

## Mitigation Monitoring Program

Project: Vesting Tentative Tract Map No. 17609

PRJ03-00075/VTTM-17609

October 1, 2015



### INTRODUCTION

The City of Fullerton will adopt this Mitigation Monitoring and Reporting Program (MMRP) in accordance with the Public Resources code (PRC) Section 21086.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines. The purpose of the MMRP is to ensure that the Vesting Tentative Tract Map No. 17609 (Revised Project), which is the subject of Addendum No. to the Final Environmental Impact Report (FEIR) certified by the City Council on July 12, 2011, complies with all applicable environmental mitigation requirements. The MMRP reflects the mitigation measures prescribed for the Revised Project. Within this document, mitigation measures are organized and referenced by subject category and include those for: (1) Traffic and Circulation; (2) Noise; (3) Air Quality; (4) Soils and Geology; (5) Population and Housing; (6) Cultural/Scientific Resources; (7) Public Services and Utilities; (8) Public Health and Safety; (9) Hydrology and Flood Control; (10) Aesthetics; (11) Biological Resources; and (12) Climate Change (Greenhouse Gas Emissions). Each measure has a numerical reference related to the FEIR and/or Addendum No. 1 prepared for the project. Specific mitigation measures are identified, as well as the method and timing of verification and the responsible party that will ensure that each action is implemented.

Mitigation measures applicable to the project include avoiding certain impacts altogether, minimizing impacts by limiting the degree or magnitude of the action and its implementation, rectifying impacts by repairing, rehabilitating, or restoring the affected environment, and/or reducing or eliminating impacts over time by preservation and maintenance operations during the life of the action.

Public Resources Code Section 21086.6 requires the Lead Agency, for each project that is subject to the California Environmental Quality Act, to monitor performance of the mitigation measures included in any environmental document to ensure that implementation does, in fact, take place. The City of Fullerton is the designated lead agency for the MMRP. The City is responsible for review of all monitoring reports, enforcement actions, and document disposition. The City will rely on information provided by the monitor as accurate and up-to-date and will field check mitigation measure status as required.

The custodian of the documents comprising the record of proceedings is the City of Fullerton, Director of Community Development, 303 West Commonwealth Avenue, Fullerton, CA, 92832. Copies of all these documents, which constitute the record of proceedings upon which the City's decision is based, are and at all relevant times have been available upon request at the office of the Fullerton Community Development Department, the custodian for such documents or other materials.

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No.	Mitigation Measure	Method of Verification	Timing of Implementation	Responsibility
<b>Traffic and Circulation</b>				
MM 4.2-1	The Property Owner shall submit a Construction Traffic Management Plan for review and approval by the City prior to commencement of any construction. The Plan will show the location of any roadways or sidewalk closures, traffic detours, haul routes, hours of operation, protection devices, warning signs and construction staging areas, and will describe notification procedures regarding timing of major detours and lane closures. Where necessary, ingress and egress to the site may be limited to right-turns in and right-turns out to avoid left-turn movement conflicts.	Review of Construction Management Plan	Prior to Issuance of Grading Permit	City Traffic Engineer or designee
MM 4.2-2	Prior to issuance of building permits, the Property Owner shall pay the requisite traffic impact fees prescribed by the City.	Bldg. Plan Check & Field Verification	Prior to Issuance of Building Permit	City Building Official or designee
MM 4.2-3	Prior to issuance of building permits for Phase 1B, 2A or 2B, per the Grading and Infrastructure Delivery Phasing Plan, as illustrated on Figure 2-5 in the FEIR Addendum No. 1 for VTTM 17609 (the "Project Phasing Plan") and attached to Resolution No. PC 2015- [REDACTED] as Exhibit D, the Property Owner shall build the new road ("A" Street) and install STOP controls or other traffic control measures given the project's hillside topography at the Coyote Hills Drive/New Road intersection.	Bldg. Plan Check & Field Verification	Prior to Issuance of 1 <sup>st</sup> Building Permit for Phase 1B, 2A or 2B	Engineering Director or designee
MM 4.2-4	The Property Owner shall be responsible for constructing the new collector road ("A" Street) and installing a traffic signal at the project access on Rosecrans Avenue located east of Beach Boulevard.	Bldg. Plan Check & Field Verification	Prior to Issuance of 1 <sup>st</sup> Building Permit for Phase 1B, 2A or 2B	Engineering Director or designee
<b>Noise</b>				
MM 4.3-1a	Construction shall be restricted to the hours specified in the City Code. These days and hours shall also apply to any servicing of equipment and to the delivery of materials to or from the site.	Reporting by Construction Supervisor & On-Site Monitoring	During Grading and Construction	Community Development Director or designee
MM 4.3-1b	All construction equipment shall be properly maintained and tuned to minimize noise emissions.	Reporting by Construction Supervisor & On-Site Monitoring	During Grading and Construction	Community Development Director or designee
MM 4.3-1c	All equipment shall be fitted with properly operating mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped.	Reporting by Construction Supervisor & On-Site Monitoring	During Grading and Construction	Community Development Director or designee
MM 4.3-1d	All stationary noise sources (e.g., generators and compressors) shall be located as far from residential receptors as is feasible,	Reporting by Construction Supervisor & On-Site	During Grading and Construction	Community Development Director or designee

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	with location subject to approval by the Director of Community Development.	Monitoring		
MM 4.3-1e	The construction contractor shall provide an on-site name and telephone number of a contact person to the Director, Development Services Department, in the event the City receives complaints related to excessive noise.	Reporting by Construction Supervisor	Prior to Issuance of 1 <sup>st</sup> Grading Permit	Director, Community Development
MM 4.3-1f	<b>DELETED.</b> [This condition had no subject, was open-ended, and did not add to the detailed noise-related conditions.]			
MM 4.3-2a	Where practical, proposed residential units along perimeter roadways should be placed no closer than those distances outlined in Table 4.3-5 for the 60 dBA CNEL (includes cumulative impacts).	Plan Check	Prior to Issuance of Building Permit	Director, Community Development
MM 4.3-2b	Where minimum distances are not feasible, per the City General Plan, property-specific sound walls or berms should be erected to protect any exterior living areas (i.e., side or back yards) to an exterior level of no more than 60 dBA CNEL. The noise wall/berm should be of sufficient height to interrupt the line-of-site noise propagation from the roadway to the exterior living area. The ultimate size and placement of these walls/berms will vary with the actual placement of the perimeter structures and surrounding topography and must be evaluated on a case-by-case basis when final structure placement is determined.	Plan Check to include noise analysis where minimum distances are not feasible	Prior to Issuance of Building Permit	Chief Building Official
MM 4.3-2c	If exterior noise levels cannot be reduced to 60 dBA CNEL, additional structural mitigation such as sound-rated windows, additional insulation, forced air ventilation, etc., shall be required. However, in no case shall residents be exposed to exterior living area noise in excess of 65 dBA CNEL.	Plan Check to include noise analysis where minimum distances are not feasible	Prior to Issuance of Building Permit	Chief Building Official
MM 4.3-2d	Prior to submittal of individual building permits for future development, the Property Owner of proposed future development within the West Coyote Hills Specific Plan shall be required to submit an acoustical study to the City's Building Official that identifies specific noise attenuation requirements based on final grades and verifies compliance with the foregoing requirements.	Plan Check	Prior to Issuance of Building Permit	Chief Building Official or designee
MM 4.3-3a	Prior to issuance of building permits for development in the vicinity of the Countywide Coordinated Communications System (CCCS), the Property Owner shall enter into a Memorandum of Understanding (MOU) with the County that outlines the responsibility of the Property Owner and the County in any necessary modifications to the generator or the station. Compliance shall be demonstrated through performance testing, including subsequent noise measurements at the nearest	Property Owner to provide copy of Memorandum of Understanding to City	Prior to Issuance of Building Permit	County of Orange

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	residential lot line(s).			
MM 4.3-3b	Alternatively, the project may be developed such that the nearest proposed residential lot line is no closer than 165 feet to the east (gate-side) of the relay facility. Residential lot lines to the north and west may be no closer than 60 feet from the relay station wall. Because of shielding provided by the relay station structure as well as the extended distance to the south wall, no restrictions are placed on dwelling unit locations to the south.	Review of Final Tract map	Prior to Issuance of Grading Permit for affected lots	Community Development Director or designee
<b>Air Quality</b>				
MM 4.4-1	<p>The Property Owner shall implement the following applicable measures prescribed by the SCAQMD during site preparation, grading, and construction to ensure that short-term impacts are minimized.</p> <p>NOx and Construction Equipment Emissions</p> <ol style="list-style-type: none"> <li>a. All construction equipment (e.g., tractors, loaders, and graders), shall use alternative clean fuel such as electric or compressed natural gas-powered equipment with oxidation catalysts and particulate traps instead of gasoline- or diesel-powered engines unless otherwise approved by the Director of Community Development. Where diesel equipment must be used because there are no practical alternatives, low-sulfur diesel, as defined in SCAQMD Rule 431.2 (i.e., diesel with sulfur content of 15 ppm by weight or less) shall be used.</li> <li>b. Auxiliary power units and electrification shall be used in order to restrict idling emissions unless otherwise approved by the Director of Community Development.</li> <li>c. All truck parking restrictions shall be enforced.</li> <li>d. The Construction Traffic Management Plan prepared by the Property Owner (refer to MM 4.2-1) to address construction traffic shall identify truck and haul routes that avoid residential areas and schools and heavily congested streets unless otherwise approved by the Director of Public Works. This Plan shall also provide dedicated turn lanes for efficient movement of construction trucks, equipment, and also for general traffic.</li> <li>e. All active areas shall be watered a minimum of three times</li> </ol>	Reporting by Construction Supervisor & On-Site Monitoring	During Grading and Construction	Community Development Director or designee

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	<p>daily (as opposed to twice used in the analysis).</p> <p>f. Vehicle speed shall be restricted to no more than 15 mph while traveling over any unpaved surfaces.</p> <p>g. All construction parking areas and access roads shall be paved unless otherwise approved by the Director of Public Works.</p> <p>h. Trucks hauling dirt, sand, gravel, or soil shall be covered in accordance with Section 23114 of the California Vehicle Code.</p> <p>i. Nearby or adjacent streets shall be swept at the end of the day if visible soil material is carried off of the construction site.</p> <p>j. Wheel washers shall be installed where vehicles enter and exit unpaved roads, or tires of vehicles and any equipment that is visibly tracking soil when leaving the construction site shall be washed.</p> <p>k. The contractor shall enclose, cover, or apply soil binders to exposed piles (i.e., gravel, sand, or dirt).</p> <p>l. All construction equipment shall be maintained in proper operating condition and in proper tune to the manufacturer's specifications.</p> <p>m. Off-road diesel equipment shall use cooled exhaust gas recirculation (EGR).</p> <p>n. Off-road diesel equipment shall use particulate filters (more efficient than aqueous diesel fuel.)</p> <p>o. Heavy equipment shall not be allowed to remain idling for more than five minutes duration.</p> <p>p. Trucks shall not be allowed to remain idling for more than two minutes duration.</p> <p>q. All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour.</p> <p>r. The area graded shall be limited to no more than 14 acres per day.</p> <p>s. Electric power shall be used to the exclusion of gasoline or diesel generators and compressors whenever feasible unless otherwise approved by the Director of Community Development.</p> <p>t. Construction activities shall minimize obstruction of through traffic lanes adjacent to the site and, if necessary, a flagperson shall be retained to maintain safety adjacent to existing roadways.</p>			

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No.	Mitigation Measure	Method of Verification	Timing of Implementation	Responsibility
	<p>CO Emissions</p> <ul style="list-style-type: none"> <li>u. The City shall improve traffic flow through signal synchronization through City's ongoing program to monitor all signalized intersections.</li> <li>v. The contractor shall provide temporary traffic controls (e.g., flag person) during the construction period to ensure smooth traffic flow.</li> <li>w. Construction material deliveries shall be consolidated and scheduled to occur during off-peak hours.</li> <li>x. Where necessary, the City shall provide additional lanes and intersection signalization to ensure smooth traffic flow.</li> <li>y. The contractor shall provide a shuttle service for construction workers to and from food establishments during lunch hours or shall accommodate mobile caterers at the project site during lunch breaks.</li> </ul> <p>Paintings and Coatings</p> <ul style="list-style-type: none"> <li>z. The contractor shall specify that all primers and top coats shall contain less than 0.42 pound per gallon (i.e., 50 grams/liter) VOC.</li> </ul> <p>Miscellaneous</p> <ul style="list-style-type: none"> <li>aa. The Property Owner shall appoint a construction relations officer to act as a community liaison concerning construction activities.</li> <li>bb. The Property Owner shall post a publicly visible sign with the name and telephone number of the contact liaison as well as for dust and odor complaints.</li> <li>cc. The Property Owner shall abide by any other measures as approved by the City of Fullerton Planning Department and/or SCAQMD.</li> </ul>			
MM 4.4-3a	Traffic lane improvements and signalization as outlined in the project traffic study shall be implemented and will generally improve local traffic flow, thereby reducing emissions created in the project area.	Plan Check – public improvement plans	Prior to Issuance of Grading Permit	City Traffic Engineer or designee
MM 4.4-3b	To encourage the use of mass transportation, the Property Owner shall place bus stop shelters at any bus stops to be situated along any site frontage routes (i.e., Rosencrans Avenue, Gilbert Street,	Plan Check– public improvement plans	Prior to Issuance of Building Permit	City Traffic Engineer or designee

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	and Euclid Street) if not already so equipped.			
MM 4.4-3c	To encourage the use of localized commercial facilities and reduce the need for vehicle travel, the Property Owner shall include both bike lanes and bike paths between core development areas. Additionally, the Property Owner shall provide sidewalks and walking paths to the proposed commercial areas as well as to the open space areas to be retained.	Plan Check– public improvement plans	Prior to Issuance of Building Permit	City Traffic Engineer or designee
MM 4.4-3d	<p>The following measures shall be implemented to reduce long-term emissions associated with residential and commercial development.</p> <ol style="list-style-type: none"> <li>1. Double-paned windows shall be installed in structures to reduce thermal loss.</li> <li>2. Central water heating systems shall be installed to reduce energy consumption.</li> <li>3. Light-colored roof materials shall be used to deflect heat from buildings and conserve energy.</li> <li>4. Energy-efficient appliances shall be installed in dwelling units to reduce energy consumption.</li> <li>5. Automatic lighting on/off controls and energy-efficient lighting shall be installed in all buildings.</li> <li>6. Energy-efficient street lighting shall be installed.</li> <li>7. Landscaping shall include appropriate drought-tolerant species to reduce energy and water consumption.</li> <li>8. Shade trees shall be provided in residential and public areas to reduce building heating/cooling demands.</li> <li>9. Pedestrian and transit-friendly features such as wider sidewalks, bus stops with passenger benches and shelters, bikeways or lanes shall be constructed within the development.</li> <li>10. Electrical outlets at the front and back of the residences and buildings shall be installed to facilitate the use of electric landscape maintenance equipment.</li> </ol>	Building Plan Check	Prior to Issuance of Building Permit	Community Development Director or designee
MM 4.4-4a	The Property Owner shall specify the installation of energy efficient lighting, air conditioning, water heaters, and appliances.	Building Plan Check	Prior to Issuance of Building Permit	City Building Official or designee
MM 4.4-4b	The Property Owner shall specify the installation of energy efficient street lighting.	Plan Check – public improvement plans	Prior to Issuance of Building Permit	City Building Official or designee
MM 4.4-4c	The Property Owner shall specify the installation of front and back electrical outlets for all single-family residential units to facilitate the use of electric landscape maintenance equipment.	Building Plan Check	Prior to Issuance of Building Permit	City Building Official or designee
MM 4.4-5	Diesel particulate traps and exhaust gas recirculation shall be	Reporting by Construction	During Grading and	Community Development

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No.	Mitigation Measure	Method of Verification	Timing of Implementation	Responsibility
	employed for all heavy equipment use during construction.	Supervisor & On-Site Monitoring	Construction	Director or designee
<b>Soils and Geology</b>				
MM 4.5-1a	All development shall conform with recommendations of the geotechnical engineer and geologist for the project, the Uniform Building Code, the Structural Engineers Association of Southern California and/or other local governing agencies, codes, and requirements.	Plan Check	Prior to Issuance of Grading Permit	City Building Official or designee
MM 4.5-1b	Grading activities shall be performed under the observation and testing of the soils engineer and geologist. At the completion of grading, a final geotechnical report of rough grading shall be prepared by the soils engineer and geologist.	On-Site Monitoring	During Grading	City Building Official or designee
MM 4.5-2a	Loose, compressible soils in structural areas shall be densified during grading, and subdrains shall be added. These operations, when performed in accordance with current grading and soil engineering practice, shall reduce the potential for liquefaction.	On-Site Monitoring	During Grading	City Building Official or designee
MM 4.5-2b	Loose, cohesionless soils in structural areas that may be susceptible to ground lurching shall be removed and recompacted as part of normal grading operations.	Plan Check & on-site monitoring	Prior to issuance of Grading Permit & during grading	City Building Official or designee
MM 4.5-2c	Existing landslides which could impact the development shall be removed or stabilized during grading, as needed, to conform to minimum soil engineering standards, thereby eliminating the potential for reactivation during strong seismic shaking.	Plan Check & on-site monitoring	Prior to Issuance of Grading Permit & during grading	City Building Official or designee
MM 4.5-2d	Graded slopes, as well as natural slopes adjacent to the development, shall be stabilized, as needed, to meet minimum safety requirements, thereby reducing the potential for future seismically-induced landsliding.	Plan Check & on-site monitoring	Prior to Issuance of Grading Permit & during grading	City Building Official or designee
MM 4.5-2e	Unconsolidated alluvial deposits in structural areas shall be partially removed during the normal grading process. Complete removal of alluvium may be required locally. The depth and extent of alluvial removal operations shall be performed following the recommendations of the geotechnical consultant. The alluvial soils may be recompacted as structural fill following recommendations of the geotechnical consultant.	On-Site Monitoring	During Grading	City Building Official or designee
MM 4.5-2f	Current published research regarding deformation of side hill fills shall be reviewed again during design-specific geotechnical investigations. The effects of this phenomenon on structures shall be reduced in affected areas by the use of post-tensioned foundations, deeper overexcavations on cut/fill transition lots, and/or higher fill compaction criteria.	Plan Check	Prior to Issuance of Grading Permit	City Building Official or designee



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No.	Mitigation Measure	Method of Verification	Timing of Implementation	Responsibility
MM 4.5-2g	The potential for damage from differential settlement shall be reduced by the use of post-tensioned foundations and/or lot overexcavation in selected areas underlain by inactive faults.	Plan Check	Prior to Issuance of Grading Permit	City Building Official or designee
MM 4.5-2h	The potential for damage from ridge top shattering/fissuring shall be reduced by the use of post-tensioned foundations and/or lot overexcavation in affected areas.	Plan Check	Prior to Issuance of Grading Permit	City Building Official or designee
MM 4.5-3a	Potential land slide movement which could impact the development shall be mitigated by one of the following methods: partial or complete removal of the slide debris, filling (buttressing) on the lower part of the slide, and/or construction of an engineered shear key. In cases where these methods are not feasible, building setbacks from the slide areas shall be incorporated into development, where necessary. Settlement in slide materials shall be adequately mitigated by removing the compressible parts of the slide either by design cuts or by removal and recompaction below design grades. Where larger removals are not economically feasible, the slide materials shall be surcharged and monitored for settlement. Building construction shall then be postponed until settlement of the materials is complete. All landslides shall be mitigated during grading to conform to minimum accepted soil engineering standards.	Plan Check	Prior to Issuance of Grading Permit	City Building Official or designee
MM 4.5-3b	Canyon subdrain systems shall be constructed in all canyons and tributary drainages where fills are proposed. Subdrainage shall also be provided in all slope buttresses and shear keys. Additional subdrainage shall be included based on field conditions exposed during grading, to reduce the potential for nuisance seepage of landscape water.	Plan Check & Inspection	Prior to Issuance of Grading Permit and during grading	City Building Official or designee
MM 4.5-3c	Compressible soils shall be densified in structural areas of the project. Top soil shall be removed in fill areas during grading by benching operations on slopes steeper than 5:1. For deeper surficial deposits, or those on slopes flatter than 5:1, removal and recompaction of the compressible soils shall be implemented. Where fill embankments are to be placed on deep alluvium, partial removal and recompaction, based on site-specific testing and settlement analyses, shall be performed. Where determined necessary by the soils engineer, this method shall include settlement monitoring of the area following completion of grading and prior to construction of improvements.  The estimated extent of remedial grading for compressible soils is shown on Exhibit 4.5-3. This estimate shall be refined during	On-Site Monitoring	During Grading	City Building Official or designee

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No.	Mitigation Measure	Method of Verification	Timing of Implementation	Responsibility
	detailed geotechnical investigations prior to grading. The actual extent of the removals needed shall be determined during grading.			
MM 4.5-3d	<p>All graded slopes shall be designed at a 2:1 (horizontal to vertical) gradient or flatter unless it can be demonstrated that a steeper slope is necessary. In such case(s) where a steeper slope is required, a supplemental geotechnical analysis shall be conducted and the results of that analysis shall be submitted to the City for review and approval. The analysis shall identify, if any, specific measure(s) that may be required to ensure the stability of the affected slope(s).</p> <p>Slope stabilization methods shall include construction of engineered replacement fills to buttress the weak planes and/or reducing the slope gradient to a flatter angle. Replacement fills shall require the inclusion of subdrain systems to remove ground water from the stabilized area. The same methods shall be applied to existing slopes above or below the development, if stabilization is needed. Slopes having a potential for instability are indicated on Exhibit 4.5-3.</p> <p>The preliminary design of slope stabilization devices shall be based on a detailed geotechnical investigation and analysis prior to grading. Preliminary recommendations may then need to be modified during grading based on actual field conditions.</p>	Plan Check	Prior to Issuance of Grading Permit	City Building Official or designee
MM 4.5-3e	Moisture conditioning of the near surface soils on finish pads may be required for soils in the low range. Foundation and street design parameters, based on testing of the as-graded surface soil conditions, shall be used to mitigate the effects of moderately expansive soil. Highly expansive soils, if encountered at or near finish cut grades, shall be removed and dispersed in deeper portions of the fills.	On-Site Monitoring	During Grading	City Building Official or designee
MM 4.5-3f	At the completion of site grading, the soils engineer shall perform soils testing within the project area. Sulfate-rich soils on concrete shall be mitigated by using cement that includes additives to reduce the permeability of the concrete. The impact of corrosive soils on pipes and other metal structures in contact with the ground shall be mitigated by wrapping or covering the structure with a non-corrosive protective material. Additional measures may be required based on the corrosive nature of the soil.	On-Site Testing and reporting by soils engineer	Prior to Issuance of Building Permit	City Building Official or designee
MM 4.5-3g	Temporary erosion control measures shall be provided during the construction phase, as required by current grading codes. In	Plan Check and on-site monitoring	Prior to Issuance of Grading Permit and during grading	City Building Official or designee

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	<p>addition, a permanent erosion control program shall be implemented for the development. This program shall include proper care of drainage control devices, proper irrigation, rodent control, and landscaping. Erosion control devices shall also be field-checked following heavy rainfall periods to confirm that they are performing as designed, and have not become blocked by debris.</p> <p>Slopes constructed with sandy fill materials may also be highly susceptible to erosion. Manufactured slopes shall be protected with jute cloth, or by other means, until vegetation is established.</p>			
<b>Cultural Resources</b>				
MM 4.7-1a	A qualified archaeologist shall be present to continuously monitor all initial ground disturbance activities. Any archaeological resources encountered during grading shall be evaluated by a qualified professional archaeologist prior to further ground disturbing activities in the area where the resources appeared.	On-Site Monitoring	During Grading	Community Development Director or designee
MM 4.7-1b	In the event that significant archaeological materials are uncovered during excavation and/or grading, all work shall stop in that area of the subject property and the materials shall be evaluated by a professional archeologist at the location where the material appeared.	On-Site Monitoring	During Grading	Community Development Director or designee
MM 4.7-1c	Areas of dense brush shall be re-examined by a professional archaeologist (particularly the eastern portion of the property) prior to grading but after vegetation has been removed.	On-Site Monitoring	Prior to Issuance of Grading Permit	Community Development Director or designee
MM 4.7-1d	The area immediately adjacent to the isolate should be examined by a professional archaeologist during brush removal and during the initial stages of grading in order to determine if further prehistoric artifacts exist in the area.	On-Site Monitoring	During Grading	Community Development Director or designee
MM 4.7-1e	A report of the findings shall be prepared and filed with the appropriate repository for cultural/historic resources (California State University, Fullerton), with a copy submitted to the City of Fullerton.	Report of Findings by a qualified archaeologist	Prior to Issuance of Building Permit	Community Development Director or designee
MM 4.7-2a	A qualified paleontologist shall be retained to perform continuous monitoring during all grading activities and, if necessary, salvage exposed fossils. The frequency of inspections will depend on the rate of excavation, the materials being excavated, and the abundance of fossils. Initial monitoring shall be on a full-time basis and will be adjusted depending on the rate of discovery of fossils.	On-Site Monitoring and reporting by qualified paleontologist	During Grading	Community Development Director or designee
MM 4.7-2b	The paleontologist shall have the authority to temporarily divert or	On-Site Monitoring and	During Grading	Community Development

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	redirect grading efforts to allow evaluation and any necessary salvage of exposed fossils.	reporting by qualified paleontologist		Director or designee
MM 4.7-2c	Matrix samples shall be collected for processing through fine mesh screens due to the small nature of fossils potentially present in the Project Area.	On-Site Monitoring and reporting by qualified paleontologist	During Grading	Community Development Director or designee
MM 4.7-2d	Provisions for the preparation and curation shall be made before fossils are donated to their final repository.	Report to be provided to City with Plan Check submittal	Prior to issuance of Building Permit	Community Development Director or designee
MM 4.7-2e	All fossils collected shall be donated to the County of Orange's designated repository.	Note on plans & On-Site Monitoring and reporting by qualified paleontologist	Prior to Issuance of Certificate of Occupancy	Community Development Director or designee
MM 4.7-2f	A report of the findings shall be prepared and filed with the appropriate repository for paleontological resources (Los Angeles County Natural History Museum), with a copy submitted to the City of Fullerton.	Report submitted to City	Prior to Issuance of Building Permit	Community Development Director or designee
<b>Public Services and Utilities</b>				
MM 4.8.3-1	The Property Owner shall submit detailed site plans to the Fullerton Police Department indicating that adequate safety measures along trails and appropriate traffic calming devices have been implemented into the project design. The Fullerton Police Department shall approve site plans prior to the commencement of construction activities.	Plan Check	Prior to the Issuance of Building Permit	Police Chief or designee
MM 4.8.4-1	Fire sprinklers shall be installed in units abutting natural habitat areas in accordance with the project's Fire Protection Plan/Fuel Modification Plan.	Plan Check & Inspection	Prior to Issuance of Building & occupancy Permits	Fire Chief or designee
MM 4.8.4-2	A Fire Protection Plan/Fuel Modification Plan shall be prepared to establish all transition areas between developed areas and native open space. Fuel modification zones shall be kept clear of dry, dead brush and shall be irrigated to maintain foliage in a moist state, consistent with the requirements established by the Fullerton Fire Department.	Fuel Modification Plan to be provided to City with Plan Check submittal	Prior to Issuance of Grading Permit	Fire Chief or designee
<b>Public Health and Safety</b>				
MM 4.9-1a	If determined necessary by the Orange County Health Care Agency (OCHCA), Santa Ana Regional Water Quality Control Board, and the City of Fullerton, TRPH-impacted soils and/or stained or odorous soil discovered during grading at the locations identified on the subject property shall be remediated to an acceptable level where such soils are located within the proposed residential development, publicly owned parcels, all streets, and	Reporting by Construction Supervisor & On-Site Monitoring by	During Site Remediation	Orange County Health Care Agency

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No.	Mitigation Measure	Method of Verification	Timing of Implementation	Responsibility
	areas in which utilities are located. The clean-up criteria recommended for the subject property are presented in Table 4.9-4 of the Final EIR.			
MM 4.9-1b	Prior to implementation of the OCHCA-approved RAP, an appropriate site-specific Health & Safety Plan (HASP), consistent with applicable OSHA and USEPA regulations as well as the Property Owner's corporate health and safety policy, shall be prepared. All site activities associated with the RAP will be performed pursuant to the HASP guidelines	Provide copy of HASP to City with Plan Check submittal	Prior to Site Remediation/grading	Orange County Health Care Agency
MM 4.9-2a	All lots that contain abandoned wells shall be designed in accordance with the most current DOGGR and/or City requirements related to access and venting.	Plan Check	Prior to Issuance of Building Permit	Community Development Director or designee
MM 4.9-2b	A map shall be prepared and submitted to the City of Fullerton that identifies each lot on which an abandoned well is located. Deed restrictions shall be placed on each of these lots to ensure the following:  1. A minimum of 10 feet clearance shall be maintained between the abandoned well and any structure located on the lot.  2. An access easement shall be provided to abandoned wells located on each lot within the development.	Provide map to City with Plan Check submittal	Prior to issuance of Grading Permit	Community Development Director or designee
MM 4.9-3	All of the PCB-contaminated soils (i.e., soils that are characterized with concentrations that exceed the 220 ppb PRG limit) shall be removed from the site and transported to a landfill that is certified to accept contaminated waste.	Reporting by Construction Supervisor & On-Site Monitoring	During Grading	City Building Official or designee
<b>Hydrology and Flood Control</b>				
MM 4.10-1a	A Stormwater Pollution Prevention Plan (SWPPP) will be prepared for the project to address short-term (construction) impacts. Temporary construction BMPs will be presented in the SWPPP, which will be prepared before construction in accordance with the Notice of Intent (NOI) process of the NPDES program (see Exhibit A to Resolution No. PC 2015-_____, SC H.1.); and in accordance with the City's Water Quality Ordinance (see Exhibit A to Resolution No. PC 2015-_____, SC H.2.). The SWPPP will address water pollution during construction by means of BMPs for construction activities and site management requirements. The project will implement and be protected by an effective combination of erosion and sediment controls and waste and materials management BMPs. In addition, site management	Plan Check	Prior to Issuance of Grading Permit	Engineering Director or designee

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	<p>requirements will be implemented for the dry season and wet season. The effectiveness of construction BMPs will be ensured by requiring contractors to select, install, monitor and maintain appropriate construction BMPs from the California Stormwater Best Management Practices Handbook, Construction, 2003 Edition, (errata Sept. 2004). Impacts associated with increased flooding, erosion, or siltation will be mitigated to a less than significant level by the implementation of construction BMPs as provided in the SWPPP. The SWPPP shall be approved by the City's Director of Engineering and Community Development Department prior to issuance of the grading permit.</p>			
MM 4.10-1b	<p>The NPDES permit requires the permittee to minimize changes in hydrology from development projects and to ensure that post-development runoff rates and velocities from a site do not adversely impact downstream erosion of stream habitat. Detention basins have been proposed to reduce stormwater runoff and associated impacts from the project, in accordance with Exhibit A to Resolution No. PC 2015- [REDACTED], SC H. The necessary hydrology and hydraulic studies have been prepared and are described in the West Coyote Hills Hydrology and Hydraulics Analysis, Volumes I and II, dated May 2004.</p> <p>Detention basins and storm drainage facilities shall be designed based on a 25-year frequency storm and analyzed for impacts to existing downstream facilities from a 100-year frequency storm. While the implementation of the proposed project will increase or decrease runoff variably from area to area, proper facility design will mitigate impacts to existing downstream facilities. The use of detention facilities will be incorporated into the project to reduce the peak flow to pre-project conditions as part of mitigating potential impacts to existing downstream facilities. The facilities shall be designed and constructed consistent with a drainage analysis prepared by the project engineer during final design of the project to provide adequate control of increased project related flows. All of the proposed facilities shall be reviewed and approved by the City's Director of Engineering and Community Development Director prior to issuance of the grading permit.</p>	Plan Check	Prior to Issuance of Grading Permit	Engineering Director or designee
MM 4.1-2a	<p>Referring to MM 4.10-1a, impacts to water quality (i.e., impacts associated with increased flooding, erosion, or siltation) will be mitigated to a less than significant level by the implementation of construction BMPs as provided in the SWPPP.</p>	Plan Check	Prior to Issuance of Grading Permit	Engineering Director or designee

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MM 4.10-2 b	The implementation of Site Design BMPs, subject to approval by the City's Director of Engineering and Community Development Director, will mitigate long-term (operational) impacts to water quality. Site Design BMPs incorporate site features, such as vegetation, to reduce and control post-development runoff rates.	Plan Check	Prior to Issuance of Grading Permit	Engineering and Community Development Directors or their designees
MM 4.10-2c	The implementation of Source Control (routine non-structural and routine structural) BMPs, subject to approval by the City's Director of Engineering and Community Development Director, will mitigate long-term (operational) impacts to water quality. Source Control BMPs reduce the potential for stormwater runoff and pollutants from coming into contact with one another.	Plan Check	Prior to Issuance of Grading Permit	Engineering and Community Development Directors or their designees
MM 4.10-2d	The implementation of Treatment Control BMPs, subject to approval by the City's Director of Engineering and Community Development Director, will help mitigate long-term (operational) impacts to water quality. Treatment Control BMPs are defined as any engineering system designed and constructed to treat the adverse impacts of stormwater and urban runoff pollution.	Plan Check	Prior to Issuance of Grading Permit	Engineering and Community Development Directors or their designees
<b>Aesthetics</b>				
MM 4.11-1a	The City of Fullerton shall review any proposals for the use of the Multiple Use site, and may impose conditions to mitigate the impact of the use of outdoor recreational lighting in the future.	Development Review Process per Section 2.6 of the Specific Plan	Prior to Approval of Final Tract Map	Community Development Director or designee
MM 4.11-1b	All street, signage, and landscape lighting sources shall be shielded to prevent lighting overspill into adjacent residential or natural resource preservation areas.	Plan Check & Review of photometric plans	Prior to Issuance of Building or Public Improvement Permits	Community Development Director or designee
MM 4.11-2	All communications facilities proposed in Open Space Area C as shown on the Project Phasing Plan (Resolution No. PC 2015- <span style="background-color: yellow;">      </span> , Ex. D) shall be subject to design review and approval by the City of Fullerton to ensure that unscreened communications towers are not placed within areas of the site that are significant components of public or private viewsheds, that view access to or from the site will not be degraded or obstructed by such facilities, and that habitat conservation areas are not adversely affected.	Design Review	Prior to Issuance of Building Permit	Community Development Director or designee
<b>Biological Resources</b>				
MM 4.12-1a	The following biological resources mitigation measures shall be implemented as applicable and as determined necessary by U. S. Fish and Wildlife Service (USFWS). In the event that mitigation measures are revised, deleted and/or added as a result of an updated Biological Opinion issued by USFWS, the mitigation measures (and MMRP) will be modified to reflect the revisions,	Review of habitat preservation/restoration plans	Prior to Issuance of Grading Permit	Community Development Director or designee /USFWS

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	<p>deletions and/or additions.</p> <p>The Property Owner will revegetate 143.9 acres of coastal sage scrub within project open space (Open Space Areas A, B, and C as reflected in the Project Phasing Plan, Figure 2-5 in the FEIR Addendum No. 1 and Exhibit D to Resolution No. PC 2015-<span style="background-color: yellow;">          </span>), preserve and/or enhance 145.4 acres of coastal sage scrub within project open space (collectively, the West Coyote Hills Mitigation Plan as referenced in the FEIR), and preserve/revegetate an additional 14.9 acres of other native habitat. The West Coyote Hills Mitigation Plan includes 5.6 acres of off-site CSS credit and approximately 6 acres of CSS revegetation within the Coyote Hills Drive greenbelt park. All of this habitat will be incorporated in an approximate 340.9-acre West Coyote Hills Preserve (WCH Preserve) (including 36.7 acres of previously permitted mitigation and including the Robert E. Ward Nature Preserve).</p>			
MM 4.12-1b	<b>DELETED.</b> [There are no fuel modification zones within the Ward Preserve or the conservation easement area.]	Review of fuel modification plans & Consultation among responsible parties	Prior to issuance of Grading Permit	Fire Chief or designee/ Community Development Director or designee / USFWS
MM 4.12-1c	A revegetation plan shall be prepared and submitted to the U.S. Fish and Wildlife Service's Carlsbad Fish and Wildlife Office (CFWO) for review and approval prior to disturbing any vegetation on-site. The revegetation plan will include the proposed methods of site preparation, planting, monitoring, and maintenance. The plan shall include quantitative performance criteria, such as percent cover by native and non-native species, species diversity, and recruitment of native species, and will describe contingency measures if initial revegetation efforts fail to meet performance criteria.	Provide City with verification of CFWO approval at time of grading plan check	Prior to Issuance of Grading Permit	Community Development Director or designee /USFWS
MM 4.12-1d	The development and revegetation will be phased, such that impacts to gnatcatchers and coastal sage scrub will be spread over several years. Phases 1A, and B and Phase 2A will consist of project implementation as shown on the Phasing Plan (FEIR Addendum No. 1). These phases will be initiated between August 15 and February 15, which is outside of the breeding season. During these phases, revegetation will commence on the 36-acre revegetation area on the property west of Gilbert Street, and possibly east of "A" Street. Phase 2B will consist of the remaining project elements west of the main collector street. Vegetation	Provide City with verification of CFWO approval of phasing plans at time of grading plan check	Prior to Issuance of Grading Permit	Community Development Director or designee/USFWS



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	disturbance in this area will not be initiated until the revegetation within the 36-acre revegetation area has met specified performance standards agreed to by the CFWO.			
MM 4.12-1e	The Property Owner will place a conservation easement over all preserved and restored habitat areas on the project site. This easement will be submitted to the CFWO for review and approval and will be recorded within one (1) year of implementing the Habitat Mitigation Monitoring Plan (HMMP), or as required by the regulatory and wildlife agencies. Refer to MM 4.12-2c.	Review of Conservation Easement documentation	Recordation with final tract map within 6 months of completion of each grading phase	Community Development Director or designee/USFWS
MM 4.12-1f	The Property Owner will post a bond or letter of credit in favor of an agency, non-profit organization, or other entity approved by the CFWO for \$3,597,500.00 (or an amount as determined by the CFWO upon issuance of the biological opinion). This bond will be divided into two parts corresponding to grading phases of the project, and will be posted prior to vegetation removal. The bond associated with Phases 1A and B and Phase 2A, as shown on the Phasing Plan, will be for the amount of \$2,518,250 (or as determined by the CFWO), and the bond for Phase 2B, as shown on the Phasing Plan, will be for \$1,079,250 (or as determined by the CFWO). The purpose of this financial assurance is to guarantee the successful implementation of the coastal sage scrub revegetation, maintenance and monitoring. (The purpose of the bond or letter of credit is to ensure that financial resources are available to implement any mitigation measure(s) not implemented by the Property Owner. In the event of a "default" by the Property Owner, mitigation measures/improvements would be implemented by the USFWS and/or City of Fullerton.)	Provide City with Bond/Letter of Credit	Prior to Vegetation Removal	Community Development Director or designee/USFWS
MM 4.12-1g	The management endowments related to coastal sage scrub impacts will be funded in pro rata installments (based on each phase and timing of project-related coastal sage scrub impacts and portion of total anticipated project-related impacts) as related portions of the project are completed and accepted by the City. For each portion of the project, prior to initiating coastal sage scrub impacts, the management endowments will be established (in pro-rata installments) to fund the perpetual management plan. Funds in an amount to be determined by the CFWO prior to initiation of the project in pro rata installments will be transferred to an investment management firm agreed to by the CFWO. Any delay in establishing this fund subsequent to the date of issuance of the biological opinion will result in an increase in the endowment by a percentage equal to the percent change in the	Establishment of Management Endowment	Prior to Removal of Coastal Sage Scrub	Director, Community Development/USFWS

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	<p>consumer price index for that time period. This will allow the fund to track the inflation rate and avoid any decrease in value before it is established. Evidence that the endowments have been established, as described, will be submitted to the CFWO 60 days prior to initiating coastal sage scrub impacts. The endowment funds will be entrusted to a third party management firm that will be retained by the Property Owner, which has experience in habitat and endowment management. The group retained to manage the project (the WCH Preserve Management Entity) will provide reports that will be submitted to the resource agencies and City of Fullerton that document the implementation of activities that have occurred during the reporting period that satisfy the maintenance requirements prescribed for the project.</p>			
MM 4.12-1h	<p>To the extent still applicable and required, actions agreed to under the previous Section 7 consultation for the Chevron La Habra Hills Oil Field Project (Biological Opinion 1-6-95-F-26), as well as Special 4(d) Rule Interim Habitat Loss Mitigation Plan (IHLMP), including placement of a conservation easement in perpetuity covering 23.15 acres of contiguous coastal sage scrub on-site, and revegetation of 15.9 acres of coastal sage scrub, will be implemented. (These two areas are located within the 510-acre West Coyote Hills Specific Plan property currently owned by Pacific Coast Homes and are included in the conservation area within that property, which are not within the footprint of the proposed development.)</p>	Grading Plan Check	Prior to Issuance of Grading Permit	Community Development Director or designee/USFWS
MM 4.12-1i	<p><b>DELETED.</b> [Prior MM 4.12-1i required that the lot on the south side of the cul-de-sac, then adjacent to pair C28, within Neighborhood 2 as reflected in Specific Plan Amendment No. 8 (Neighborhood 2), would be removed to allow for a contiguous habitat patch to accommodate an additional gnatcatcher pair in the area upon revegetation. With the elimination of residential development in Neighborhood 2, this mitigation measure is no longer necessary. According to the project biologist, specific pairs of gnatcatchers are not expected to be in the same location as they were in the past due to their limited lifespans; and based on the amount of open space in VTTM 17609, which is slightly more than in the previously approved plan, the same number of gnatcatcher pairs could be supported by the resulting project open space as was previously analyzed. It is expected that the quality and extent of the sage scrub vegetation will remain similar to that previously analyzed and the gnatcatcher population will be</p>	Plan Check	Prior to Issuance of Grading Permit	Community Development Director or designee/USFWS

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MM 4.12-1j	maintained.] The trail system, including key vistas, will be sited as described in the Biological Assessment and as shown on revised Figure 3 (refer to Exhibit 4.13-2 of the FEIR), and situated so as to minimally impact gnatcatcher use areas and coastal sage scrub restoration areas.	Plan Check	Prior to Issuance of Grading Permit	Community Development Director or designee /USFWS
MM 4.12-1k	Three brown-headed cowbird traps will be placed and monitored onsite to minimize indirect effects to gnatcatcher breeding success. The traps will be placed at the discretion of the onsite biologist or the CFWO. Should it be determined, through experiment, that cowbird parasitism is not having a detrimental effect on gnatcatcher recruitment on site, then the cowbird trapping program may be reduced or suspended. In this event, the endowment funds dedicated to this activity will be redirected to the management of the site by the Preserve Manager the WCH Preserve Management Entity.	On-Site Monitoring and reporting by biological monitor	Following Development	Community Development Director or designee /USFWS
MM 4.12-1l	A project restoration specialist will work with construction and grading personnel to identify and temporarily retain top soil and grubbed plant materials from areas of suitable coastal sage scrub for salvage. Mature coast prickly pear ( <i>Opuntia littoralis</i> ), Dudleya, and other translocatable species will be transplanted into the revegetation and fuel modification areas. The Project restoration specialist will oversee this task, which will also focus on retaining coastal sage scrub mulch and topsoil.	On-Site Monitoring and reporting by Biological Monitor	Prior to and During Grading and Construction	Community Development Director or designee /USFWS/ Restoration Specialist
MM 4.12-1m	All initial vegetation clearing will take place in the presence of a biological monitor approved by the CFWO. At least 15 days prior to initiating construction activities within or near coastal sage scrub or riparian habitat, the name(s), any permit numbers, resumes, and at least three references of all biologists that might need to handle, move, or monitor federally listed species will be submitted to the CFWO in writing. References must be familiar with the relevant qualifications of the proposed biologist. USFWS will provide its review of qualifications within fifteen days of receipt. Proposed activities will not begin until an authorized biologist has been approved by the CFWO. The biological monitor will ensure compliance with the Project description (including conservation measures) and terms and conditions of the final biological opinion to minimize the incidental take of the gnatcatcher. The monitor will walk ahead of vegetation removal equipment and ensure that gnatcatchers are not killed or injured as a direct result of vegetation removal activities. The monitor will have the authority	On-Site Monitoring and reporting by Biological Monitor	Prior to and During Grading and Vegetation Removal	Community Development Director or designee/ Biological Monitor

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	to halt/suspend all activities until appropriate corrective measures have been completed. The monitor will also be required to report violations immediately to the CFWO and the California Department of Fish and Wildlife (CDFW).			
MM 4.12-1n	The biological monitor will direct the placement of physical barriers to limit construction activities as may be necessary to protect adjacent habitat areas. Orange snow fencing, or other appropriate barriers as determined by the biological monitor, will be placed so as to delineate project construction areas from areas that are proposed to remain undisturbed by construction activities. The biological monitor will also work with the construction manager to identify all construction access routes, parking areas, and staging areas to ensure habitat is not disturbed outside the grading footprint.	On-Site Monitoring and reporting by Biological Monitor	Prior to and During Grading and Construction	Director, Community Development/Biological Monitor
MM 4.12-1o	Final grading plans and photographs showing the fenced limits of impact and all coastal sage scrub to be impacted or avoided will be submitted to the CFWO for approval, at least fifteen days prior to initiating coastal sage scrub impacts. Any coastal sage scrub impacts that occur outside of the approved construction limits will be replaced at a minimum 5:1 ratio.	Verification of CFWO approval provided to City during Plan Check	Prior to Initiation of Grading	Community Development Director or designee/USFWS
MM 4.12-1p	If project construction within 500 feet of coastal sage scrub to be avoided is necessary and approved by the CFWO during gnatcatcher breeding season, the biologist will implement a nest monitoring plan approved by the CFWO and submit weekly monitoring reports. The biologist will determine whether nesting activity within this area is being substantially disrupted. If the biologist determines that gnatcatcher nesting activity is being substantially disrupted, the Property Owner will stop work and wait until the young have fledged, the nest has been determined a failure, or a minimization plan approved by the CFWO has been implemented to reduce noise to 60 dBA in habitat occupied by gnatcatchers. This minimization plan will involve nest monitoring in concert with noise reduction measures such as the use of sound walls or other means as approved by the CFWO.	Plan Check/ Monitoring Reports	Prior to Initiation of Grading in Coastal Sage Scrub during breeding season	Community Development Director or designee/ Biological Monitor
MM 4.12-1q	The biological monitor with the construction manager will institute measures to prevent fires and leakage from vehicles during construction at the project site. Such measures will include designating no smoking zones and parking areas. A water truck will be maintained onsite for fire control during all habitat clearing activities.	Identification of measures on plans and On-Site Monitoring	Prior to and During Grading and Construction	Community Development Director or designee/ Biological Monitor/Construction Manager
MM 4.12-1r	An erosion control plan will be prepared and included in the	Plan Check	Prior to Issuance of Grading	City Building Official or

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	SWPPP for the site. Erosion control measures may include the installation of silt fencing and/or sandbags downslope of any clearing and/or grading activity.		Permit	designee /USFWS
MM 4.12-1s	Fencing, or other suitable obstructions, such as cactus plantings, will be placed along the backs of residential lots and project roads that are located adjacent to natural areas to keep residents and dogs out of the preserved and restored habitat.	Plan Check	Prior to Issuance of Building Permit	Community Development Director or designee /USFWS
MM 4.12-1t	Lighting in residential areas and along roadways will be designed to prevent artificial lighting from reflecting into adjacent natural areas. Specific lighting designs will be required in the development plans to achieve this result. The covenants, conditions, and restrictions (CC&Rs) for the development will also require any subsequently installed lighting to meet this same result.	Lighting and Photometric plans to be submitted at Plan Check & City Review of CC&Rs	Prior to Issuance of Building Permit	Community Development Director or designee/USFWS
MM 4.12-1u	The CC&Rs will contain wording that addresses potential impacts of domestic animals on wildlife. In particular, the CC&Rs will require homeowners to keep cats indoors. Cats detected in the preserve area may be removed by animal control officers at the discretion of the preserve manager. No coyote ( <i>Canis latrans</i> ) control or removal will be permitted, except in cases of demonstrated human safety concerns, confirmed by the (CDFW).	City Review of CC&Rs	Prior to Home Sales	Community Development Director or designee/USFWS
MM 4.12-1v	Owners' manuals for the residences will provide a discussion of the impacts of domestic animals on the gnatcatcher and other special status species and the impacts of wildlife on domestic animals. The manuals will discuss the requirement to keep cats indoors, and that cats will be removed from the reserve areas. Residents will be reminded that the development is adjacent to natural open space. Encounters with wildlife are highly probable.	City Review of Owner's Manual	Prior to Home Sales	Community Development Director or designee/USFWS
MM 4.12-1w	Plants identified by the California Exotic Pest Plant Council as an invasive risk in southern California will not be planted within the project area by the Property Owner or contractors under their control.	Plan Check - Landscape plans	Prior to Issuance of Building Permit	Community Development Director or designee /USFWS
MM 4.12-1x	The CC&Rs will include wording for the development that prohibits landscaping with plants identified by the California Exotic Pest Plant Council as an invasive risk in southern California and that discusses shielding of lighting from open space areas, appropriate dumping of trash, and maintenance of fencing adjacent to open space areas.	City review of CC&Rs	Prior to Home sales	Community Development Director or designee/USFWS
MM 4.12-1y	Prior to initial brushing or construction activities, the biological monitor shall conduct a pre-construction meeting with representatives of all contractors and subcontractors. Attendees shall be informed of the sensitivity of coastal sage scrub and	Hold and include City in pre-construction Meeting	Prior to Initial Brush Clearance	Community Development Director or designee/ Biological Monitor

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	California gnatcatchers, legal penalties for unauthorized disturbance, and their responsibility to act in a legal manner.			
MM 4.12-1z	No construction staging areas, new haul roads, access roads, or other intrusion across designated open space areas shall be allowed. With the exception of the allowed uses specified herein, all such activities shall be confined to the areas designated for development.	Review of Construction Management Plan & On-Site Monitoring	Prior to and During Grading and Construction	Engineering and Community Development Directors or their designees
MM 4.12-1aa	Oil field impacted areas (e.g., oil sump areas, well areas) outside the development area will continue to be rehabilitated in accordance with state and federal requirements and the existing 4(d) and Section 404 permits.	On-Site Monitoring and reporting by construction supervisor	During Grading and Construction	Engineering and Community Development Directors or their designees
MM 4.12-1bb	Unauthorized destruction by the Property Owner of either coastal sage scrub or areas under the jurisdiction of the U.S. Army Corps of Engineers of the project shall be mitigated at a 5:1 ratio. The replacement or restoration will be held to the same standards as existing restoration efforts. The additional mitigation may be purchased off-site or provided through the deletion of approved development areas on-site, and will be paid for by the Property Owner.	On-Site Monitoring by Biological Monitor	Prior to and During Grading and Construction	Community Development Director or designee/U.S. Army Corps of Engineers
MM 4.12-1cc	Continuous monitoring by a qualified biologist during grading operations shall be done to ensure no unauthorized grading occurs. If unauthorized grading occurs, construction will cease pending coordination with the USFWS.	On-Site Monitoring by biological monitor	During Grading and Construction	Community Development Director or designee/ Biological Monitor/USFWS
MM 4.12-1dd	Final grading plans and construction drawings have not been prepared. When complete, minor adjustments to WCH Preserve (defined above) boundaries may be needed. The overall project shall be in substantial conformance with the approved site plan (Exhibit #3 of Specific Plan Amendment #8). In no event will the total amount of impact to CSS increase or the size of WCH Preserve area be reduced.	Plan Check	Prior to Issuance of Grading Permit and prior to recordation of Final Tract Maps	Engineering and Community Development Directors or their designees
MM 4.12-1ee	In order to mitigate the temporal impacts of the project, the Property Owner shall spend up to \$100,000 (or an amount to be determined by the USFWS) to begin pre-vegetation upon issuance of the Biological Opinion. In order to determine where the money would be spent, those areas of the property where revegetation can be done were divided into polygons and assigned to one of seven treatment groups. This pre-vegetation shall be carried out by a company with demonstrated experience in coastal sage scrub revegetation that is approved by USFWS and the project biologist. In addition, USFWS has indicated that they want to designate some portion of the budget to allow early salvage of	Pre-vegetation activities	Upon Issuance of Biological Opinion	Community Development Director or designee/USFWS

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	specimen plants. To accommodate this desire and highly variable costs, \$30,000 (or an amount to be determined by the USFWS) of the total shall be set aside for specimen plant salvage. These shall be boxed and removed to a nursery area set up on-site where they can be watered, protected and otherwise grown for use in the overall revegetation program. (Additional detail is provided in the 2002 Biological Assessment.) (The figure identified in this mitigation measure was determined by the USFWS as “pre-mitigation” to allow the project to commence; however, the pre-vegetation work must be undertaken and completed prior to initiation of any grading/site alteration.)			
MM 4.12-1ff	<p>All restoration areas (not including those identified in the Habitat Mitigation Monitoring Plan (HMMP)) shall be subject to the following five-year success criteria (measured after July of any year):</p> <p>Year 1: 10-20 percent native shrub species, up to 50 percent non-native species                      Year 2: 25-40 percent native shrub species, up to 35 percent non-native species                      Year 3: 40-60 percent native shrub species, up to 25 percent non-native species                      Year 4: (To be determined pending reference site transect results)                      Year 5: (To be determined pending reference site transect results)</p> <p>Attainment of the success criteria shall be measured three times per year throughout the monitoring period. A final report shall be written which summarizes the transect data, offers recommendations, and makes a determination on whether the program is meeting the success criteria. Modifications to the success criteria and frequency of monitoring may be modified if required by USFWS. (Additional detail is provided in the 2002 Biological Assessment.)</p>	On-Site Monitoring and Reporting by Biological Monitor	Following Habitat Restoration and Site Development	Community Development Director or designee /USFWS
MM 4.12-1gg	Slopes and graded areas within the fuel modification zones and within the WCH Preserve adjacent to development shall be revegetated with native CSS/SCS species that are fire resistant; primarily coast prickly pear cholla ( <i>Opuntia littoralis</i> ). However, other species may also be used to a lesser extent, subject to and consistent with the City of Fullerton Fuel Modification Zone requirements.	Review of fuel modification plans, Consultation among responsible parties and On-site monitoring (see MM 4.12-1b)	Prior to issuance of Grading Permit	Community Development Director/Fire chief or designees/USFWS
MM 4.12-1hh	Slopes and graded areas outside the fuel modification zones, within the WCH Preserve, shall be revegetated with coastal sage	Landscape Plan Check and on-site monitoring	Prior to Issuance of Grading Permit	Community Development Director or designee/USFWS

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	scrub species dominated by California sagebrush and California buckwheat (i.e., approximately 70% plant cover). The remaining area should be dominated by white sage, California encelia, bush monkey-flower and giant wild rye. Revegetation within non-fire management zones should be consistent with the conceptual revegetation plan (refer to MM 4.12-1c).			
MM 4.12-1ii	Habitat areas adjacent to roads, sidewalks, and trails where adjacent slopes are less than 2-1/2:1 shall be fenced with post and rope or other aesthetically pleasing barrier where cactus is not present to inhibit trespass by pedestrians and domestic animals.	Plan check & On-Site Monitoring	Show on plans and monitor During Grading and Construction	Community Development Director or designee
MM 4.12-1jj	Enhancement of existing marginal, diffuse, or weedy coastal sage scrub, shall be implemented by any combination of weed removal, supplemental seeding or planting, soil scarification, or any other method recommended by the project biologist.	On-Site Monitoring and reporting	During Grading and Construction	Community Development Director or designee/ Biological Monitor
MM 4.12-1kk	The Property Owner and/or its successors and assigns, shall continue to maintain fuel modification zones, perimeter fences along roads and behind homes and existing firebreaks to reduce the opportunities for vandalism, fire, and disturbance to wildlife and the primary target species. The existing internal fences should be removed to allow increased mobility of larger wildlife.	On-Site Monitoring and reporting	Following Site Development	Community Development Director or designee
MM 4.12-1ll	All fences, roads (including drainage structures and features and public facilities) shall be kept in good repair. Replacement, maintenance, operation and repair of these facilities are allowed as needed. The WCH Preserve shall be patrolled at least once a month. Trash shall be removed and any necessary repairs made to facilities, including trail fences. It is recognized and understood that such activities may require the use of various motorized vehicles including large hauling trucks and smaller equipment similar to a backhoe. Trimming of vegetation may also be necessary to keep trails open and well-marked and to meet fuel modification requirements.	On-Site Monitoring and reporting	Following Site Development	Community Development Director or designee/Land Management Agency
MM 4.12-1mm	The entity that performs the functions identified in MM 4.12-1ll (the WCH Preserve Maintenance Entity) need not be the same entity as that which performs the biological monitoring activities. Should two different entities be involved, the WCH Preserve Maintenance Entity (under MM MM 4.12-1ll) shall coordinate with and seek permission from the WCH Preserve Management Entity prior to performing the maintenance activities (other than those defined as emergencies). The WCH Preserve Management Entity shall act expeditiously upon any such request and shall not unreasonably withhold permission.	On-Site Monitoring	Following Site Development	Community Development Director or designee/Land Management Agency



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MM 4.12-1nn	Flexibility shall be built into the management program to allow for enhancement where unforeseen circumstances necessitate it. This will include, but is not limited to signage indicating the importance of the adjacent habitat and requesting no trespass, building raptor nest platforms and perches to compensate for reduced nesting areas, and other measures as needed.	Review of Management Program	Prior to Issuance of Grading Plan	Community Development Director or designee/USFWS
MM 4.12-1oo	California gnatcatcher surveys shall be conducted within the management area during the breeding season using a protocol designed by the project biologist that will emphasize collection of information on population size, use areas, vicinity vegetation characteristics, plants in the area, nest materials, nest and fledging success, possible food sources, nest parasitization and human presence in the area. The intent of the surveys is to provide information on species needs and reaction to various factors including revegetation efforts, weather and presence of humans, in a manner that will allow the WCH Preserve Management Entity to adjust management practices in a manner beneficial to California gnatcatcher. These surveys shall commence the first year after initial brushing, grubbing, or grading has occurred and be done annually for the first 10 years. Surveys shall be done once every three years after the first 10 years if determined necessary by the applicable wildlife agency and the WCH Preserve Management Entity. The number and location of cactus wren shall be incidentally noted on field notes during the surveys. Specific surveys for cactus wren are not required. The WCH Preserve Management Entity may elect to survey at a different interval if indicated by the results of the surveys.	On-Site Surveys and Reporting	During Gnatcatcher Breeding Season, beginning the first year after initial brushing, grubbing, or grading has occurred	Community Development Director or designee/ Land Management Agency/ USFWS
MM 4.12-1pp	Vegetation community and plant diversity monitoring shall take place on a yearly basis for the initial five years of the project, post revegetation. After the revegetation effort is determined to be successful and monitoring associated with the revegetation effort has stopped, then long-term monitoring to determine community vitality and plant diversity shall be implemented to ensure long-term California gnatcatcher persistence. The long-term monitoring plan shall be developed in conjunction with the USFWS and CDFW within the first three years of the project. At a minimum, long term vitality and plant diversity shall be measured every eight years to account for typical alternating weather cycles. Similar methods as those employed to determine success criteria should be used, as a guide, so that the results can be extrapolated.	On-Site Monitoring	Annually following Post-Revegetation	Community Development Director or designee/ Land Management Agency/ USFWS/ California Department of Fish and Game (CDFG)
MM 4.12-1qq	The WCH Preserve Management Entity shall be empowered to	On-Site Monitoring	Following Site Development	Community Development

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	close any areas of the WCH Preserve to the public during the breeding season if significant, long-term decreases in California gnatcatcher populations are determined to be caused by people or pets using the WCH Preserve. Closed areas shall be re-opened when population levels reach average levels as measured through the surveys. The City of Fullerton and USFWS shall be notified of any closure. Upon receipt of notice, the City, WCH Preserve Management Entity and USFWS shall meet and confer about the closure and possible length of time that the closure will exist.			Director or designee/ Land Management Agency
MM 4.12-1rr	On occasion, short temporary closures of duplicative trail segments may be deemed beneficial to California gnatcatcher protection, even if the population appears to be stable or increasing. These circumstances may include nesting by gnatcatchers near trails, abundant or repeated trespass into off-limit areas, or other situations that may stress gnatcatchers. When populations are stable or increasing, closures under these circumstances shall be temporary and only implemented on duplicated sections of trails so that the effectiveness of the trail system is not compromised.	On-Site Monitoring	Following Site Development	Community Development Director or designee/ Land Management Agency
MM 4.12-1ss	An annual report shall be submitted to the CDFW, USFWS and the City regarding the activities that occurred during that year. The report will be due by January 31 of the year following initial grubbing, brushing, or soil disturbance.	Annual Report	Annually following Site Development	Community Development Director or designee/ Land Management Agency/ USFWS/CDFG
MM 4.12-1tt	Should a public facility break down occur, the appropriate agency may enter the WCH Preserve and perform whatever action is needed to affect repair. Examples of such emergencies include a water or sewer line break. The USFWS should be notified prior to, or concurrent with, work initiation. The area of disturbance shall be restored and the cost borne by the agency, including revegetation, remediation and monitoring to assure success. Revegetation shall be done in accordance with the revegetation plan and shall meet the stated success criteria. Any disturbance due to an emergency shall not be regarded as a violation, and no additional mitigation beyond restoration of disturbed area shall be imposed.	On-site Monitoring	Following Site Development	Community Development Director or designee/Land Management Agency
MM 4.12-1uu	Emergency medical, police and fire vehicles are allowed to enter the WCH Preserve in whatever manner they deem appropriate to address a medical, fire or law enforcement emergency. Mitigation shall not be assessed should any disturbance occur.	On-Site Monitoring	Following Site Development	Community Development Director or designee/Land Management Agency
MM 4.12-1vv	Well re-abandonment that occurs as an emergency requires immediate attention. Should re-abandonment be necessary, the	Notification to City of such emergency	Emergency Well Re-Abandonment	Community Development Director or designee/USFWS

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	processes described in Section 7.2.4.3 in the 2002 Biological Assessment shall be followed.			
MM 4.12-1ww	The project has been designed to address the following issues: (1) lighting - all street lights shall be directed away from adjacent habitat and onto the intended surface; (2) increased presence of humans and domestic pets - (a) all yards, sidewalks, streets, and hiking trails adjacent to the WCH Preserve shall be fenced or use other suitable barriers, (b) brush management zones and most interim disturbed areas adjacent to roads shall be revegetated with southern cactus scrub, and (c) public education with regard to the damage domestic pets can do and the importance of coyotes, shall be provided to each prospective resident to discourage encroachment; and (3) invasion of non-native plants - the restoration plan shall remove existing weeds from disturbed areas from the interior of the site and the WCH Preserve Management Entity would control invasive plants over the long term.	See MM 4.12-1t MM 4.12-1ii MM 4.12-1v MM 4.12-1ff	See MM 4.12-1t MM 4.12-1ii MM 4.12-1v MM 4.12-1ff	Community Development Director or designee/ Land Management Agency/ USFWS
MM 4.12-2a	Prior to the discharge of dredged and/or fill materials, the Property Owner (i.e., permittee) shall submit to the City a copy of the HMMP required and approved by the U.S. Army Corps of Engineers (USACOE), CDFW, and the Regional Water Quality Control Board – Santa Ana Region (RWQCB). The HMMP shall be implemented concurrently with project construction at a mitigation ratio of 1:1 within the limits of the project site.	Plan Check	Prior to Issuance of Grading Permit	City Building Official and Engineering Director or their designees/USFWS/CDFG/ U.S. Army Corps of Engineers (USACOE)
MM 4.12-2b	Prior to issuance of a grading permit, the Property Owner shall submit to the City Planning Department copies of its Clean Water Act (CWA) Section 404 Permit issued by the USACOE, CWA Section 401 Water Quality Certification from the RWQCB, a Waste Discharge Requirement pursuant to the Porter Cologne Act issued by the RWQCB, if required, and a Section 1603 Streambed Alteration Agreement pursuant to the California Fish and Game Code 1600 issued by the CDFW, if required.	Provide permits to City with Plan Check submittal	Prior to Issuance of Grading Permit	City Building Official and Engineering Director or their designees/USFWS/CDFG/ U.S. Army Corps of Engineers (USACOE)
MM 4.12-2c	The permittee shall record a conservation easement or covenant, which shall run with the land, obligating the permittee or its successor to maintain the compensatory mitigation areas as natural open space in perpetuity consistent with the Specific Plan. The conservation easement or covenant shall be recorded within one year of implementing the HMMP, or as required by the regulatory and wildlife agencies.	Conservation Easement	Within one year of implementing the HMMP Permit	Community Development Director or designee/Land Management Agency
MM 4.12-3a	Three (3) days prior to the onset of construction activities, or as otherwise approved by the responsible resource agency, a qualified biologist shall survey within the limits of project	On-Site Monitoring	3 Days Prior to Commencement of Construction Activities	Community Development Director or designee/ Biological Monitor

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	<p>disturbance for the presence of any active raptor nests. Any nest found during the survey shall be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to CDFW.</p>			
MM 4.12-3b	<p>If nesting activity is present at any raptor nest sites, the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for raptors in the region of the project site normally occurs from February 1 to June 30 although some species may lay eggs as early as January. Therefore, to protect any nest site, the following restrictions on construction are required between January 1 and June 30 (or until nests are no longer active as determined by a qualified biologist):</p> <ol style="list-style-type: none"> <li>1. Clearing limits shall be established a minimum of 500 feet in any direction from any occupied nest.</li> <li>2. Access and surveying shall not be allowed within 100 feet of any occupied nest.</li> </ol> <p>Any encroachment into the 500/100 foot buffer area around the known nest shall only be allowed if it is determined by a qualified biologist that the proposed activity shall not disturb the nest occupants. Construction during the non-nesting season can occur only at the sites if a qualified biologist has determined that fledglings have left the nest.</p>	On-Site Monitoring	Prior to and During Grading and Construction	Community Development Director or designee/ Biological Monitor
MM 4.12-4a	<p>A qualified biologist shall prepare a raptor enhancement plan for approval by the CDFW that describes measures to be taken to maintain and improve raptor populations and diversity on-site. Abundant perch resources for red-tailed hawk, American kestrel, barn owl, and great horned owl are currently present on site in the form of old telephone and power poles. (Red-shouldered hawks usually perch on thin branches or telephone/power line wires; Cooper's hawk and sharp-shinned hawk are active pursuers and do not use perches to hunt from and use canopied trees to roost in; white-tailed kites may roost on the poles but forage while hovering; and harrier hawks forage while gliding over open habitats and usually roost on or near the ground.) These (perches) are regularly used by resident raptors for foraging and roosting purposes. The poles that are within open space shall be evaluated by raptor usage and inter-pole distance, so that an</p>	Review of Raptor Enhancement Plan	Prior to Issuance of Grading Permit	Community Development Director or designee

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	<p>appropriate number of poles will be retained. It is not proposed or advised that additional poles be installed; only that a yet to be determined number remain. Some may be left standing without modification; however, others should be considered for nest platform or nest box installation to mitigate for the loss of raptor nest sites (i.e., non-native trees that are removed through construction and habitat restoration activities). The plan shall include a discussion and map of proposed artificial owl roost and nest sites, including a description of nest box design for barn owls and escarpment modification for scooping out holes for great horned owls. An analysis of the best locations for installation shall also be included, which takes into account the estimated population density of these species and home range/territory.</p>			
MM 4.12-4b	<p>No trapping of coyotes shall occur within the management area. Homeowners shall be made aware of this policy and that for their safety, pets should remain indoors and on their property. A disclaimer shall be signed by all purchasers and a clause written into the CC&amp;Rs. Successful California gnatcatcher recovery will be dependent on meso-predator control by coyotes. Other native small wildlife will also benefit. Home buyers shall be given literature describing the importance of coyotes and their primary food sources (e.g., rats, mice, ground squirrels) and their contribution to the health of the environment. The use of poisons shall be discouraged. Homeowner literature regarding control of pest species shall concentrate on removing vector attractants, including pet food, unpicked fruit and vegetables, and piles of debris. Homeowners shall be instructed to provide this information to their landscapers.</p>	<p>City review of disclosure materials, owners manuals and CC&amp;Rs &amp; On-site monitoring</p>	<p>Prior to Homes Sales</p>	<p>Community Development Director or designee/Land Management Agency</p>
MM 4.12-5	<p>Prior to initiation of grading, a pre-construction survey during the peak flowering period (approximately March through June), shall be conducted by the project biologist. Each impacted lily bulb shall be clearly delineated with pin flags for collection by a qualified bulb collector. The seeds shall be cleaned and stored by a qualified nursery or institution with appropriate storage facilities. It is preferable to collect the bulbs after the flowering period when the bulbs are dormant. Another option for the relocation of the bulbs is to move the topsoil in large blocks from areas of high lily concentration to the revegetation site selected.</p> <p>Following seed and bulb collection, the lilies shall be relocated into a suitable mitigation site in the undeveloped portion of the project</p>	<p>Pre-Construction Survey and Reporting by Biological Monitor</p>	<p>Prior to Initiation of Grading</p>	<p>Community Development Director or designee /USFWS</p>

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	<p>site or the adjacent acreage that will be preserved in perpetuity. A qualified biologist (i.e., project biologist) that is acceptable to the resources agencies shall be selected and hired by the Property Owner to prepare and implement the mitigation plan, which shall include the following requirements.</p> <ul style="list-style-type: none"> <li>a. Following collection, seeds and bulbs shall be stored by a qualified nursery or institution with appropriate storage facilities. Then, the top 12 inches of topsoil from the lily locations shall be scraped, stockpiled, and used at the selected mitigation site.</li> <li>b. The mitigation site shall be located in dedicated open space on the project site or at an off-site mitigation site. The mitigation site shall be within a conservation easement. The site should not attempt to enhance existing populations and shall not be impacted by any pesticides or herbicides used on adjacent properties.</li> <li>c. A qualified biologist shall prepare a conceptual restoration plan for the lily mitigation site, and the site shall be prepared accordingly.</li> <li>d. The topsoil shall be respread in the selected location as approved by the project biologist. Approximately 60 percent of the seeds and bulbs shall be spread/placed in the fall following soil preparation. Forty (40) percent of the seed and bulbs shall be kept in storage for subsequent seeding, if necessary.</li> <li>e. A detailed maintenance and monitoring plan shall be developed by a qualified biologist. The plan shall include detailed descriptions of maintenance appropriate for the site, monitoring requirements, and annual report requirements, and shall designate full authority to suspend any operation on the project site that is, in the qualified biologist's opinion, not consistent with the restoration plan. Any disputes regarding the consistency of an action with the restoration plan shall be resolved by the Property Owner and the qualified project biologist.</li> <li>f. The performance criteria developed in the maintenance and</li> </ul>			

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	<p>monitoring plan shall include requirements for a minimum of 60 percent germination of the number of plants collected. The performance criteria should also include percent cover, density, and seed production requirements. These criteria shall be developed by the project biologist following habitat analysis of an existing high-quality lily habitat. This information shall be recorded by the project biologist.</p> <p>g. If the germination goal of 60 percent is not achieved following the first season, remediation measures shall be implemented prior to seeding with the remaining 40 percent of seed. Remedial measures shall include at a minimum: soils, testing, control of invasive species, soil amendments, and physical disturbance (to provide scarification of the seed) of the planted areas by raking or similar actions. Additional mitigation measures may be suggested as determined appropriate by the project biologist.</p> <p>h. Potential seed sources from additional donor sites shall also be identified in case it becomes necessary to collect additional seed for use on the site following performance of remedial measures.</p> <p>i. The site shall be maintained for five years or until a qualified biologist determines that the population is self-sustaining.</p>			
MM 4.12-6	<p>Surveys for burrowing owls shall be conducted at two-year intervals prior to and immediately following any mass grading conducted on the subject property. The survey shall consist of a single-pass (100% coverage) survey that includes a maximum of 30-meter transects over all suitable habitat (i.e., open habitats including sparse or open scrub habitats). All suitable burrows shall be inspected for burrowing owl sign (i.e., whitewash, pellets, insect remains, feathers, etc.). Any owls or potentially occupied burrows shall be mapped using GPS. At the discretion of the CDFW, owls shall either be passively relocated or actively relocated prior to construction and the breeding season (breeding season typically runs from February 15 through August 31). Passive relocation shall involve installation of one-way doors for a period of 48 hours, after which the doors are removed and the burrow is carefully excavated. Replacement burrows shall be created within conserved open space at a ratio of 2 to 1. Active relocation typically involves capturing the owls and relocating them to</p>	<p style="text-align: center;">On-Site Survey and Reporting by Biological Monitor</p>	<p style="text-align: center;">2 Year Intervals prior to and following Mass Grading</p>	<p style="text-align: center;">Community Development Director or designee</p>

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	another site where they are kept in secure enclosures until they acclimate to the new location. Regardless of the method, a passive or active relocation plan shall be written and shall be approved by CDFW if burrowing owls are located on site.			
MM 4.12-7	If required by USFWS notwithstanding the elimination of residential development within Neighborhood 2 as reflected in Specific Plan Amendment No. 8, the Property Owner shall precisely define the limits of the Section 4(d) mitigation area with a metes and bounds description, which shall be submitted to and approved by USFWS prior to issuance of the grading permit for development within Phase 1 (east of Gilbert Street).	Include on Final Tract map	Prior to issuance of Phase I Grading Permit	Community Development Director or designee/USFWS
<b>Climate Change (Greenhouse Gas Emissions)</b>				
MM 4.14-1a	To encourage the use of mass transportation, the Property Owner shall place bus stop shelters at any bus stops to be situated along any site frontage routes (i.e., Rosecrans Avenue, Gilbert Street, and Euclid Street) if not already so equipped.	Plan Check – public improvement plans	Prior to Issuance of Building Permit	Engineering and Community Development Directors or their designees
MM 4.14-1b	To encourage the use of localized commercial facilities and reduce the need for vehicle travel, the Property Owner shall include both bike lanes and bike paths between core development areas. Additionally, the Property Owner shall provide sidewalks and walking paths both to the proposed public use site and commercial areas as well as to the open space areas to be retained.	Plan Check – public improvement plans	Prior to Issuance of Building Permit	Engineering and Community Development Directors or their designees
MM 4.14-1c	The following measures shall be implemented to reduce long-term emissions associated with residential and commercial development. <ol style="list-style-type: none"> <li>1. Double-paned windows shall be installed in structures to reduce thermal loss.</li> <li>2. Central water heating systems shall be installed to reduce energy consumption.</li> <li>3. Light-colored roof materials shall be used to deflect heat from buildings and conserve energy.</li> <li>4. Builder installed appliances shall be energy efficient to reduce energy consumption, and shall include Energy Star or equivalent rated refrigerators and dishwashers.</li> <li>5. Automatic lighting on/off controls and energy-efficient built-in</li> </ol>	Plan Check	Prior to issuance of Building Permit	Community Development Director and Chief Building Official or their designees



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	<p>lighting shall be installed in all buildings.</p> <p>6. Energy-efficient street lighting shall be installed.</p> <p>7. Landscaping shall include appropriate drought-tolerant species to reduce energy and water consumption.</p> <p>8. Shade trees shall be provided in residential and public areas to reduce building heating/cooling demands.</p> <p>9. Pedestrian and transit-friendly features such as wider sidewalks, bus stops with passenger benches and shelters, bikeways or lanes shall be constructed within the development.</p> <p>10. Electrical outlets at the front and back of the residences and buildings shall be installed to facilitate the use of electric landscape maintenance equipment.</p>			
MM 4.14-1d	<p>The numerical figures provided in MM 4.14-1d have been updated to account for revisions to the Scoping Plan for AB 32, as well as project changes under VTTM 17609 and the change in the accepted methodology for quantifying greenhouse gas (GHG) emissions since preparation of the FEIR, as described in Addendum No. 1 and the Environ Technical Report. The proposed project under VTTM 17609 shall reduce its GHG emissions to no greater than 11,780 MMTCO<sub>2</sub>e/yr, which represents a reduction of 21.7% below the Business As Usual scenario identified in the California Air Resources Board's May 2014 First Update to the Scoping Plan for AB 32. To ensure the targeted emissions level is reached, the applicant or its designee or assignee shall submit to the City, for approval, a sustainability plan for achieving these reductions. The sustainability plan shall be submitted no later than one year following approval of VTM 17609 and prior to the issuance of a mass grading permit for the project. Preparation of the sustainability plan shall not delay either site remediation activities or early trail construction. The sustainability plan shall demonstrate that the GHG reductions undertaken to achieve the 21.7% reduction from Business as Usual are real, permanent, quantifiable, verifiable, and enforceable consistent with Health and Safety Code Section 38562. The sustainability plan shall consider implementation of measures that achieve GHG reductions including, but not limited to, the following</p>	<p style="text-align: center;">City Review of Sustainability plan that demonstrates compliance with AB 32</p>	<p style="text-align: center;">Prior to issuance of Grading and Building Permits</p>	<p style="text-align: center;">Community Development Director or designee</p>

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	measures, either individually or in combination: <ol style="list-style-type: none"> <li>1. GHG reduction measures recommended by the CARB or the SCAQMD for residential development projects;</li> <li>2. Implementation of on-site energy efficiencies and/or renewable energy, including but not limited to the development of near off-site solar facilities;</li> <li>3. The purchase of carbon credits;</li> <li>4. Carbon Sequestration;</li> <li>5. Water conservation measures resulting in reductions in embedded carbon;</li> <li>6. Further efforts to reduce vehicle miles traveled.</li> </ol>			