

# MITIGATION MONITORING AND REPORTING PROGRAM

## Introduction

The California Environmental Quality Act (CEQA) requires a lead or public agency that approves or carries out a project for which an Environmental Impact Report has been certified which identifies one or more significant adverse environmental effects and where findings with respect to changes or alterations in the project have been made, to adopt a "...reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment" (CEQA, Public Resources Code Sections 21081, 21081.6).

A Mitigation Monitoring and Reporting Program (MMRP) is required to ensure that adopted mitigation measures are successfully implemented for the Preserve at San Juan project (project). The County of Orange is the Lead Agency for the proposed project and is responsible for implementation of the MMRP. This report describes the MMRP for the project and identifies the parties that will be responsible for monitoring implementation of the individual mitigation measures in the MMRP.

## Project Design Features

The Preserve at San Juan project includes specific Project Design Features (PDFs) that are incorporated as part of the project to avoid and/or minimize potential environmental impacts. The Project Design Features are listed below and included in the MMRP, to ensure implementation and appropriate monitoring of each.

**TABLE 4-1: THE PRESERVE AT SAN JUAN PROJECT DESIGN FEATURES**

No.	Design Feature
PDF-1	Open space within the Preserve accounts for 414.6 acres or approximately 71 percent of the project site, which will be offered for dedication to the U.S. Forest Service
PDF-2	Open space would be concentrated in the western and northern portions of the project site and the single-family residences would be clustered toward Long Canyon Road to create a buffer between the residential uses and the Cleveland National Forest lands to avoid or minimize potential environmental impacts

- PDF-3 The project has been designed to develop the flatter portions of the project site. However, some hills will be lowered and some valleys raised to create level building pads. This design will maintain similar topographic characteristics as the existing condition.
- PDF-4 A conceptual landscape plan for the project has been prepared by a licensed landscape architect pursuant to the County's Standard Plans for landscape areas, adopted plant palette guides, OCFA requirements, and water conservation measures. The conceptual landscape plan has been designed to preserve open space areas and provide landscaping that would assist in carbon intake and minimize surface water runoff, incorporate the use of native/drought tolerant plant materials, avoid the use of invasive plants, and utilize only a small percentage of turf in the common landscape areas.
- PDF-5 In accordance with the Tree Management Preservation Plan that was prepared by certified arborists, oak tree relocations will be within the project site, and monitoring will be performed following all tree plantings and relocations for a period of seven years. Oak trees will be maintained by the Homeowners Association as part of the project's covenants, conditions and restrictions.
- PDF-6 Interior private streets have been designed to rural street standards, with no sidewalks and rolled curbs (except at the main entry where standard curbs will be used to control drainage). The paved widths of interior streets have been designed to have a minimum paved width of 28 feet to 32 feet.
- PDF-7 The project has been designed to include an eastbound left-turn lane (300-foot storage length), a westbound right-turn lane (320-foot storage length), and a westbound acceleration on Ortega Highway at the intersection of Long Canyon Road.
- PDF-8 Roads within the project site will be privately owned and maintained. Stop signs, stop bars, and stop legends will be provided for vehicles exiting the project phases at the intersection of Long Canyon Road. The gated entries to both Phases will be constructed and setback from Long Canyon Road at a distance that complies with the Orange County Standard Plan No. 1107, which is a minimum of 100 feet from the curb line of Long Canyon Road, to provide adequate vehicle stacking space.
- PDF-9 The project circulation has been designed to be consistent with the County's design components of the General Plan-adopted Viewscape Typical Section including an enlarged parkway, a hiking trail, and a lack of curbs.
- PDF-10 The project includes a Fuel Modification Plan that is required to provide a landscape transition area along the interface between residential development and adjacent onsite open space areas to provide wildfire protection. Plant species for landscaping will be in accordance with the Orange County Fire Authority plant palettes and use predominantly native species.
- PDF-11 The project includes a Fire Master Plan that was reviewed and approved by the Orange County Fire Authority. The Fire Master Plan provides enhanced construction features, requirements for fuel modification zones, and requirements for enhanced fire sprinkler systems per California Building Code Chapter 7A.
- PDF-12 In order to minimize project hazards relative to vector control and public health concerns and comply with the Municipal Separate Storm Sewer System permit, the infiltration basins will be designed for a maximum 72-hour draw down period for retained runoff. The infiltration basins will employ approved vector control treatment measures as specified in the California Department of Public Health's recommendations for best management practices for mosquito control in collaboration with the Orange County Vector Control District to mitigate potential vector issues.
- PDF-13 The project has been designed to mimic the hydrological characteristics of the site in its natural, undeveloped state through clustering the residential sites, controlling development flows (runoff) with vegetated swales, infiltration basins, the incorporation of low impact development principles, and preserving the site's main drainage along the easterly boundary, thereby adhering to hydromodification requirements established by the current Municipal Separate Storm Sewer System Permit.
- The project has been designed so that the design capture volume will be collected and infiltrated on-site. This amount will be retained and would not discharge off-site.
  - The design capture volume would remain within the basin, any volume in excess of infiltration basin capacity would be allowed to discharge from the basins via the spillway.
  - For areas where vegetated swales alone can account for the hydromodification, the downstream basins only capture and infiltrate the design capture volume.

- PDF-14 The project has been designed to implement the following Low Impact Development techniques
- Conservation of natural areas, including existing trees, other vegetation and soils
  - Keeping streets at minimum widths and eliminating paved sidewalks in parkways
  - Minimizing the impervious footprint of the project
  - Minimizing disturbances to natural drainages Providing vegetated swales for water quality purposes
- PDF-15 The project has been designed to include the following Best Management Practices to promote infiltration and slow down surface flows
- Impervious area dispersion
  - Inclusion of native drought-tolerant landscaping/efficient irrigation Providing vegetated swales for hydromodification purposes
- PDF-16 The project includes a Hydrology Analysis that demonstrates that the proposed development would not overload existing drainage facilities downstream of the project site or exceed existing runoff velocities and peak discharge at discharge points for the 2-, 5-, 10-, 25-, and 100-year storm events.
- PDF-17 The project includes a Conceptual Water Quality Management Plan (WQMP) that has been prepared to identify preliminary best management practices (BMPs), to control pollutant runoff The WQMP has been based on the Orange County Drainage Area Management Plan, Model WQMP, Technical Guidance Manual, and the County's WQMP template The WQMP includes the following
- Detailed site and project description.
  - A description of potential stormwater pollutants
  - Post-development drainage characteristics
  - Low impact development BMP preliminary selection and analysis
  - Preliminary structural and non-structural source control BMPs
  - Preliminary site design and drainage plan
  - GIS coordinates for all proposed LID and treatment control BMPs
- Preliminary Operation and Maintenance Plan that (1) describes the long-term operation and maintenance requirements for BMPs, (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
- PDF-18 Approximately 133.4 acres of the project site (portions of the site needing domestic water service) would be annexed into the Elsinore Valley Municipal Water District, Western Municipal Water District, and Metropolitan Water District service areas to provide water services Areas of the project site that would remain in natural open space or are within the fuel modification areas that do not require irrigation, would not be annexed into the water service area
- PDF-19 The project includes two water storage tanks (one 615,000-gallon tank and one 525,000-gallon tank), to provide emergency storage to the residents of the project The tanks will be visually screened with native/drought-tolerant landscaping and will be painted a neutral tone to blend with the surrounding environment
- PDF-20 Best management practices will be incorporated into the project to ensure that indirect impacts (i.e., edge effects) are avoided or minimized to the maximum extent possible Utilization of "night sky friendly" light fixtures shall be used, lighting will be pointed away from offsite areas, and ambient light levels will be minimized to the maximum extent practicable

- PDF-21 Construction activities will be limited to the hours between 7 00 a m. to 8 00 p m , Monday through Saturday, excluding federal holidays, per the County's Noise Ordinance (Section 4-6-7) Additionally, the following measures will be implemented to reduce construction-related noise
- Construction activities will be limited to the hours between 7 00 a m to 5 00 p m , Monday through Saturday, excluding federal holidays, which is consistent with the County's Noise Ordinance
  - During all excavation and grading on-site, the construction contractors will equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards to reduce construction equipment noise to the maximum extent practicable. The construction contractor will place all stationary construction equipment so that emitted noise is directed away from noise sensitive receptors.
  - The construction contractor will stage equipment and material stockpiles in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors during project construction
  - The construction contractor will limit haul truck deliveries to the same hours specified for construction equipment
  - Electrically powered equipment to be used instead of pneumatic or internal combustion powered equipment, where feasible
  - Unnecessary idling of internal combustion engines (e g , in excess of 5 minutes) will be prohibited
  - The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only
- PDF-22 Protection measures for oak trees include fencing and protection of oak trees adjacent to construction areas Placement of fill, storage of equipment, and grading will be prohibited within the dripline of any tree proposed for preservation Retaining walls will be used to protect oaks proposed for preservation from surrounding cut and fill and any retaining walls will be placed outside of the root zone of the oak tree to be preserved

### **Mitigation Monitoring and Reporting Program**

The MMRP for the project will be active through all phases of the project, including design, construction, and operation. The project will be developed in phases and may include permits required for implementation of project components identified in Section 2.10 of the Draft EIR. There are mitigation measures that must be continuously implemented throughout the development and operation of the project.

The attached table identifies the mitigation program required to be implemented by the County for the Preserve at San Juan project. The table identifies the applicable Project Design Features implemented by the project and the mitigation measures required by the County to mitigate or avoid significant adverse impacts associated with the implementation of the proposed project, the timing of implementation, and the responsible party or parties for monitoring compliance.

The MMRP also includes a column that will be used by the compliance monitor (individual responsible for monitoring compliance) to document when implementation of

the measure is completed. As individual mitigation measures are completed, the compliance monitor will sign and date the MMRP, indicating that the required mitigation measure has been completed.

**TABLE 4-2: MITIGATION MONITORING AND REPORTING PROGRAM THE PRESERVE AT SAN JUAN PROJECT FINAL EIR 618**

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<b>Aesthetics</b>				
<p><b>MM 3.1-1: Exterior Residential:</b> The project's design plans shall state that exterior paint colors for the residential and associated structures are limited to a palette of earthy tones that shall be provided for homeowners to choose from to ensure that project structures blend into the natural surroundings. Exterior paint options shall be included in the CR&amp;Rs, and managed, approved, and enforced by the Homeowner's Association</p>	<p>PDF-1, PDF-2, PDF-3, PDF-4, PDF-5</p>	<p>Prior to Building Permits</p>	<p>OC Development Services/Planning</p>	
<p><b>MM 3.1-2: Lighting:</b> Prior to the issuance of building permits, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the development areas of the project site in a manner meeting the approval of the County's Building and Safety Department</p>		<p>Prior to Building Permits</p>	<p>OC Development Services/Planning</p>	
<b>Biological Resources</b>				

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.4-1: Environmental Awareness Programs:</b> The project's construction plans and grading specifications shall state that the construction contractor shall implement the following measures</p> <ul style="list-style-type: none"> <li>• The applicant shall prepare a Worker Environmental Awareness Program that shall be administered to all on-site personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The program shall be implemented during site preconstruction and construction, and shall               <ol style="list-style-type: none"> <li>1. Be developed by or in consultation with the County approved biologist and consist of an on-site or training center presentation in which supporting written material and electronic media, including photographs of protected species, is made available to all workers,</li> <li>2. Discuss the locations and types of sensitive biological resources on the project site and adjacent areas, and explain the reasons for protecting these resources,</li> <li>3. Describe the temporary and permanent habitat protection measures to be implemented at the project site,</li> <li>4. Identify whom to contact if there are further comments and questions about the material discussed in the program, and</li> <li>5. Include a training acknowledge form to be signed by each worker indicating they received training and shall abide by the guidelines</li> </ol> </li> </ul>	<p>PDF-1, PDF-2, PDF-13, PDF-14, PDF-17, PDF-20</p>	<p>In Construction Plans and Specifications, and Prior to Grading Permits</p>	<p>OC Development Services/Planning OC Permit Services</p>	

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p>1 Informational kiosks shall be constructed at entrance points to hiking 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 and the importance of staying on trails within open space areas.</p> <p>2 The applicant shall provide residents or the Homeowners Association with a brochure which includes a list of plant species to avoid in residential landscaping to prevent the introduction of invasive plant species to the surrounding natural communities</p>				

<p><b>MM 3.4-2: Best Management Practices for Biological Resources:</b> The project's construction plans and grading specifications shall state that prior to and during construction, the following requirements shall apply. These requirements shall be included in the project's Covenants, Conditions, and Restrictions (CC&amp;Rs) and implemented by the Homeowners Association (HOA) during operation of the project</p> <ul style="list-style-type: none"> <li>• The project impact footprint shall be staked and fenced (e.g., with orange snow fencing, silt fencing or a material that is clearly visible) by a surveyor and the boundary shall be confirmed by a qualified biological monitor. The construction site manager shall ensure that the fencing is maintained for the duration of construction and that any required repairs are completed in a timely manner.</li> <li>• The HOA shall ensure that any project fencing that is contiguous to an open space area be maintained and that any required repairs are completed in a timely manner.</li> <li>• Rodenticides shall not be used during construction or vineyard related activities. The HOA shall ensure that grapes are harvested promptly upon ripening.</li> <li>• Maintenance activities shall not commence until 7:00 a.m. and shall be completed before dusk each day. If any common wildlife is encountered during maintenance activities, the common wildlife shall be allowed to leave the work area unharmed and shall be flushed or herded in a safe direction away from the work area(s).</li> <li>• Qualified biological monitor(s) shall be on-site during all construction or maintenance related vegetation removal activities to flush any common wildlife within the project impact footprint away from work areas.</li> <li>• Any open trenches shall be covered at the end of each work day in a manner to prevent the entrapment of wildlife, or adequately ramped to provide an animal escape route.</li> <li>• If nighttime maintenance is required, lighting shall be shielded and focused downward and away from undisturbed areas and shall be limited to the minimum amount necessary to complete the maintenance activities.</li> <li>• Staging or storage areas shall be located a minimum of 300 feet from any drainage.</li> </ul>	<p>PDF-1, PDF-2, PDF-13, PDF-14, PDF-17, PDF-20</p>	<p>In Construction Plans and Specifications, and Prior to Grading Permits</p>	<p>OC Development Services/Planning OC Permit Services</p>	
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<ul style="list-style-type: none"> <li>• Any equipment or vehicles driven and/or operated within or adjacent to ponded or flowing water within any drainage shall be checked and maintained daily, to prevent leaks of materials that could be harmful to aquatic species.</li> <li>• All vehicles and equipment shall be maintained in proper working condition to minimize fugitive emissions and accidental spills from motor oil, hydraulic fluid, grease, or other fluids or hazardous materials. All fuel or hazardous waste leaks, spills, or releases shall be stopped or repaired immediately with drip pans in place and cleaned up at the time of occurrence. However, no vehicle or equipment maintenance shall occur within 300 feet of any drainage. All spill material removed shall be contained and disposed of at an appropriate off-site landfill. Maintenance vehicles shall carry appropriate equipment and materials to isolate and remediate leaks or spills, such as a spill containment kit.</li> <li>• Stationary equipment such as motors, pumps, or generators, located within or adjacent to ponded or flowing water within drainages shall be positioned over drip pans.</li> <li>• No equipment maintenance shall be done within or adjacent to ponded or flowing water within drainages where petroleum products or other pollutants from the equipment may enter into the water.</li> <li>• No waste, cement, concrete, asphalt, paint, oil, or any other substances used during maintenance activities which could be hazardous to aquatic life, or other organic or earthen material, shall be allowed to contaminate the soil and/or enter into or be placed where it may be washed by rainfall or runoff into ponded or flowing water within any drainages. Any of these materials placed where they may affect ponded or flowing water shall be removed immediately upon observation. When operations are completed, any excess non-native materials shall be removed from the work area. Only the use of native materials is expected to recontour existing baseline conditions (i.e., no non-native fill will be introduced to the open space areas).</li> <li>• All litter and pollutants laws shall be followed. If trash receptacles are provided within or near the work areas they shall be wildlife-proof.</li> <li>• All exposed/disturbed areas shall be stabilized to the greatest extent possible using appropriate, industry standard erosion control measures.</li> <li>• No maintenance activities shall occur during active precipitation. If any precipitation is forecasted, the work area shall be secured at least one day prior so no materials enter or wash into any drainages.</li> </ul>			
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Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.4-3: Sensitive Wildlife:</b> The project's construction plans and grading specifications shall state that to avoid direct impacts to sensitive wildlife, a pre-construction survey shall be conducted within three days of proposed impacts by a qualified biologist. If it is determined by the biologist during the pre-construction survey that sensitive wildlife is present and thus may be impacted, no construction shall be allowed to occur in the immediate area until the individual(s) are relocated to an adjacent area that contains suitable habitat. A biological monitor shall be present during any ground disturbance activities within or immediately adjacent to habitat of sensitive wildlife species.</p> <p>The California Department of Fish and Wildlife shall be consulted prior to relocating any sensitive wildlife species. CDFW may require a sensitive wildlife relocation plan be prepared and approved prior to relocating any sensitive wildlife. If required by the California Department of Fish and Wildlife, the plan shall include methods for trapping, handling and relocating all sensitive wildlife and shall identify areas that are suitable for relocation. Suitable relocation habitats shall include areas containing proper soils, host plants, and moisture conditions favorable for long-term survival of the sensitive wildlife, and relocation areas shall be sufficient in size for introducing new individuals so that overpopulation does not occur.</p>	<p>PDF-1, PDF-2, PDF-13, PDF-14, PDF-17, PDF-20</p>	<p>In Construction Plans and Specifications, and Prior to Grading Permits</p>	<p>OC Development Services/Planning OC Permit Services</p>	

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.4-4: Sensitive Insects:</b> The project's construction plans and grading specifications shall state that as required by the updated U S Fish and Wildlife Service protocol, a preconstruction habitat assessment shall be conducted by a certified Quino checkerspot butterfly biologist in coordination with the U S Fish and Wildlife Service. A site assessment shall be conducted by a qualified Quino checkerspot butterfly biologist to determine if the project site contains areas where surveying for Quino checkerspot butterfly is recommended. Recommended Quino checkerspot butterfly survey areas include all areas that do not fall under "Excluded Areas" outlined in U S Fish and Wildlife Service protocol, regardless of the presence or absence of QCB host plants or nectar sources</p> <p>If it is determined by the habitat assessment and/or coordination with the U S Fish and Wildlife Service that focused surveys are needed and Quino checkerspot butterfly are found within the study area, any potentially significant impacts to Quino checkerspot butterfly habitat shall be mitigated at a minimum 1:1 mitigation-to-impact ratio, subject to approval by the U S Fish and Wildlife Service through Section 7 consultation. Appropriate mitigation includes one or more of the following measures</p> <ul style="list-style-type: none"> <li>• On- and/or off-site preservation of Quino checkerspot butterfly habitat,</li> <li>• On- and/or off-site creation, restoration, and/or enhancement of Quino checkerspot butterfly habitat, including the preparation of a habitat mitigation and monitoring plan, and/or</li> <li>• Payment into a conservation bank or other comparable mitigation banking mechanism (e.g., in-lieu fee program, Pre-Approved Mitigation</li> </ul>	<p>PDF-1, PDF-2, PDF-13, PDF-14,</p>	<p>In Construction Plans and Specifications,</p>	<p>OC Development Services/Planning</p>	

<p><b>MM 3.4-5: Sensitive Plant Communities:</b> Measures to off-set impacts to coast live oak woodland and coast live oak forest shall include one (or a combination) of the following mitigation measures (which are detailed in the Tree Management and Preservation Plan for the project)</p> <ul style="list-style-type: none"> <li>• Preservation of the 26.5 acres of preserved coast live oak woodland and 4.4 acres of coast live oak forest in perpetuity under a conservation easement, deed restriction, or other appropriate mechanism</li> <li>• Individual coast live oak trees within fuel modification zones, off-site impact areas, and temporary impact areas shall be protected and preserved in-place, and coast live oak trees located within the fuel modification zones that require pruning shall comply with Orange County Fire Authority requirements. Trees shall be pruned by a qualified arborist with experience specializing in the management and care of this tree species in consultation with the County Biological Resources Monitor and in accordance with the guidelines published by the National Arborist Association. In no case shall more than 20 percent of the tree canopy of any oak tree be removed</li> <li>• The applicant shall plant trees, seedlings, and onsite-collected acorns within the landscaped portion of the proposed development as well as within the onsite oak woodlands to be preserved as open space. Trees shall be replaced at a minimum of 3:1 replacement ratio, with the possibility of up to 12:1 should all acorns/seedlings survive. All trees and seedlings shall be from a local source indigenous to the immediate area</li> <li>• Prior to the issuance of any grading permits, the applicant shall obtain the approval of a tree preservation plan for the project by the Manager of OC Planning and the Riverside County Environmental Programs Department. The Manager of OC Parks is to be consulted if the plan involves any off-site tree mitigation at an OC Parks facility and the Riverside County Environmental Programs Department is to be consulted for oak trees that may be removed in Riverside County</li> <li>• A five-year monitoring program shall be prepared that includes performance standards and criteria for evaluating success.</li> </ul> <p>Impacts to southern willow scrub shall be mitigated at a minimum ratio of 2:1, as directed by the California Department of Fish and Wildlife, and include one, or a combination of, the following</p> <ul style="list-style-type: none"> <li>• Onsite creation, enhancement, or restoration,</li> <li>• Offsite creation, enhancement, or restoration,</li> <li>• Offsite acquisition and preservation,</li> <li>• Purchase of credits at an agency-approved mitigation bank, and/or</li> <li>• Payment into an in-lieu fee agreement.</li> </ul>	<p>PDF-1, PDF-2, PDF-17, PDF-20</p>	<p>In Construction Plans and Specifications, and Prior to Grading Permits</p>	<p>OC Development Services/Planning OC Permit Services</p>	
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Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p>A monitoring plan shall accompany the creation, restoration, and/or enhancement of sensitive plan communities. The plan shall focus on the provision of equivalent habitats within disturbed habitat areas of the study area and/or offsite (e.g., this may include, but is not limited to, removal of non-native and/or invasive species, salvage/dispersal of native duff and seed bank transplantation, seeding and/or planting/sowing). In addition, the plan shall include provisions for monitoring and maintenance of the plan, and future monitoring to ensure success.</p>				
<p><b>MM 3.4-6: Jurisdictional Waters:</b> The project's construction plans and grading specifications shall state that the applicant shall provide on- and/or off-site replacement and/or enhancement of existing U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdictional waters and wetlands. Riparian/riverine habitat shall be mitigated at a minimum ratio of 1:1 for vegetated/upland areas and 2:1 for areas supporting riparian vegetation. Impacts to jurisdictional resources may be compensated through payment into an in-lieu fee program or approved mitigation bank through coordination with the U.S. Army Corps of Engineers.</p> <p>If creation, restoration, and/or enhancement is to occur on-site and/or off-site, a mitigation and monitoring plan shall be prepared and subject to the approval of these regulating agencies. The plan shall describe the location of mitigation and provide details as to the implementation of the plan, success criteria, maintenance, and monitoring for a three-year period following construction.</p>	<p>PDF-13, PDF-14, PDF-17.</p>	<p>In Construction Plans and Specifications, and Prior to Grading Permits</p>	<p>U.S. Army Corps of Engineers Regional Water Quality Control Board California Department of Fish and Wildlife OC Development Services/Planning OC Permit Services</p>	
<p><b>MM 3.4-7: Nesting Bird Surveys:</b> The project's construction plans and grading specifications shall state that all vegetation clearing for construction and fuel modification shall occur outside of the breeding bird season (fall and winter), between September 1 and February 14 to reduce the potential to impact an active nest. If clearing and/or grading activities cannot be avoided during the breeding season, all suitable habitats shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist prior to and initial ground disturbing activities. Suitable nesting habitat on the project site includes grassland, scrub, chaparral, and woodland communities. If any active nests are detected, the area shall be flagged, along with a 300-foot buffer for passerine species or 500 feet for raptors (or appropriate buffer as determined by the monitoring biologist), and shall be avoided until the nesting cycle is complete or it is determined by the biological monitor that the chicks have fledged the nest and the nest is no longer active.</p>	<p>PDF-1, PDF-2</p>	<p>In Construction Plans and Specifications, and Prior to Vegetation Clearing or Grading Permits</p>	<p>OC Development Services/Planning OC Permit Services California Department of Fish and Wildlife</p>	

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.4-8: Compliance with Section 6.1.2 of the MSHCP – Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools:</b> In accordance with Section 6 1 2 of the MSHCP, a Determination of Biologically Equivalent or Superior Preservation shall be prepared and submitted to the Environmental Programs Division. The Determination of Biologically Equivalent or Superior Preservation shall include an analysis of alternatives that demonstrates efforts that first avoid direct and indirect effects to MSHCP Riparian/Riverine habitat, if avoidance is not feasible, the Determination of Biologically Equivalent or Superior Preservation shall include alternatives that would minimize potential effects. If an avoidance alternative is selected, the project shall ensure the long-term conservation of the avoided Riparian/Riverine habitat through the use of deed restrictions, conservation easements, or other appropriate mechanisms. If an avoidance alternative is not feasible, the Determination of Biologically Equivalent or Superior Preservation shall include measures to ensure the replacement of any lost functions and values of Riparian/Riverine habitat. Riparian/Riverine habitat shall be mitigated at a minimum ratio of 1 1 for unvegetated/upland areas and 2 1 for areas supporting riparian vegetation. Measures shall include one, or a combination of, the following:</p> <ul style="list-style-type: none"> <li>• Onsite creation, enhancement, or restoration;</li> <li>• Off-site creation, enhancement, or restoration,</li> <li>• Off-site acquisition and preservation,</li> <li>• Purchase of credits at an agency-approved mitigation bank, and/or</li> </ul>	<p>PDF-1, PDF-2, PDF-4, PDF-13, PDF-14, PDF-17, PDF-20</p>	<p>In Construction Plans and Specifications, and Prior to Grading Permits</p>	<p>OC Development Services/Planning OC Permit Services California Department of Fish and Wildlife</p>	
<p><b>Cultural/Scientific Resources</b></p>				

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.5-1: Archaeological Resources:</b> Prior to the issuance of a grading permit, the applicant/developer shall provide written evidence to the County Building and Safety Division that a qualified archaeologist has been retained to address the potential discovery of unanticipated archaeological discoveries. In addition, written evidence must be provided that Native American monitors shall be allowed to monitor earthmoving activity related to the project</p> <p>In the event that archaeological materials, including stone tools, shells, bones, glass shards, ceramics, or other materials older than 50 years in age, are encountered during ground-disturbing activities, work in the immediate vicinity of the resource shall cease until a qualified archaeologist has assessed the discovery and appropriate treatment pursuant to CEQA Guidelines Section 15064.5 is determined.</p> <p>If archaeological resources are found to be significant, the archaeologist shall determine, in consultation with the County and local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to archaeological resources qualifying as historical resources. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and local Native American representatives expressing interest in prehistoric or tribal resources. If an archaeological site does not qualify as an historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with</p>	<p>PDF-1, PDF-2</p>	<p>Prior to Grading Permits</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.5-3: Paleontological Resources:</b> Prior to the issuance of a grading permit, the applicant/developer shall provide written evidence to the County Department of Building and Safety that a qualified paleontologist has been retained to respond on an as-needed basis to address unanticipated paleontological discoveries, and the paleontological requirements shall be incorporated into all development plans submitted and included as conditions of approval. In the event that paleontological resources are encountered during grading and construction operations, all construction activities shall be halted or redirected to provide for the qualified paleontologist to assess the find for significance and, if necessary, develop a paleontological resources impact mitigation plan (PRIMP) for the review and approval by the County prior to resuming construction activities.</p>	<p>PDF-1, PDF-2</p>	<p>Prior to Grading Permits</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	
<p><b>Geology and Soils</b></p>				
<p><b>MM 3.6-1: Geotechnical:</b> Prior to the issuance of a grading permit, the applicant shall have a qualified civil engineer prepare final grading plans and a Final Geotechnical Assessment in conformance with the California Building Code, County Grading and Excavation Code, that shall be approved by the County's Building and Safety Department</p>	<p>PDF-4, PDF-10, PDF-13, PDF-14, PDF-15, PDF-16, PDF-17</p>	<p>Prior to Grading Permits</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	
<p><b>MM 3.6-2: Wastewater:</b> The project operator shall design and operate the onsite wastewater treatment systems in accordance with the SWRCB adopted Resolution No 2012-0032—the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of On-site Wastewater Treatment Systems (specifically Tier 2 of this Policy requiring Orange County Department of Public Works to oversee the design and approval of the systems), the Orange County On-site Sewage Absorption System Guidelines, and the County Regulations for Wastewater Treatment and Disposal Systems, which include minimum horizontal setback requirements from geologic and water features. All septic tanks, biofilters and reuse water pump station/emergency storage tanks shall be setback a minimum of five feet from structures, property lines and the top of descending slopes. The project operator shall obtain approval from the County for issuance of building permits for and operation of onsite wastewater treatment systems</p>		<p>Prior to Building Permits</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.6-3: Wastewater:</b> The Home Owners Association (HOA) shall provide detailed information via flyers and meetings to project residents regarding the proper use and maintenance necessary to keep onsite wastewater treatment systems functioning properly. In addition, information regarding County-registered HOA approved liquid waste haulers shall be provided to project site residents.</p>	<p>PDF-4, PDF-10, PDF-13, PDF-14, PDF-15, PDF-16, PDF-17</p>	<p>At Residents Move In and Regularly During Operation of the Project</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	
<p><b>Hazards and Hazardous Materials</b></p>				
<p><b>MM 3 8-1: Hazardous Materials:</b> Prior to issuance of grading permits for Phase 2 (north parcel), a Site Management Plan (SMP) shall be prepared by a qualified hazardous materials consultant and shall detail procedures and protocols for management of onsite hazardous materials, including:</p> <ul style="list-style-type: none"> <li>• A certified hazardous waste hauler shall remove all potentially hazardous materials, wastes, trash pit debris, and abandoned dilapidated vehicles, which shall be disposed of at an appropriate solid waste facility based on the content of the materials. All recyclable materials shall be separated and disposed of at a recycling facility. Hazardous materials shall be transported per California Hazardous Waste Regulations to a landfill permitted by the state to accept hazardous materials.</li> <li>• After removal of the potentially hazardous materials soils samples shall be taken at the airport hangar/maintenance area, storage shed, bunker, vehicle storage areas, trash pits, and at other debris areas to identify any contaminated soils with concentrations above worker safety thresholds established by the Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs). Any samples identified to exceed the RWQCB ESL limits shall be characterized, removed, and disposed of off-site at a licensed hazardous materials disposal facility according to California Hazardous Waste Regulations. A report of the findings shall be provided to the County for review and approval prior to issuance of grading permits for the Phase 2 (north parcel).</li> <li>• Any subsurface materials exposed during construction activities that appear suspect of contamination, either from visual staining or suspect odors, shall require immediate cessation of excavation activities. Soils suspected of contamination shall be segregated from other soils to be tested for potential contamination. If contamination is found to be present Environmental Screening Levels (ESLs), any further proposed groundbreaking activities within areas of identified or suspected</li> </ul>	<p>PDF-10, PDF-11.</p>	<p>Prior to Grading Permits</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<ul style="list-style-type: none"> <li>contamination shall be conducted according to California Hazardous Waste Regulations</li> <li>A Health and Safety Plan (HSP) shall be prepared for each contractor that addresses potential safety and health hazards and includes the requirements and procedures for employee protection. The HSP shall also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction</li> </ul> <p>All SMP measures shall be printed on the construction documents, contracts, and project plans prior to issuance of grading permits</p>				
<b>Hydrology and Water Quality</b>				
<p><b>MM 3.9-1: Stormwater Pollution Prevention Plan:</b> Prior to the issuance of any grading or building permits, the project operator 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, Permit Services. Projects subject to 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 upon request.</p>	<p>PDF-1, PDF-2, PDF-3, PDF-4, PDF-6, PDF-13, PDF-14, PDF-15, PDF-16, PDF-17,</p>	<p>Prior to Grading or Building Permits</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	
<b>Noise</b>				

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.11-1: Noise Barriers:</b> The project's construction plans and grading specifications shall state that temporary sound barriers shall be installed between the location of construction activities and the closest residences during construction activities that could exceed noise limits. The temporary sound barriers shall remain in place until the conclusion of demolition, grading, and construction activities that could exceed noise limits. The design of the sound barrier will be</p> <ul style="list-style-type: none"> <li>• At least 14-feet in height above grade,</li> <li>• located such that it will break the line-of-sight between the sound source and the receiver,</li> <li>• Consist of an impervious material with a minimum surface density of 4 pounds per square foot,</li> <li>• Not have any gaps or holes between the panels or at the bottom, and</li> <li>• A minimum weight of two pounds per square foot with no gaps or perforations</li> </ul>	PDF-21	In Construction Plans and Specifications, and Prior to Grading or Building Permits	OC Development Services/Planning County Building and Safety Department OC Permit Services	
<p><b>MM 3.11-2: Noise Signage:</b> The project's construction plans and grading specifications shall state that the project construction contractor shall post signs at the construction sites that are legible at a distance of 50-feet and two weeks prior to the commencement of construction of the project, the project proponent shall send a notice to the off-site residential uses located within a 0.5-mile radius from the project boundaries. All notices and signs shall provide the dates and duration of construction activities, as well as provide a telephone number where residents can inquire about the construction process and register complaints</p>	PDF-21	In Construction Plans and Specifications, and Prior to Grading or Building Permits	OC Development Services/Planning County Building and Safety Department OC Permit Services	
<p><b>MM 3.11-3: Noise Coordinator:</b> The project's construction plans and grading specifications shall state that the construction contractor shall establish a "noise disturbance coordinator" who shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 0.5-mile radius from the project boundaries and all signs posted at the construction site shall list the telephone number for the disturbance coordinator</p>	PDF-21	In Construction Plans and Specifications, and Prior to Grading or Building Permits	OC Development Services/Planning County Building and Safety Department OC Permit Services	

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<p><b>3.13 Public Services</b></p> <p><b>MM 3.13-1: Fire Protection:</b> Prior to the issuance of any grading permits, the applicant shall obtain the Orange County Fire Authority design approval of all fire protection access roads, fire hydrants, and fire prevention design measures that shall include the following</p> <ul style="list-style-type: none"> <li>• Turning radius and access in and around the project site and structures shall be designed to accommodate large fire vehicles and their weight</li> <li>• All roadways that have medians that do not exceed 100-feet in width shall have a turnaround. Roadways with medians greater than 100-feet in width shall provide emergency turnaround access for heavy fire equipment</li> <li>• If a dead-end street exceeds 150 feet or when otherwise required, a clearly marked fire apparatus access turnaround shall be provided and approved by the Orange County Fire Authority</li> <li>• All traffic signals on public access ways shall include the installation of optical preemption devices</li> <li>• Project plans shall include plan and section views and indicate the grade and width of the access road flow-line to flow-line</li> <li>• Applicable CC&amp;Rs shall contain provisions prohibiting obstructions such as speed bumps/humps, control gates or other modifications unless approval from the Orange County Fire Authority is granted</li> <li>• A note shall be placed on the fire protection access easement plan indicating that all street/road signs shall be designed and maintained to be illuminated in a manner meeting the Orange County Fire Authority requirements</li> <li>• Fire hydrant spacing shall be 600 feet between fire hydrants, or as approved by the Orange County Fire Authority</li> <li>• All electrically operated gates shall install emergency opening devices as approved by the Orange County Fire Authority and the Riverside County Fire Department (RVC Knox).</li> </ul>	<p>PDF-4, PDF-10, PDF-11, PDF-19</p>	<p>In Construction Plans and Specifications, and Prior to Grading Permits</p>	<p>Orange County Fire Authority County Building and Safety Department</p>	

Mitigation Measure	Applicable Project Design Features	Timing	Responsible for Ensuring Compliance / Verification	Date Completed and Initials
<p><b>MM 3.13-2: HOA Fire Hazards Information:</b> The HOA managing the proposed project shall ensure disclosure of potential wildfire hazards the location of fire and emergency services and the approximate response times to all residents. This information shall be provided in information provided to new homeowners and within regular communications to residents from the HOA</p>	<p>PDF-4, PDF-10, PDF-11, PDF-19</p>	<p>At Residents Move In and Regularly During Operation of the Project</p>	<p>OC Development Services/Planning County Building and Safety Department</p>	