Mitigation Monitoring and Reporting Plan

4.0 MITIGATION MONITORING AND REPORTING PLAN

Mitigation Measure	Lead Agency Department	Action(s) Required	Required Time of Compliance	Action Taken	Verified By/Dept.	Date	Further Action Needed
AIR QUALIT							
AQ-1	OC Parks	Vehicle travel on unpaved roadways shall be limited to 15 miles per hour or less.	All Project Activities				
AQ-2	OC Parks	A gravel apron, 25 feet long by road width, shall be used to reduce mud/dirt trackout from unpaved truck/vehicle exit routes.	Project Activities Involving Grading and/or Excavations				
AQ-3	OC Parks	A soil stabilizer shall be applied to unpaved construction site access routes.	Project Activities Involving Grading and/or Excavations				
AQ-4	OC Parks	Apply water three times daily to disturbed construction areas.	Project Activities Involving Grading and/or Excavations				
AQ-5	OC Parks	Ground cover shall be replaced in disturbed areas as quickly as possible.	Project Activities Involving Grading and/or Excavations				
	L RESOURCES						
BIO-1	OC Parks	Wildlife Pre-Construction Surveys and Biological Monitoring: Prior to ground disturbance or vegetation clearing within the Project site, a qualified biologist shall conduct surveys for wildlife (no more than 14 days prior to site disturbing activities) where suitable habitat is present and directly impacted by construction activities. The qualified biologist must be approved by OC Parks prior to the commencement of surveys. Wildlife found within the Project site or in areas	Prior to Construction				



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	,	potentially affected by the Project will be relocated to the nearest suitable habitat that will not be affected by the project prior to the start of construction. Special-status species found within a Project impact area shall be relocated by an authorized biologist to suitable habitat outside the impact area.					
		The Project proponent shall provide written evidence to OC Parks, that the Project proponent has retained a qualified biological monitor with expertise in the species known to occur or with the potential to occur on the Project site. The qualified biologist shall be present during initial ground disturbance for each phase of construction. Once initial ground disturbance is complete, monitoring will occur periodically during all construction activities. The qualified biologist(s) shall be present at all times during ground-disturbing activities immediately adjacent to, or within habitat that supports populations of listed or special-status species. If required, during pre-construction surveys and/or required					
		monitoring efforts, the qualified biologist will relocate common and special-status species that enter the Project site; some special-status species may require specific permits prior to handling and/or have established protocols for relocation. Records of all detection capture, and release shall be reported to CDFW.					
BIO-2	OC Parks	Environmental Awareness Training: The Project proponent shall submit proof to the OC Parks, that all Project personnel attended an environmental awareness and compliance training program. The training program shall present the environmental regulations and applicable permit conditions that the Project team shall comply with. The training program shall include applicable measures established for the Project to minimize impacts to water quality and avoid sensitive resources, habitats and species. Dated sign-in sheets for attendees at these meetings shall be maintained and submitted to OC Development Services.	Prior to Construction				
BIO-3	OC Parks	Implement Best Management Practices (BMPs): The Project shall implement the following Best Management Practices (BMPs):	All Project Activities				



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		 Restrict non-essential equipment to the existing roadways and/or ruderal areas to avoid disturbance to native vegetation. All excavation, steep-walled holes or trenches in excess of six inches in depth shall will be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth dirt fill or wooden planks. Trenches will also be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped wildlife. Any wildlife discovered will be allowed to escape before construction activities are allowed to resume or removed from the trench or hole by a qualified biologist holding the appropriate permits (if required). Minimize mechanical disturbance of soils to reduce impact of habitat manipulation on small mammals, reptiles, and amphibians. Removal/disturbance of vegetation shall be minimized to the greatest extent feasible. Install and maintain appropriate erosion/sediment control measures, as needed, throughout the duration of work activities. Vehicles shall not be driven, or equipment operated, in water covered/wetted portions of the stream channel, or where riparian vegetation may be destroyed, except as otherwise provided for in the permits/agreements from the CDFW, USACE, and/or Regional Water Quality Control Board (RWQCB). No vehicles or equipment shall be refueled within 100 feet of an ephemeral drainage or wetland unless a bermed and lined refueling area is constructed. Spill kits shall be maintained on site in sufficient quantity to accommodate at least three complete vehicle tank failures of 50 gallons each. Any vehicles driven and/or operated within or adjacent to drainages or wetlands shall be checked and maintained daily to prevent leaks of materials. 					



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		 Disinfection of all equipment prior to use on the project site to reduce potential for the spread of ISHBs. Pruning of tree limbs within the Project area potentially infested with ISHBs. Avoidance and minimization of the transport of potential ISHB host tree materials and proper disposal of potential host materials (i.e., chipping, solarization, composting all prior to delivering to a landfill). 					
BIO-4	OC Parks	Nesting Bird Surveys and Avoidance Measures: Prior to initial site disturbance, seasonally timed presence/absence surveys for nesting birds shall be conducted by a qualified biologist; the qualified biologist must be approved by OC Parks ices prior to the commencement of surveys. If construction activities carry over into a second nesting season(s) the surveys will need to be completed annually until the Project is complete. A minimum of three survey events, three days apart shall be conducted (with the last survey no more than three days prior to the start of site disturbance), if construction is scheduled to begin during avian nesting season (February 15th through September 15th); surveys for raptors shall be conducted from January 1st to August 15th. Surveys shall be conducted within 500 feet of all Project activities. If coastal California gnatcatcher, least Bell's vireo, or other special-status species are observed, consultation with USFWS and/or CDFW is required. If breeding birds with active nests are found prior to or during construction, a qualified biological monitor shall establish a 300-foot buffer around the nest and no activities will be allowed within the buffer(s) until the young have fledged from the nest or the nest fails. The prescribed buffers may be adjusted by the qualified biologist based on existing conditions around the nest, planned construction activities, tolerance of the species, and other pertinent factors. The qualified biologist shall conduct regular monitoring of the nest to determine success/failure and to ensure that Project activities are not conducted within the buffer(s) until the nesting cycle is complete or the nest fails. If construction occurs outside of avian nesting season, only a single presence/absence survey will be required.	All Project Activities				



Mitigation Measure	Lead Agency Department	Action(s) Required	Required Time of Compliance	Action Taken	Verified By/Dept.	Date	Further Action Needed
BIO-5	OC Parks	Conduct Pre-Construction Surveys for State and Federally Threatened, Endangered, Proposed, Petitioned, Candidate, and other Special-Status Plants and Development of a Transplanting Plan: Prior to initial ground disturbance and for undisturbed areas in subsequent construction years, the Project proponent shall conduct pre-construction surveys for State and federally listed Threatened and Endangered, Proposed, Petitioned, Candidate, and other special-status plants in all areas subject to ground-disturbing activity. The surveys shall be conducted during the appropriate blooming period(s) by a qualified plant ecologist/biologist, approved by OC Parks, according to protocols established by the USFWS, CDFW, and CNPS. All listed plant species found shall be marked and avoided. Any populations of special-status plants found during surveys will be fully described, mapped, and a CNPS Field Survey Form or written equivalent shall be prepared. Prior to ground disturbance activities or vegetation removal, any populations of listed or special-status plant species identified during the surveys within the Project limits and beyond, shall be protected and a buffer zone placed around each population. The buffer zone shall be established around these areas and shall be of sufficient size to eliminate potential disturbance to the plants from human activity and any other potential sources of disturbance including human trampling, erosion, and dust. The size of the buffer depends upon the proposed use of the immediately adjacent lands and includes consideration of the plant's ecological requirements (e.g., sunlight, moisture, shade tolerance, physical and chemical characteristics of soils) that are identified by the qualified plant ecologist and/or botanist. The buffer for herbaceous and shrub species shall be, at minimum, 50 feet from the perimeter of the population or the individual; the qualified plant ecologist/biologist may increase this minimum buffer depending on species and location. A smaller buffer may be established, pro	Prior to construction				



Mitigation Measure	Lead Agency Department	Action(s) Required restore listed plant species or their habitat, including but not limited to a salvage plan including seed collection and replanting, may be required by the USFWS or CDFW before	Required Time of Compliance	Action Taken	Verified By/Dept.	Date	Further Action Needed
BIO-6	OC Parks	impacts are authorized, whichever is appropriate. Conduct Protocol Surveys for Least Bell's Vireo and Coastal California Gnatcatcher A qualified avian biologist shall conduct focused protocol surveys in suitable habitat within 500 feet of proposed Project disturbance areas within the breeding season prior to the start of construction. The surveys shall be of adequate duration to verify potential nest sites if work is scheduled to occur during the breeding season and follow established protocols.	Prior to construction				
		If a territory or nest is confirmed in a previously unoccupied area, the CDFW and USFWS shall be notified within 48 hours. In coordination with the CDFW and USFWS, a 300-foot disturbance-free buffer shall be established and demarcated by fencing or flagging. This buffer may be adjusted as determined by a qualified avian biologist in coordination with the CDFW and USFWS. The County, in consultation with the qualified biologist, shall halt construction if activities outside of but near the 300-foot buffer are determined to be negatively impacting the nesting birds. The qualified biologist shall devise methods to reduce the noise and/or disturbance in the vicinity as needed. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge.					
BIO-7	OC Parks	Vegetation Removal and Replacement: Construction activities shall be done in such a manner as to minimize the removal of native vegetation. If native vegetation removal cannot be avoided, and the removal is approved by OC Parks, the impacted plant communities shall be replaced at a mitigation ratio of 1:1. Sensitive communities shall be replaced at a mitigation ration of 3:1. The compensation for the loss of habitats may be achieved either by a) on-site habitat creation or enhancement of California sycamore woodlands and southern	All Project Activities				



Mitigation Measure	Lead Agency Department	Action(s) Required	Required Time of Compliance	Action Taken	Verified By/Dept.	Date	Further Action Needed
		riparian scrub communities with similar species compositions to those present prior to construction, b) off-site creation or enhancement of California sycamore woodlands and southern riparian scrub communities, or c) participation in an established mitigation bank program. Prior to the removal of native vegetation, if on or off-site mitigation is required, a Habitat Mitigation and Monitoring Plan shall be prepared that will guide all restoration and monitoring activities. This plan shall include, at a minimum, the following:					
		 Proposed species list for creation/enhancement; Planting/seeding methodology; Irrigation plan; Weeding schedule; Success criteria; Monitoring methodology and schedule; and 					
OUI TUDAL	DESCUESCE	Reporting requirements.					
CULT-1	RESOURCES OC Parks	The applicant shall provide written evidence to OC Parks, that the applicant has retained a County-certified archaeologist, to observe ground disturbance activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If the archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. The applicant shall obtain approval of the archaeologist's follow-up report from OC Parks. The report shall include: the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. The archaeologist shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to	Prior to construction				



Mitigation	Lead Agency		Required Time	Action	Verified		Further Action
Measure	Department	Action(s) Required	of Compliance	Taken	By/Dept.	Date	Needed
modelio	Soparanone	These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of OC Parks. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of OC Parks.	or compliance	ranon	Зугосра.	Duto	Nocuou
CULT-2	OC Parks	Human Remains. If human remains are discovered, all work shall be halted immediately within 50 feet of the discovery, the City shall be notified, and the County Coroner must be notified, according to Section Public Code Resources Code Section 5097.98. The County Coroner must be notified within 24 hours of the discovery, and within two working days of notification of the discovery would make such a determination. If the County Coroner determines that the remains are or are believed to be Native American, the County Coroner would notify the NAHC in Sacramento within 24 hours. In accordance with Section 5097.98 of the California Public Resources Code, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the County Construction Engineer, the treatment and disposition of the human remains.	During Construction				
Geology an	d Soils						
GEO-1	OC Parks	Prior to the start of construction, a paleontological resource monitoring and mitigation plan (PRMMP) will be prepared. The PRMMP will provide detailed recommended monitoring locations including locations mapped as high to very high sensitivity; a description of a worker training program; detailed procedures for monitoring, fossil recovery, laboratory analysis, and museum curation; and notification procedures in the event of a fossil discovery by paleontological monitor or other project personnel. A curation agreement with an accredited repository approved by OC Parks must be obtained. Any subsurface bones or potential fossils that are unearthed during construction should be evaluated by a Qualified Paleontologist.	Prior to construction				



Mitigation Measure	Lead Agency Department	Action(s) Required	Required Time of Compliance	Action Taken	Verified By/Dept.	Date	Further Action Needed
WQ-3	OC Parks	See WQ-3 Stormwater Pollution Prevention Plan below	Prior to construction				
Hydrology a	and Water Qualit	v					
WQ-1	OC Parks	The applicant shall submit for review and approval by the Manager, Building and Safety Permit Services, a Water Quality Management Plan (WQMP) specifically identifying Best Management Practices (BMPs) that will be used onsite to control predictable pollutant runoff. The applicant shall utilize the Orange County Drainage Area Management Plan (DAMP), Model WQMP, and Technical Guidance Manual for reference, and the County's WQMP template for submittal. This WQMP shall include the following: - Detailed site and project description - Potential stormwater pollutants - Post-development drainage characteristics - Low Impact Development (LID) BMP selection and analysis Hydromodification Control BMP selection and analysis - Structural and Non-Structural source control BMPs - Site design and drainage plan (BMP Exhibit) - GIS coordinates for all LID and Treatment Control BMPs Operation and Maintenance (O&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 The BMP Exhibit from the approved WQMP shall be included	Prior to construction				
		as a sheet in all plan sets submitted for plan check and all BMPs shall be depicted on these plans.					
WQ-2	OC Parks	Compliance with the NPDES Implementation Program Prior to the issuance of a certificate of use and occupancy, the applicant shall demonstrate compliance with the County's	Prior to construction				



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mououro	2 opartment	NPDES Implementation Program in a manner meeting the satisfaction of the Manager, OC Inspection, including:	or compliance	ranon		Date	1100000
		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					
		Demonstrate that the applicant has complied with all non- structural BMPs described in the project's WQMP					
		 Submit for review and approval an Operations and Maintenance (O&M) Plan for all structural BMPs (the O&M Plan shall become an attachment to the WQMP; 					
		 Demonstrate that copies of the project's approved WQMP (with attached O&M Plan) are available for each of the initial occupants; 					
		 Agree to pay for a Special Investigation from the County of Orange for a date twelve (12) months after the issuance of a Certificate of Use and Occupancy for the project to verify compliance with the approved WQMP and O&M Plan 					
		- Demonstrate that the applicant has RECORDED one of the following:					
		The CC&R's (that must include the approved WQMP and O&M Plan) for the project's Homeowner's Association;					
		A water quality implementation agreement that has the approved WQMP and O&M Plan attached; or					
		3. The final approved Water Quality Management Plan (WQMP) and Operations and Maintenance (O&M) Plan.					
WQ-3	OC Parks	Stormwater Pollution Prevention Plan					
		The applicant shall demonstrate compliance with 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 Intake. Projects subject to this requirement shall prepare					



Mitigation Measure	Lead Agency Department	Action(s) Required and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the project site and be available for County review on request.	Required Time of Compliance	Action Taken	Verified By/Dept.	Date	Further Action Needed
Noise					ı	1	
NOI-1	OC Parks	A. The project proponent shall produce evidence acceptable to the Manager, Building and Safety, that: 1. All construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling shall be equipped with properly operating and maintained mufflers. 2. All operations shall comply with Orange County Codified Ordinance Division 6 (Noise Control) including limiting construction activities between the hours of 8:00 a.m. and 7:00 p.m. on all days except Sunday. 3. Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings. B. Notations in the above format, appropriately numbered and included with other notations on the front sheet of the project's permitted plans, will be considered as adequate	During Construction				
Wildfires		evidence of compliance with this condition.					
FIRE-1	Orange County Fire Authority	FIRE-1 Fire Prevention Plan The Applicant shall prepare a Fire Prevention Plan that meets the Orange County Fire Authority (Authority) requirements. The plan shall contain, but not be limited to, the following provisions: 1. Comply with all applicable laws of the State of California and the Fire Prevention Plan. Ensure that a copy of this Fire Prevention Plan and any special permits are to be known and in possession of Project foreman/supervisor on work site daily.	Prior to construction				



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		 All construction equipment shall be fitted with appropriate spark arrestors. Spark arrestors shall meet the standards set forth in the National Wildfire Coordinating Group publication for Multi-position Small Engines, #430-1, or General Purpose and Locomotive, #430-2. Unless determined appropriate by the Authority, spark arrestors are not required on equipment powered by exhaust-driven turbo charged engines or motor vehicles equipped with a maintained muffler. The Applicant shall provide documentation of spark arrestors to the Authority prior to bringing each piece of equipment on site. All construction vehicles and equipment shall carry at least one fully charged fire extinguisher. Fire 					
		extinguishers shall be of the type and size set forth in the California Public Resources Code Section 4431. Fire extinguishers shall be appropriately maintained throughout construction, and records of pressure checks shall be submitted to the Authority monthly. Additionally, the following requirements shall apply: 4. Each truck, personnel vehicle, tractor, grader or piece of heavy equipment shall have one shovel, one axe (or Pulaski) and a fully charged fire extinguisher. 5. Each gasoline powered tool (such as chainsaws,					
		 chippers, rock drills, etc.) shall have one shovel and one pressurized fire extinguisher. Shovels must be kept within 25 feet of tools when in use. 6. All tools and equipment above shall be in good 					
		 workable conditions, with employee's trained on their use. 7. Shovels shall be "O" or larger and be not less than 46 inches in over length. 					
		 8. Axes (or Pulaskis) shall have 2.5-pound or larger heads and be not less than 28 inches in overall length 9. Welding or other hot work shall not occur during the Project without an appropriate hot work permit. 					
		 A full-time fire watch with appropriately trained personnel and appropriate firefighting equipment shall be available and on site during all times when 					



							Further
Mitigation	Lead Agency		Required Time	Action	Verified	l	Action
Measure	Department	Action(s) Required	of Compliance	Taken	By/Dept.	Date	Needed
		construction work is taking place. The Applicant shall					
		designate a qualified on-site fire supervisor during					
		Project construction who shall be authorized to act on					
		behalf of the Authority in fire prevention and					
		suppression. The on-site supervisors shall be					
		approved prior to start of Project construction by the					
		Authority.					
		Fire Watch personnel shall be responsible for					
		patrolling the construction work area for the prevention					
		and detection of fires, and to make sure all fire					
		regulations and fire prevention plans are met, and to					
		take/direct suppression action where necessary. The					
		Fire Watch personnel shall not be permitted to perform					
		other non-fire-related duties. Fire Watch personnel					
		shall remain on duty for at least one hour after the					
		close of work or sunset (whichever comes first). During					
		Red Flag conditions or when deemed necessary by					
		the Authority, Fire Watch personnel shall be required					
		until sunset.					
		11. The Applicant shall cooperate with the Authority to					
		determine appropriate protocols and provisions for fire					
		and emergency access to the area. The protocols shall					
		include provisions and appropriate notifications if					
		roadway blockages were to occur due to large loads					
		during construction or operation.					
		12. Cleared and maintained parking areas shall be					
		designated. No parking shall be allowed outside of					
		designated areas. Parking lots shall be covered with					
		gravel.					
		13. The Applicant shall coordinate with the Authority to					
		determine if additional repeaters or communication					
		equipment would be required for fire response.					
		14. Refueling shall be performed within equipment service					
		areas, parking areas, and gas and oil storage areas					
		whenever possible.					
		15. Equipment service areas, parking areas, and gas and					
		oil storage areas shall be cleared of all flammable					
		material down to mineral soil for the radius of at least					



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		ten feet. Small mobile or stationary internal combustion engines shall be cleared of flammable material for a slope distance of at least ten feet from such engine. 16. The Applicant shall participate in the Red Flag Warning program with local fire agencies and the National Weather Service. The Applicant shall stop work during Red Flag conditions. If a Red Flag Warning were to occur during critical work activities, or work activities that cannot be stopped (such as equipment movement), the Authority shall be immediately notified. Communication protocols shall be outlined in the plan. The Authority shall approve resumption of construction activities.					

