite mitigation measures to the extent that said alternative mitigation measures are determined to be consistent with (a) the objectives of the County's Drainage Area Master Plan for water quality purposes, the (b) the ROMP and (c) the MPD.</p>				
<p>MM 4.5-2 Master Plan of Drainage. Prior to the approval of the first Master Area Plan (or other planning level approval) covering any portion of the Ranch, the applicant shall prepare a Master Plan of Drainage ("MPD") that (i) is in a manner receiving the approval of the Manager, Flood Control Division and the Manager, Watershed and Coastal Resources Division and (ii) shows all flood control, storm drain, and water quality features within the affected watershed(s).</p>	<p>Submittal of satisfactory Master Plan of Drainage</p>	<p>Prior to the approval of the first Master Area Plan</p>	<p>County of Orange Manager of Flood Control and County of Orange Manager of Watershed and Coastal Resources Area Plans are reviewed by Planning Commission</p>	
<p>MM 4.5-3 Master Area Plan-Level Water Quality Management Plan. Prior to the approval of a Master Area Plan for each Planning Area, the applicant shall prepare a Master Area Plan WQMP that (i) is consistent with the terms and content of the Draft WQMP (see PDF 4.5-3) and (ii) provides more particularized information and detail concerning how the provisions of the Draft</p>	<p>Submittal of satisfactory Master Area Plan Water Quality Management Plan</p>	<p>Prior to the approval of a Master Area Plan for each Planning Area</p>	<p>County of Orange Manager of Flood Control and County of Orange Manager of</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
WQMP will be implemented within the area covered by the individual Master Area Plan. At a minimum, each Master Area Plan WQMP will provide supplemental and refined information concerning (i) how site-design, source-control and treatment control BMPs will be implemented at the Master Area Plan level for the area in question, (ii) potential facility sizing and location within the subject Master Area Plan area, and (iii) monitoring, operation and maintenance of stormwater BMPs within the relevant Master Area Plan area.			Watershed and Coastal Resources Area Plans are reviewed by Planning Commission	
MM 4.5-4 Sub-Area Plan-Level Water Quality Management Plan. Prior to the approval of a Sub-Area Plan for any portion of the project area that is the subject of an approved Master Area Plan, the applicant shall prepare a Sub-Area Plan WQMP that (i) is consistent with the terms and content of the Draft WQMP (see PDF 4.5-3), (ii) is consistent with the terms and content of the relevant Master Area Plan WQMP (see MM 4.5-3) and (iii) provides more particularized information and detail concerning how the provisions of the Draft WQMP and the relevant Master Area Plan WQMP will be implemented within the area covered by the individual Sub-Area Plan. At a minimum, each Sub-Area Plan WQMP will provide supplemental and refined information concerning (i) how site-design, source-control and treatment control BMPs will be implemented at the Sub-Area Plan level for the area in question, (ii) the size, location and design features of the individual water resource facilities to be developed within the subject Sub-Area Plan area, and (iii) monitoring, operation and maintenance of the stormwater BMPs within the relevant Sub-Area Plan area.	Submittal of satisfactory Water Quality Management Plan	Prior to approval of Subarea Plan for any portion of the project area and after approval of Master Area Plan	County of Orange Manager of Flood Control and County of Orange Manager of Watershed and Coastal Resources Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>MM 4.5-5 Flood Control Detention Facilities. As appropriate during Ranch Plan development process, the applicant will be required to construct and implement flood control detention facilities to provide hydrologic mitigation for increases in peak discharges. Detention facilities will be located at the lower end of each of the major developed planning areas as necessary within the Ranch Plan project. While the specific design and characteristics of each basin will be refined during the project design process, planning level information is provided in this section to characterize the facilities and their functions. Initial basin locations are shown on Exhibit 4.5-13 for the Ranch Plan. The specific number, size and locations of the basins will be determined during the ROMP process. Further refinement may be achieved during the design process. Table 4.5-27 provides an initial estimate of the range of storage volumes that may be required in each of the major planning areas. Refined design and analysis of the basins needs to ensure that these facilities mitigate regional flood control facility impacts and address uncertainties such as timing of hydrograph peaks and the interaction with other elements within the watershed drainage network.</p> <p>The detention basins will be designed as "off-line" from most of the major stream channels. It is initially planned that the Gobernadora detention basin would be located within the channel and designed as a "flow through" basin. Generally speaking, flow from the development areas will be routed through the basins prior to discharge to the mainstem stream channels. By contrast, flows from undeveloped areas will not be routed through the basins, but will generally follow existing</p>	<p>Verification of construction/ implementation of flood control detention facilities; Approved monitoring program to track the performance of detention facilities</p>	<p>Prior to the construction of flood control detention facilities</p>	<p>County of Orange Manager of Flood Control in conjunction with Orange County Vector Control</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>drainages directly to the main channels.</p> <p>The basins will be designed to include an initial forebay area for trapping of sediment, floating debris etc). The sediment forebay will be designed for easy maintenance, with an elongated shape maximize the opportunity for sediment (and pollutants adsorbed to the sediment particles) to settle out, and to allow easy sediment removal by an excavator on the access road. Maintenance standards will be established for maximum depth of accumulated sediment in the forebay basins prior to removal. An overflow weir will connect the forebay to the main detention facility. This larger facility will include the entrance zone, the main storage area and the outlet structure. The basin will have sloped, vegetated sides, a perimeter access road, and a ramp access to the basin floor. The entire detention facility will be fenced to preclude public access. The floor of the basin will likely be colonized by emergent vegetation. This can provide additional water quality improvement of urban runoff, and evaporation potential during the dry season. In addition, this vegetation will provide incidental avian and wildlife habitat. However, the primary intent of the structures is to provide sediment trapping in the forebay, and flood detention in the main basin. As such, maintenance protocols and regulatory permits should be established prior to the design process to facilitate the required periodic sediment removal and facility maintenance.</p> <p>The outlet structure will be configured to control a wide range of flows, providing flow management from the 2- to 100-year flow event. It will also include an overflow spillway, designed to safely convey floods in</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>excess of the outlet structure capacity directly to the stream. A subdrain will be provided to insure complete drainage within several days following a flow event.</p> <p>A key element in the long-term effectiveness of the detention facilities is the establishment of an on-going maintenance and monitoring program. The applicant will establish both a management entity and a funding source to insure the implementation of a program to accomplish the following goals:</p> <ul style="list-style-type: none"> Monitoring: The monitoring program will track the performance of the detention facilities as well as the stability of the various stream channels within and downstream of the Ranch Plan project (to La Novia Bridge for San Juan Creek and to County border for San Mateo Creek). The monitoring will serve to identify the regular maintenance needs of the facilities as well as track any emerging problems with erosion or sedimentation in the stream channels. The monitoring shall be in a manner receiving the approval of the County/OCFCD. Detention basin maintenance will include: Identifying the rate of sediment buildup in the forebay or in the main facility and provision for sediment removal when the accumulated sediment reaches a specified depth. The initial sizing criteria for basin volume will include provision for this loss of storage during the period of sediment accumulation. 				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<ul style="list-style-type: none"> Emergent Vegetation Management: A vegetation management plan will be specified for all of the structural elements of the flood detention system. The applicant will work with the County to identify elements of the detention basin that can accommodate some vegetation (for example if water quality ponds are included in the facility, vegetation criteria will be developed for these). Based on County recommendations, vegetation will be precluded from the active flood detention basins to facilitate sediment removal activities. Vector/Nuisance Management: The design and maintenance of the basins will include prevention of vector problems such as mosquitoes, rodents, algal blooms, etc. Structural Components: The basin inlet and outlet structures will require periodic maintenance to remove accumulated debris and replacement of damaged or aging elements. If the basins include a water recovery program (i.e., use of detained or infiltrated water for irrigation), the pumps and associated facilities (screens, pipes, valves) will require ongoing monitoring/maintenance. Facility Appearance/Landscaping: The detention basins will be large elements situated at visible locations within the development areas. As such their design and maintenance are important from an aesthetic perspective. The perimeter fencing, access roads and landscaping, on the basin side slopes will require ongoing irrigation and upkeep to insure that the basins represent visually 				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
appealing facilities. The basins will be designed to meet the County of Orange design requirements.				
<p>MM 4.5-6 Combined Flow and Water Quality Control System. All developments will be designed in order to achieve flow duration matching, address the water balance, and provide for water quality treatment through a combined flow and water quality control system (termed combined control system).</p> <p><u>Combined Control System Components</u></p> <p>The proposed combined control system will include one or more of the following components (see Exhibits 4.5-14, 15 and 16), each of which provides an important function to the system:</p> <ul style="list-style-type: none"> • Flow Duration Control and Water Quality Treatment (FD/WQ) Basin • Infiltration Basin • Bioinfiltration Swale • Storage Facility for Recycling Water for Non-Domestic Supply • Diversion Conduit to Export Excess Flows out of the Sub-basin. <p>The flow duration control and water quality treatment basin provides the initial flow and water quality treatment control functions to the system. The remaining components address the excess flows, alone or in combination with each other, generated during wet weather. Additional water quality treatment control is also provided in the infiltration basin and bioinfiltration swale. The</p>	Combined Flow and Water Quality System as set forth in the Master WQMP and Subarea Plan WQMPs	In conjunction with Master and Subarea Plans	<p>County of Orange Manager of Flood Control in conjunction with County of Orange Manager of Watershed & Coastal Resources</p> <p>Area Plans are reviewed by Planning Commission</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>following sub-sections describe each combined control system component in more detail.</p> <p><u>1. Flow Duration Control and Water Quality Treatment (FD/WQ) Basin</u></p> <p>The flow duration control and water quality treatment (FD/WQ) basin will provide both flow control and water quality treatment in the same basin. Detention basins are the most common means of meeting flow control requirements. The concept of detention is to collect runoff from a developed area and release it at a slower rate than it enters the collection system. The reduced release rate requires temporary storage of the excess amounts in a basin with release occurring over a few hours or days. The volume of storage needed is dependent on 1) the size of the drainage area; 2) the extent of disturbance of the natural vegetation, topography and soils, and creation of impervious surfaces that drain to the stormwater collection system; 3) the desired detention capacity/time for water quality treatment purposes; and 4) how rapidly the water is allowed to leave the FD/WQ basin, i.e., the target release rates.</p> <p>The FD/WQ basin shall incorporate extended detention to provide water quality treatment for storm flows. The FD/WQ basin shall also incorporate wetland vegetation in a low flow channel along the bottom of the basin for the treatment of dry weather flows and small storm events.</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>To the extent feasible depending on the topography and grade, the FD/WQ basin will be located in areas where there is a larger depth to groundwater and more infiltrative soils. The FD/WQ basin shall be designed to have two active volumes, a low flow volume and a high flow volume. The low flow volume is designed to capture small to moderate size storms, the initial portions of larger storms, and dry weather flows. The high flow volume is designed to store and release higher flows to maintain, to the extent possible, the pre-development runoff conditions.</p> <p><u>2. Infiltration Basin</u></p> <p>The second element in the combined control system shall consist of a separate downstream, shallow basin designed to infiltrate stormwater where soils have a high infiltration capacity. The infiltration basin is sized to infiltrate all the flows released from the lower volume in the FD/WQ basin; nonetheless, an overflow system would convey excess flows that may occur during very wet years to the bioinfiltration swale discussed below. Features of the proposed combined control system that shall guard against groundwater contamination include: (1) pretreatment of all runoff in a FD/WQ basin before it enters the infiltration basin, and (2) locating infiltration basins where there is at least 10 feet of separation to the groundwater.</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p><u>3. Bio-infiltration Swale</u></p> <p>The third element of the combined control system shall be a bio-infiltration swale that leads from the FD/WQ basin to the stream channel. A bio-infiltration swale is a relatively flat, shallow vegetated conveyance channel that removes pollutants through infiltration, soil adsorption, and uptake by the vegetation. In areas characterized by terrains with good infiltration capabilities, flows released from the FD/WQ basin and carried in the bio-infiltration swale will mimic pre-development conditions, in which low flows infiltrate in the soils and only high flows reach the main stem of the stream channel. In catchments where development is located on less pervious soils and therefore pre-development runoff is higher, the swale may be lined to better mimic pre-development hydrology or flows may be piped to the stream.</p>				
<p><u>4. Storage Facility for Recycling Water for Non-Domestic Supply</u></p> <p>The fourth possible element of the combined control system shall be storage of surface water flows for recycling where there is opportunity for reuse of water for irrigation, such as a golf course, residential common area, or local park. All elements of the combined flow and water quality control system shall be reviewed with the SMWD for determination of feasibility of reuse and connection to non-domestic irrigation facilities. Diversion of outflows from the FD/WQ basin to non-domestic water supply reservoirs will be conducted if feasible and cost effective.</p>				

438

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p><u>5. Diversion Conduit to Export Flows out of the Sub-basin</u></p> <p>The fifth possible element of the combined control system shall be the provision to export flows out of the sub-basin. This element provides an additional option that may be employed to better preserve the pre-development water balance within the sub-basin. Such diversions may be desirable where excess runoff could result in increased stormwater flows or increased base flows in sensitive streams. However, all diversions of drainage area are subject to approval by the County of Orange. The diversions would be for excess runoff only and would only be feasible for development bubbles that adjoin other sub-basins having less sensitive stream channels, or are close to San Juan Creek or Lower Cristianitos Creek, which have characteristics that allow them to handle additional flows without causing damage to the stream channel. In some locations, such as Cañada Chiquita, it may also be feasible to divert flows to the wastewater treatment plant for reclamation.</p>				
<p>MM 4.5-7 Stream Stabilization Program. Prior to the recordation of a subdivision map, unless otherwise specified by the provisions of the applicable master area or planning area-specific ROMPs (as appropriate), the development applicant shall prepare a stream stabilization program, including funding, that will be implemented by the HOA or other responsible entity to mitigate anticipated limited local effects of erosion associated with drainage system outlets from the development or downstream of detention basins. These effects from erosion are to be addressed with non-structural biotechnical</p>	<p>Submittal of satisfactory Stream Stabilization Program, including funding</p>	<p>Prior to recordation of a subdivision map</p>	<p>County of Orange Manager of Watershed & Coastal Resources</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>and geomorphic approaches aggressively at the first phase and if not effective then limited structural measures would be implemented. These approaches vary by terrain and the character of the channels:</p> <ol style="list-style-type: none"> 1. Sandy and Silty-sandy terrain: Water quality and infiltration basins and ponds will be constructed along unnamed tributary channels and channel-less valleys. Appropriate energy dissipation will be installed downstream of each structure or control point. 'Hungry water' or potential downcutting will be controlled by a progressive sequence of: <ol style="list-style-type: none"> a. establishment of hydrophytic vegetation, either turf-forming (such as salt grass or sedges) or with interpenetrating roots (such as willows); then b. placement of turf-reinforced mats (TRM) or other flexible and biodegradable membrane to abet vegetative growth to stabilizes the small drainages downstream of controls; then, c. conventional erosion control fabrics and structures using techniques developed over the years to control gully- or small-channel incision. <p>In through-flowing named stream corridors, the potential scale of incision is larger, and is most reasonably addressed by a progressive sequence to include:</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>a. attempting to reduce runoff volumes and peaks from the watershed, by a combination of additional retarding of flow and use of (reconnecting, where needed) floodplains for flows of moderate to high recurrence.</p> <p>b. Reducing sediment yields from disturbed watershed upstream, such that avulsion (sudden channel changes, such as recently seen in Gobernadora Creek) can be minimized.</p> <p>c. Where the bed remains within the root zone of riparian vegetation, widening the riparian corridor, and managing its vegetation to promote dense interpenetrating roots, such as naturally occurs along many reaches of these streams, perhaps in combination with reconfiguring the channel pattern to increase sinuosity to a stable thalweg length-to-channel slope value.</p> <p>Emplacing well-keyed structural grade control, with a wide variety of potential designs.</p> <p>2. Clayey terrain: Differences between existing and future conditions will be the least in this terrain. Clayey terrains are also most resistant to incision, in most cases. Hence, biotechnical stabilization is most favored in this setting, especially for the smaller unnamed channels downstream from the small retarding and infiltration basins proposed at many locations. A progressive sequence of:</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<ul style="list-style-type: none"> a. establishing hydrophytic or woody riparian vegetation, especially along the bases and crests of banks; b. installing turf-reinforcing mats and other shear-resistant soft structures; c. slight widening of channels where feasible without diminishing bank strength imparted by riparian vegetation, if significant; and d. engineering slopes using fabrics, or placing thoroughly-keyed structural controls, usually in combination with a., b., and c., above. 				
<p>MM 4.5-8 Stream Monitoring Program. Consistent with the provisions of the applicable master area or planning area-specific ROMPs (as appropriate), a stream monitoring program shall be developed, with assured funding source, by the applicant, and at no cost to County/OCFCD, prior to the construction within the watershed which will include reporting requirements in order to observe changes in the natural alluvial stream system. The minimum program will include and address the following items:</p> <ul style="list-style-type: none"> 1. Stream Walks: A geomorphologist or engineer familiar with both (a) flood conveyance estimation and (b) the bed conditions required to meet habitat needs and conditions for species of concern will walk critical reaches of named channels within the project each year in late April. The stream-walker will note bed conditions, measure high-water marks, note new sources of sediment or bank distress along the channels, estimate Manning's 'n' (roughness) at key locations, and assess whether bed and bank vegetation is suitable to meet 	Submittal of satisfactory Stream Monitoring Program with reporting requirements	Prior to issuance of a grading permit	County of Orange Manager of Flood Control in conjunction with County of Orange Manager of Watershed and Coastal Resources	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>conveyance and habitat objectives. Stream walks will occur during years 1, 2, 3, 4, 5, and 10 following substantial grading in a named-stream basin, and during any year within the first 10 seasons when 6-hour rainfall intensities exceed the 5-year recurrence at a nearby pre-selected recording rainfall gauge. The stream-walker will also similarly canvass the lower 2 miles of Bell Canyon and the upper Chiquita watershed north of Oso Parkway, two stream segments with largely-intact and formally-preserved watersheds, which can serve as control. Photographs showing key sites or problems will be taken. The individual conducting the walks shall be sufficiently senior and knowledgeable as to be registered as a geologist or engineer with the state. This individual will prepare an annual report by June 20 of the relevant year(s) specifying maintenance or repair measures needed to maintain suitable sediment transport and bed conditions</p> <p>2. Major Stream Cross Sections Monitoring. Monumented cross sections will be established and surveyed on:</p> <ul style="list-style-type: none"> a. lower Narrow Creek b. Chiquita Creek (4 locations) c. Gobernadora Creek (4 locations) d. Bell Creek (2 locations) e. Upper Cristianitos Canyon (3 locations) f. Lower Gabino Creek (3 locations) g. Gabino Creek within 0.5 miles of La 				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>Paz Creek</p> <p>h. La Paz Creek within 0.6 miles of Gabino Creek</p> <p>Additional monitoring sections will also be provided on San Juan Creek and all monitoring locations will first be approved by the County of Orange before implementation. The cross sections will be spaced approximately 0.6 to 1.2 miles apart and approved by the County. They will be surveyed to the nearest 0.05 feet vertical, and include notations of bed material encountered and qualitative descriptions of vegetation, and other observations conforming to geomorphic conventions, such as the International Hydrologic Vigil Network standards.</p> <p>The initial surveys will be conducted prior to grading, with resurveys during years 1, 3, 5 and 10 following initial grading or at frequencies determined by the County of Orange. Re-surveys will also be conducted during years when 6-hour rainfall intensities exceed the 5-year recurrence at a nearby pre-selected recording rainfall gauge or selected occurrences by the County of Orange. Results will be analyzed by the stream-walker, and included in the related report, recommending maintenance and restorative measures. The report will be submitted by May 20 of each year, to allow design and implementation (where needed) prior to the next winter.</p> <p>3. Periodic aerial photography: Aerial photographs of the entire project area will be taken during May or June following project approval, and during each subsequent May or June of years</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>ending in a '5' or '0', until the project has been completed as defined by the County of Orange. Resolution of the photographs will be sufficient to prepare 200-foot scale maps with 2-foot (or 0.5-meter) contours. Contour maps will be prepared for the San Juan Creek channel corridor from the Verdugo Canyon confluence to 0.5 miles downstream of Antonio Parkway showing the topography of the bed and of the banks to elevations 15 feet above the adjoining bed. LIDAR (Light Detection and Ranging) or other technologies can be substituted for now-conventional photogrammetric methods. A qualified geomorphologist shall review the aerial photographs of the entire project area, identifying new upland sources of sediment, event-related or land-use disturbance, or evidence of channel change and instability. The geomorphologist will also assess discontinuities in sand transport throughout the project area, and will present an assessment of changes, if any, in the San Juan Creek corridor. Results will be presented in a report to be prepared by July 15 of each year, including recommendations for maintenance, repair, or other actions.</p> <p>4. Evaluation of changes downstream of ponds and basins: Longitudinal profiles and channel or drainage-way cross sections will be established downstream of basins or ponds with capacities exceeding 1 acre foot, or which create a 4-foot elevation change in the energy grade line. Resurveys will occur whenever the stream-walker and/or the geomorphologist reviewing the aerial</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
photos identify actual or incipient incision or erosion. Resurveys will be completed prior to July 1 when and where the need is identified in the May 20 report discussed above.				
5. Supplemental assessments: Adaptive management of channels means changing with the flow of time. Nothing in the program above precludes problem- or condition-related investigations. Additional assessments may be conducted as deemed needed by the applicant to achieve the bed and bank conditions sought.				
MM 4.5-9 Prior to issuance of a building permit for any estate lot in Planning Area 9, the Project Applicant shall comply with the County of Orange On-site Sewage Absorption System Guidelines.	Submittal of documentation verifying compliance with County of Orange On-site Sewage Absorption System Guidelines	Prior to issuance of Building Permits for estate lots in Planning Area 9	County of Orange Director of Planning & Development Services	
TRANSPORTATION AND CIRCULATION				
PDF 4.6-1 Antonio Parkway at Cow Camp Road is a new intersection that shall be designed to have adequate capacity with and without the proposed SR-241 extension. Lane configurations and potential grade separations shall be determined subject to the review and approval of the County of Orange and Caltrans in future design studies to ensure that the intersection provides the needed capacity for long-range cumulative demand and, therefore, operates at an acceptable level of service.	Submittal of satisfactory Intersection Improvement Plans and traffic study	Prior to the issuance of a Grading Permit for intersection improvements	County of Orange Director of Planning & Development Services	
SC 4.6-1 As a part of the submittal of a Tentative Tract Map for an Urban Activity Center development, the project applicant shall submit a Transportation Demand Management (TDM) program consistent with the requirements of the County of Orange TDM Ordinance.	Submittal of satisfactory Transportation Demand Management Plan	Prior to the approval of a Tentative Tract Map for Urban Activity Center development	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
SC 4.6-2 Prior to the recordation of a subdivision map, the subdivider shall place notes on the final map which release and relinquish vehicular access rights to all arterial highways to the County of Orange, except for access locations approved by the County of Orange, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T01, Access Rights)	Verification of notes on the final map which release and relinquish vehicular access rights to all arterial highways to the County of Orange except for access locations approved by the County of Orange	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	
SC 4.6-3 Prior to the recordation of a subdivision map, the subdivider shall place a note on the map, in a manner that meets the approval of the Manager, Subdivision and Grading Services, that states: "The private streets constructed within this map shall be owned, operated and maintained by the developer, successors or assigns. The County of Orange shall have no responsibility therefore unless pursuant to appropriate sections of the Streets and Highways Code of the State of California, the said private streets have been accepted into the County Road System by appropriate resolution of the Orange County Board of Supervisors." (County of Orange Standard Condition of Approval, T02, Private Street Responsibility)"	Verification of a note on the Subdivision Map	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>SC 4.6-4 Prior to the recordation of a subdivision map, the subdivider shall design and construct the following improvements in accordance with plans and specifications meeting the approval of the Manager, Subdivision and Grading:</p> <p>A. Streets, bus stops, on-road bicycle trails, street names, signs, striping and stenciling.</p> <p>B. The water distribution system and appurtenances shall also conform to the applicable laws and adopted regulations enforced by the County Fire Chief.</p> <p>C. Underground utilities (including gas, cable, electrical and telephone), streetlights, and mailboxes. (County of Orange Standard Condition of Approval, T04, Public Improvements)</p>	Submittal of satisfactory improvements and utility plans with verification of subsequent construction/installation of improvements	Prior to the recordation of a Subdivision Map, plans to be approved and improvements constructed/installed (or subdivider to enter into subdivision improvement agreement with County)	County of Orange Director of Planning & Development Services	
SC 4.6-5 Prior to the issuance of building permits, the applicant shall pay fees for the Major Thoroughfare and Bridge Fee Program for the Foothill/Eastern Transportation Corridor, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T05, Major Thoroughfare and Bridge Fee Programs)	Verification of payment of fees for the Major Thoroughfare and Bridge Fee Program	Prior to the issuance of Building Permits	County of Orange Director of Planning & Development Services	
SC 4.6-6 Prior to the issuance of any grading permits, the applicant shall provide adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, Subdivision and Grading. The applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, Subdivision and Grading Services. (County of Orange Standard Condition of Approval, T07, Site	Approved grading plans verifying adequate sight distance	Prior to the issuance of Grading Permits	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
C. Prior to the issuance of any building permits, the subdivider shall provide plans meeting the approval of the Manager, Subdivision & Grading, for the design of the internal pedestrian circulation system within the development. (County of Orange Standard Condition of Approval, T12, Internal Circulation)	Submittal of satisfactory internal pedestrians circulation plans	Prior to the issuance of Building Permits	County of Orange Director of Planning & Development Services	
SC 4.6-9 Prior to the recordation of a subdivision map, the subdivider shall dedicate a signal maintenance easement to the County of Orange at the project site access, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T13b, Traffic Signal Maintenance Easement)	Submittal of offer(s) of dedication for signal maintenance easement(s)	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	
SC 4.6-10 Prior to the recordation of a subdivision map, the subdivider shall design and construct/provide a cash deposit of ___ % of the cost of / enter into an agreement with the County of Orange, accompanied by financial security, for the cost of ___ % of a traffic signal at the intersection of ___ and ___, in a manner meeting the approval of the Manager, Subdivision and Grading. ¹ (County of Orange Standard Condition of Approval, T14b, Traffic Signal Installation)	Verification of approved street improvement plans with subsequent installation of improvements or enter into agreement with County for construction (with appropriate financial security)	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	
SC 4.6-11 Prior to the recordation of a subdivision map, the applicant shall delineate on the subdivision map a two way reciprocal access and parking easement to all parcels within the map and place a note on the final map reserving the easement for the benefit of all parcels on the map, in a manner meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval, T15, Access	Verification of note on map reserving reciprocal parking and access	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	

¹ The specific location of intersections and percentage of deposit would be determined at a future date by the County of Orange.

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
Easement for Commercial Centers)				
SC 4.6-12 Prior to the recordation of a subdivision map, the applicant shall submit a traffic study of the development for review and approval by the Manager, Subdivision and Grading, in accordance with the Growth Management Plan, Transportation Implementation Manual. The applicant shall retain a traffic engineer licensed in the State of California to perform the traffic study. (County of Orange Standard Condition of Approval, T16, Traffic Study)	Submittal of satisfactory traffic study	Prior to the recordation of a Subdivision Map	County of Orange Director of Planning & Development Services	
SC 4.6-13 Prior to the approval of any subdivision map (except for financing purposes) for the Ranch Plan development within 1,000 feet of the center line of the conceptual Crown Valley Parkway as shown on the current (as of the date of the Ranch Plan GPA/ZC approval) Master Plan of Arterial Highway (MPAH), between Antonio Parkway and the Foothill Transportation Corridor (FTC), the Director, Resource & Development Management Department (RDMD), County of Orange in consultation with Manager Programming/Planning of Orange County Transportation Authority (OCTA) shall make a finding that said subdivision map does not preclude implementation of Crown Valley Parkway as an MPAH facility.	Finding being made in conjunction with review of subdivision map in conjunction with subdivision map review	Prior to approval of subdivision map within 1,000 feet of the center line of the conceptual Crown Valley Parkway	County of Orange Director of Planning & Development Services (OCTA)	
SC 4.6-14 Prior to recordation of the first tract map (except for financing purposes) for Planning Areas 2, 3, or 5 in the Ranch Plan development, the applicant shall enter into an agreement with the Foothill/Eastern Transportation Corridor Agencies (TCA) to address right-of-way, cost, phasing, implementation and roles and responsibilities relating to all roadway connections to and/or crossings of the SR-241 extension within the Ranch Plan, and/or funding/phasing/	Executed agreement between the applicant and the TCA	In accordance with transportation improvement phasing plan for the SCRIP	TCA with approval of County of Orange Director of RDMD	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
construction of other roadways (i.e., F Street) that are needed in the even the extension of SR-241 does not occur. The agreement between the applicant and the TCA shall also be reviewed and approved by the Director, RDMD, County of Orange, for consistency with SCRIP/Development Agreement phasing/milestone objectives.				
MM 4.6-1 Table 4.6-26 and Table 4.6-27 identify the transportation improvement program proposed as mitigation for the Ranch Plan project for year 2025 and year 2010, respectively. The improvements differ depending on whether the SR-241 southerly extension is assumed. The project applicant shall participate on a fair share basis for improvements associated with cumulative impacts. Funds shall be paid to the County of Orange pursuant to the SCRIP.	Proof of project applicant's payment of funds demonstrating participation on a fair share basis for improvements as a part of the SCRIP Fee Program	As specified in the Transportation Improvement Phasing Plan component of SCRIP	County of Orange Director, Resources and Development Management Department	
MM 4.6-2 The mitigation program is based on the buildout of land uses in the surrounding area and may change based on the effects of the future land development and future changes to regional transportation patterns. The intersection and freeway ramp improvements shall be implemented and/or pro-rata payment shall be made in accordance with the transportation improvement phasing plan of the SCRIP. Prior to the approval of each Master Area Plan, a traffic analysis which supplements The Ranch Plan EIR Traffic Report (Austin-Foust Associates, Inc., May 2004) shall be submitted for review and approval to the County, Director of Planning and Development Services. The traffic study shall include:	Submittal of satisfactory traffic study	Approval of each Master Area Plan	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>a. An evaluation of how any proposed refinements to the circulation system and/or milestones remain in substantial compliance with appropriate Development Agreement obligations and Program EIR mitigation measures.</p> <p>b. Average Daily Trips generated by uses proposed within the planning area, as distributed onto the surrounding circulation system (both within the Ranch Plan PC Area, and in the surrounding vicinity) including the peak hour characteristics of those trips.</p>				
Freeway Mainline				
MM 4.6-3 No improvements are proposed herein to address the cumulative impacts of the project on I-5 mainline. Improvements to the I-5 mainline are a part of regional transportation improvement programs with associated timing and funding sources. If the responsible agencies establish a cumulative mitigation program, the project applicant shall participate on a fair share basis.	Proof of project applicant's participation on a fair share basis, if program adopted	In accordance of timing established by mitigation program, if adopted	County of Orange Director of Planning & Development Services (in consideration with Caltrans)	
AIR QUALITY				
PDF 4.7-1 The project has been designed to minimize the need for external vehicular trips through the provision of residential, commercial, office, and institutional uses within the boundaries of the project site, thereby reducing vehicular air emissions.	No separate monitoring is required. Compliance is assured through the MMRP process.	N/A	N/A	No separate monitoring required
SC 4.7-1 All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 403, Fugitive Dust, and Rule 402, Nuisance. All grading (regardless of acreage) shall apply best available control measures for fugitive dust in accordance with Rule 403. To ensure that the project is in full	Verification of compliance with Rule 403 and Rule 402	Prior to the issuance of a grading permit	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>compliance with applicable SCAQMD dust regulations and that there is no nuisance impact off the site, the contractor would implement each of the following:</p> <ul style="list-style-type: none"> a. Moisten soil not more than 15 minutes prior to moving soil or conduct whatever watering is necessary to prevent visible dust emissions from traveling more than 100 feet in any direction. b. Apply chemical stabilizers to disturbed surface areas (i.e., completed grading areas) within five days of completing grading or apply dust suppressants or vegetation sufficient to maintain a stabilized surface. c. Water excavated soil piles hourly or cover with temporary coverings. d. Water exposed surfaces at least twice a day under calm conditions. Water as often as needed on windy days when winds are less than 25 miles per day or during very dry weather in order to maintain a surface crust and prevent the release of visible emissions from the construction site. e. Wash mud-covered tires and under-carriages of trucks leaving construction sites. f. Provide for street sweeping, as needed, on adjacent roadways to remove dirt dropped by construction vehicles or mud, which would otherwise be carried off by trucks departing from project sites. 				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p><u>Construction: ROC and NO_x Emissions</u></p> <p>SC 4.7-2 The applicant shall comply with the following measures, as feasible, to reduce NO_x and ROC from heavy equipment.</p> <ul style="list-style-type: none"> a. Turn equipment off when not in use for more than five minutes. b. Maintain equipment engines in good condition and in proper tune as per manufacturers' specifications. c. Lengthen the construction period during smog season (May through October) to minimize the number of vehicles and equipment operating at the same time. 	Place as general notes on approved grading plan	Prior to issuance of a grading permit	County of Orange Director of Planning & Development Services	
<p><u>Construction: Diesel Emissions</u></p> <p>MM 4.7-1 In order to reduce diesel fuel engine emissions, the project applicant shall require that all construction bid packages include a separate "Diesel Fuel Reduction Plan." This plan shall identify the actions to be taken to reduce diesel fuel emissions during construction activities (inclusive of grading and excavation activities). Reductions in diesel fuel emissions can be achieved by measures including, but not limited to, the following: a) use of alternative energy sources, such as compressed natural gas or liquefied petroleum gas, in mobile equipment and vehicles; b) use of "retrofit technology," including diesel particulate traps, on existing diesel engines and vehicles; and c) other appropriate measures. Prior to the issuance of a grading permit, the Diesel Fuel Reduction Plan shall be filed with the County of Orange. The Diesel Fuel Reduction Plan shall include the following provisions:</p>	Submittal of a Diesel Fuel Reduction Plan identifying actions to reduce diesel fuel emissions during construction	Prior to the issuance of a grading permit	County of Orange Director of Planning & Development Services (AQMP)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>a. All diesel fueled off-road construction equipment shall be California Air Resources Board (CARB) certified or use post-combustion controls that reduce pollutant emissions to the same level as CARB certified equipment. CARB certified off-road engines are engines that are three years old or less and comply with lower emission standards. Post-combustion controls are devices that are installed downstream of the engine on the tailpipe to treat the exhaust. These devices are now widely used on construction equipment and are capable of removing over 90 percent of the PM₁₀, carbon monoxide, and volatile organic compounds from engine exhaust, depending on the specific device, sulfur content of the fuel, and specific engine. The most common and widely used post-combustion control devices are particulate traps (i.e., soot filters), oxidation catalysts, and combinations thereof.</p> <p>b. All diesel fueled on-road construction vehicles shall meet the emission standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used or older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible.</p> <p>c. The effectiveness of the latest diesel emission controls is highly dependant on the sulfur content of the fuel. Therefore, diesel fuel used by on-road and off-road construction equipment shall be low sulfur (>15 ppm) or other alternative low polluting diesel fuel formulation such as</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
PuriNO _x ™ or Amber363. Low sulfur diesel fuel shall be required by existing regulations after the year 2007 and it is already being produced and sold as the regulation is phased in.				
Local and Regional Operational Impacts MM 4.7-2 With the submittal of each Master Area Plan, the project applicant shall identify locations where alternative fueling facilities could be sited.	Show on Master Area and SuArea Plans	Master Area Plan and Subarea Plan	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	
MM 4.7-3 With the submittal of each Master Area Plan, the project applicant shall identify how shade trees can be incorporated into parking lot designs (to reduce evaporative emissions from parked vehicles); where shade trees can be sited (to reduce summer cooling needs); and how shade trees would be incorporated into bicycle and pedestrian path design. As a part of each Master Area Plan, the applicant shall identify how the use of light-colored roof materials and paint to reflect heat to the extent feasible has been incorporated into the design plans. Prior to issuance of building permits, the applicant shall identify how the use of light-colored roof materials and paint to reflect heat to the extent feasible has been incorporated into the design plans.	Submittal of satisfactory landscape plans Issuance of Site Development Permit	Prior to approval of Master Area Plan Prior to issuance of building permits	County of Orange Director of Planning & Development Services County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>MM 4.7-4 All construction staging areas and stockpile sites will be located as far as feasible from residential areas. This provision will apply to currently existing residential areas and to future residential developments that are completed prior to later development stages.</p> <p>A vegetative buffer zone, including trees and shrubs, will be placed between grading sites and residential areas or other locations where sensitive receptors can be reasonably expected.</p>	Approval of construction staging area plan	Prior to issuance of grading permit	County of Orange Director of Planning & Development Services	
NOISE				
<p>Construction Noise</p> <p>SC 4.8-1 During construction, the project applicant shall ensure that all noise generating activities be limited to the hours of 7 a.m. to 8 p.m. on weekdays and Saturdays. No noise generating activities shall occur on Sundays and holidays in accordance with the County of Orange Noise Ordinance.</p>	General note on approved grading plan	Prior to the issuance of grading permits	County of Orange Director of Planning & Development Services	
<p>SC 4.8-2</p> <p>A. Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the Manager, Building Permits Services, that:</p> <p>(1) All construction vehicles or equipment, fixed or mobile, operated within 1,000' of a dwelling shall be equipped with properly operating and maintained mufflers.</p> <p>(2) All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control).</p>				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>(3) Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.</p> <p>B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted grading plans, will be considered as adequate evidence of compliance with this condition. (County of Orange Standard Condition N10)</p>	General note on approved grading plan	Prior to the issuance of grading permits	County of Orange Director of Planning & Development Services	
<p><u>Residential Development</u></p> <p>SC 4.8-3 The applicant shall sound attenuate all residential lots and dwellings against present and projected noise (which shall be the sum of all noise impacting the project) so that the composite interior standard of 45 dBA CNEL for habitable rooms and a source specific exterior standard of 65 dBA CNEL for outdoor living areas is not exceeded. The applicant shall provide a report prepared by a County-certified acoustical consultant, which demonstrates that these standards will be satisfied in a manner consistent with Zoning Code Section 7-9-137.5, as follows:</p> <p>a. Prior to the recordation of a subdivision map or prior to the issuance of grading permits, as determined by the Manager, Building Permits Services, the applicant shall submit an acoustical analysis report to the Manager, Building Permits Services, 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 Condition B below.</p>	Submittal of satisfactory acoustical analysis	Prior to the recordation of a subdivision map or prior to the issuance of grading permits	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
b. Prior to the issuance of any building permits for residential construction, the applicant shall submit an acoustical analysis report describing the acoustical design features of the structures required to satisfy the exterior and interior noise standards to the Manager, Building Permits Services, for approval 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.	Submittal of satisfactory acoustical analysis	Prior to the issuance of any building permits for residential construction	County of Orange Director of Planning & Development Services and County of Orange Manager of Building Permits Services	
c. Prior to the issuance of any building permits, the applicant shall show all freestanding acoustical barriers on the project's plot plan illustrating height, location and construction in a manner meeting the approval of the Manager, Building Permits Services. (County of Orange Standard Condition N01)	Submittal of satisfactory acoustical analysis with acoustical barrier shown on plot plan	Prior to the issuance of any building permits	County of Orange Director of Planning & Development Services and County of Orange Manager of Building Permits Services	
<u>Multi-Family Residential Development</u> SC 4.8-4 Prior to the issuance of any certificates of use and occupancy, the applicant shall perform field testing in accordance with Title 24 Regulations to verify compliance with FSTC and FIIC standards if determined necessary by the Manager, Building Inspection Services. In the event such a test was previously performed, the applicant shall provide satisfactory evidence and a copy of the report to the Manager, Building Inspection Services, as a supplement to the previously required acoustical analysis report. (County of Orange Standard Condition N09)	Verification of field testing in accordance with Title 24 Regulations to verify compliance with FSTC and FIIC standards or a copy of a previous test	Prior to the issuance of certificates of use and occupancy	County of Orange Manager of Building Inspection Services	
<u>Non-Residential Development</u> SC 4.8-5 Except when the interior noise level exceeds the exterior noise level, the applicant shall sound attenuate all nonresidential	Submittal of satisfactory acoustical analysis	Prior to the issuance of building permits	County of Orange Manager of Building	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>structures against the combined impact of all present and projected noise from exterior noise sources to meet the interior noise criteria as specified in the Noise Element and Land Use/Noise Compatibility Manual.</p> <p>Prior to the issuance of any building permits, the applicant shall submit to the Manager, Building Permit Services, an acoustical analysis report prepared under the supervision of a County-certified acoustical consultant which describes in detail the exterior noise environment and the acoustical design features required to achieve the interior noise standard and which indicates that the sound attenuation measures specified have been incorporated into the design of the project. (County of Orange Standard Condition N02)</p>			Permit Services	
<p><u>Noise-Generating Equipment (Non-Residential Projects)</u></p> <p>SC 4.8-6 Prior to the issuance of any building or grading permits, the applicant shall obtain the approval of the Manager, Building Permits Services of an acoustical analysis report and appropriate plans which demonstrate that the noise levels generated by this project during its operation shall be controlled in compliance with Orange County Codified Ordinance, Division 6 (Noise Control). The report shall be prepared under the supervision of a County-certified Acoustical Consultant and shall describe the noise generation potential of the project during its operation and the noise mitigation measures, if needed, which shall be included in the plans and specifications of the project to assure compliance with Orange County Codified Ordinance, Division 6 (Noise Control). (County of Orange Standard Condition N08)</p>	Approved acoustical analysis	Prior to the issuance of building or grading permits	County of Orange Manager of Building Permits	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
SC 4.8-7 Prior to the issuance of certificates of use and occupancy, the developer shall produce evidence to the Manager, Building Inspection Services, that the Department of Real Estate has been notified that the project area is adjacent to a regional transportation corridor. The corridor is expected to be a high capacity, high-speed, limited-access facility for motor vehicles, and will have provisions for bus lanes and other mass transit type facilities. (County of Orange Standard Condition N12)	Submission of evidence that County of Orange Dept. of Real Estate has been notified the project area is adjacent to a regional transportation corridor	Prior to the issuance of certificates of use and occupancy	County of Orange Manager of Building Inspection Services	
<u>Cumulative Vehicular Traffic Noise</u>				
MM 4.8-1 For Camino Capistrano, north of Junipero Serra, prior to the issuance of precise grading permits, a detailed acoustical study shall be performed by a qualified acoustical consultant and submitted to the County of Orange to determine the specific height and location of the noise barriers required to meet the County's noise standards. To be effective, a noise barrier is required to have a surface density of at least 3.5 pounds per square foot and have no openings or cracks. It may be constructed as a solid wall, an earthen berm, or a combination of the two. It may be constructed of wood studs with stucco exterior, 1/4-inch plate glass, 5/8-inch Plexiglas, any masonry material, or a combination of these materials.	Submittal of satisfactory acoustical analysis to determine the specific height and location of the noise barriers required to meet the County's noise standards	Prior to the issuance of precise grading permits for Camino Capistrano, north of Junipero Serra	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
BIOLOGICAL RESOURCES				
<p>PDF 4.9-1 Prior to approval of the first Master Area Plan, the landowner shall enter into an agreement with the County regarding the 15,132-acre RMV Open Space. The agreement shall address:</p> <ul style="list-style-type: none"> • Method of preservation for this open space (i.e., conservation easement or similar mechanism); • Permitted uses within the open space as defined in the PC Text; • Non-permitted uses within the open space as defined in the PC Text; • Phasing of open space preservation areas. Phasing of open space areas will be consistent with development phasing; and • Funding mechanism for implementation of the Adaptive Management Program (AMP) as described in the Draft Program EIR. 	<p>Execution of an Open Space Agreement between the landowner and the County of Orange</p>	<p>Prior to approval of the first Master Area Plan</p>	<p>County of Orange Director of Planning & Development Services</p> <p>Area Plans are reviewed by Planning Commission</p>	
<p>PDF 4.9-2 Upon dedication of land to the RMV Open Space in accordance with the terms of the open space agreement described in PDF 9-1, the project applicant shall implement the Adaptive Management Program contained in Appendix J on the RMV Open Space, including the following sub-plans:</p> <ul style="list-style-type: none"> • Plant Species, Translocation, Propagation and Management Plan; • Habitat Restoration Plan; • Invasive Species Control Plan; 	<p>Verification of implementation of Adaptive Management Program including the following sub-plans:</p> <ul style="list-style-type: none"> • Plant Species, Translocation, Propagation and Management Plan; • Habitat Restoration Plan; • Invasive Species Control Plan; 	<p>Prior to Master Area Plan</p>	<p>County of Orange Director of Planning & Development Services</p> <p>Area Plans are reviewed by Planning Commission</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<ul style="list-style-type: none"> Grazing Management Plan; and Wildland Fire Management Plan. 	<ul style="list-style-type: none"> Grazing Management Plan; and Wildland Fire Management Plan. 			
MM 4.9-1 Prior to issuance of a grading permit for Planning Area 2, the Project Applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that two of the four small thread-leaved brodiaea locations are protected. Consistency with this mitigation measure for the portion of Planning Area 2 subject to Planning Reserve shall be addressed in accordance with the requirements of the Planning Reserve Designation.	Submittal of documentation of verification of protection of the four small thread-leaved brodiaea locations are protected	Prior to issuance of Grading Permit for PA 2	County of Orange Director of Planning & Development Services	
MM 4.9-2 Prior to issuance of a grading permit for Planning Area 2, the Project Applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that impacts to the key location and major population of southern tarplant in the Chiquita sub-basin have been substantially avoided. Consistency with this mitigation measure for the portion of Planning Area 2 subject to Planning Reserve shall be addressed in accordance with the requirements of the Planning Reserve Designation.	Submittal of documentation of verification that impacts to the <i>key location</i> and <i>major population</i> of southern tarplant in the Chiquita sub-basin have been substantially avoided	Prior to issuance of a Grading Permit for PA 2	County of Orange Director of Planning & Development Services	
MM 4.9-3 Prior to issuance of a grading permit for Planning Area 2, the Project Applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that impacts to the key location and major population of Coulter's saltbush in the Chiquita sub-basin have been substantially avoided. Consistency with this mitigation measure for the portion of Planning Area 2 subject to Planning Reserve shall be	Submittal of documentation of verification that impacts to the <i>key location</i> and <i>major population</i> of Coulter's saltbush in the Chiquita sub-basin have been substantially avoided	Prior to issuance of a Grading Permit for PA 2	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
addressed in accordance with the requirements of the Planning Reserve Designation.				
MM 4.9-7 Prior to issuance of a grading permit for Planning Area 7, the Project Applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that a minimum of a 200-foot setback (average 500 feet) from Cristianitos Creek has been incorporated into the project design.	Submittal of documentation of verification that a minimum of a 200-foot setback (average 500 feet) from Cristianitos Creek has been incorporated into the project design	Prior to issuance of a Grading Permit for PA 7	County of Orange Director of Planning & Development Services	
MM 4.9-16 Prior to issuance of a grading permit for Planning Area 7, the Project Applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that impacts to native grasslands in the Lower Gabino subunit are substantially avoided. Additionally, applicant shall further demonstrate to the County's Director of Planning Services Department or his/her designee compliance with the NCCP Habitat Restoration Program for native grasslands.	Submittal of documentation of verification that impacts to native grasslands in the Lower Gabino subunit are substantially avoided and document compliance with the NCCP Habitat Restoration Program for native grasslands	Prior to issuance of a Grading Permit for PA 7	County of Orange Director of Planning & Development Services	
MM 4.9-19 Prior to issuance of a grading permit for Planning Area 8, the Project Applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that the facilities specified in the Water Quality Management Plan to address pollutants of concern and conditions of concern are shown on the project plans.	Approved WQMP showing specified facilities	Prior to issuance of a Grading Permit for PA 8	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>MM 4.9-22 Prior to issuance of a grading permit for construction of Cristianitos Road from PA 5 to PA 2 and Cow Camp Road, the applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that the design for the specified portions of Cristianitos Road and Cow Camp Road includes the following features to facilitate wildlife movement:</p> <ul style="list-style-type: none"> • The bridge shall have minimum height dimensions of 20 feet. • Chain link fencing of 10 feet in height shall be installed on the north and south approaches to the culvert for a distance of 100 feet to deter wildlife from accessing the roadway. • All lighting on the bridge, if required for public health and safety, shall be shielded to prevent spill-over effects. 	Approval of a Street Improvement Plan demonstrating the design for Cristianitos Road and Cow Camp Road includes features to facilitate wildlife movement	Prior to issuance of a Grading Permit for construction of Cristianitos Road and Cow Camp Road	County of Orange Director of Planning & Development Services	
<p>MM 4.9-23 Prior to issuance of a grading permit for widening of Cristianitos Road, the applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that the design for Cristianitos Road includes the following features to facilitate wildlife movement:</p> <ul style="list-style-type: none"> • Culverts shall be constructed at the crossing of Gabino Creek and Cristianitos Creek • The culvert shall have minimum dimensions of 15 x 15 feet. • The bottom of the culvert shall be natural substrate. 	Approval of a Street Improvement Plan demonstrating the design for Cristianitos Road includes features to facilitate wildlife movement	Prior to issuance of a Grading Permit for construction of Cristianitos Road	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<ul style="list-style-type: none"> Light shall be visible from one end of the culvert to the other. Vegetation installed at either end of the culvert shall be native-low growing species to prevent predator-prey stalking. Chain link fencing of 10 feet in height shall be installed on the north and south approaches to the culvert for a distance of 100 feet to deter wildlife from accessing the roadway. If required for public health and safety, all lighting on the road above the culvert shall be shielded to prevent spill-over effects. 				
MM 4.9-24 Prior to design of the proposed ground tanks, project applicant shall coordinate with SMWD to review potential alternative locations for these tanks that would avoid impacts to linkages G and K, while still meeting SMWD siting criteria for ground tanks.	Verification of coordinated review of potential alternative locations for proposed ground tanks	In conjunction with construction of proposed ground tanks	SMWD with input from County of Orange Director of Planning & Development Services through non-County lead process	
<p>If alternative sites cannot be identified, the following measure will apply:</p> <p>MM 4.9-25 In conjunction with construction of these tanks, SMWD shall employ measures to reduce construction impacts, including fencing sensitive habitats and implementing of erosion control. Post construction all temporary disturbance areas shall be restored with native species. All manufactured slopes associated with the ground tanks shall be restored with native species. Lighting shall be restricted to necessary safety lighting and shall be shielded to reduce spill-over into native habitats.</p>	Verification of measures to reduce construction impacts	In conjunction with construction of proposed ground tanks	SMWD with input from County of Orange Director of Planning & Development Services through non-County lead process	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
MM 4.9-26 During construction, a construction monitoring program shall be implemented to mitigate for short-term noise impacts to nesting raptors, to the satisfaction of the County of Orange, Manager, Subdivision and Grading. Indirect impacts shall be mitigated by limiting heavy construction (i.e., mass grading) within 300 feet of occupied raptor nests. Occupied raptors nests shall be marked as "Environmentally Sensitive Areas" on grading/construction plans and shall be protected with fencing consisting of T-bar posts and yellow rope. Signs noting the area as an "Environmentally Sensitive Area" will be attached to the rope at regular intervals.	Approved Construction Monitoring Program with subsequent implementation	Prior to issuance of grading permit	County of Orange Director of Planning & Development Services	
MM 4.9-27 All plants identified by the California Exotic Pest Plant Council as an invasive risk in southern California shall be prohibited from development and fuel management zones adjacent to the RMV Open Space. The plant palette for fuel management zones adjacent to the RMV Open Space shall be limited to those species listed on the Orange County Fire Authority Fuel Modification Plant List. Plants native to Rancho Mission Viejo shall be given preference in the plant palette. Prior to issuance of fuel modification plan approvals, the County of Orange shall verify that: 1) plants identified by the California Exotic Pest Plant Council as an invasive risk in Southern California are not included in plans for fuel management zones adjacent to the RMV Open Space and, 2) the plant palette for fuel management zones adjacent to RMV Open Space is limited to those species listed on the Orange County Fire Authority Fuel Modification Plant List.	Approved landscape plans Verification of authorized plant materials	Prior to the approval of fuel modification plans Prior to the approval of fuel modification plan	County of Orange Director of Planning & Development Services (OCFA Fire Chief) County of Orange Director of Planning & Development Services (OCFA Fire Chief)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
Prior to the recordation of a map for a tract adjacent to the RMV Open Space, the County of Orange shall verify that the CC&Rs contain language prohibiting the planting of plants identified by the California Exotic Pest Plant Council as an invasive risk in Southern California in private landscaped areas.	Verification of required language in CC&Rs	Prior to the recordation of a map for tract adjacent to the RMV Open Space	County of Orange Director of Planning & Development Services	
MM 4.9-28 Lighting shall be shielded or directed away from RMV Open Space habitat areas through the use of low-sodium or similar intensity lights, light shields, native shrubs, berms or other shielding methods. Prior to the issuance of building permits for a tract with public street lighting adjacent to RMV Open Space habitat areas, the County of Orange shall verify that measures to shield such lighting have been incorporated in the building plans.	Approved lighting plan	Prior to the issuance of building permits for tracts with public street lighting adjacent to RMV Open Space habitat areas	County of Orange Director of Planning & Development Services	
MM 4.9-29 Access to the RMV Open Space shall be managed and directed as specified in the Open Space Agreement between the County of Orange and RMV. Where potential conflicts between development and open space are identified per the agreement the following shall occur: Prior to the issuance of building permits for a tract adjacent to the RMV Open Space, the County of Orange shall verify that measures, such as fencing, signs etc., to direct the public to public access points within the RMV Open Space have been incorporated into the building plans. To the extent that public access points are not identified, the County of Orange shall verify that measures, such as fencing, signs etc., to prohibit public access have been incorporated into the building plans.	Submittal of evidence verifying that measures, have been incorporated into the building plans; approved building plans	Prior to the issuance of Building Permits for tracts adjacent to the RMV Open Space	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>MM 4.9-30 Biological resources outside of the Proposed Project impact area shall be protected during construction. To ensure this protection, the Project Applicant shall prepare and implement a Biological Resources Construction Plan (BRCP) that provides for the protection of the resource and established the monitoring requirements. The BRCP shall contain at a minimum the following:</p> <ul style="list-style-type: none"> • Specific measures for the protection of sensitive amphibian, mammal, bird, and plant species during construction. • Identification and qualification of habitats to be removed. • Design of protective fencing around conserved habitat areas and the construction staging areas. • Specific construction monitoring programs for sensitive species required by Wildlife Agencies including, but not limited to, programs for the arroyo southwestern toad, western spadefoot toad, southwestern pond turtle, cactus wren, and coastal California gnatcatcher. Such measures shall be consistent with prior Section 7 consultations and 1600 agreements e.g., Arroyo Trabuco Golf Course. • Specific measures required by Wildlife Agencies (e.g., Arroyo Trabuco Golf Course) for the protection of sensitive habitats including, but are not limited to, erosion and siltation control measures, protective fencing guidelines, dust control measures, grading techniques, construction area limits, and biological monitoring requirements. <p>Provisions for biological monitoring during</p>	Approval of a Biological Resources Construction Plan (BRCP)	Prior to issuance of grading permits	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
construction activities to ensure compliance and success of each protective measure. The monitoring procedures will (1) identify specific locations of wildlife habitat and sensitive species to be monitored; (2) identify the frequency of monitoring, monitoring methodology (for each habitat and sensitive species to be monitored); (3) list required qualifications of biological monitor(s); and (4) identify reporting requirements.				
MM 4.9-31 Prior to issuance of grading permits for Planning Area 4, the County's Director of Planning Services/designee shall verify that wetland/riparian habitat for tricolored blackbird at the mouth of Verdugo Canyon has been avoided.	Submittal of documentation verifying that wetland/riparian habitat for tricolored blackbird at the mouth of Verdugo Canyon has been avoided	Prior to issuance of Grading Permits	County of Orange Director of Planning & Development Services	
MM 4.9-32 Prior to the issuance of grading permits for the proposed golf course in Cristianitos sub-basin, the County's Director of Planning Services or his/her designee shall verify that the landscape plans for the golf course include native habitats which could contribute to the restoration of grasslands in the sub-basin. A minimum of sixty acres of native habitats shall be included in the landscape plans.	Approved landscape plans for the golf course include native habitats	Prior to issuance of Grading Permits for the proposed golf course in Cristianitos sub-basin	County of Orange Director of Planning & Development Services	
MM 4.9-33 Prior to issuance of grading permits for the proposed golf course in Blind subunit, the County's Director of Planning Services or his/her designee shall verify that the landscape plans for the golf course include native habitats including native grassland which could contribute to the restoration of grasslands in the sub-basin. A minimum of sixty acres of native habitats shall be included in the landscape plans	Approved landscape plans for the golf course include native habitats including native grassland	Prior to issuance of Grading Permits for the proposed golf course in Blind subunit	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
MM 4.9-35 Prior to issuance of a grading permit for Planning Area 5, the Project Applicant shall demonstrate to the satisfaction of the County's Director of Planning Services Department or his/her designee that all vernal pools in the Trampas Sub-basin have been avoided.	Submittal of documentation of verification that all vernal pools in the Trampas Sub-basin have been avoided	Prior to issuance of Grading Permits for Planning Area 5	County of Orange Director of Planning & Development Services	
MM 4.9-36 Palmers grappling hook seed shall be collected prior to project impacts for use in the seed mix for coastal sage scrub/native grassland restoration areas. Receiver sites will support clay soils and other conditions suitable for Palmer's grappling hook. In addition, where feasible, clay soils will be salvaged from development areas and appropriately transported to restoration areas to provide a seed bank. Implementation details of the salvage and relocation program shall be identified in the Final Plant Species Translocation, Propagation and Management Plan, outlined in Appendix J-1.	Approval of Final Plant Species Translocation, Propagation and Management Plan Verification of collection of Palmers grappling hook seeds	Prior to issuance of grading permit as monitored by the County Biological Monitor Prior to initiation of grading as monitored by the County Biological Monitor	County of Orange Director of Planning & Development Services and County Biological Monitor	
MM 4.9-37 Catalina mariposa lily shall be salvaged and relocated to the coastal sage scrub/native grassland restoration and enhancement areas by the Project Applicant; or seed can be collected prior to project impacts for use in the seed mix for coastal sage scrub/native grassland restoration areas. The receiver sites shall support clay soils and other conditions suitable for Catalina mariposa lily. In addition, where feasible, clay soils shall be salvaged from development areas and appropriately transported to restoration areas to provide a seed bank. Implementation details of the salvage and relocation program shall be identified in the Final Plant Species Translocation, Propagation and Management Plan, outlined in Appendix J-1.	Approval of Final Plant Species Translocation, Propagation and Management Plan Verification of Catalina mariposa lily salvage/relocation	Prior to issuance of grading permit as monitored by the County Biological Monitor Prior to initiation of grading as monitored by the County Biological Monitor	County of Orange Director of Planning & Development Services and County Biological Monitor	
MM 4.9-38 Vernal barley seed shall be	Approval of Final Plant	Prior to issuance of a	County of Orange	

472

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
collected prior to project impacts for use in the seed mix for coastal sage scrub/native grassland restoration areas. The receiver sites shall support clay soils and other conditions suitable for vernal barley. In addition, where feasible, clay soils shall be salvaged from development areas and appropriately transported to restoration areas to provide a seed bank. Implementation details of the salvage and relocation program shall be identified in the Final Plant Species Translocation, Propagation and Management Plan, outlined in Appendix J-1.	Species Translocation, Propagation and Management Plan Verification of vernal barley seed collection	grading permit as monitored by the County Biological Monitor Prior to initiation of grading as monitored by the County Biological Monitor	Director of Planning & Development Services and County Biological Monitor	
MM 4.9-39 Small-flowered microseris seed shall be collected prior to project impacts for use in the seed mix for coastal sage scrub/native grassland restoration areas. The receiver sites shall support clay soils and other conditions suitable for small-flowered microseris. In addition, where feasible, clay soils shall be salvaged from development areas and appropriately transported to restoration areas to provide a seed bank. Implementation details of the salvage and relocation program shall be identified in the Final Plant Species Translocation, Propagation and Management Plan, outlined in Appendix J-1.	Approval of Final Plant Species Translocation, Propagation and Management Plan Verification of Small-flowered microseris seed collection	Prior to issuance of a grading permit as monitored by the County Biological Monitor Prior to initiation of grading as monitored by the County Biological Monitor	County of Orange Director of Planning & Development Services and County Biological Monitor	
MM 4.9-40 Mud nama inoculum (topsoil and dried pants to obtain seed) shall be collected prior to project impacts for use in the relocation of this species. The receiver sites shall support appropriate soils and other conditions suitable for mud nama. Implementation details of the salvage and relocation program shall be identified in the Final Plant Species Translocation, Propagation and Management Plan.	Approval of Final Plant Species Translocation, Propagation and Management Plan Verification of Mud nama inoculum seed collection	Prior to issuance of a grading permit as monitored by the County Biological Monitor Prior to initiation of grading as monitored by the County Biological Monitor	County of Orange Director of Planning & Development Services and County Biological Monitor	
MM 4.9-41 Prior to the issuance of a grading permit for Planning Area 6, the Project Applicant shall demonstrate to the	Submittal of evidence documenting that the key gnatcatcher location has	Prior to issuance of grading permit for Planning Area 6	County of Orange Director of Planning & Development	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
satisfaction of the County's Director of Planning Services Department or his/her designee that the key gnatcatcher location is avoided.	been avoided		Services	
MM 4.9-42 The project applicant shall obtain Section 404, 1600, and federal and state Endangered Species Act permits, as applicable.	Provide evidence of permits from the regulatory agencies	Prior to issuance of grading permit for those areas with federal or state endangered species, or jurisdictional land	County of Orange Director of Planning & Development Services (CDFG, USFWS, ACOE)	
MM 4.9-43 In conjunction with future regulatory permitting, the project applicant shall examine further minimization of impacts to wetlands in the "ox-bow" area of the Gobernadora sub-basin in order to increase the dimension of Linkage G.	Provide evidence of permits from the regulatory agencies	Prior to issuance of grading permit for PA 3 or any portion thereof offering the "ox-bow" area of the Gobernadora sub-basin	County of Orange Director of Planning & Development Services (CDFG, USFWS, ACOE)	
AESTHETICS AND VISUAL RESOURCES				
PDF4.10-1 Approximately two-thirds of the project site shall be retained in open space.	No separate monitoring is required. Compliance is assured through project implementation and MMRP process.	N/A	N/A	No separate monitoring required
PDF4.10-2 A 2,100-foot-wide buffer shall be provided between Coto de Caza and the project site.	Approved Master Area Plan showing buffer	Approval of Master Area Plan for PAs 2 & 3	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	
PDF 4.10-3 Within Planning Area 4 and along the easterly development edge of Planning Area 3 adjacent to Caspers Wilderness Park, the exterior lighting shall be designed and located to confine direct rays to the premises. In addition, parking lots and lighting within Planning Area 4 and along the easterly development edge of Planning Area 3 shall be designed and constructed in a manner that minimizes the diffusion of refractive light into surrounding neighborhoods and/or into the night sky.	Approved Lighting Plan	Prior to Final Tract Map recordation for PAs 3 & 4	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
PDF 4.10-4 Within Planning Area 4 and along the easterly development edge of Planning Area 3 adjacent to Caspers Wilderness Park, the applicant shall demonstrate that the exterior walls, and particularly the roofing materials, of residences and businesses visible from Caspers Regional Park are compatible with the natural surroundings.	Submittal of documentation demonstrating that the exterior walls and roofing materials of residences and businesses visible from Caspers Regional Park are compatible with the natural surroundings	Prior to approval of Master Area Plans for Planning Areas 3 and 4 Showing of roofing materials at building permit	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	
<p>SC4.10-1 The applicant shall install landscaping, equip for irrigation, and improvements on lots in accordance with an approved plan as stated below:</p> <p>a. Detailed Plan--Prior to the issuance of any building permit(s), the applicant shall submit a detailed landscape plan showing the detailed irrigation and landscaping design to the Manager, Subdivision and Grading for approval, in consultation with the Manager HBP/Program Management. Detailed plans shall show the detailed irrigation and landscaping design and shall take into account the previously approved landscape plan for the Ranch Plan project, 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).</p>	Approved landscaping plan and irrigation plan	Prior to the issuance of building permits	County of Orange Director of Planning & Development Services in consultation with Manager, HBP	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
b. Installation Certification—Prior to the issuance of final certificates of use and occupancy and the release of financial security, if any, guaranteeing the landscape improvements, said improvements shall be installed and shall be 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 the Manager, Construction, and the Manager, Building Inspection Services, prior to the issuance of any certificates of use and occupancy. (County of Orange Standard Conditions of Approval, LA01b)	Landscaping and irrigation plan certification from landscape architect Approved irrigation management report	Prior to the issuance of final certificates of use and occupancy and the release of financial security Prior to the issuance of final certificates of use and occupancy and the release of financial security	County of Orange Director of Planning & Development Services & Manager HBP County of Orange Manager, Construction and Manager, Building Inspection Services	
SC 4.10-2 a. Prior to the issuance of precise grading permits, the applicant shall prepare a detailed landscape plan for privately maintained common areas which shall be reviewed and approved by the Manager, Subdivision and Grading. The plan shall be certified by a licensed landscape architect or a licensed landscape contractor, as required, as taking into account the approved preliminary landscape plan (if any), County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, Water Conservation	Approved detailed landscape plan for privately maintained common areas	Prior to the issuance of precise grading permits	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>Measures contained in Board Resolution 90-487 (Water Conservation Measures), and Board Resolution 90-1341 (Water Conservation Implementation Plan).</p> <p>b. 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.</p> <p>c. 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. (County of Orange Standard Conditions of Approval, LA02b)</p>	<p>Certification from landscape architect that landscaping and irrigation system in accordance with the approved plan</p> <p>Approved irrigation management report for each landscape irrigation system</p>	<p>Prior to the issuance of certificates of use and occupancy</p> <p>Prior to the issuance of certificates of use and occupancy</p>	<p>County of Orange Director of Planning & Development Services</p> <p>County of Orange Manager, Building Inspection Services</p>	
<p>SC 4.10-3 Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, Building Permit. (County of Orange Standard Conditions of Approval, LG01)</p>	<p>Approved lighting study/plan</p>	<p>Prior to the issuance of building permits</p>	<p>County of Orange Manager of Building Permits</p>	
<p>MM 4.10-1 All lighting along the perimeter of natural areas, particularly street lights, shall be downcast luminaries and shall be shielded and oriented in a manner that will prevent spillage or glare into the remaining natural and open space areas. Final lighting orientation and design shall be to the satisfaction of the County of Orange, Manager, Building Permits. Prior to final inspection or issuance of a certificate of occupancy, where applicable, the Manager, Building Permit, shall cause to be performed</p>	<p>Approved photometric field inspection of the final approved lighting system for the project</p>	<p>Prior to the final inspection or issuance of a certificate of occupancy</p>	<p>County of Orange Building Permits Manager</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
a photometric field inspection of the approved lighting system for the project. The inspection shall verify the proper construction and installation of materials within the approved plan, determine the actual light patterns and values through light meter testing and observation, and determine the extent of any errant lighting. Deviations and/or violations shall be corrected prior to the final clearance for the project.				
CULTURAL AND PALEONTOLOGICAL RESOURCES				
SC 4.11-1 Prior to the issuance of any grading permit, the applicant shall provide written evidence to the County or Orange 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.	Written evidence that a County-certified archaeologist has been retained to observe grading and salvage, and to catalogue archaeological resources	Prior to the issuance of any grading permits	County of Orange Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities	
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 offer	Approval of the archaeologist's follow-up report Verification of payment of curatorial fee if an applicable fee program has been	Prior to the release of the grading bond Prior to the release of the grading bond	County of Orange Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities County of Orange Manager, Harbors, Beaches & Parks	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. 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 pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisor, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, HBP/Coastal and Historical Facilities. (County of Orange Standard Conditions of Approval, A04)	adopted by the Board of Supervisor at the time of presentation		HBP/Coastal and Historical Facilities	
<u>Paleontological Resources</u> SC 4.11-2 Prior to the issuance of any grading permit, the project contractor shall provide written evidence to the Manager, Subdivision and Grading, that contractor 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 resources surveillance, and shall establish, in cooperation with the contractor, 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 contractor, which ensure proper exploration and/or salvage.	Written evidence that a County-certified archaeologist has been retained to observe grading and salvage, and to catalogue fossils as necessary	Prior to the issuance of any grading permits	County of Orange Manager, Harbors, Beaches & Parks HBP/Coastal and Historical Facilities	
Prior to the release of any grading bond, the contractor shall submit the paleontologist's follow up report for approval by the County Manager, HBP/Coastal and Historical	Approval of the paleontologist's follow-up report	Prior to the release of the grading bond	County of Orange Manager, Harbors, Beaches & Parks HBP/Coastal and	

479

480

480

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
MM 4.11-2 Based on the mitigation standards set forth in the California Environmental Act (CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, prior to the approval Area Plans for the applicable planning areas, the applicant shall provide the County of Orange with evidence regarding the determination of eligibility of prehistoric sites CA-ORA-535, -753, -754, -1134, -1136, -1137, and -1138, and historic sites 30-176631, -176633, -176634, and -176635. Should a site(s) be deemed ineligible for listing on the National Register of Historic Places (NRHP) or California Register of Historic Places (CRHR), no further mitigation is required. Should a site(s) be deemed eligible, the County of Orange standard conditions and requirements and subsequent Mitigation Measure 4.11-3 shall apply.	Provide evidence regarding the determination of eligibility of prehistoric sites CA-ORA-535, -753, -754, -1134, -1136, -1137, and -1138, and historic sites 30-176631, -176633, -176634, and -176635	Prior to the approval of applicable Subarea Plans	County of Orange Director of Planning & Development Services Services in conjunction with the Orange County Manager of Harbors, Beaches & Parks HBP/Coastal and Historical Facilities Area Plans are reviewed by Planning Commission	
MM 4.11-3 As applicable, the following archaeological sites shall be mitigated to a less than significant level: CA-ORA-535, -656, -753, -754, -882, -997, -1043, -1048, -1121, -1222, -1134, , -1137, -1138, -1449, -1556, -1559, -1560, and -1565, and historic sites CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635. Based on the mitigation standards set forth in the California Environmental Act (CEQA) Guidelines §15126.4(b) and Public Resources Code §21083.2, mitigation shall be accomplished through implementation of one of the following mitigation options consistent with the Cultural Resources Management Plan:				

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>a. Relocation of grading boundaries/fuel modification zones to completely avoid disturbance to the site(s). Should the boundary relocation be infeasible, an archaeological monitor shall be present during grading and fuel modification brush clearance in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange). Fencing or stakes shall be erected outside of the sites to visually depict the areas to be avoided during construction.</p> <p>b. Prior to grading in the vicinity of archaeological resources (note: confidential archaeological mapping is on file at the County of Orange), Phase III data recovery (salvage excavations) shall be conducted for these archaeological sites or any other sites within the potential impact area of development that cannot be avoided. The Phase III work shall provide sufficient scientific information to fully mitigate the impacts of development on these sites and be performed in accordance with standards of the State Office of Historic Preservation.</p> <p>In accordance with California Health and Safety Code Section 7050.5, if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains. The County Coroner shall make such determination within two working days of notification of discovery. The County Coroner shall be notified within 24 hours of the</p>	<p>Verify archaeological sites have been avoided or the presence of a county certified archaeologist during grading and brush removal</p> <p>Document review of the Phase III data recovery</p>	<p>Prior to issuance of grading permit in vicinity of identified resources</p> <p>Prior to issuance of grading permit in vicinity of identified resources</p>	<p>County of Orange Director of Planning & Development Services Services in conjunction with the Orange County Manager of Harbors, Beaches & Parks HBP/Coastal and Historical Facilities</p> <p>County of Orange Director of Planning & Development Services Services in conjunction with the Orange County Manager of Harbors, Beaches & Parks HBP/Coastal and Historical Facilities</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
discovery. If the County Coroner determines that the remains are or believed to be Native American, the County Coroner shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 24 hours of notification. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.				
RECREATION				
PDF 4.12-2 The project incorporates 20 to 25 acres of sports park	Verification of incorporation of 20 to 25 acres of sports parks into the Master Park Implementation Plan	In conjunction with Master Park Plan for Planning Area 3	County of Orange Director of Planning & Development Services	
PDF 4.12-3 The project provides for 15,132 acres of open space within the Ranch Plan boundaries. The large amount of open space would provide for protection of many of the major ridgelines. Specifically, the open space in Planning Area 10 would provide a buffer with the General Thomas F. Riley and Ronald W. Caspers Wilderness Parks. This minimizes indirect impacts on the existing parks.	No separate monitoring is required. Compliance is assured through project implementation and MMRP process. (See PDF 4.1-1 and 4.9-1)	N/A	N/A	No separate monitoring is required
PDF 4.12-4 The project provides for trail linkages between the Ladera Ranch and the Ranch Plan community trails, which provides connection to the regional trail system.	Verify trail linkages between Ladera Ranch and Ranch Plan community trails provide connection to regional trail system	Prior to approval of Master Area Plan for PA 1	County of Orange Manager of Harbors, Beaches and Parks, Trails Division Area Plans are reviewed by Planning Commission	
PDF 4.12-5 The project would facilitate	Verify plans include portions	Prior to applicable project	County of Orange	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
implementation of the Master Plan of Regional Riding and Hiking Trails, through the construction of portions of the San Juan Creek, the Cristianitos, and the Prima Deshecha trails.	of the San Juan Creek, Cristianitos and Prima Deshecha trails within development areas	Master Area Plan and Subarea Plan approval	Manager of Harbors, Beaches and Parks, Trails Division Area Plans are reviewed by Planning Commission	
PDF 4.12-6 The project would facilitate implementation of the Master Plan of County Bikeways through construction of portions of the San Juan Creek Bikeway.	Verify plans include portions of the San Juan Creek Bikeway within development areas	Prior to applicable Master Plan and Subarea Plan approval	County of Orange Manager of Harbors, Beaches and Parks, Bikeways Division Area Plans are reviewed by Planning Commission	
PDF 4.12-7 The project proposes the construction of up to four golf courses.	Approved golf course plan with subsequent construction	Prior to applicable Master Plan and Subarea Plan approval	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	
PDF 4.12-8 Local park sites will be provided in accordance with the provisions of the Orange County Local Park Code as contained in the Park Implementation Plan for the Ranch Plan PC Area. Park sites will also be identified at the Master Area Plan level per Section II.B.3.a.6.	Provision of local parks in Master Area Plans, with subsequent construction	Prior to Master Area Plan Approval	County of Orange Director of Planning & Development Services Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
SC 4.12-1				
a. Prior to the recordation of any subdivision map that creates building sites and is immediately adjacent to or contains a public park lot, the subdivider shall make an irrevocable offer of fee dedication for local park purposes to the County of Orange or its designee over Lot(s) _____. The form of the offer shall be suitable for recordation as approved by the Manager, Current Planning Services. Said offer shall be free and clear of money and all other encumbrances, liens, leases, fees, easements (recorded and unrecorded), assessments and unpaid taxes except those meeting the approval of the Manager, Current Planning Services.	Irrevocable offer of fee dedication for local park purposes to the County of Orange	Prior to recordation of any applicable subdivision map	County of Orange Director of Planning & Development Services	
b. The subdivider applicant shall grade Lot(s) _____, the public park site(s), to provide minimum acres of creditable local park land and shall secure the park site(s) against erosion and shall stub out sewer, water, gas, electricity, telephone, storm drain, etc., connections to the property lines.	Verify subdivider applicant would grade the public park site(s) to provide minimum acres of creditable local park land	Prior to recordation of any subdivision map	County of Orange Director of Planning & Development Services	
c. The developer, or his assigns, and successors in interest shall maintain the offered park site(s) until such time as the County or its designee accepts the offer of dedication. (Standard Condition CP01 Public Park Dedication)	Verify developer would maintain the offered park site(s) until Orange County accepts the offer of dedication	Prior to recordation of any subdivision map	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>SC 4.12-2</p> <p>a. Prior to the recordation of an applicable subdivision map which creates building sites, the subdivider shall make an irrevocable offer to dedicate an easement over Lot(s) _____ for private local park purposes to the County of Orange in a form approved by the Manager, the Manager, Current Planning Services. The subdivider shall not grant any other easement over the private park easement which is inconsistent with the local park uses, unless that easement is made subordinate to said local park easement in a manner meeting the approval of the Manager, Current Planning Services.</p> <p>b. Prior to the recordation of an applicable final subdivision map, the subdivider shall submit a preliminary concept plan of the proposed private recreation facilities to the Manager, Current Planning Services, for review and approval. (Standard Condition CP02 Private Park Dedication)</p>	<p>Verify subdivider would make an irrevocable offer to dedicate an easement for private local park purposes to the County of Orange</p> <p>Verify submission of a preliminary concept plan of private recreation facilities for review and approval</p>	<p>Prior to recordation of an applicable subdivision map which creates building sites</p> <p>Prior to recordation of applicable final subdivision map</p>	<p>County of Orange Director of Planning & Development Services</p> <p>County of Orange Director of Planning & Development Services</p>	
<p>SC 4.12-4 Prior to the recordation of each applicable subdivision map, the subdivider shall reserve open space Lots _____ for granting in fee to a homeowner's association who shall be responsible for their maintenance and upkeep in a manner meeting the approval of the Manager HBP/Program Management. (Standard Condition HP02 Open Space Dedications</p>	<p>Verify subdivider reserves identified open space lots for granting in fee to a homeowner's association</p>	<p>Prior to recordation of final tract map</p>	<p>County of Orange Manager of Harbors, Beaches & Parks, Program Management</p>	
<p>SC 4.12-5 The subdivider shall provide an easement for a recreational trail for riding and hiking trail purposes in accordance with the following:</p>				
<p>a. Prior to the recordation of an applicable subdivision map, the subdivider shall:</p>	<p>Verify subdivider would provide an easement for a</p>	<p>Prior to recordation of final tract map</p>	<p>County of Orange Manager of Harbors,</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
1. Irrevocably offer a recreation easement for riding and hiking trail purposes in a location and in a manner meeting the approval of the Manager HBP/Program Management. The subdivider 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.	recreational trail for riding and hiking trail purposes		Beach & Parks Program Management	
2. Design the necessary improvements for the trail, including, but not limited to grading, erosion control, signage, fencing, and a grade-separated crossing, as applicable, in a manner meeting the approval of the Manager HBP/ Program Management, in consultation with the Manager, Subdivision and Grading. Trail design shall also avoid affecting areas known to contain sensitive biological resources as identified in Section 4.9, Biological Resources.	Verify approval of design improvements for the trail by the Manager HBP/ Program Management	Prior to the issuance of precise grading permits	County of Orange Manager of Harbors, Beach & Parks Program Management in consultation with County of Orange Director of Planning & Development Services	
3. Enter into an agreement, accompanied by financial security, with the County of Orange, to insure the installation of the necessary improvements.	Verify existence of an agreement accompanied by financial security with the County to insure installation of necessary improvements	Prior to the issuance of final certificates of use and occupancy	County of Orange Manager of Harbors, Beach & Parks Program Management in consultation with County of Orange Manager of Construction	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
b. Prior to the issuance of precise grading permits, applicant shall obtain approval from the Manager HBP/ Program Management, that the proposed grading provides for and will not interfere with or preclude the installation of the recreational riding and hiking trail.	Verify grading would not interfere with installation of recreational riding and hiking trail	Prior to the issuance of precise grading permits	County of Orange Director of Planning & Development Services County of Orange Manager of Harbors, Beach & Parks Program Management	
c. 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 HBP/ Program Management, in consultation with the Manager, Construction. (Standard Condition HP03 Recreation Easement for Regional Trail)	Verify installation of riding and hiking trail improvements meet the approval of the Manager of HBP/Program Management in consultation with the Manager of Construction	Prior to issuance of final certificates of use and occupancy and release of financial security	County of Orange Manager of Harbors, Beach & Parks Program Management in consultation with County of Orange Manager of Construction	
MM 4.12-1 In conjunction with approval of the first Master Area Plan, the applicant shall develop a Master Trail and Bikeways Implementation Plan for the Ranch Plan that would establish viable routes for trails and bikeways to provide connectivity to community trails and bikeways in adjacent developments and with existing and proposed recreational facilities. The Master Trail and Bikeways Implementation Plan shall meet with the approval by the Director of PSD in consultation with the Manager, Harbors, Beaches & Parks Program Management.	Approval Master Trail and Bikeways Implementation Plan	Prior to approval of the first Master Area Plan	County of Orange Planning Director in conjunction with the Manager, Harbors, Beaches & Parks Program Management Area Plans are reviewed by Planning Commission	
MINERAL RESOURCES				
PDF 4.13-1 The project would provide for the ONIS surface mining to continue within Planning Area 5 as an interim use until such time as development is proposed.	No separate monitoring is required. Continuation of mining is subject to conditions of lease and ability of ONIS to continue mining operations			

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
PDF 4.13-2 Temporary excavation/extraction of construction aggregate or construction-related materials extraction shall be allowed during construction grading and on-site earthmoving activities to promote project construction efficiencies and limit long distance transportation of construction aggregate and construction related material.	Verify temporary excavation/ extraction of aggregate or materials allowed during construction grading and on-site earthmoving activities	Prior to issuance of a grading permit	County of Orange Director of Planning & Development Services	
HAZARDS AND HAZARDOUS MATERIALS				
PDF 4.14-1 The project has been designed to address potential impacts from the Prima Deshecha landfill by incorporating setbacks from fill activities to avoid any potential exposure to potential hazardous materials impacts that may be associated with landfill activities.	Submittal of evidence documenting the project design incorporates setbacks from fill activities to avoid any potential exposure to potential hazardous materials impacts that may be associated with landfill activities	Prior to approval of Master Plan for Planning Area 5	County of Orange Director of Planning & Development Services (IWMD and OCFA)	
PDF 4.14-2 The project provides for a minimum 110-foot fuel modification zone surrounding all development areas.	Approved landscape plan and fuel modification plan	Prior to issuance of grading permits	County of Orange Director of Planning & Development Services (OCFA)	
PDF 4.14-3 A <i>Wildland Fire Management Plan</i> is contained in the Adaptive Management Program provided in Appendix J. The Adaptive Management Program is further discussed in Section 4.9, Biological Resources.	Approved Wildland Fire Management Plan	Prior to issuance of grading permits	County of Orange Director of Planning & Development Services (OCFA)	
SC 4.14-1 Prior to the recordation of a subdivision map, the subdivider 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 or the Orange County Flood Control District, for review and approval by the Manager, Subdivision and Grading, in consultation with the Manager, PFRD/ Environmental Resources. (Orange County Standard Condition of Approval HM-01)	Submittal of Hazardous Materials Assessment and Disclosure Statement	Prior to the recordation of a subdivision map	County of Orange Director of Planning & Development Services	
SC 4.14-2 Prior to the issuance of a grading	Submittal of Hazardous	Prior to issuance of a	County of Orange	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
or building permit, the contractor shall submit to the Fire Chief a list of all hazardous, flammable and combustible liquids, solids or gases to be stored, used or handled on site. These materials shall be classified according to the Uniform Fire Code and a document submitted to the Fire Chief with a summary sheet listing the totals for storage and use for each hazard class.	Materials Assessment and Disclosure Statement	grading and/or building permit	Director of Planning & Development Services (OCFA)	
<p>MM 4.14-1 Prior to the issuance of a grading permit, the contractor shall develop an approved Health and Safety Contingency Plan (HSCP) in the event that unanticipated/ unknown environmental contaminants are encountered during construction. The plan shall be developed to protect workers, safeguard the environment, and meet the requirements of the California Code of Regulations (CCR), Title 8, General Industry Safety Orders--Control of Hazardous Substances.</p> <p>The HSCP should be prepared as a supplement to the Contractor's Site-Specific Health and Safety Plan, which should be prepared to meet the requirements of CCR Title 8, Construction Safety Orders.</p> <p>Specifically, the HSCP must:</p> <ol style="list-style-type: none"> Describe the methods, procedures, and processes necessary to identify, evaluate, control, or mitigate all safety and health hazards associated with any soil, groundwater and/or air contamination that may be encountered during field construction activities. Apply to all site construction workers, on-site subcontractors, site visitors, and other authorized personnel who are involved in construction operations. Be approved by the Manager of 	Approved Health and Safety Contingency Plan	Prior to issuance of a grading permit	County of Orange Director of Planning & Development Services (OCFA)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
<p>Subdivision and Grading Services (PDS) in consultation with the Manager of Environmental Resources (PFRD) and/or their appointed consultant team.</p> <p>The HSCP will take effect only if materials affected by environmental contaminants are exposed during construction. This includes undocumented waste materials, contaminated soils, affected groundwater, and related substances that may be classified as hazardous or regulated materials, and/or materials that could endanger worker or public health. If affected materials are encountered, the HSCP will be implemented to reduce the potential exposure to the environment and workers at the site. All site workers will be required to perform work in a prescribed manner to reduce the potential that they will endanger themselves, others, or the general public.</p>				
<p>MM 4.14-2 During construction, if environmentally affected soil, groundwater, or other materials are encountered on-site, the project engineer shall be quickly mobilized to evaluate, assess the extent of, and mitigate the affected materials. The contractor or owner's consultant shall be responsible for implementing all applicable sampling and monitoring of the project. At present, applicable sampling and monitoring activities are expected to include air monitoring (both for personal protection and SCAQMD Rule 1166 compliance), collecting soil and groundwater samples for analysis, and documenting mitigation activities. Specific applicable sampling and monitoring requirements will vary, depending upon the nature, concentration, and extent of affected materials encountered.</p>	<p>Show as notes on approved grading plans</p>	<p>Prior to issuance of grading permits</p>	<p>County of Orange Director of Planning & Development Services</p>	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
MM 4.14-3 Prior to approval of Area Plan for areas within Planning Areas 1, 2, 3, 4, and 7, that have been used for agricultural activities where pesticides or herbicides have been used, the applicant shall conduct an investigation to assess the possible presence of residual pesticides and herbicides in accordance with applicable Department of Toxic Substance Control (DTSC) Guidance for Sampling Agricultural Soils. If necessary, a remediation program shall be developed and implemented for those areas where the soils testing program has identified that residual pesticides and herbicides exceed DTSC Guidance, to ensure soils meet standards for proposed uses within previous agricultural areas. If significant contamination is encountered, the results of the testing/ investigation, etc. will be provided to OCHCA, or other appropriate agency, for direction and oversight.	Approved site investigation to assess the possible presence of residual pesticides and herbicides in accordance with applicable Department of Toxic Substance Control (DTSC) Guidance for Sampling Agricultural Soils. Implementation of remediation program, if required.	Prior to approval of Subarea Plans for areas within Planning Areas 1, 2, 3, 4, and 7, that have been used for agricultural activities where pesticides or herbicides have been used	County of Orange Director of Planning & Development Services (Orange County Health Care Agency) Area Plans are reviewed by Planning Commission	
MM 4.14-4 Prior to issuance of a grading permit or a demolition permit for any on-site building constructed prior to 1973, the building shall be screened for lead-based paint prior to demolition. If lead-based paint is identified, it shall be mitigated in accordance with all applicable federal, state and local regulatory requirements.	Verification of screening for lead based paint; mitigation, if required	Prior to issuance of a grading permit or a demolition permit for any on-site building constructed prior to 1973	County of Orange Director of Planning & Development Services (Orange County Health Care Agency)	
MM 4.14-5 Prior to issuance of a demolition permit for any structure constructed before 1980, the applicant shall test for asbestos containing materials. Should the building being demolished contain asbestos, the applicant shall comply with notification and asbestos removal procedures outlined in SCAQMD Rule 1403 to reduce asbestos related health risks.	Verification of testing for asbestos; mitigation if required	Prior to issuance of a demolition permit for any structure constructed before 1980	County of Orange Director of Planning & Development Services (Orange County Health Care Agency, SCAQMD)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
MM 4.14-6 Prior to issuance of grading permits for Planning Areas 1, 3, 4, 5, and 8, respectively, the applicant shall remove, or require the leaseholder to remove, all storage tanks (UST and AGT), fuel dispensers, clarifiers and crushing equipment in compliance with OCHCA regulations. This shall include soil and groundwater sampling in and around any existing UST's, dispensers, clarifiers, crushing operations, and maintenance areas, with analysis for petroleum hydrocarbons, heavy metals, and PAHs to determine if any contaminants exist in the tank pit area or in surrounding areas. If contaminants exist, the level of impact shall be assessed and a remediation plan shall be developed, if required pursuant to applicable laws and regulations. If significant contamination is encountered, the results of the testing/investigation, etc. will be provided to OCHCA, or other appropriate agency, for direction and oversight.	Verification of removal of UST and AGT, fuel dispensers, clarifiers, and crushing equipment	Prior to issuance of a grading permit for Planning Areas 1,3,4,5 and 8	County of Orange Director of Planning & Development Services (Orange County Health Care Agency) Area Plans are reviewed by Planning Commission	
MM 4.14-7 Prior to approval of Area Plan for areas within Planning Areas 1, 3, and 5, respectively, where soil staining has been identified, the applicant or leaseholder shall test the contaminated soils to assess their level of impact and a remediation plan shall be developed, if required pursuant to applicable laws and regulations. If significant contamination is encountered, the results of the testing/investigation shall be provided to OCHCA, or other appropriate agency, for direction and oversight of the remediation.	Verification of testing of soils, with subsequent remediation, if required.	Prior to approval of Subarea Plans for areas within Planning Areas 1, 3, and 5, respectively, where soil staining has been identified	County of Orange Director of Planning & Development Services (Orange County Health Care Agency) Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
MM 4.14-8 Prior to issuance of grading permits for the portion of Planning Area 3 currently occupied by Catalina Pacific Concrete (CPC), the applicant or leaseholder shall provide verification to OCHCA that the truck washout recycling pond and related chemicals within the CPC lease area have been dismantled/removed and the pond contents removed/disposed in compliance with applicable regulations.	Verification of dismantling of truck washout recycling pond and related chemicals within the CPC lease Area	Prior to issuance of grading permits for the portion of Planning Area 3 currently occupied by Catalina Pacific Concrete (CPC)	County of Orange Director of Planning & Development Services (Orange County Health Care Agency)	
MM 4.14-9 Prior to approval of an Area Plan for those locations within Planning Area 5 where the UST's were removed, and the overburden storage area where previously contaminated soil was relocated, the applicant or leaseholder shall conduct further investigation regarding the level of contamination. If contamination exists at a level that requires action pursuant to applicable laws and regulations, a remediation plan shall be prepared. If significant contamination is encountered, the results of the testing/investigation shall be provided to OCHCA, or other appropriate agency, for direction and oversight of the remediation.	Approved UST investigation with subsequent remediation, if required	Prior to approval of an Subarea Plans for those locations within Planning Area 5 where the UST's were removed, and the overburden storage area where previously contaminated soil was relocated	County of Orange Director of Planning & Development Services (Orange County Health Care Agency) Area Plans are reviewed by Planning Commission	
MM 4.14-10 Prior to approval of Area Plan for the Trampas Dam area of Planning Area 5, a Phase II testing program shall be developed and implemented to more precisely determine the chemical composition associated with the tailings within Trampas Dam. Once the nature of the tailings is known, a removal program shall be developed to ensure the proper handling and disposal of the material. If the testing program identifies a violation of applicable standards, a remediation program shall be developed and verification of remediation to adopted standards will be submitted to OCHCA prior to issuance of grading permits.	Approved Phase II testing program with subsequent remediation, if required	Prior to approval of a Master Area Plan for the Trampas Dam area of Planning Area 5	County of Orange Director of Planning & Development Services (Orange County Health Care Agency) Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
MM 4.14-11 In conjunction with the Master Area Plan for Planning Area 8 the applicant shall contact the Army Corps of Engineers Formerly Used Defense Sites coordinator to determine if areas within the development area were used by the military as firing ranges. For any sites identified, plus the two areas within Planning Area 8 previously used for pistol ranges, the applicant or leaseholder shall provide verification of soil sampling and testing prior to issuance of a grading permit for those locations. If significant contamination is encountered, the results of the testing/investigation, etc. will be provided to OCHCA, or other appropriate agency, for direction and oversight (this may be the water board) that spent ammunition have been removed and soils tested to assess residual lead and copper concentrations. Soil with residual lead or copper concentrations exceeding US EPA's PRGs shall be removed from the property and disposed of at an appropriate facility.	Verification of coordination with U.S. Army Corps of Engineers Soil testing and subsequent remediation, if required	In conjunction with the Master Area Plan for Planning Area 8 Prior issuance of grading permit	County of Orange Director of Planning & Development Services (ACOE) Area Plans are reviewed by Planning Commission	
MM 4.14-12 Prior to approval of Area Plans for the Northrop Grumman Space Technology Test Site (TRW) lease portion of Planning Area 8, the applicant or leaseholder shall develop a comprehensive closure plan to assess, monitor, and mitigate any residual threats to human health or the environment which may remain as a result of site operations and closure. This plan shall address any existing, historical, or threatened releases of any hazardous substances or petroleum products into structures, soil, and/or groundwater beneath the property at any of the locations where these chemicals have been/are used. The comprehensive closure plan shall comply with regulations put forth by the California Department of Toxic Substances (DTSC) which is tasked with enforcing the California Health and Safety	Approved Comprehensive Closure Plan with subsequent remediation, if required	Prior to approval of a Master Area Plans for the Northrop Grumman Space Technology Test Site (TRW) lease portion of Planning Area 8	County of Orange Director of Planning & Development Services (Orange County Health Care Agency and Department of Toxic Substance Control) Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
Code, Title 22 of the California Code of Regulations and Title 40 of the Code of Federal Regulations and the San Diego Regional Water Quality Control Board (SDRWQCB) which is tasked with enforcing the Water Code (Porter-Cologne Water Quality Control Act). If the comprehensive closure plan identifies the need for remediation, verification of completion of the remediation program shall be submitted to OCHCA, or other appropriate agency prior to issuance of grading permits for those areas subject to remediation.				
MM 4.14-13 Prior to issuance of grading permits within each Planning Area, the Environmental Site Assessments (ESAs) will be updated for that grading permit area. If the Phase I Update identifies new actual or potential impacts, a Phase II ESA will be completed as necessary for the grading area by the landowner or subsequent project applicant. During the Phase II ESA, samples from potential areas of concern will be collected and submitted for laboratory analysis to confirm the nature and extent of potential impacts. If hazardous materials are identified during the site assessments, the appropriate response/remedial measures will be implemented including directives of the OCHCA and/or Regional Water Quality Control Board (RWQCB), as appropriate. If soil is encountered during site development that is suspected of being impacted by hazardous materials, work will be halted and site conditions will be evaluated by a qualified environmental professional. If requested by the qualified environmental professional, the results of the evaluation will be submitted to OCHCA and/or RWQCB, and the appropriate remedial measures will be implemented, as directed by OCHCA, RWQCB, or other applicable oversight agency, until all specified	Approved updated Environmental Site Assessment; preparation of Phase II if required, with subsequent remediation, if necessary	Prior to issuance of grading permits	County of Orange Director of Planning & Development Services (Orange County Health Care Agency and Regional Water Quality Control Board)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
requirements of the oversight agencies are satisfied and a no-further-action status is attained.				
MM 4.14-14 The Master Area Plan prepared for those Planning Areas containing oil wells (Planning Areas 3 and 9) shall graphically depict the location of all oil wells. Prior to issuance of building permits for those locations with oil wells, the applicant shall submit verification that final building plans have undergone review by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources and remedial action in compliance with well abandonment procedures has been completed.	Verification of graphic depiction of oil well locations Verification of review by Department of Conservation	Prior to approval of Master Area Plans 3 and 9 Prior to issuance of building permits for those locations with oil wells.	County of Orange Director of Planning & Developmental Services (Division of Oil, Gas and Geothermal Resources) Area Plans are reviewed by Planning Commission	
MM 4.14-15 Prior to approval of tentative subdivision maps and site-specific development projects within the project area, the landowner or subsequent project applicant shall submit evidence demonstrating compliance with all applicable OCFA conditions for development projects within a Special Fire Protection Area.	Verify submission of evidence demonstrating compliance with Special Fire Protection Area conditions	Prior to the approval of tentative subdivision maps	County of Orange Director of Planning & Development Services (OCFA)	
PDF 4.15-1 Construction of water storage and conveyance improvements consistent with the <i>Plan of Works for Improvement Districts 4C, 4E and 5 and 6</i> , prepared by Tetra Tech Inc. for SMWD would ensure sufficient water for all necessary fire protection systems.	Approved Water Improvements Plans with verification of subsequent construction	Prior to recordation of final tract map (alternatively subdivider may enter into subdivision improvement agreement with County)	County of Orange Director of Planning & Development Services (SMWD and OCFA)	
PDF 4.15-2 Roadways, with the exception of Verdugo Road and other local access roads in Planning Area 9, will be designed in conformance with the Orange County Standard Plans. This is supplemented with Mitigation Measure 4.15-2. Applicants may request alternative roadway designs as an Alternate Means and Methods, including roadways within Planning Area 9.	To be implemented with Mitigation Measure 4.15-2	N/A	N/A	No separate monitoring required

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
SC 4.15-1 Prior to the recordation of a subdivision map, the subdivider shall design and construct water distribution system and appurtenances that conform to the applicable laws and adopted regulations enforced by the County Fire Chief, in accordance with plans and specifications meeting the approval of the Manager, Subdivision and Grading. (County of Orange Standard Condition of Approval T04)	Approved water improvement plans with subsequent construction of improvement	Prior to the recordation of a subdivision map (alternatively subdivider may enter into subdivision improvement agreement with County)	County of Orange Director of Planning & Development Services (OCFA)	
MM 4.15-1 The Ranch Plan Fire Protection Program shall be approved prior to the approval of the first Area Plan. The Ranch Plan project shall conform to the Orange County Fire Authority (OCFA) Special Fire Protection Area (SFPA) Guidelines and exclusions shall be applied to the project by application on a subarea basis in conformance with the Ranch Plan Fire Protection Program. The project applicant shall participate in, and maintain, an approved OCFA Wildland Management Plan for all wildland interface areas and designed open spaces.	Approved Ranch Plan Fire Protection Program	Prior to approval of first Master Area Plan	County of Orange Director of Planning & Development Services (OCFA)	
Prior to approval of the first subdivision, the developer shall enter into a Secured Fire Protection Agreement with OCFA for the provision of necessary approved street improvement plans facilities, apparatus, and fire and rescue supplies and equipment for the Ranch Plan. This comprehensive plan will address fire and emergency medical service delivery within the project site, and will specify the timeframes and trigger points for initiation of services within the project by geographic area. The Secured Fire Protection Agreement shall ensure that OCFA fire protection and emergency medical performance objectives can be achieved for the Ranch Plan area. The applicant will ensure that development is phased in a	Approved Secured Fire Protection agreement	Prior to approval of first subdivision	Area Plans are reviewed by Planning Commission	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
matter that allows the maximum use of existing fire protection resources before new resources are required to be established.				
MM 4.15-2 As part of the Area Plan and tentative tract map process, the developer shall coordinate with OCFA on street design to ensure arterial highways and local streets meet OCFA requirements, provide adequate turn around locations and widths, and signal preemption is installed in all new traffic signals within the Ranch Plan area. For gated communities, emergency opening devices shall be installed.	Approved street improvement plans	Prior to approval of Subarea Plans and tentative tract maps	County of Orange Director of Planning & Development Services (OCFA)	
MM 4.15-3 Prior to approval of the first Master Area Plan, applicant shall gain Orange County Fire Authority (OCFA) approval of a Ranch Plan Fire Protection Program, per the requirements of Section II.D, including a Planned Community-wide Fuel Modification Plan. If adaptive management tools (grazing, prescribed fires, etc.) for controlling the growth of vegetation surrounding Ranch Plan development are not successful and vegetation transitions from Fuel Model 2 (FM2) to Fuel Model 4 (FM4), as classified by the BEHAVE Fire Behavior Fuel Modeling System, the OCFA may choose a total Fuel Modification zone width based on the BEHAVE model anticipated flame lengths plus 20-feet for defensible space.	Approved Ranch Plan Fire Protection Program	Prior to approval of the first Master Area Plan	County of Orange Director of Planning & Development Services (OCFA)	
PDF 4.15-3 A OCSD substation site would be provided within the project limits to reduce response times and better serve the Ranch Plan area.	Depict site on Master Area Plan	In conjunction with Master Area Plan approval	County of Orange Director of Planning & Development Services (OCSD) Area Plans are reviewed by Planning Commission	
MM 4.15-4 Prior to approval of the first	Executed agreement for	Prior to approval of the	County of Orange	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
tentative tract map, except for financing purposes, the Orange County Sheriff's Department and the project applicant shall enter into an agreement specifying the level of service and supporting facilities needed to adequately serve the project area, and the amount of funding to be provided by the project applicant. The agreement will specify the timeframes and trigger points for initiation of services within the project by geographic area.	Sheriff's service and support facilities	first tentative tract map except for financing purposes	Director of Planning & Development Services (OCFA)	
PDF 4.15-4 The project design has incorporated provisions for the construction of up to two 138/12 kV electrical substations and a 138 kV transmission line to serve the substations. Additionally, the project would extend the 12-inch high power gas line along Ortega Highway from the west of I-5 to Antonio Parkway, and the construction of a gas regulating station at the corner of Antonio Parkway and Ortega Highway.	Approved electrical improvement plans	Prior to recordation of final tract map	County of Orange Director of Planning & Development Services (SDG&E)	
PDF 4.15-5 Unless otherwise waived by the Director, PDS, or determined not to be feasible by SDG&E, all permanent electric transmission lines less than 66 kV shall be subsurface within those portions of the Ranch Plan approved for development.	Approved electrical improvement plans	Prior to recordation of final tract map	County of Orange Director of Planning & Development Services (SDG&E)	
SC 4.15-2 Prior to recordation of final tract maps for the proposed land development area, the project applicant shall coordinate with SDG&E in the design and implementation of future electrical service and facilities (transmission lines, access road, etc.) within the project study area to ensure that: (1) no notable service disruptions during the extension and upgrading of these services would arise; (2) the nature, design, and timing of electrical system improvements are in accordance with all SDG&E requirements; and (3) the improvements are adequate to serve the proposed land uses.	Approved Electricity Availability Report	Prior to recordation of final tract maps for the proposed land development area	County of Orange Director of Planning & Development Services (SDG&E)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
SC 4.15-3 Prior to recordation of final tract maps for the proposed land development area, the project applicant shall coordinate with SDG&E to ensure that no notable disruptions to the existing 138 kV transmission line that extends through the project study area would occur as a result of project implementation.	Verification to ensure that no notable disruptions to the existing 138 kV transmission line that extends through the project study area would occur as a result of project implementation.	Prior to recordation of final tract map	County of Orange Director of Planning & Development Services (SDG&E)	
SC 4.15-4 Prior to recordation of final tract maps for the proposed land development area, the project applicant shall coordinate with SoCalGas in the design and implementation of future natural gas service and facilities within the project study area to ensure that: (1) no notable service disruptions during the extension and upgrading of these services would arise; (2) the nature, design, and timing of natural gas system improvements are in accordance with SoCalGas requirements; and (3) the improvements are adequate to serve the proposed land uses.	Approved natural gas improvement plans	Prior to recordation of final tract map	County of Orange Director of Planning & Development Services (SoCalGas)	
PDF 14.5-6 The project has incorporated provisions for the placement and sizing of facilities in compliance with the Plan of Works developed by SMWD.	Approved water improvement plans	Prior to recordation of final tract map	County of Orange Director of Planning & Development Services (SMWD)	
SC 4.15-5 Prior to recordation of final tract maps for the proposed land development area, the project applicant shall coordinate with SMWD and MWD to ensure that no notable disruptions to the existing domestic and non-domestic water facilities that extend through the project study area would occur as a result of project implementation.	Verification to ensure that no notable disruptions to the existing domestic and non-domestic water facilities that extend through the project study area would occur as a result of project implementation	Prior to recordation of final tract map	County of Orange Director of Planning & Development Services (SMWD, and MWD)	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
SC 4.15-6 During development of area plans, the project applicant shall coordinate with SMWD to determine specific sizing and placement of water facilities.	Approved water improvement plans	Prior to Subarea Plans approval	County of Orange Director of Planning & Development Services (SMWD) Area Plans are reviewed by Planning Commission	
PDF 14.5-7 The project has incorporated provisions for the placement and sizing of wastewater treatment and conveyance facilities as specified in the Plan of Works.	Approved wastewater improvement plans	Prior to recordation of final tract plans	County of Orange Director of Planning & Development Services (SMWD)	
SC 4.15-7 Prior to recordation of final tract maps for the proposed land development area, the project applicant shall coordinate with SMWD to ensure that no notable disruptions to the existing sewer conveyance facilities, which extend through the project study area, would occur as a result of project implementation.	Verification of coordination to ensure that no notable disruptions to the existing sewer conveyance facilities, which extend through the project study area, would occur as a result of project implementation	Prior to recordation of final tract maps	County of Orange Director of Planning & Development Services (SMWD)	
SC 4.15-8 During development of area plans, the project applicant shall coordinate with SMWD to determine specific sizing and placement of wastewater facilities.	Approved wastewater improvement plans	Prior to approval of Subarea Plan	County of Orange Director of Planning & Development Services (SMWD) Area Plans are reviewed by Planning Commission	
PDF 4.15-8 The project description provides for the incorporation of school sites into the land use plan. The project design assumes up to five elementary school sites, one middle school site, and a potential high school site, if deemed necessary by CUSD. The precise number, location and combination of elementary and joint elementary and middle school would be determined in consultation with CUSD.	Depict sites on Master Area Plan	Prior to approval of Master Area Plan	County of Orange Director of Planning & Development Services (CUSD) Area Plans are reviewed by Planning Commission	
SC 4.15-9 Prior to the recordation of final	Monitored through	N/A	N/A	No separate

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
tract map, the project applicant shall provide for the payment of fees pursuant to California Government Code Section 65995, unless other provision are required of the applicant through the agreement with CUSD (see Mitigation Measure 4.15-5).	compliance with MM 4.15-5			monitoring required
MM 4.15-5 Prior to issuance of any residential building permit, excluding senior housing, the applicant shall enter into an agreement with CUSD regarding the development of future facilities and payment of costs. The agreement shall, at a minimum, provide for the payment of fees pursuant to California Government Code Section 65995. If fees are paid, the amount of fees to be paid will be determined based on the established State formula for determining construction costs. Applicable fees shall be paid prior to the issuance of each building permit.	Executed Mitigation Agreement	Prior to issuance of residential building permits	County of Orange Director of Planning & Development Services (CUSD)	
SC 4.15-10 Prior to approval of the first master area plan, a Solid Waste Management Plan shall be prepared and submitted to OCIWMD for review and approval. This plan, which shall include specific measures to reduce the amount of refuse generated by construction of the proposed project, shall be developed to meet waste reduction requirements established by the California Integrated Waste Management Act of 1989.	Submittal of satisfactory Solid Waste Management Plan	Prior to approval of the first Master Area Plan	County of Orange Director of Planning & Development Services, and Integrated Waste Management Department	
			Area Plans are reviewed by Planning Commission	
MM 4.15-6 Prior to recordation of final tract maps where the relocation of the Santa Fe Pipeline is required, except for financing purposes, the project applicant shall coordinate with the pipeline owner, Kinder-Morgan, to ensure that no notable disruptions to the fuel pipeline that extends through the project site would occur as a result of project implementation. Should an alignment for the SR-241 alignment be selected at the time of	Verification of coordination with the pipeline owner, Kinder-Morgan, to ensure that no notable disruptions to the fuel pipeline that extends through the project site would occur as a result of project implementation	Prior to recordation of final tract maps where the relocation of the Santa Fe Pipeline is required	County of Orange Director of Planning & Development Services	

MITIGATION MONITORING AND REPORTING PROGRAM (Continued)
THE RANCH PLAN PROGRAM ENVIRONMENTAL IMPACT REPORT NO. 589
SCH NO. 2003021141

Mitigation Measure	Implementing Action	Time of Verification	Responsible Party	Status
recordation of the final tract maps, the relocation will not place the pipeline within the right-of-way for the SR-241 extension, nor preclude the relocation of any portion of the pipeline currently within the right-of-way for the SR-241 alignment.				
SC 4.15-11 Prior to the recordation of any final tract/parcel map for the proposed land development area, the project proponent shall pay appropriate developer fees, as determined by the County of Orange, for needed library facilities.	Verify payment of developer fees via a payment receipt, if program is in place at the time of map recordation	Prior to the recordation of any final tract/parcel map except for financing programs	County of Orange Director of Planning & Development Services	