

**EIR #616**  
**Mitigation Monitoring  
and Reporting Program (MMRP)**

**Esperanza Hills**  
**Project No. PA120037**  
**SCH #2012121071**



Prepared For:

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The California Environmental Quality Act (CEQA) requires that all public agencies establish monitoring and/or reporting procedures for mitigation measures adopted as conditions of approval in order to mitigate or avoid significant project impacts. Specifically, §21081.6(a)(1) states:

The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation.

CEQA Guidelines §15097 provides clarification of mitigation monitoring and reporting requirements and guidance to local lead agencies on implementing strategies. It is the responsibility of the Lead Agency to ensure that implementation of the mitigation measures occurs in accordance with the Mitigation Monitoring and Reporting Program. The reporting or monitoring program must be designed to ensure compliance during project implementation. The following Mitigation Monitoring and Reporting Program includes mitigation measures from the Draft Environmental Impact Report (DEIR 616) (Project No.PA120037) for the Esperanza Hills Project in unincorporated Orange County.

Mitigation measures have been drafted to meet the requirements of *California Public Resources Code* §21081.6 as fully enforceable monitoring programs. The Mitigation Monitoring and Reporting Program defines the following for each mitigation measure:

1. **A time for performance.** In each case, a time for performance of the mitigation measure, or review of evidence that mitigation has taken place, is provided. The performance points selected are designed to ensure that impact-related components of project implementation do not proceed without establishing that the mitigation is implemented or assured.
2. **A responsible party for supervising performance.** In each case, a specific party is named in the as the person responsible for ensuring that the mitigation is carried out. To guarantee that the mitigation measure will not be inadvertently overlooked the responsible person is the official who grants the permit or authorization called for in the performance or the on-site authority during the identified phase of project development or operation.
3. **Definition of mitigation.** In each case (except where a mitigation measure, such as a geotechnical report, is a well-known procedure or term of art), the mitigation measure contains the criteria for mitigation, either in the form of adherence to certain adopted regulations or identification of the steps to be taken in mitigation.

### Matrix Orientation

The following matrix lists all mitigation measures from the DEIR referenced above. The matrix also identifies the required timing, the responsible parties for implementation, and the monitoring agency or party for the required mitigation.

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<b>Aesthetics</b>			
AE-1 Prior to issuance of building permits, the Project Applicant shall provide proof that demonstrates 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, Permit Services, or designee. Lighting shall be designed to minimize visibility of light sources by directing lighting toward the on-site structures and not illuminating areas outside property boundaries.	Prior to issuance of building permits	Manager, Permit Services	
<b>Air Quality</b>			
AQ-1 Prior to issuance of grading permit, the Project Applicant shall provide evidence that ensures the use of enhanced control measures for diesel exhaust emissions to maintain NO <sub>x</sub> impacts at a less than significant level to the Manager, Permit Services. These measures shall include: <ul style="list-style-type: none"> <li>• Utilize well-tuned off-road construction equipment</li> <li>• During grading, require that contractors use Tier 3 on all heavy equipment (excavators, graders, and scrapers exceeding 100 HP rated power) if the entire project is graded at one time for NO<sub>x</sub> emissions, unless use of such mitigation is demonstrated to be technically infeasible for a given piece of equipment</li> <li>• During grading, require that contractors employ oxidation catalysts that shall achieve 40% reduction during grading for excavation graders and scrapers exceeding 100 HP rated power if the entire project is graded at one time, unless use of such mitigation is demonstrated to be technically infeasible for a given piece of equipment.</li> <li>• Enforce 5-minute idling limits for on-road trucks and off-road equipment.</li> </ul>	Prior to grading permit Plans/Monitoring	Manager, Permit Services	
AQ-2 Prior to issuance of grading permit, the Project Applicant shall provide evidence, which ensures that standard construction practices as set forth in the SCAQMD Handbook shall be implemented, to the Manager, Permit Services.	During construction activities	Manager, Permit Services	
AQ-3 During construction, the Project Applicant shall ensure that best management practices for dust control are implemented. These include: <ul style="list-style-type: none"> <li>• Apply soil stabilizers or moisten areas that are inactive for 96 hours or more</li> <li>• Prepare a high wind dust control plan</li> <li>• Address previously disturbed areas if subsequent construction is delayed more than 96 hours</li> <li>• Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically three times per day)</li> <li>• Wet down or cover all stockpiles with tarps at the end of each day or as needed</li> <li>• Provide water spray during loading and unloading of earthen materials</li> <li>• Minimize in-out traffic from construction zone</li> <li>• Cover all trucks hauling dirt, sand or loose material or require all trucks to maintain at least two feet of freeboard</li> <li>• Sweep streets daily if visible soil material is carried out from the construction site</li> <li>• Use perimeter sandbags and wind fences for erosion control</li> </ul>	During construction activities	Manager, Permit Services	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<b>Biological Resources</b>			
<p>Bio-1 Prior to issuance of grading permits, the Project Applicant shall prepare a re-vegetation plan for mulefat scrub, black willow riparian forest, and blue elderberry woodland located within Blue Mud Canyon. The plan will also incorporate California black walnut into the plant palette to mitigate the loss of 0.48 or 0.22 acre of walnut woodland associated with Options 1 and Option 2, respectively. The plan shall be prepared by a qualified biologist for review and approval by the Manager of Planning, OC Development Services. At a minimum, the plan shall include restoration of mulefat scrub and black willow riparian forest vegetation that also includes a black walnut component. The plan shall include replacement of habitat at a minimum a ratio of 1:1; responsibility and qualifications of the personnel to implement and supervise the plan; site selection; site preparation and planting implementation; schedule; maintenance plan/guidelines; five year monitoring plan with reporting to the Orange County Manager of Planning; and long-term preservation.</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Planning, OC Development Services</p>	
<p>Bio-2 Prior to issuance of grading permits, a Special Status Planting and Monitoring Plan detailed restoration program shall be prepared by a qualified biologist in consultation with the CDFW and the USFWS for approval by the Orange County Manager, Planning, OC Development Services. The plan program shall provide for planting at the appropriate time of the year for success of 326 greenhouse-propagated individuals of intermediate mariposa lily in the Study Area within an undisturbed area of coastal sage scrub of same habitat quality with respect to soil type and its characteristics. The plan shall include a maintenance program for weed removal, supplemental watering, fencing, and other forms of site protection. This mitigation plan program will be considered successful if at least 80% of 326 flowering individuals, or 261 flowering individuals, are observed five years after planting. If success criteria are not met after five years, remedial measures shall include greenhouse propagation and planting of additional individuals on the Project Site.</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Planning, OC Development Services</p>	
<p>Bio-3 Prior to issuance of grading permits, a Special Status Planting and Monitoring Plan detailed restoration program shall be prepared by a qualified biologist in consultation with the CDFW and the USFWS for approval by the Orange County Manager, Planning, OC Development Services. The plan program shall provide for planting of 400 greenhouse-propagated individuals of Braunton's milk-vetch in the Study Area within an undisturbed area of suitable habitat and soils, slope and exposure. The plan shall include a maintenance program for weed removal, supplemental watering, fencing and other forms of site protection. This mitigation plan program will be considered successful if at least 80% of individuals, or 320 individuals, flower and set seed prior to senescence. If success criteria are not met prior to senescence of the planted individuals, remedial measures shall include greenhouse propagation and planting of additional individuals on the Project Site.</p>	<p>Prior to issuance of grading permits</p>	<p>Project Applicant/Manager, Planning, OC Development Services</p>	
<p>Bio-4 Prior to the issuance of grading permits, the Project Applicant shall prepare a re-vegetation plan for mulefat scrub and black willow riparian forest located within Blue Mud Canyon. The plan will also incorporate California black walnut into the plant palette to mitigate the loss of walnut woodland as described in Mitigation Measure Bio-1. The plan shall be prepared by a qualified biologist for review and approval by the Manager of OC Development Services. At a minimum, the plan shall include: restoration of mulefat scrub and black willow riparian forest vegetation at a ratio of 1:1; responsibility and qualifications of the personnel to implement and</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Planning, OC Development Services</p>	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<p>supervise the plan; site selection; site preparation and planting implementation; schedule; maintenance plan/guidelines; monitoring plan; and long-term preservation.</p>			
<p>Bio-5 Prior to issuance of grading permits, the Project Applicant shall include the following measures on the grading plan to be implemented with grading operations:</p> <ol style="list-style-type: none"> <li>1. Prior to the commencement of clearing operations or other activities involving significant soil disturbance, all areas of mulefat scrub and black willow riparian forest habitat to be avoided shall be identified with temporary fencing or other markers that are clearly visible to construction personnel.</li> <li>2. A USFWS-approved Biological Monitor shall be on-site during any clearing of mulefat scrub and black willow riparian forest. The Project Applicant shall advise the U.S. Fish &amp; Wildlife Service at least 7 calendar days – but preferably 14 calendar days – prior to the clearing of mulefat scrub and black willow riparian forest. The Biological Monitor shall flush avian or other mobile species from habitat areas immediately prior to brush-clearing and earth-moving activities. It shall be the responsibility of the monitoring biologist to ensure that identified bird species are not directly impacted by brush-clearing and earth-moving equipment in a manner that also allows for construction activities to continue on a timely basis.</li> <li>3. Following the completion of initial clearing activities, all areas of mulefat scrub and black willow riparian forest habitat to be avoided by construction equipment and personnel shall be marked with temporary fencing or other clearly visible, appropriate markers. No construction access, parking, or storage of equipment shall be permitted within such marked areas.</li> </ol>	<p>Prior to issuance of grading permits</p>	<p>Manager, Planning, OC Development Services</p>	
<p>Bio-6 Prior to issuance of grading permits, the Project Applicant shall prepare a Restoration Plan for mulefat scrub, black willow riparian forest, coast live oak riparian woodland, and other appropriate wetland/riparian habitats at an acreage ratio of 1:1 to be located within Blue Mud Canyon. The plan shall be prepared by a qualified biologist for review and approval by the Manager of OC Development Services. The Restoration Plan shall include the following:</p> <ol style="list-style-type: none"> <li>1. Impacts to living coast live oak trees within CDFW jurisdiction will be mitigated through planting liners or locally collected acorns within Blue Mud Canyon at the following ratios: <ul style="list-style-type: none"> <li>• For healthy trees to be removed for development: <ul style="list-style-type: none"> <li>• trees less than 5 inches diameter at breast height (DBH) should be replaced at 3:1</li> <li>• trees between 5 and 12 inches DBH should be replaced at 5:1</li> <li>• trees between 12 and 36 inches DBH should be replaced at 10:1</li> <li>• trees greater than 36 inches DBH should be replaced at 20:1</li> </ul> </li> <li>• For damaged trees (including trees damaged by construction and fire damaged trees to be removed for development): <ul style="list-style-type: none"> <li>• trees less than 12 inches DBH should be replaced at 3:1</li> <li>• trees greater than 12 inches DBH should be replaced at 5:1</li> </ul> </li> <li>• Impacts to trees that were killed by the 2008 Freeway Complex Fire do not require mitigation</li> </ul> </li> <li>2. The sizes, condition, and total number of impacted trees will be determined after verification of the limits of CDFW jurisdiction and prior to issuance of any permit that results in ground disturbance.</li> </ol>	<p>Prior to issuance of grading permits</p>	<p>Manager, Planning, OC Development Services</p>	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<p>3. The plan shall include responsibility and qualifications of the personnel to implement and supervise the plan; site selection; site preparation and planting implementation; schedule; maintenance plan/guidelines; five year monitoring plan with reporting to the Orange County Manager of Planning; and long-term preservation.</p> <p>4. The Project Applicant shall notify CDFW, pursuant to Section 1600 of the <i>California Fish and Game Code</i>, of lake and streambed alterations (LSA), including activities in streams that will divert or obstruct the natural flow, or change the bed, channel, or bank of a river or stream, or use materials from a streambed. A copy of the LSA notice shall be provided to the Orange County Manager of Planning.</p>			
<p>Bio-7 Prior to issuance of grading permits, the Project Applicant shall prepare a Habitat Mitigation and Monitoring Program (HMMP). The HMMP shall be prepared by a qualified biologist for review and approval by the Manager of OC Development Services. The HMMP shall include responsibility and qualifications of the personnel to implement and supervise the plan; site selection; site preparation and planting implementation; schedule; maintenance plan/guidelines; five-year monitoring plan with reporting; and long-term preservation.</p> <p>The Project Applicant shall be fully responsible for the implementation of the Habitat Mitigation and Monitoring Program until the restoration areas have met the success criteria outlined in the approved plan. The Manager, Planning, OC Development Services shall have final authority over mitigation area sign-off.</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Planning, OC Development Services</p>	
<p>Bio-8 Prior to issuance of any grading permit, the Project Applicant shall include the following measures on the grading plan to be implemented with grading operations:</p> <ol style="list-style-type: none"> <li>1. Prior to the commencement of clearing operations or other activities involving significant soil disturbance, all areas of ACOE and CDFW jurisdiction to be avoided shall be identified with temporary fencing or other markers that are clearly visible to construction personnel.</li> <li>2. A USFWS-approved Biological Monitor shall be on-site during any clearing of riparian vegetation. The Project Applicant shall advise the US Fish &amp; Wildlife Service at least 7 calendar days – but preferably 14 calendar days – prior to the clearing of riparian vegetation. The Biological Monitor shall flush avian or other mobile species from habitat areas immediately prior to brush-clearing and earth-moving activities. It shall be the responsibility of the monitoring biologist to ensure that identified bird species are not directly impacted by brush-clearing and earth-moving equipment in a manner that also allows for construction activities to continue on a timely basis.</li> <li>3. Following the completion of initial clearing activities, all areas of ACOE and CDFW jurisdiction to be avoided by construction equipment and personnel shall be marked with temporary fencing or other clearly visible, appropriate markers. No construction access, parking, or storage of equipment shall be permitted within such marked areas.</li> </ol>	<p>Prior to issuance of grading permit</p>	<p>Manager, Planning, OC Development Services</p>	
<p>Bio-9 Prior to issuance of grading permits, the Project Applicant shall include the following condition on the grading plan for implementation during vegetation removal operations:</p> <p>Thirty days prior to the initiation of project activities, a qualified biologist shall conduct weekly bird surveys, with the last survey no more than 10 days prior to initiation of project activities, to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300 feet</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Planning, OC Development Services</p>	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<p>of the disturbance area (within 500 feet for raptors). No vegetation removal shall occur between the dates of February 15 and September 30, March 15 to August 31, unless a qualified biologist surveys the Project's impact area 10 days prior to initiation of project activities prior to disturbance to confirm the absence of active nests. If an active nest is discovered, vegetation removal within a particular buffer surrounding the nest shall be prohibited until nesting is complete (i.e., nest is vacant and juveniles have fledged and there is no evidence of a second attempt at nesting); the buffer distance shall be determined by a qualified biologist (in consultation with the CDFW or the USFWS, if applicable) and in consideration of species sensitivity and existing nest site conditions. Limits of avoidance of 300 feet and up to 500 feet, which can be up to 300 feet for nesting raptors, shall be demarcated with flagging or fencing, and Project personnel, including contractors working on-site, shall be instructed on the sensitivity of the area. The Biologist shall record the results of the recommended protective measures described above and shall submit a written memo explaining justification of summarizing any nest avoidance measures to the Manager of OC Development Services to document compliance with applicable state and federal laws, specifically §3503 and §3503.5 of the <i>California Fish and Game Code</i>, pertaining to the protection of native birds, including nesting raptors.</p>			
<p>Bio-10 Prior to issuance of building permits, the Project Applicant shall prepare a resident Environmental Awareness Program to be reviewed and approved by the Manager, Planning, OC Development Services. The Environmental Awareness Program is intended to increase awareness to residents of the sensitive plants, wildlife, and associated habitats that occur in the preserved open space areas. The intention of the program shall be to encourage active conservation efforts among the residents to help conserve the habitats in the preserved open space. The program shall address inadvertent impacts from the introduction of invasive plant species (including escapees), human intrusion, trash and debris, creation of ad hoc trails, domestic cats, and light pollution. At a minimum, the Environmental Awareness Program shall include the following components:</p> <ul style="list-style-type: none"> <li>• Informational kiosks shall be constructed at entrance points to hiking and equestrian trails and at various locations along the fence line that separates the Project Site and the open space area to inform residents and trail users on the sensitive flora and fauna that rely on the habitats found within the preserved open space. The intent of these kiosks is to bring awareness to the sensitive plants, wildlife and associated habitats which occur in the area along with discouraging creation of ad hoc trails and trash and debris.</li> <li>• The Project Applicant shall provide residents or the HOA for nearby subdivisions (if applicable) with a brochure that includes a list of plant species to avoid in residential landscaping to prevent the introduction of invasive plant species and impacts from human intrusion, light pollution and domestic cats to the surrounding natural communities.</li> </ul>	<p>Prior to issuance of building permits</p>	<p>Manager, Planning, OC Development Services</p>	
<p>Bio-11 Prior to issuance of grading permits, the Project Applicant shall include the following measures on the grading plan to be implemented with grading operations:</p> <ul style="list-style-type: none"> <li>• No clearing, grubbing, grading, or other construction activities shall occur within and in the vicinity of riparian habitat occupied by least Bell's vireo between March 15 and September 15, the breeding season of the least Bell's vireo, until the following requirements have been met:</li> </ul>	<p>Prior to issuance of grading permits</p>	<p>Manager, Permit Services, in consultation with Manager, Planning, OC Development Services</p>	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<p>1. A qualified biologist shall survey riparian areas that would potentially be subject to construction noise levels exceeding 60 decibels [dB(A)] hourly average for the presence of least Bell's vireo. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish &amp; Wildlife Service within the breeding season prior to the commencement of construction. If the least Bell's vireo is present, then the following conditions must be met:</p> <ul style="list-style-type: none"> <li>a. Between March 15 and September 15, no clearing, grubbing, or grading of occupied least Bell's vireo habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist;</li> <li>b. Between March 15 and September 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(A) hourly average at the edge of occupied least Bell's vireo habitat. An analysis showing that noise generated by construction activities would not exceed 60 dB(A) hourly average at the edge of occupied habitat must be completed by a qualified acoustician and/or qualified biologist (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the U.S. Fish &amp; Wildlife Service at least two weeks prior to the commencement of construction activities. Prior to the commencement of any construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist;</li> <li>c. If it is desired to conduct construction activities adjacent to habitat determined to be occupied by least Bell's vireo during pre-construction surveys, then at least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician and/or qualified biologist, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(A) hourly average at the edge of habitat occupied by the least Bell's vireo. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of occupied area to ensure that noise levels do not exceed 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician and/or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).</li> </ul> <p>Construction noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level of it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60</p>			

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<p>dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.]</p> <p>2. If least Bell's vireos are not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the U.S. Fish &amp; Wildlife Service that demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 and September 15 as follows:</p> <ul style="list-style-type: none"> <li>▪ If this evidence indicates the potential is high for least Bell's vireo to be present based on historical records or site conditions, then condition 1.c shall be adhered to as specified above.</li> <li>▪ If this evidence concludes that no impacts to this species are anticipated, no further surveys or monitoring would be necessary.</li> </ul>			
<b>Cultural Resources</b>			
<p>CR-1 Prior to issuance of any grading permit, the Project Applicant shall provide evidence to the Manager, Permit Services that a grading note shall be added to the grading plan that states: "If any unanticipated cultural resources, including human remains, are discovered during ground-disturbing activities; work in that location shall be temporarily diverted a minimum of 25 feet away until a County qualified archaeologist can evaluate the find. Recommendations by the archaeologist and as approved by the Manager, Planning, OC Development Services shall be complied with for any further ground-disturbing work."</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Permit Services/Planning, OC Development Services</p>	
<p>CR-2 Prior to issuance of any grading permit, the Project Applicant shall prepare and submit to the Manager, Planning, OC Development Services for review and approval a Paleontological Resources Mitigation Plan as detailed in the "Archaeological and Paleontological Resources Assessment Update" for the Esperanza Hills Project, dated January 2013, prepared by Cogstone. The Paleontological Resources Mitigation Plan shall include the following:</p> <p>1) paleontological resources awareness training for all earthmoving personnel, 2) monitoring of excavations more than five feet below the current surface (not for shallow excavations), 3) adjustments by the principal paleontologist to monitoring requirements based on fossil yield, depth and location of impact, and 4) recovery and curation of fossils meeting the significance criteria established in the Paleontological Resources Mitigation Plan.</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Permit Services/Planning, OC Development Services</p>	
<b>Geology and Soils</b>			
<p>Geo-1 Prior to issuance of building permits, the Project Applicant and the County shall ensure that geologic conditions underlying design slopes and those to remain natural in areas adjacent to the development perimeter shall be investigated and analyzed for gross stability in accordance with current geotechnical engineering practice. Investigation shall include areas where larger landslides are suspected to exist, mainly in natural slope areas bordering the development, including analysis of distribution and dimension regarding conditions of gross stability.</p>	<p>Prior to issuance of building permits</p>	<p>Manager, Permit Services</p>	
<p>Geo-2 During grading, the Project Applicant and the County shall ensure that unstable areas be avoided or that design slopes determined to be grossly unstable be stabilized by construction of buttresses or stabilization fills, flattening gradients, lowering overall heights, improving stability through use of tie-back/grade-beam systems, use of geogrid, use of cement-treated-soil or similar supplemental stabilization measures or combinations of these methods.</p>	<p>During grading activity</p>	<p>Manager, Permit Services</p>	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
Geo-3 During grading, the Project Applicant shall ensure that zones of weathered bedrock be removed from back cuts and/or areas upon which new fill is to be placed.	During grading activity	Manager, Permit Services	
Geo-4 Prior to issuance of building permits, the Project Applicant shall ensure that construction across the trace of active faults and/or outside the limits of the setback zone will be avoided to the maximum extent practicable, and no residential lots are designed within the setback zone established for the Whittier Fault. Where access roads, retaining walls, bridge structures or structural fills are planned within the setback zone, the direction and magnitude of anticipated fault offset and severity of anticipated ground shaking shall be incorporated into the design.	Prior to issuance of building permits	Manager, Permit Services	
Geo-5 Prior to issuance of building permits, the Project Applicant shall ensure that the design for improvements that cross the Whittier Fault should be minimal, and the trend in which crossings are made should be oriented as nearly perpendicular (20 degrees east of north) to the trend of the fault as possible. The prefabricated bridge structure spanning Blue Mud Canyon under Option 1 shall be positioned and designed to accommodate expected fault offset. The Project Applicant shall consider use of alternative geotechnical engineering technologies to minimize impacts to structures constructed above active fault strands. These may include the incorporation of geo-fabric materials into fill bodies to add to fill strength and/or select placement of gravel blankets within subgrade areas to diffuse shear forces relating to ground rupture.	Prior to issuance of building permits	Manager, Permit Services	
Geo-6 Prior to issuance of building permits, the Project Applicant shall ensure that utility lines located in or near the Whittier Fault incorporate flexible joints into their design, to accommodate anticipated ground rupture in a right-lateral strike-slip sense.	Prior to issuance of building permits	Manager, Permit Services	
Geo-7 Prior to issuance of building permits, the Project Applicant shall verify that the existing seismic setback zone margins are appropriate for encountered geologic conditions and, where changes are warranted, evaluate any impacts to design plan elements and assure any revisions to the margins are depicted on final plan sets.	Prior to issuance of building permits	Manager, Permit Services	
Geo-8 Prior to issuance of building permits, the County shall ensure that the Project Applicant has provided geotechnical investigations and engineering analyses to evaluate retaining wall design and stability, establish foundation design recommendations and determine conditions of gross and surficial stability of overall wall/slope combinations. In surficially unstable slopes where no remedial grading is permitted, wall foundations shall be strengthened to accommodate a potential loss of lateral support. Where natural slopes are grossly unstable, possibly due to the presence of a larger landslide, the slope shall be stabilized or buttressed through grading methods. Where grading is not permitted, structural stabilization shall be accomplished through the design of retaining walls and/or soldier pile walls, tie backs, or some combination of both.	Prior to issuance of building permits	Manager, Permit Services	
Geo-9 Prior to issuance of building permits, the Project Applicant shall ensure that natural slope areas adjacent to development are analyzed for stability and estimated volumes of failure material determined. Setback zones or design of a bench in the upper slopes shall be employed to reduce the potential for failures to migrate into graded areas. Areas of rock creep influence shall require use of tie-backs and structural sheets to prevent this occurrence.	Prior to issuance of building permits	Manager, Permit Services	
Geo-10 Prior to issuance of grading or building permit, whichever comes first, the Project Applicant shall ensure that the following methods are incorporated into the design to prevent slope failure:	Prior to issuance of building and grading permits	Manager, Permit Services	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<ul style="list-style-type: none"> <li>Where daylight fill lots lie adjacent to ascending natural slopes, building pad elevations shall be raised, and toe-of-slope catchment troughs have been designed into which the failure materials can accumulate. These areas should be designated as “common areas” and maintained by homeowners associations.</li> <li>In areas where a more significant volume of debris is expected, such as an area situated within the path of adjacent natural drainage swales, impact or deflection walls shall be installed.</li> <li>Use of design stabilization fills, which are typically the width of standard grading equipment, shall be used for surficially unstable cut or fill slopes.</li> </ul>			
<p>Geo-11 During the conceptual design phase, the Project Applicant and the County shall ensure that no lots are designed with habitable structures within the fault hazard setback zone as determined in the Fault Study, and no building permits shall be applied for or granted for any habitable structures within the hazard fault setback zone in the future. Asymmetrical floor plans shall be avoided, because these kinds of buildings tend to twist in addition to shaking laterally.</p>	During conceptual design phase	Managers, Permit Services/Planning, OC Development Services	
<p>Geo-12 Prior to issuance of building permits, the Project Applicant shall demonstrate to the County that deep fills have undergone a cycle of “primary” settlement sufficient to allow safe construction. The Project Applicant may opt to employ supplemental geotechnical measures to minimize anticipated settlement time. Such measures could include vertical wick-drain installation, use of higher fill compaction standards, use of granular fill zones prone to less settlement and/or placement of surcharge fills.</p>	Prior to issuance of building permits	Manager, Permit Services	
<p>Geo-13 Prior to issuance building permit, the Project Applicant shall ensure that appropriate conventional engineering measures are implemented to reduce impacts of excessive differential settlement in cut/fill transition areas as determined by the County building official. These measures can include a flattening of removal profiles to 2:1 or shallower, deepening over-excavation of building pads within zones of expected impacts, use of higher compaction standards, limiting construction of certain improvements within structural setback zones or construction of stiffened foundation systems including post-tension foundations caisson walls or mat slabs as determined feasible and appropriate.</p>	During construction activities	Building Official, OC Building Department	
<p>Geo-14 Prior to issuance of grading permit, the Project Applicant shall ensure that removal and re-compaction of compressible native soils shall be performed in areas of proposed structural fills to minimize settlement of new fill and/or prevent loss of lateral support. The limits of removals shall extend beyond conceptual plan boundaries and potentially beyond the limits of grading into areas to remain natural. Where no removals are permitted beyond the boundaries of design, engineered structures shall be installed such as pin piles to achieve proper slope stability.</p>	During grading activities	Manager, Permit Services/ OC Building Department	
<p>Geo-15 Prior to issuance of building permits, the County shall verify that testing has been conducted to evaluate the chemical character of fill soils. Result of such testing shall be used to formulate appropriate foundation design criteria to reduce the adverse effects of corrosive soils.</p>	Prior to issuance of building permits	Manager, Permit Services/ OC Building Department	
<p>Geo-16 Prior to issuance of building permits, the County shall ensure that the Project Applicant has provided geotechnical studies to evaluate the occurrence and character of expansive clay soil on the Project Site. Based on the results of the studies, criteria for foundation design shall be formulated to reduce adverse effects such as selective grading methods including placement</p>	Prior to issuance of building permits	Manager, Permit Services/ OC Building Department	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
of adverse clay soils in deeper fill areas, or non-bedrock and design structures through building pad over-excavation. Post grading studies and testing shall be conducted on finished building pads to verify the adequacy of foundation design.			
Geo-17 Prior to issuance of grading permit, the County shall ensure that the Project Applicant has conducted geotechnical investigations of recent alluvium deposits to evaluate the potential for liquefaction. Findings of such investigations shall be incorporated into the design of structures proposed in areas where there is a potential for liquefaction to occur.	Prior to issuance of grading permit	Manager, Permit Services/ OC Building Department	
Geo-18 Prior to construction, the Project Applicant shall ensure that a network of subdrains and back-drains shall be installed in areas of expected groundwater or active seepage.	Prior to construction	Project Applicant	
Geo-19 Prior to issuance of building permits, the County shall ensure that the Project Applicant has conducted geotechnical investigations and engineering analyses in areas where proposed roadways cross existing natural gas pipelines or transmission towers exist adjacent to proposed cut slopes and designed roadway crossings to avoid or minimize damage to these facilities.	Prior to issuance of building permits	Project Applicant/ OC Building Department	
<b>Greenhouse Gas Emissions</b>			
GHG-1 Prior to issuance of building permits for residential units, the County shall ensure that all fireplaces are gas rather than wood burning.	Prior to issuance of building permits	Manager, OC Development Services	
GHG-2 Prior to construction of project, the developer shall implement or develop a plan for implementation of one or more mitigation strategies for the reduction of greenhouse gas (GHG) emissions from the report "CEQA and Climate Change" prepared by the California Air Pollution Control Officers Association (CAPCOA) as updated in 2010. The total benefit of the mitigation strategies must result in a minimum 5% reduction in GHG emissions from the business-as-usual value. Alternative strategies not listed in the CAPCOA report may be used with approval of the Orange County Planning Director. The selected strategies, including measures for their long-term maintenance, must be described in a memo submitted to and approved by the County Planning Department prior to initial occupancy of any on-site facility.	Prior to construction	Project Applicant/ OC Development Services Director	
<b>Hazards and Hazardous Materials</b>			
Haz-1 Prior to issuance of building permits, the Project Applicant shall provide a Combustible Gas/Methane Assessment Study for review and approval by the OCFA. The Project Applicant shall submit and obtain OCFA approval for a Methane Control Plan to control the release of combustible gas/methane from operation oil wells in the event that measurable quantity of methane gas is identified in the Combustible Gas/Methane Assessment Study.	Prior to issuance of building permits	OC Fire Chief	
Haz-2 Prior to issuance of grading permits, the Project Applicant shall ensure that a Phase II ESA is prepared for review and approval by the Manager of Planning, OC Development Services in consultation with Hazardous Waste Specialist III, OC Environmental Health. The Phase II ESA shall identify the abandoned well locations, and any hidden pits or accumulations of drilling mud in the vicinity of the wells. The assessment shall include a review of available well logs and abandonment documentation in order to verify regulatory compliance of previously abandoned wells. In the event pits are encountered during the Phase II ESA investigation or during grading, the pits will be sampled for hazardous substances and will be disposed of at a certified hazardous waste facility.	Prior to issuance of grading permits	Manager, Hazardous Waste Specialist III OC Environmental Health/Planning, OC Development Services	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
Haz-3 Prior to issuance of grading permits, the Project Applicant shall ensure that an RAP is prepared for the previously abandoned oil wells to address the appropriate measures consistent with state law.	Prior to issuance of grading permits	Manager, Permit Services	
Haz-4 Prior to the closure of any existing oil wells, the Project Applicant shall ensure that the operators of the oil wells prepare an RAP to address appropriate measures for closure consistent with state law.	Prior to closure of existing oil wells	Manager, Permit Services	
Haz-5 Prior to issuance of any grading permit that results in the disturbance of any vegetation, the Project Applicant shall submit a Fire Master Plan for review and approval by the OCFA and OCSD. The Fire Master Plan shall be based on the Esperanza Hills FPEP and shall contain details regarding evacuation roads, including road surface type, firefighting staging areas, emergency secondary access, turning radii, vegetation clearance buffers along roadways, exits, and locations of hydrants and reservoir.	Prior to issuance of grading permits	Orange County Fire Authority	
<p>Haz-6 Prior to issuance of any Certificate of Use and Occupancy, the Project Applicant shall submit a Community Evacuation Plan (CEP) for the Project for review by the OCFA and the OCSD and approved by the OCFA. The CEP will incorporate the information on community plans from the Orange County Office of Emergency Services and the San Diego Office of Emergency Services. The Esperanza Hills FPEP shall be the basis of the CEP, which shall include provisions for:</p> <ul style="list-style-type: none"> <li>• Pre-fire planning and preparations</li> <li>• Post-fire recovery actions</li> <li>• Communications/registering with Alert OC (Orange County's Reverse 911 system and sign-up for cell phone/text notice)</li> <li>• Prevention (maintenance of fuels around buildings, gutter and roof clearance, vent protection)</li> <li>• Emergency contact numbers</li> <li>• Annual evacuation training schedule</li> <li>• Fire Prevention Measures during High Fire Danger and Red Flag Warning periods</li> <li>• Annual review and update requirements</li> <li>• Wildfire Emergency Evacuation Plan Details</li> <li>• On-site partial relocation versus off-site evacuation</li> <li>• Revisions/updates to the CEP shall be reviewed and approved by OCFA</li> </ul>	Prior to issuance of Certificate of Use and Occupancy	Orange County Fire Authority/ Orange County Sheriff's Department	
Haz-7 Prior to recordation of the final tract map, the Project Applicant shall record the deed restrictions for each residential lot. The deed restriction shall include any portion of the FMZs on the private lot, approved plant palettes, and prohibitions regarding combustible structures, including fencing and other accessory structures. Deed restrictions will run with the land and be conveyed to any subsequent owner of the private lot.	Prior to final tract map recordation	Manager, Permit Services	
Haz-8 Prior to recordation of the Final Tract Map for Lots 7, 8, 9, 224, 225, 236, 237, 253, 254, and 278 in Option 1 and Lots 8, 9, 10, 224, 225, 236, 237, 253, 254, and 278 in Option 2 that include an FMZ that extends beyond the private lot or development, the Project Applicant shall obtain written legal permission in the form of a Fuel Modification Easement from any off-site landowners. The Fuel Modification Easement shall be recorded for each lot. In any situations	Prior to final tract map	Manager, Permit Services	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<p>where the FMZ extends into biological open space or other sensitive biological areas, or other areas controlled by the County and/or resource agencies, formal written permission shall be obtained from all applicable agencies.</p>			
<p>Haz-9 Prior to issuance of building permits, the Project Applicant shall prepare a Private Property Owners' Guide for fire-safe vegetation management, which shall be distributed by the Esperanza Hills HOA to each new home buyer. The Guide shall be based on the Orange County Fire Authority Vegetation Management Guidelines as approved in the Fuel Modification Plan approved by the OCFA. Periodic inspections by the OCFA shall be at the expense of the Esperanza Hills HOA.</p>	<p>Prior to issuance of building permits</p>	<p>Manager, Permit Services</p>	
<p>Haz-10 Prior to recordation of the final tract map, the Project Applicant shall submit the Project Covenants, Conditions, and Restrictions (CC&amp;Rs) to the Manager, Planning, OC Development Services for review and acceptance by County Counsel and will include:</p> <ul style="list-style-type: none"> <li>• A reference to the Esperanza Hills FPEP to ensure compliance with the features with the plan. The HOA is required to enforce compliance with the Plan. Owners of private lots will be notified in the project's CC&amp;Rs and property disclosures that they are prohibited from conducting any vegetation management activities outside their private property.</li> <li>• Provisions for continuous maintenance of common areas by the Esperanza Hills Homeowners' Association and individual properties by owners. Maintenance refers to anything needed to maintain the fuel modification area in a fire safe condition as required by the OCFA, including periodic removal of undesirable, combustible vegetation; replacement of dead and dying fire-resistant plantings; maintenance of the operational integrity and programming of irrigation systems; and preservation of identification markers.</li> <li>• A provision that the HOA is responsible for and has the authority to ensure long-term funding, and ongoing compliance with all provisions of the approved Fire Master Plan and Community Evacuation Plan, including vegetation planting, fuel modification, vegetation management, and maintenance requirements on all private lots, parks, common areas, roadsides, and open space under their control (if not considered biological open space). Any water quality basins, flood control basins, channels, and waterways should be kept clear of flammable vegetation, subject to the environmental restrictions.</li> <li>• A provision that the HOA will annually fund and obtain an inspection and report from an OCFA-approved Wildland Urban Interface Fire Safety Inspector in June, certifying that vegetation management activities throughout the Project Site have been performed pursuant to the approved Fire Master Plan.</li> </ul>	<p>Prior to recordation of final tract map</p>	<p>Manager, Planning, OC Development Services / County Counsel</p>	
<p>Haz-11 Prior to issuance of building permits, the Project Applicant shall submit to the Manager, Permit Services plans demonstrating a water system for the Project capable of handling the minimum fire flow storage of 1,500 gallons per minute for a 2-hour duration with a minimum residual pressure of 20 pounds per square inch.</p>	<p>Prior to issuance of building permits</p>	<p>Manager, Permit Services</p>	
<p>Haz-12 Prior to issuance of building permits, the Project Applicant shall provide a plan that depicts the appropriate number of fire hydrants and their specific locations to be constructed for each phase of development for review and approval by the OCFA Fire Marshal.</p>	<p>Prior to issuance of building permits</p>	<p>Manager, Permit Services/ OCFA Fire Marshal</p>	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
Haz-13 Prior to ground disturbance in environmentally sensitive areas that contain sensitive habitat, cultural sites, riparian areas, biological buffer areas, detention basins, etc., the Project Applicant shall obtain written permission from the Manager, Planning, OC Development Services, and the appropriate resource agencies (e.g., the CDFW, the USFWS, and the ACOE) prior to any vegetation management activities occurring.	Prior to ground disturbance in environmentally sensitive areas	Manager, Planning, OC Development Services	
Haz-14 Prior to issuance of any building permit for access gates, the Project Applicant shall submit for review and approval by the OCFA access gate plans consistent with the applicable Fire Code, and all operated gates shall be equipped with emergency opening devices approved by the OCFA.	Prior to issuance of building permits for access gates	OCFA	
<b>Hydrology and Water Quality</b>			
No mitigation measures are required.			
<b>Land Use and Planning</b>			
No mitigation measures are required	None required	None required	None required
<b>Noise</b>			
N-1 Prior to issuance of grading permit, the Project Applicant shall ensure that all construction activities shall be limited to the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays with no construction permitted on national holidays or Sundays in compliance with the Orange County Noise Ordinance. High noise-producing activities should be scheduled between the hours of 8:00 a.m. and 5:00 p.m. to minimize disruption to sensitive uses.	Prior to issuance of grading permit	Manager, Permit Services	
N-2 Prior to issuance of grading permit, the Project Applicant shall ensure that all construction and demolition equipment shall be fitted with properly operating and maintained mufflers.	Prior to issuance of grading permit	Manager, Permit Service	
N-3 Prior to issuance of grading permit, the Project Applicant shall ensure that all noise-generating construction equipment and construction staging areas should be located as far as possible from existing residences.	Prior to issuance of grading permit	Manager, Permit Service	
N-4 Prior to issuance of grading permit, the Project Applicant shall ensure that construction-related equipment, including heavy duty equipment, shall be turned off when not in use for more than 10 minutes.	Prior to issuance of grading permit	Manager, Permit Service	
N-5 Prior to issuance of grading permit, the Project Applicant shall prepare and submit to the County for approval a haul plan for construction-related traffic that limits impacts on residential development by avoiding such residential development areas where feasible.	Prior to issuance of grading permit	Manager, Permit Service	
N-6 Prior to issuance of grading permit, the Project Applicant shall ensure that construction hours, allowable work days and the telephone number of the job superintendent are clearly posted at all construction entrances to allow residents to contact the job superintendent. If the County of Orange or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action and report the action taken to the appropriate reporting party. Contact specifications shall be included in the proposed project construction documents which shall be reviewed by the County of Orange prior to issuance of grading permits.	Prior to issuance of grading permit	Manager, Permit Service	
<b>Population and Housing</b>			
No mitigation measures are required.	None required	None required	None required

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<b>Public Services</b>			
PS-1 Prior to issuance of grading permit, if deemed necessary by the Orange County Fire Authority, the Project Applicant shall enter into a Secured Fire Protection Agreement with the Orange County Fire Authority providing for payment of fair share fees for impacts to capital and infrastructure needs.	Prior to issuance of grading permits	Project Applicant/ OCFA	
PS-2 Prior to issuance of building permits, the Project Applicant will be required to comply with Senate Bill 50 and pay the applicable school impact fees as adopted by the Placentia-Yorba Linda Unified School District.	Prior to issuance of building permits	Manager, Permit Services	
<b>Recreation</b>			
No mitigation measures are required.	None required	None required	None required
<b>Transportation and Traffic</b>			
T-1 For Option 1, prior to issuance of building permits, the Project Applicant shall contribute to the installation of a three-phase traffic signal at the Yorba Linda Boulevard/Via del Agua intersection in the event the Cielo Vista project is not constructed. The Project Applicant's fair share contribution shall be 39% with the proposed Cielo Vista project as part of the cumulative base traffic condition, and 46% without the Cielo Vista project. The first project to be constructed, either Esperanza Hills or Cielo Vista, will pay 100% for the signal installation with an agreement between applicants to reimburse the fair share amount at the time the second project is constructed. If the City does not implement the improvement, the impact will be significant and unavoidable.	Prior to issuance of building permits	Project Applicant/ Manager, Permit Services	
T-2 Prior to issuance of building permits, the Project Applicant shall pay a 9% fair-share contribution for the following improvement at Yorba Linda Boulevard at Savi Ranch Parkway: Widen and re-stripe the westbound approach to provide an additional (third) westbound left-turn lane.	Prior to issuance of building permits	Manager, Permit Services	
T-3 Prior to issuance of Certificates of Use and Occupancy, the Project Applicant shall pay a 9% fair-share contribution for the following improvement: extend the left-turn pocket along Yorba Linda Boulevard at Via del Agua from the existing 100 feet to 275 feet, with 11 feet in the transition area of the turn pocket to achieve 286 feet. However, the County cannot compel the City to implement such improvement. If the City does not implement the improvement, the impact will be significant and unavoidable.	Prior to issuance of Certificates of Use and Occupancy	Manager, Permit Services	
<b>Utilities and Service Systems</b>			
U-1 Prior to issuance of building permits, the Project Applicant shall enter into a Development Agreement with the Yorba Linda Water District for the provision of water facilities and service.	Prior to issuance of building permits	Manager, Permit Services	
U-2 Prior to issuance of building permits, the Project Applicant shall enter into a Development Agreement with the Yorba Linda Water District for the provision of sanitary sewer facilities and service.	Prior to issuance of building permits	Manager, Permit Services	
U-3 Prior to issuance of building permits, the project developer shall coordinate with Southern California Edison to identify the location of the connection to existing electric service lines based on the final determination of access via Option 1 or Option 2 and to protect existing transmission lines on the Project Site.	Prior to issuance of building permits	Manager, Permit Services	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
U-4 Prior to issuance of building permits, the project developer shall coordinate with Southern California Gas to identify the location of the connection to existing natural gas lines based on the final determination of access via Option 1 or Option 2.	Prior to issuance of building permits	Manager, Permit Services	
U-5 Prior to issuance of building permits, the project developer shall coordinate with AT&T to identify the location of the connection to existing telephone service lines based on the final determination of access via Option 1 or Option 2.	Prior to issuance of building permits	Manager, Permit Services	
U-6 Prior to issuance of building permits, the project developer shall coordinate with Time Warner Cable to determine the location of the connection to existing cable service lines based on the final determination of access via Option 1 or Option 2.	Prior to issuance of building permits	Manager, Permit Services	
<b>Conditions of Approval</b>			
<b>Hydrology and Water Quality</b>			
COA-1 Prior to issuance of grading permit, the Project Applicant shall submit the following drainage studies for approval by the County Manager, Permit Services: 1. A final drainage study of the project incorporating the Preliminary Drainage Report for Esperanza Hills Property drainage features pursuant to the approved development option; and 2. 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.	Prior to issuance of grading permits	County Manager, Permit Services	
COA-2 Prior to issuance of any Certificates of Use and Occupancy, the Project Applicant shall not grant any new easements over any property subject to a requirement of dedication or irrevocable offer to 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 County Manager, Permit Services for review and approval.	Prior to issuance of Certificates of Use and Occupancy	County Manager, Permit Services	
COA-3 Prior to recordation of a subdivision map (except for financing and conveyance purposes only), the Project Applicant shall participate in the applicable Master Plan of Drainage in a manner meeting the approval of the Manager, Permit Services, including payment of fees and the construction, or provide evidence of financial security (such as bonding), of the necessary facilities. The applicant shall enter into an agreement with the County of Orange concerning payment and reimbursement of Master Plan Drainage Fees to the City as a condition of any future annexation for drainage facilities transferred from OCPW to the City.	Prior to recordation of subdivision map	County Manager, Permit Services	
COA-4 Prior to issuance of any grading or building permit, whichever comes first, the Project Applicant shall demonstrate compliance under California's General Permit for Storm Water Discharges Associated with Construction Activity by providing a copy of the Notice of Intent submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification Number; or other proof of filing in a manner meeting the satisfaction of the Manager, Permit Services. Projects subject to this requirement shall prepare and implement a SWPPP. A copy of the current SWPPP shall be kept at the Project Site and be available for County review on request.	Prior to issuance of grading or building permits	Manager, Permit Services	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<p>COA-5 Prior to issuance of any grading or building permit, whichever comes first, the Project Applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Services, to demonstrate compliance with the County's NPDES Implementation Program 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 by wind, rain, or tracking. 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.</p>	<p>Prior to issuance of grading or building permits</p>	<p>County Manager, Permit Services</p>	
<p>COA-6 Prior to issuance of any grading or building permits, the Project Applicant shall submit for review and approval by the Manager, Permit Services, a final WQMP specifically identifying BMPs that will be used on-site to control predictable pollutant runoff. The Project Applicant shall utilize the DAMP, the Model WQMP, and Technical Guidance Manual for reference, and the County's WQMP template for submittal. This final WQMP shall update the project's CWQMP based on the final design and include the following:</p> <ul style="list-style-type: none"> <li>• Detailed site and project description</li> <li>• Potential storm water pollutants</li> <li>• Post-development drainage characteristics</li> <li>• Low impact development (LID) BMP selection and analysis</li> <li>• Structural and non-structural source control BMPs</li> <li>• Site design and drainage plan (CWQMP BMP Exhibit)</li> <li>• GIS coordinates for all LID and treatment control BMPs</li> <li>• Operation and Maintenance (O&amp;M) Plan that: (1) describes the long-term operation and maintenance requirements for BMPs identified in the BMP Exhibit; (2) identifies the entity that will be responsible for long-term operation and maintenance of the referenced BMPs; and (3) describes the mechanism for funding the long-term operation and maintenance of the referenced BMPs</li> </ul> <p>The BMP map exhibit from the approved final WQMP shall be included as a sheet in all plan sets submitted for plan check and all BMPs shall be depicted on these plans. Grading and building plans must be consistent with the approved BMP map exhibit.</p>	<p>Prior to issuance of grading or building permits</p>	<p>County Manager, Permit Services</p>	
<p>COA-7 Prior to the recordation of any subdivision map, the Project Applicant shall prepare Covenants, Conditions &amp; Restrictions (CC&amp;Rs) for review and acceptance by the Manager of Permit Services for the HOA, including a section for surface water quality protection and the following prohibited activity restrictions:</p> <ul style="list-style-type: none"> <li>• Blowing, sweeping, or hosing of debris (e.g., leaf litter, grass clippings, litter) into storm drain inlets or other conveyances</li> <li>• On-site fueling</li> <li>• Dumping of any toxic substance or liquid waste on the pavement, on the ground, or toward a storm drain</li> <li>• Use of pesticides if rain is expected</li> <li>• Mixing or preparation of pesticides for application near storm drain inlets</li> </ul>	<p>Prior to recordation of subdivision map</p>	<p>Manager, Planning, OC Development Services/ County Manager, Permit Services</p>	

Mitigation Measure	Timing	Responsible Agency/Party	Date Completed
<ul style="list-style-type: none"> <li>• Allowing wash water to enter storm drain</li> </ul> <p>The CC&amp;Rs shall require the HOA to maintain the debris basins, detention/debris basin #3 and water quality basins on an annual basis in order to maintain flood protection associated with the design of the Project's drainage system.</p>			
<p>COA-8 Prior to issuance of a Certificate of Use and Occupancy, the Project Applicant shall demonstrate compliance with the County's NPDES Implementation Program in a manner meeting the satisfaction of the Manager, OC Inspection:</p> <ul style="list-style-type: none"> <li>• Demonstrate that all structural best management practices (BMPs) described in the BMP exhibit from the project's approved WQMP have been implemented, constructed and installed in conformance with approved plans and specifications;</li> <li>• Demonstrate that the Project Applicant has complied with all non-structural BMPs described in the project's WQMP;</li> <li>• Submit for review and approval, an Operations and Maintenance Plan for all structural BMPs (the plan shall become an attachment to the WQMP);</li> <li>• Demonstrate that copies of the project's approved WQMP (with attached Operations and Maintenance Plan) are available for each of the initial occupants;</li> <li>• Agree to pay for a Special Investigation from the County for a date 12 months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and Operations and Maintenance Plan;</li> <li>• Demonstrate that the Project Applicant has recorded one of the following:             <ol style="list-style-type: none"> <li>a) The CC&amp;Rs (that must include the approved Water Quality Management Plan and Operations and Maintenance Plan) for the project's HOA;</li> <li>b) A water quality implementation agreement that has the approved Water Quality Management Plan and Operations and Maintenance Plan attached; or</li> <li>c) The approved final Water Quality Management Plan and Operations and Maintenance Plan</li> </ol> </li> </ul>	<p>Prior to issuance of Certificate of Use and Occupancy</p>	<p>Manager, OC Inspection</p>	
<p>COA-9 Prior to issuance of grading permit, the Project Applicant shall record a grant of easement for on-site public storm water pipes to the Orange County Flood Control District.</p>	<p>Prior to issuance of grading permits</p>	<p>Manager, Permit Services</p>	