

Mitigation Monitoring and Reporting Program

Introduction

The California Public Resources Code, Section 21081.6, requires that a lead or responsible agency adopt a mitigation monitoring plan when approving or carrying out a project when an EIR identifies measures to reduce potential adverse environmental impacts. As lead agency for the proposed project, the City is responsible for adoption and implementation of the mitigation monitoring plan.

A draft EIR for the project has been prepared to address the potential environmental impacts and, where appropriate, recommend measures to mitigate these impacts. As such, a mitigation monitoring plan is required to ensure that the adopted mitigation measures are successfully implemented. This plan lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties.

Project Overview

The City of Lake Forest is proposing to develop a new sports park and recreation center on approximately 90 gross acres of land in the northeastern portion of the City near the intersection of Portola Parkway and El Toro Road. The site includes the 58.6 acre Glass Creek property received from County, of which 38 acres have been designated for active use; the Rados property, which includes approximately 13 acres of land within the central portion of the project site; and the 18-acre Baker Ranch property, lying immediately north and adjacent to the Rados and Glass Creek properties.

The conceptual design for the proposed sports park was created through a series of community workshops and design efforts by the City's master plan consultant. In August 2009, the City Council authorized moving forward with the analysis of the Consensus Master Plan for the proposed project, which includes the following active and passive recreational amenities should all of the properties be available for full buildout:

- up to six baseball/softball fields;
- up to five soccer/multi-use fields and two fields with a soccer overlay;
- up to six hard courts for basketball and tennis;
- up to two playgrounds including tot lots with sand and play structures;
- a 30,000-square-foot recreation center, currently envisioned as a "youth recreation center," which would include a gymnasium as well as multipurpose/meeting rooms;
- a small amphitheater adjoining the recreation center;
- surface parking lots provided at a rate of roughly 50 spaces per field and 120 spaces for the recreation center for a total of approximately 800 spaces at buildout;
- seating for baseball fields that may be terraced into the areas between infields;

- restrooms and concession areas;
- trail connections to local and regional trails; and
- security lighting and lighting for all sports fields.

The park is envisioned to be open 7 days per week from 7:00 a.m. to 10:00 p.m. A number of potential access locations are currently under consideration.

The proposed project includes the extension of Rancho Parkway between Portola Parkway and Lake Forest Drive as a four-lane divided highway pursuant to the County's Master Plan of Arterial Highways and the Lake Forest General Plan Circulation Element and the associated widening of Portola Parkway along the eastern boundary of the Baker property.

Two grading options are being considered for the proposed project. Both options occur within a maximum study area developed through preliminary studies which identified environmentally sensitive areas that should be avoided. Each of these options is conceptual in nature, as final elevations will be determined at a later date based upon precise soil and engineering studies, and a final design plan. Grading Scenario 1 (Highest Pad Elevation, Balanced Grade) sets the pad elevation for the sports fields at the estimated elevation needed to achieve a balance of the grading on the Glass Creek parcel, and includes potential use of retaining wall systems, including a wall up to 45 feet in height along the eastern edge of the site. Proposed elevations at the site would range from approximately 765 feet above MSL in the southern portion of the study area to approximately 795 feet above MSL in the northern portion. Grading Scenario 2 (Lowest Pad Elevation, Grading Export) sets the proposed pad elevation for the sports fields at the estimated lowest elevation possible while preserving the environmentally sensitive areas and the edges of the study area. Proposed elevations at the site would range from approximately 750 feet above MSL in the southern portion of the study area to approximately 780 feet above MSL in the northern portion.

Development of the proposed sports park would require the extension of utilities to the site, including water, reclaimed water, sewer, electric, gas, and communications. The required utilities are available in surrounding streets such as Portola Parkway, Vista Terrace Drive, and Rancho Parkway and would include simple laterals to connect to existing facilities. Except for the extension of new utilities within Rancho Parkway, no new offsite infrastructure is required to be installed or expanded. A 16-inch reclaimed water pipeline owned and operated by IRWD which currently crosses the site would be relocated on site and would be temporarily taken out of service for short periods to connect to temporary and permanent improvements during the construction period.

The proposed project also includes a General Plan Amendment (GPA) to re-designate portions of the property to reflect the active and passive areas of the proposed Sports Park. The majority of the Glass Creek property is currently designated for Regional Park/Open Space in the City of Lake Forest General Plan. The proposed GPA would modify the land use designations on the site to reduce the 51.1 acres of Regional Park/Open Space to 20.6 acres, and increase the 7.5 acres of Community Park/Open Space to 38.0 acres.

Monitoring and Reporting Procedures

The mitigation monitoring plan for the proposed project will be in place through all phases of the project, including design, construction, and operation. The City will be responsible for

administering the mitigation monitoring plan and ensuring that all parties comply with its provisions. The City may delegate monitoring activities to staff, consultants, or contractors. The City will also ensure that monitoring is documented through periodic reports and that deficiencies are promptly corrected. The designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to rectify problems.

Mitigation Monitoring and Reporting Program Implementation

Table 4-1 lists each mitigation measure included in the draft EIR. Certain inspections and reports may require preparation by qualified individuals and these are specified as needed. The timing and method of verification for each measure are also specified.

Table 4-1. Mitigation Monitoring and Reporting Program Summary

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
AESTHETICS				
AES-1	<p>Re-establish native vegetation along project ridgeline and associated slopes. During the final stages of construction as part of the landscape installation, ridgeline and sloped areas disturbed by grading and project construction will be replanted and seeded with species and in density patterns that naturally occur on site. If feasible, plant material that can be successfully replanted, and topsoil containing native seeds, will be stockpiled and used in the revegetation plan. Seed may be collected from plant material that has adapted to local conditions from the site prior to grading to be used in conjunction with container stock to obtain maximum coverage for aesthetics and erosion control. Weedy areas shall be mapped and avoided when topsoil is salvaged. Planting design will be conducted to accomplish at a minimum maintenance of the visual link connecting the ridgeline with the natural areas and open space within the viewshed.</p> <p>Supplemental temporary irrigation will be installed and maintained to promote the establishment of planted and transplanted seedlings and development of extensive root systems. Irrigation intensity and duration will be tapered seasonally to better mimic natural precipitation patterns and help to acclimate the revegetation areas to the natural environment. Irrigation systems will remain in place until revegetation is considered successful based on the established monitoring criteria for plant health and vigor.</p> <p>Monitoring may involve assessing individual species and/or annual aerial assessments. Individual re-plants will be identified by location and may be considered to be on their own annual monitoring cycle that will continue for 5 years and be considered successful after meeting health and vigor criteria with no supplemental irrigation for a minimum of two growing seasons. Alternatively, the revegetation area will be monitored for a minimum of 5 years, and if after two growing seasons, plant</p>	<p>During the final stages of construction as part of the landscape installation; ongoing monitoring over 5 years post-installation</p>	<p>Revegetation in accordance with approved landscape plan, irrigation in accordance with irrigation plans; preparation and implementation of a revegetation monitoring plan to be approved by Development Services Department Director; monitoring by qualified landscape architect or restoration professional; implementation of remedial measures as necessary to achieve desired success criteria.</p>	<p>Development Services Department; Public Works Department; Community Services Department; Construction Contractor</p>

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
AES-2	<p>density, aerial coverage, and health and vigor criteria are met without supplemental irrigation, the revegetation will be considered successful.</p> <p>Success criteria that may trigger replanting may involve a combination of survival and health and vigor and percent coverage. This may include the following criteria:</p> <ul style="list-style-type: none"> • 90% survival or 10% coverage of native species at the end of year 1, • 80% survival or 20% coverage of native species at the end of year 2, • 70% survival or 35% coverage of native species at the end of year 3, • 60% survival or 50% coverage of native species at the end of year 4, • 50% survival or 60% coverage of native species at the end of year 5. <p>If after year 5, success criteria is not met, the revegetation shall be compared to cover of adjacent areas. Remedial measures would involve re-planting and re-seeding and continued irrigation, or regrading the slopes to create terraces or pockets that would hold topsoil and re-plant. A detailed revegetation and monitoring plan will be prepared, which will identify the planting palette, methodology, irrigation requirements, monitoring frequency and duration, success criteria, and contingency measures.</p> <p>Maintain open space riparian corridor as a visual buffer. During the final stages of construction as part of the landscape installation, riparian areas disturbed by grading and project construction will be replanted with riparian species and in density patterns that naturally occur on site. Planting design will be conducted with the following overall goals:</p> <ul style="list-style-type: none"> • Screen views into the site of the playing fields, parking lots, field lighting fixtures, and structures. • Maintain a visual and physical link to the Aliso Creek corridor. • Use of riparian vegetation such as sycamore trees for landscaped 	<p>During final landscape design and during the final stages of construction as part of the landscape installation</p>	<p>Preparation of a landscape plan to achieve the desired goals; installation of landscape in accordance with the landscape plan.</p>	<p>Public Works Department; Community Services Department; Construction Contractor</p>

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
AES-3	<p>areas adjacent to the existing riparian corridors will help anchor and integrate the project with Aliso Creek and the riparian corridor that bounds the eastern edge of the site.</p> <p>Onsite verification of lighting installation. During the installation of the lighting system, the City will retain a registered lighting engineer or lighting professional with certification that indicates proficiency in outdoor lighting design to provide onsite verification that lighting installation conforms to submitted plans. Verification after the completion of construction will ensure that all specifications in the lighting plan, including mounting heights, horizontal angle of luminary shields, spill light foot candles, and lumens, have been met.</p>	During lighting installation	City will retain registered lighting engineer to verify conformance with lighting plans, and if necessary measure spill light.	Public Works Department; Community Services Department
AES-4	<p>Sports facility lighting curfew. Throughout the operation of the proposed sports park complex, the City will impose a lighting curfew to limit nighttime operational hours for field use. The imposition of a lighting curfew will help protect nighttime views for sensitive receptors by reducing the duration of operations to provide a light-free sky above the project site during later evening hours. All events will be scheduled to conclude before the curfew, and illumination of the playing fields will be permitted after curfew only to conclude a scheduled event that exceeded curfew due to unusual circumstances. The lighting curfew will be imposed after 10:30 p.m.</p>	Throughout the operation of the park	Lighting will be programmed to turn off by 10:30 p.m., and scheduling of the facilities will occur such that events will end no later than 10:30 p.m.	Community Services Department
AES-5	<p>Reduce visibility of new structures. During the final design stages as part of the architectural finishing, perimeter landscaping and appropriate color treatment for buildings and concrete areas will be designed to include colors that complement and blend with the setting. This will reduce contrast and promote compositional harmony of architectural features. Perimeter landscaping will be designed and installed along the eastern edge of the parking lot to soften the edges, and blend with the natural riparian corridor in the foreground. New accessory structures (excluding the recreation center) will be painted with a shade that is 1 to 2 degrees darker than the general surrounding area. In addition, concrete structures, such as bench drains, will implement integral color, in the same</p>	During final design and finishing stages of construction	Color palette will be selected such that it minimizes visual impact and blends with the setting as stated in mitigation measure AES-5. Perimeter landscaping will be designed and installed along eastern parking lot edges. Ongoing maintenance will	Public Works Department; Community Services Department; Construction Contractor

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AES-6	<p>manner, to reduce visibility. Because color selection will vary by location, the City will employ the use of color panels evaluated from KOPs during common lighting conditions (front vs. back lighting) to aid in the appropriate color selection. Color panels will be a minimum of 3 feet by 2 feet and will be evaluated from various distances to ensure the best possible color selection. Refer to http://www.blm.gov/bmp for more information on this technique</p> <p>Appropriate paint type will be selected for the finished structures to ensure long-term durability of the painted surfaces. These measures will be implemented during the finishing stages of construction, and will be maintained by the City of Lake Forest over the life of the project.</p> <p>Develop landscape master plan. The City of Lake Forest will retain a landscape architect to develop a landscape master plan designed to provide both functional and aesthetic enhancements. Functionally, the landscaping will provide shade, help screen views to and from the site, reduce glare and reflection from built surfaces, and where necessary, control erosion. Aesthetically, the landscaping will be designed to frame views, provide visual unity with the landscape, and minimize negative visual effects of the project by softening hard surfaces and reducing contrast and scale through the introduction of color, form, and textures that provide a visual linkage to the surrounding context. Landscaping will provide a thematic identity with Aliso Creek and the natural elements within the surrounding landscape.</p>	During final design phases	<p>conform to original color palette and landscaping plan.</p> <p>City will commission a landscape master plan to achieve desired goals and objectives identified.</p>	Public Works Department; Community Services Department
AIR QUALITY				
AQ-1	<p>Construction-period engine/equipment emissions. During project construction, all internal combustion engines/construction equipment operating on the project site will meet EPA-Certified Tier 2 emissions standards, or higher according to the following:</p> <ul style="list-style-type: none"> • Project Start, to December 31, 2011: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 2 offroad emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall 	During construction	The City will solicit construction bids requiring contractors to utilize construction equipment that meets these specifications. Equipment will be verified during City inspection.	Public Works Department; Construction Contractor

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
AQ-2	<p>achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.</p> <ul style="list-style-type: none"> January 1, 2012, to December 31, 2014: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 3 offroad emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. Post-January 1, 2015: All offroad diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. A copy of each unit’s certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. Encourage construction contractors to apply for AQMD “SOON” funds. Incentives could be provided for those construction contractors who apply for AQMD “SOON” funds. The “SOON” program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm <p>Construction-period engine/equipment oxides catalyst. During project construction, all equipment operating on the project site will be fitted with an oxides catalyst.</p>	During construction	The City will solicit construction bids requiring contractors to utilize construction	Public Works Department; Construction Contractor

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
AQ-3	Use of low-NO_x diesel fuel. The City will require by contract specifications that all heavy-duty diesel-powered equipment operating and refueling at a project site within the project area will use low-NO _x diesel fuel to the extent that it is readily available and cost effective (up to 125 percent of the cost of California ARB diesel) in the South Coast Air Basin (this does not apply to diesel-powered trucks traveling to and from the project sites within the project area). Contract specification language will be reviewed prior to issuance of a grading permit (OSA Mitigation Measure 3.3-2).	During construction	equipment that meets these specifications. Equipment will be verified during City inspection. The City will solicit construction bids requiring contractors to utilize construction equipment that meets these specifications. Equipment will be verified during City inspection.	Public Works Department; Construction Contractor
AQ-4	Use of alternative fuel and low-emission diesel equipment. The City will require by contract specifications that alternative fuel construction equipment (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) and low-emission diesel construction equipment will be utilized to the extent that the equipment is readily available and cost effective in the South Coast Air Basin. Contract specification language will be reviewed prior to issuance of a grading permit (OSA Mitigation Measure 3.3-3).	During construction	The City will solicit construction bids requiring contractors to utilize construction equipment that meets these specifications. Equipment will be verified during City inspection.	Public Works Department; Construction Contractor
AQ-5	Turn off equipment when not in use. The City will require by contract specifications that construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Contract specification language will be reviewed prior to issuance of a grading permit (OSA Mitigation Measure 3.3-5)	During construction	The City will solicit construction bids requiring contractors to comply with this limit. Compliance will be verified during City inspection.	Public Works Department; Construction Contractor
AQ-6	Use of existing electricity infrastructure. The City will require by contract specifications that construction operations will rely on the electricity infrastructure surrounding the construction site rather than electrical generators powered by internal combustion engines to the extent feasible. Contract specification language will be	During construction	The City will solicit construction bids requiring contractors to connect to utility infrastructure, and	Public Works Department; Construction Contractor

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	reviewed prior to issuance of a grading permit (OSA Mitigation Measure 3.3-6).		prohibit use of generators. Compliance will be verified during City inspection.	
AQ-7	Use of temporary traffic controls. Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.	Prior to and during construction	The City will solicit construction bids requiring contractors to produce a construction traffic plan prior to construction commencing.	Public Works Department; Construction Contractor
AQ-8	Use of dedicated turn lanes. Dedicated access ways for construction traffic will be addressed during preparation and implementation of the Construction Traffic Management Plan as part of MM TC-1.	During construction	The construction traffic plan will identify dedicated turn lanes for construction equipment.	Public Works Department; Construction Contractor
AQ-9	Reroute construction trucks away from congested areas. Reroute construction trucks away from congested streets or sensitive receptor areas.	Prior to and during construction	The construction traffic plan will identify haul route maps that minimize congested streets and areas near sensitive receptors.	Public Works Department; Construction Contractor
AQ-10	Appoint construction relation officer. Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation.	During construction	The construction contractor will dedicate the field superintendent to serve as a community liaison, who will be responsible for dust suppression.	Public Works Department; Construction Contractor
AQ-11	Improve traffic flow. Improve traffic flow by signal synchronization, and ensure that all vehicles and equipment will be properly tuned and maintained according to manufacturers' specifications.	During construction	The City Traffic Engineer will review options for possible changes in signalization during construction	Public Works Department

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AQ-12	Use of newer diesel haul trucks. Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export).	During construction	hours only. The City will solicit construction bids requiring contractors to utilize construction equipment that meets these specifications. Compliance will be verified during City inspection.	Public Works Department; Construction Contractor
BIOLOGICAL RESOURCES				
BIO-1	<p>Sensitive Species Surveys (OSA PEIR MM 3.4-1). Where future development projects have the potential to reduce or eliminate habitat for native plant and wildlife species or sensitive habitats, including, but not limited to, those listed in Appendix E of the OSA Program EIR (Sensitive Species Potentially Occurring within the Project Area), the project applicant shall conduct biological field surveys of the project area to characterize the extent and quality of habitat that would be affected by project development. Surveys shall be conducted in accordance with current CDFG or USFWS survey protocols for the target species by qualified biologists or botanists. If no sensitive species are observed and the regulatory agencies agree with those findings, then no further mitigation will be required for the species. Similarly, if no sensitive habitats are observed and the regulatory agencies agree with those findings, then no further mitigation will be required. (It should be noted that the sensitive species surveys described above satisfy this mitigation measure.)</p> <p>If sensitive species or habitats are documented on a specific site and the species or habitat is covered by the NCCP/HCP, the applicant shall conform and comply with the applicable requirements of the NCCP/HCP and proceed with BIO-2 (OSA PEIR MM 3.4-2).</p>	During the project review	Surveys were conducted as part of the EIR process. The City complied with this OSA PEIR mitigation measure.	Development Services Department
BIO-2	<p>Loss of Coastal Sage Scrub Habitat and Plant and Animal Species Protected by the NCCP/HCP (OSA PEIR MM 3.4-2). Prior to recordation of a subdivision map or issuance of a grading permit,</p>	During the project review and prior to issuance of	Surveys were conducted as part of the EIR process. The City	Public Works Department; Development

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	<p>whichever comes first, the applicant shall retain a qualified, permitted biologist to confirm the presence and quantity of coastal sage scrub habitat located on the project site. If coastal sage scrub habitat is found to be located on the project site, the applicant shall submit proof to the director of development services that in-lieu fees have been paid to the County of Orange Central/Coastal Natural Communities Conservation Plan (NCCP) Reserve. Currently, these fees are assessed at \$65,000 per acre of coastal sage scrub habitat lost.</p> <p>The applicant shall also demonstrate to the satisfaction of the director of development services compliance with the following NCCP construction impact avoidance measures or such measure in effect at the time of construction:</p> <ul style="list-style-type: none"> • To the maximum extent practicable, no grading of CSS habitat that is occupied by nesting gnatcatchers will occur during the breeding season (February 15 through July 15). It is expressly understood that this provision and the remaining provisions of these “construction-related minimization measures” are subject to public health and safety considerations. These considerations include unexpected slope stabilization, erosion control measures, and emergency facility repairs. In the event of such public health and safety circumstances, landowners or public agencies/utilities will provide USFWS/CDFG with the maximum practicable notice (or such notice as is specified in the NCCP/HCP) to allow for capture of gnatcatchers, cactus wrens, and any other CSS identified species that are not otherwise flushed and will carry out the following measures only to the extent as practicable in the context of the public health and safety considerations. • Prior to the commencement of grading operations or other activities involving significant soil disturbance, all areas of CSS habitat to be avoided under the provisions of the NCCP/HCP shall be identified with temporary fencing or other markers clearly visible to construction personnel. Additionally, prior to the commencement of grading operations or other activities involving disturbance of CSS, a survey will be conducted to locate 	grading permit	<p>will pay in-lieu fees for loss of habitat covered by the NCCP. Construction will be scheduled outside of the gnatcatcher breeding season, or alternative mitigation will be implemented as specified in mitigation measure BIO-4. During construction, the contractor will comply with the NCCP construction avoidance measures identified. A construction monitor will be retained by the City.</p>	<p>Services Department; Construction Contractor</p>

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
BIO-3	<p>gnatcatchers and cactus wrens within 100 feet of the outer extent of projected soil disturbance activities, and the locations of any such species shall be clearly marked and identified on the construction/grading plans.</p> <ul style="list-style-type: none"> • A monitoring biologist, acceptable to USFWS/CDFG will be on site during any clearing of CSS. The landowner or relevant public agency/utility will advise USFWS/CDFG at least seven (7) calendar days (and preferably fourteen (14) calendar days) prior to the clearing of any habitat occupied by identified species to allow USFWS/CDFG to work with the monitoring biologist in connection with bird flushing/capture activities. The monitoring biologist will flush identified species (avian or other mobile identified species) from occupied habitat areas immediately prior to brush-clearing and earthmoving activities. If birds cannot be flushed, they will be captured in mist nets, if feasible, and relocated to areas of the site to be protected or to the NCCP/HCP Reserve System. It will be the responsibility of the monitoring biologist to assure that Identified bird species will not be directly affected by brush-clearing and earthmoving equipment in a manner that also allows for construction activities on a timely basis. • Following the completion of initial grading/earth movement activities, all areas of CSS habitat to be avoided by construction equipment and personnel will be marked with temporary fencing or other appropriate markers clearly visible to construction personnel. No construction access, parking, or storage of equipment or materials will be permitted within such marked areas. <p>Mitigation for Impacts on Wetlands and Aquatic Habitats. (OSA PEIR MM 3.4-4):</p> <ul style="list-style-type: none"> • Mitigation Measure BIO-3A Wetland Delineation. Prior to approval of Tentative Tract or Parcel Maps, a qualified wetland specialist shall conduct a wetland delineation in accordance with ACOE methodology of all jurisdictional waters, seeps and stream channels within a site. If appropriate, this specialist shall also 	During the project review and prior to issuance of grading permit	A wetland delineation was conducted as part of the EIR process. The City has submitted permit applications and is currently coordinating with CDFG,	Development Services Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	<p>submit a request for a streambed alteration agreement from CDFG because CDFG also has jurisdiction over lakes and streams under Section 1600 of the Fish and Game Code. The wetland specialist shall prepare and submit a request for a jurisdictional determination to the ACOE or CDFG as appropriate. Those waters not subject to the ACOE jurisdiction could fall under the regulatory control of the local RWQCB. The wetland specialist shall submit the delineation documents along with the ACOE jurisdictional determination to the RWQCB and request an assessment of jurisdiction. If the areas in question are subject to the ACOE or RWQCB jurisdiction then the following two measures shall be implemented as required. If the areas in question are not jurisdictional, then there is no impact on wetlands and no further action is required. (It should be noted that the wetland delineation referenced herein satisfies this mitigation measure.)</p> <ul style="list-style-type: none"> • Mitigation Measure BIO-3B Permitting. The wetland specialist shall prepare an application for fill of waters subject to the ACOE jurisdiction as determined in BIO-3A. If appropriate, this specialist shall also submit a request for a streambed alteration agreement from CDFG because CDFG also has jurisdiction over lakes and streams under Section 1600 of the Fish and Game Code. The regulatory requirements of contained within the Clean Water Act and the Streambed Alteration Agreement would mandate minimal intrusion into jurisdictional areas and compensatory mitigation for permanent impacts on these areas. • Mitigation Measure BIO-3C Restoration Plan. Once an approved wetland delineation is in place, the wetland specialist shall develop a comprehensive wetland restoration plan to offset impacts on these resources. Restoration could include on- or off-site construction of wetlands, contribution of funds to a local mitigation bank, or restoration of existing yet relatively poor quality wetlands. The ACOE goal is to permit no net loss of functions and values of wetland habitat. The replacement ratio of wetland acreage required to achieve this goal is a minimum of 1(new):1(old) <i>(It should be noted that the project has been</i> 		<p>RWQCB, and ACOE. A habitat mitigation and monitoring plan (HMMP) is currently under review by the agencies, which will include wetlands restoration, and will be implemented as approved by the agencies during construction.</p>	

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BIO-4	<p><i>designed to avoid the most significant wetland feature on the site, Glass Creek. Mitigation for impacts on unnamed tributaries is proposed at a ratio of 1:1).</i></p> <p>If construction activities must occur during the nesting season (February 15 to September 1). All suitable habitat would be thoroughly surveyed for the presence of nesting birds by a qualified biologist before commencement of disturbance activities. If an active nest is detected, the vegetation containing the nest, along with a 200- to 300-foot buffer around it, would be flagged and avoided until the nest is no longer active, as determined by a qualified biologist.</p>	Prior to initiating construction	If construction would occur during nesting season, a pre-construction survey will be commissioned. Buffers would be established if active nests are detected in accordance with the Migratory Bird Treaty Act.	Public Works Department; Development Services Department
BIO-5	<p>Mitigation for Fragmentation of Habitat and Wildlife Movement Corridors (OSA PEIR MM 3.4-5). In order to minimize the fragmentation of habitat and wildlife movement corridors the City shall require the applicant to include, to the extent feasible, specific design features to maintain connectivity between remaining open spaces. These features include greenbelts and other wildlife movement corridors through the proposed developments, creek setbacks and wildlife friendly stream crossings (bridges instead of culverts), and installation of wildlife-friendly landscaping (native vegetation). Any nighttime lighting shall be focused away from greenbelts and riparian corridors to preserve the nighttime integrity of these movement corridors. <i>(It should be noted that this mitigation measure has been satisfied as a component of the project design as discussed below.)</i></p>	During design of the project	The City has included design features to maintain connectivity with open space, including maintaining the natural features of Glass Creek.	Development Services Department
CULTURAL RESOURCES				
CR-1	<p>Archaeological construction monitoring. Because there is the potential for significant subsurface deposits, a qualified archaeologist will monitor ground-disturbing activities during construction within the Glass Creek property. In accordance with Public Resources Code Section 21083.2(i), should unidentified cultural resources be encountered during</p>	During construction	The City will retain a qualified historical archaeologist to monitor grading and other site preparation activities throughout	Public Works Department; Development Services Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	<p>construction, work in the immediate vicinity of the find shall cease until a qualified archaeologist can evaluate the find for CRHR eligibility and determine whether it constitutes a unique archaeological resource for purposes of CEQA. Should the accidental discovery be identified as a significant historical resource, or a unique archaeological resource, appropriate treatment recommendations will be developed, which may include avoidance, data recovery excavation, or other mitigation. The following mitigation measures from the OSA PEIR would be applicable to archaeological construction monitoring (Mitigation Measure CR-1) for the proposed project:</p> <ul style="list-style-type: none"> • Prior to issuance of a grading permit for any site within the project area, a qualified archaeologist shall be retained by the applicant for that grading permit to provide professional archaeological services. The archaeologists shall be present at the pre-grading conference to establish procedures for archaeological resources surveillance. Those procedures shall include provisions for temporarily halting or redirecting work to permit sampling, identification, and evaluation of resources deemed by the archaeologist to potentially be historical resources or unique archaeological resources under CEQA. If, before grading, any portions of the property subject to the grading permit have been identified as sites, which may have such resources present and may be impacted by development, the archaeologist shall conduct a site survey and records search and such further examination as may be needed to assess the significance of the resources. If the archaeological resource is determined to be a unique archaeological resource, options for avoidance or preservation in place shall be evaluated and implemented if feasible. In the event that avoidance or preservation in place is infeasible and the archaeologist determines that the potential for significant impacts to such resources exists, a data recovery program shall be expeditiously conducted. The archaeologists also shall conduct on-site archaeological monitoring for the grading operations. Should historical resources or unique archaeological resources be 		<p>the construction phases. Should any artifacts be discovered, construction would cease in the area until the resource can be appropriately evaluated. If necessary, the artifacts will be removed, cataloged, recorded, and analyzed. Any significant resources will be curated in accordance with the City of Lake Forest General Plan policies. A report will be prepared documenting the excavation and analysis of artifacts. A final monitoring report will be prepared and submitted to the City following construction and any treatment of archaeological resources.</p>	

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
CR-2	<p>discovered during the grading operation, grading activities shall be modified to allow expeditious and proper analysis and/or salvage of the resources. Disposition of the resources shall be within the discretion of the City of Lake Forest (OSA Mitigation Measure 3.5-1).</p> <ul style="list-style-type: none"> • The qualified archaeologist retained shall prepare monthly progress reports to be filed with the City of Lake Forest (OSA Mitigation Measure 3.5-2). • Artifacts recovered shall be prepared, identified, and cataloged before donation to the accredited repository designated by the City of Lake Forest. State of California Guidelines for the Curation of Archaeological Collections shall be consulted regarding the treatment of recovered artifacts. Any artifacts determined to be insignificant shall be offered to local schools for use in education programs (OSA Mitigation Measure 3.5-3). • The qualified archaeologist retained shall prepare a final report to be filed with the City. The qualified archaeologist retained shall prepare a final report to be filed with the site developer(s), the City of Lake Forest, and the South Coast Central Information Center. The report shall include a list of specimens recovered, documentation of each locality, and interpretation of artifacts recovered as well as all specialists' reports as appendices (OSA Mitigation Measure 3.5-4). <p>Consultation with county coroner and notification of most likely descendant. If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance can occur until the county coroner has made a determination of origin and disposition pursuant to California Public Resources Code Section 5097.98. The county coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify the most likely descendent (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD may recommend scientific removal and nondestructive analysis of</p>	During construction	If human remains are discovered, construction would cease in the area, and the coroner would be contacted to evaluate the remains. The coroner will determine appropriate remedies, if necessary, prior to clearing the site for construction.	Public Works Department; Development Services Department; Construction Contractor; County Coroner

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	human remains and items associated with Native American burials.			
GEOLOGY/SOILS/SEISMICITY				
GEO-1	<p>Implement and enforce recommendations in the preliminary geotechnical investigation. During grading and site preparation, all onsite earthwork will be performed in accordance with the recommendations contained in Section 5.0, Preliminary Recommendations, of the preliminary geotechnical evaluation; the City grading requirements; and the General Earthwork and Grading Specifications for Rough Grading included in Appendix F of the preliminary geotechnical evaluation. In case of conflict, the recommendations contained in Section 5.0 shall supersede those included in Appendix F of the preliminary geotechnical evaluation. The recommendations, which are considered preliminary, may be revised based on actual conditions encountered during earthwork and grading. In addition, they will be revised if the site plan is modified. The final grading plans will specify the recommended geotechnical engineering measures to minimize effects from landslides. These recommendations will include the following:</p> <ul style="list-style-type: none"> • Prior to grading of areas to receive structural fill or engineered structures, the areas will be cleared of surface obstructions and potentially compressible material (such as stockpiled materials, undocumented fill, colluvium, desiccated older fill, weathered bedrock, and vegetation), and holes resulting from the removal of buried obstructions, which extend below proposed finish grades, will be replaced with suitable compacted fill material; • All potentially compressible/collapsible materials not removed by the planned design cuts will be excavated to competent material and replaced with appropriate compacted fill soils to at least 90% relative compaction (based on American Society for Testing and Materials [ASTM] Test Method D1557), in a manner approved by geotechnical monitors in the field; • All excavations will be made in accordance with California Occupational Safety and Health Administration (Cal/OSHA) requirements to minimize hazards associated with remedial grading and temporary slopes during construction; 	During final design, grading and site preparation	The grading plan shall incorporate recommendations identified in the geotechnical investigation. Construction shall implement the specifications contained in the final grading plan.	Public Works Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	<ul style="list-style-type: none"> • The cut portion of cut/fill transitions will be overexcavated a minimum of 5 feet vertically and to at least one half the maximum fill thickness under the building envelope, not exceeding 15 feet vertically, and extending at least 5 horizontal feet outside of the proposed building footprints; • The bottom of the overexcavation will be graded to flow towards deeper fill areas, and the overexcavated material will be replaced by compacted fill material to design grade; • All design cut pads will be undercut a minimum of 2 feet below ultimate finish pad grade, and the overexcavation bottom will be graded with a minimum 2% tilt toward deeper fill areas to reduce the potential for ponding water (this will necessitate some areas being over excavated more than 2 feet); • Future streets and parking lot areas will be undercut a minimum of 2 feet below finished asphalt elevation, and all overexcavated material will be replaced with compacted fill materials free of oversize material (material larger than 8 inches in maximum dimension); • If cut slopes are to be overexcavated and replaced with fill, they will be constructed as replacement fill slopes in accordance with the recommendations provided on the Stabilization Fill detail provided in Appendix F of the preliminary geotechnical evaluation; • Properly outletted back drains will be constructed along stabilization fill backcuts; • To reduce the potential for backcut failures, the keyway backcuts will be planned to minimize the time the backcut is left exposed, and the backcuts will not be initiated prior to forecasted rain or where they will be left open for extended periods; • Fill slope faces will be compacted to minimum project specifications, which may require overbuilding of the slope face and trimming back to design grades; • To improve surficial stability, vegetation specified by the landscape architect will be established on the slope face as soon as it is practical; 			

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
GEO-2	<ul style="list-style-type: none"> Although top-of-slope improvements including fences, walls, sidewalks, etc., are generally not considered structural, it is recommended that these improvements and other landscaping features be constructed with flexibility to accommodate the effects of slope creep. Typical remediation methods include construction joints, separation joints, flexible pavers, flexible structures, or additional reinforcement to limit cracking (Refer to Section 5.9, Nonstructural Concrete Flatwork, in the preliminary geotechnical evaluation). <p>Reduce topsoil erosion through minimization of grading and re-use of stockpiled soils. During construction grading and site preparation, to reduce the loss of topsoil, the City will:</p> <ul style="list-style-type: none"> limit the extent of disturbance to the minimum needed for construction, staging, and access, and stockpile topsoil removed during grading for onsite reuse during site landscaping. Topsoil stockpiles will be kept separate from other excavated materials to facilitate effective reuse. 	During construction	The City will include these specifications in the grading permit and require implementation as part of the grading contract.	Public Works Department
GREENHOUSE GAS EMISSIONS				
GHG-1	(OSA PEIR Mitigation Measure GCC1): The City shall comply with the future requirements for implementation of AB 32 and SB 97 once those implementation requirements are developed.	During the environmental review process, final design, construction, and operation	The City evaluated the project compliance with AB32 and SB97 as part of the EIR process. Design of the park incorporates appropriate mitigation measures needed for compliance.	Development Services Department
GHG-2	(OSA PEIR Mitigation Measure GCC2): During final design, the City shall ensure the project complies with the requirements of Title 24 of the California Code of Regulations.	During final design and plan check	The City will review final design for compliance with Title 24 during plan check.	Development Services Department
GHG-3	(OSA PEIR Mitigation Measure GCC3): During final design, site plans shall include prioritized parking for electric vehicles, hybrid vehicles, and alternative fuel vehicles.	During final design and plan check	The City will review site plans to ensure incorporation of these	Development Services Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
GHG-4	(OSA PEIR Mitigation Measure GCC4): The City shall identify energy efficient street lights and water and wastewater pumps and treatment systems which are currently available and which when installed will provide for a 10 percent reduction beyond the 2007 baseline energy use for this infrastructure, and shall require the use of this technology in all new development. All new traffic lights installed within the City shall use LED technology.	During final design and plan check	measures as appropriate. The City will review site plans to ensure incorporation of these measures as appropriate.	Public Works Department; Development Services Department
GHG-5	(OSA PEIR Mitigation Measure GCC5): The City shall recycle and/or salvage at least 25 percent of nonhazardous construction and demolition debris. To implement this requirement, the City shall submit a construction waste management plan for review and approval of the Development Services Director prior to issuance of a Building Permit. The construction waste management plan shall identify materials to be diverted from disposal and whether the materials will be stored on-site or commingled. Excavated soil and land-clearing debris do not contribute to this credit. Calculation can be done by weight or volume but must be documented. The construction waste management plan shall be part of the plans and specifications given to the construction contractor who will be responsible for implementing the plan during construction.	Prior to issuance of grading plan	The City will prepare a construction waste management plan to be implemented by the construction contractor.	Development Services Department; Construction Contractor
GHG-6	(OSA PEIR Mitigation Measure GCC6): During final design, the City shall demonstrate use of reclaimed water for public and common area landscaping where available; install 50 percent native/drought-tolerant plant species; and utilize “smart” advanced capability controllers (e.g., Weather-Trac) to reduce water and energy consumption.	During final design and plan check	The City will require the landscape plan to include these specifications. Compliance with these measures will be verified during plan check.	Public Works Department
GHG-7	(OSA PEIR Mitigation Measure GCC7): During final design, the site plans must incorporate any combination of the following strategies to reduce heat gain created by impervious areas: <ul style="list-style-type: none"> • Utilizing shade trees in common area landscaping; • Reducing the street widths to minimize impervious areas and 	During final design	The conceptual plan includes many of these features. The final design will be reviewed to ensure compliance	Public Works Department; Development Services Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
GHG-8	<p>reduce the use of asphalt;</p> <ul style="list-style-type: none"> • Utilizing light-colored and reflective roofing materials and paint; • Incorporating bioswales where feasible in development areas to capture urban runoff and increase the amount of pervious surfaces. <p>(OSA PEIR Mitigation Measure GCC8): All development in the Opportunities Study Area shall be required to post signs and limit idling time for commercial vehicles, including delivery trucks to no more than 5 minutes.</p>	During final finishing of the site	<p>with these strategies as appropriate.</p> <p>During finishing work at the site, signs will be posted that require idling for commercial vehicles to be limited to no more than 5 minutes.</p>	Public Works Department
GHG-9	<p>Reduce onsite energy consumption by a minimum of 10 percent. The City will incorporate energy conservation measures in Title 24’s 2008 Building Energy Efficiency Standards that go above mandatory requirements into the design of the proposed project, and may include, but will not be limited to, the following:</p> <ul style="list-style-type: none"> • building form and orientation will maximize use of natural lighting; • indoor/outdoor lighting will apply energy efficient technologies; • insulation and window glazing will minimize heat transfers to regulate internal temperatures; • building envelope and internal layout will be designed for efficient insulation, heating, and cooling of space; • hot water systems will incorporate the latest technologies; and • installation of efficient heating, ventilation, and air conditioning (HVAC) units will minimize energy demands. 	During final design	The final design will incorporate these energy reduction features, and the plans be reviewed to ensure compliance with these strategies as appropriate.	Development Services Department
GHG-10	<p>Reduce onsite water consumption by a minimum of 20 percent. The City will incorporate water conservation measures into the design of the proposed project, and may include, but will not be limited to, the following:</p> <ul style="list-style-type: none"> • use water-efficient landscaping, including drought tolerant, native, and appropriate climate zone species; • incorporate efficient irrigation systems, including drip, micromisters, and smart irrigation controls; 	During final design	The final design will incorporate these energy reduction features, and the plans be reviewed to ensure compliance with these strategies as appropriate.	Public Works Department; Development Services Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	<ul style="list-style-type: none"> • use recycled wastewater for irrigation, and potentially non-potable purposes, available to the site from IRWD; • minimize the use of turf grass, and limit it to the athletic fields and smaller portions of the passive park areas; and • reduce potable water demands by installing water-conserving fixtures (low-flow faucets, toilets, urinals, etc.). 			
HYDROLOGY AND WATER QUALITY				
HWQ-1	<p>Prepare Hydrology and Hydraulics Study (OSA Mitigation Measure MM 3.8-5). Prior to issuance of a grading permit, the City shall conduct a hydrology and hydraulics study to determine potential stormwater runoff rates and peak flows for the City of Lake Forest and County of Orange design storms, as well as the 100-year storm for both existing and Proposed Project conditions. Sufficient detail shall be provided to develop the existing conditions and Proposed Project conditions potential hydrograph and timing of peak flows. Studies shall be completed by a qualified professional and be consistent with standard engineering practices for the region, including the use of the criteria of the Orange County Hydrology Manual. The studies shall demonstrate that the effect of stormwater discharge to any City, County, or Other Agency-owned drainage or flood control facility as mitigated shall be designed and implemented to prevent post-construction stormflows from exceeding pre-construction volumes and rates.</p>	Prior to issuance of a grading permit	Conceptual plans minimize impacts from storm events. The City will commission a hydrology and hydraulics study to address City and County requirements for retaining storm flows and to demonstrate that final project design ensures that stormflow volumes and rates do not exceed preconstruction levels.	Public Works Department
HWQ-2	<p>Implement Turbidity Monitoring During Construction. To avoid turbidity levels from exceeding thresholds identified in the Basin Plan, the City will retain a qualified water quality specialist to monitor turbidity levels 50 feet upstream and 300 feet downstream of grading activities occurring within 500 feet of Aliso Creek and Glass Creek when flow is present. To determine turbidity level compliance, the difference between the upstream turbidity data and downstream data is compared. The increase in turbidity is then evaluated against the Water Quality Objectives, identified in the San Diego Basin Plan. A negative increase indicates that water from the site is cleaner than the water upstream, and no correction is necessary. If turbidity levels reach within 2 percent of the Water</p>	During grading activities	The City will retain a water quality specialist to monitor turbidity during grading activities. The samples will be tested to determine if construction is implementing adequate erosion control features to attain water quality objectives. Remedial	Public Works Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
HWQ-3	<p>Quality Objectives, grading will be stopped, construction control measures will be installed to further prevent or control erosion, and construction will not resume until turbidity returns to an acceptable level. Monitoring will be required on a daily/weekly basis throughout the grading and construction phases until the drainage and landscaping improvements are installed that would minimize erosion from the site. When Glass Creek and Aliso Creek are dry, sampling will not be required.</p> <p>Landscaping Requirements (OSA Mitigation Measure MM 3.8-2). The City will prepare a landscape design plan including the following elements:</p> <ul style="list-style-type: none"> • Maximize use of native plant species with minimum water and fertilizer requirements • Watering shall be kept to the minimum necessary to maintain new landscaping • Drip irrigation shall be used only until the native landscaping is established • Minimal use of fertilizers and pesticides 	During final design phases	<p>efforts will be implemented to correct any deficiencies.</p> <p>The City will commission a landscape architect to develop design solutions to achieve desired goals and objectives identified.</p>	Public Works Department
HWQ-4	<p>Develop a Nutrient Management Program (OSA Mitigation Measure MM 3.8-4). Prior to the issuance of a grading permit, the City shall develop and implement appropriate best management practices such as a nutrient management and monitoring program, to reduce the amount of nutrients entering the watershed. Water quality monitoring for nutrients (phosphate and nitrate) shall be conducted biannually for 7 years after the site is operational. One monitoring event will occur immediately following a large rain event, and one will be completed during the summer months (the dry season). As each phase becomes operational, monitoring for water receiving runoff will continue for 7 years past when that phase is completed. Following each monitoring event and based on the information collected during monitoring, fertilizer application methods and amounts will be re-evaluated and modified as necessary to ensure water quality thresholds are not negatively affected by the project. If monitoring identifies water quality thresholds for phosphates and nitrates are being exceeded by the</p>	Prior to construction, and implemented throughout operation	<p>The City will commission a landscape architect to develop design solutions to achieve desired goals and objectives identified. The City will prepare a nutrient management and monitoring program to achieve desired goals and objectives identified. The plan will be implemented during construction and throughout ongoing maintenance activities</p>	Public Works Department

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	project, the City will immediately reduce the use of fertilizers on site and determine the cause of the threshold exceedance by examining records for fertilizer application, conducting discussions internally, and consulting with other Orange County cities as needed.		of the park. Monitoring will be conducted to ensure compliance.	
PALEONTOLOGICAL RESOURCES				
Paleo-1	Conduct Preconstruction Survey, Salvage, and Protection in all Paleontologically Sensitive Areas. Before site preparation (including vegetation clearing) and project earthwork begin, the City will retain an Orange County–certified professional paleontologist to conduct a surface survey and salvage operation in all parts of the project site where paleontologically sensitive materials are exposed at the surface. The goal of the operation will be to ensure that exposed paleontological materials are recovered and properly prepared and curated, or protected from damage using exclusion fencing or other appropriate means. Protection measures will be designed and installed in consultation with the City and the project engineering consultant to ensure that it is appropriate and effective but does not unduly impede construction activities. The work will be conducted in conformance with the Orange County guidelines as defined in Eisentraut and Cooper (2002) and meet the requirements for surface prospecting and surface collection.	Prior to and during construction	The City will commission a paleontological survey of the site. A qualified paleontologist will identify, recover, and curate recovered materials.	Development Services Department; Public Works Department
Paleo-2	Educate Construction Personnel in Recognizing Fossil Material. The City will ensure that all construction personnel receive training provided by an Orange County–certified professional paleontologist experienced in teaching non-specialists to ensure that they can recognize fossil materials in the event any are discovered during construction.	Prior to and throughout grading activities	The City’s consulting paleontologist will provide training to all personnel involved in grading activities prior to individuals being able to work on the site. The contractor will identify appropriate individuals requiring training.	Development Services Department; Public Works Department; Construction Contractor

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
Paleo-3	<p>Retain a Qualified Professional Paleontologist to Monitor Ground-Disturbing Activities (OSA MM 3.5-5). Prior to issuance of a grading permit, a qualified paleontologist shall be retained by the City to provide professional paleontological services. Specifically, during grading activities, the qualified paleontologist shall conduct onsite paleontological monitoring for the project site. Monitoring shall include inspection of exposed surfaces and microscopic examination of matrix to determine if fossils are present. The monitor shall have authority to divert grading away from exposed fossils temporarily in order to recover the fossil specimens. Cooperation and assistance from onsite personnel will greatly assist timely resumption of work in the area of the fossil discovery.</p>	Prior to and throughout grading activities	The City will commission a paleontological construction monitor to monitor grading activities.	Development Services Department; Public Works Department
Paleo-4	<p>Stop Work if Fossil Remains Are Encountered During Construction; Conduct Treatment as Appropriate. If fossil remains are discovered during project-related activities, activities in the vicinity of the find will stop immediately until a qualified professional paleontologist can assess the nature and importance of the find and a qualified professional paleontologist can recommend appropriate treatment. Treatment may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The City will be responsible for ensuring that recommendations regarding treatment and reporting are implemented. The work will be conducted in conformance with the Orange County guidelines as defined in Eisentraut and Cooper (2002) and meet the requirements for recovery, salvage, laboratory preparation, preparation to the point of taxonomic identification, transferral, and preparation and submittal.</p>	During construction activities	The paleontological monitor will cease construction activities in the vicinity of potential fossils until they can be appropriately evaluated and treated. Construction shall not commence until the area has been cleared by the monitor.	Development Services Department; Public Works Department; Paleontological monitor
Paleo-5	<p>Prepare Monthly Progress Reports (OSA MM 3.5-6). The qualified paleontologists retained shall prepare monthly progress reports to be filed with the City.</p>	During construction activities	The paleontological monitor will prepare monthly progress reports during construction	Development Services Department; Paleontological monitor

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
Paleo-6	Prepare, Identify and Catalog Recovered Fossils (OSA MM 3.5-7). Fossils recovered shall be prepared, identified, and catalogued before donation to the accredited repository designated by the City of Lake Forest.	During construction activities	monitoring activities. The paleontological monitor will prepare, identify, and catalog recovered fossils, and will work with the City to curate the resources.	Development Services Department; Paleontological monitor
Paleo-7	Prepare Final Paleontological Monitoring Report (OSA MM 3.5-8). The retained qualified paleontologist shall prepare a final report to be filed with the City. The report shall include a list of specimens recovered, documentation of each locality, interpretation of fossils recovered and shall include all specialists' reports as appendices.	During construction activities	The paleontological monitor will prepare a final report identifying monitoring activities, discoveries, and treatment of resources.	Development Services Department; Paleontological monitor
TRANSPORTATION AND CIRCULATION				
TC-1	<p>Prepare and Implement a Construction Traffic Management Plan. Prior to initiating construction, the City will prepare a construction traffic management plan to be approved by the City Engineer. The traffic management plan will include, but will not be limited to:</p> <ul style="list-style-type: none"> • a street and site layout showing the location of construction activity and surrounding streets to be used as detour routes, including special signage, • a tentative start date and construction duration period for each phase of construction • the name, address, and emergency contact number for those responsible for maintaining the traffic control devices during the course of construction, • provisions for maintaining access for emergency vehicles at all times, • requirements for contractors to avoid intersections currently operating at congested conditions, either by choosing routes that avoid these locations or by receiving deliveries during nonpeak times of day, • provision of traffic controls within the site that may include flag 	Prior to initiating construction	The City or construction contractor will prepare a construction traffic management plan that addresses the requirements identified in this measure as well as those in mitigation measures AQ-7 through AQ-11.	Public Works Department; Construction Contractor

Mitigation Measure No.	Mitigation Measures	Timing of Implementation	Method of Implementation	Responsible Party
	<p>persons wearing Occupational Safety and Health Administration–approved vests and using a “Stop/Slow” paddle to warn motorists of construction activity, and</p> <ul style="list-style-type: none"> • standard construction warning signs in advance of the construction area and at any intersection that provides access to the construction area. 			
TC-2	<p>Construct Second Eastbound Through Lane on Rancho Parkway at Lake Forest Drive by 2015. The City will construct the second eastbound through lane on Rancho Parkway at Lake Forest Drive to be operational no later than the year 2015.</p>	<p>Prior to operation of the park in 2015</p>	<p>The City will design and construct the improvements identified.</p>	<p>Development Services Department</p>
TC-3	<p>Make Arrangements with Surrounding Businesses for Overflow. The City will arrange for overflow parking at local businesses to accommodate parking during special large-scale events, or provision of “temporary” allocated parking areas on adjacent arterial roadways to ensure that adjacent residential, industrial, and commercial areas do not experience overflow parking impacts.</p>	<p>Prior to operation of the park; and during special events</p>	<p>The City will work with local businesses or community facilities to secure overflow parking that may be needed during special events.</p>	<p>Community Services Department</p>