

CHAPTER 7 LIST OF MITIGATION MEASURES AND PROJECT DESIGN FEATURES

7.1 Air Quality

7.1.1 Mitigation Measures Proposed

M-AQ-1 Prior to the San Diego Air Pollution Control District's (SDAPCD's) next triennial review of the Regional Air Quality Strategy, the City of Escondido (City) shall coordinate with SDAPCD to amend the growth assumptions using the Project's Specific Plan. This includes changing the designation of Residential Urban I and R-1-7 to Specific Plan Area and SP Zone within the proposed Project site.

M-AQ-2 Prior to the commencement of grading activities within each phase of development, the City shall confirm that the following measures shall be adhered to during construction activities associated with the Project to reduce oxides of nitrogen (NO_x):

- a. For off road equipment with engines rated at 75 horsepower or greater, no construction equipment shall be used that is less than Tier 3.

An exemption from these requirements may be granted by the City in the event that the Project applicant (or its designee) documents that:

1. Equipment with the required tier is not reasonably available (e.g., reasonability factors to be considered include those related to the commercial availability of the necessary equipment within the County of San Diego within the scheduled construction period).
2. Corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment. For example, if a Tier 3 piece of equipment is not reasonably available at the time of construction and a lower tier equipment is used instead (e.g., Tier 2), another piece of utilized equipment could be upgraded from Tier 3 to a higher tier (e.g., Tier 4 Interim or Tier 4 Final) or replaced with an alternative-fueled (not diesel-fueled) equipment to offset the emission reductions associated with using a piece of equipment that does not meet Tier 3 standards. The permissibility to achieve greater emission reductions through the use of cleaner equipment engines to offset assumed emission reductions that are not feasibly achieved ensures that total Project-generated criteria air pollutant emissions from equipment operation are reduced, if an exemption is granted by the City.

- b. The engine size of construction equipment shall be the minimum size suitable for the required job.
- c. Construction equipment shall be maintained in accordance with the manufacturer's specifications.

7.1.2 Project Design Features

- PDF-AQ-1** The Project would include an on-site speed limit of 15 miles per hour to reduce fugitive dust emissions during construction.
- PDF-AQ-2** Exceed 2016 Title 24 building energy efficiency standards by 15%. Additionally, the Project will include electricity-saving features, such as an increase in energy efficiency above the 2016 Title 24 standards and solar photovoltaic systems that satisfy 70% of the electricity demand for residential buildings and 50% of the electricity demand for the Village Center.
- PDF-AQ-3** Traffic-calming measures for all new streets and existing affected streets and intersections.
- PDF-AQ-4** Improve the pedestrian network of the community by constructing an integrated walking and bicycling trail that would connect the villages with the Village Center and adjacent community.

7.2 Biological Resources

7.2.1 Mitigation Measures

- M-BI-1** **Nesting Bird and Raptor Avoidance.** If initial grading and vegetation removal activities (i.e., earthwork, clearing, and grubbing) must occur during the general bird breeding season for migratory birds and raptors (January 15 and September 15), the Project applicant shall retain a qualified biologist to perform a pre-construction survey of potential nesting habitat to confirm the absence of active nests belonging to migratory birds and raptors afforded protection under the Migratory Bird Treaty Act and California Fish and Game Code. The pre-construction survey shall be performed no more than 7 days before the start of the activities. If the qualified biologist determines that no active migratory bird or raptor nests occur, the activities shall be allowed to proceed without any further requirements. If the qualified biologist determines that an active migratory bird or raptor nest is present, no construction activities shall occur until the young have

fledged the nest and the nest is confirmed to no longer be active, as determined by the qualified biologist.

M-BI-2 Restoration, Preservation, and Management of On-Site Open Space. The Project applicant shall prepare and submit to the City of Escondido (City) and/or other responsible agencies of the Project for approval a Restoration Plan for the establishment/reestablishment and enhancement of sensitive habitat within the Project's open space. The Restoration Plan shall provide for replacement of impacted sensitive habitat, i.e., wetland/riparian sensitive natural communities and jurisdictional wetlands and waters in an amount to satisfy a no-net-loss standard for both function and spatial area of wetland and non-wetland resources. The Restoration Plan shall include 5 years of maintenance and monitoring to ensure the restoration effort is successful.

The Project applicant shall record a conservation easement, restrictive covenant, or other protective mechanism approved by the City and/or other responsible agencies of the Project over the establishment/reestablishment and enhancement areas. The conservation easement shall be included on final Project plans. The Project applicant shall prepare and submit to the City and/or other responsible agencies of the Project a Long-Term Management Plan for the on-site biological conservation easement areas. The Long-Term Management Plan shall include area specific management directives for maintenance, monitoring, and management of the conservation easement areas in perpetuity.

The applicant shall also establish a non-wasting endowment for an amount approved by the City based on a Property Analysis Record or similar cost estimation method to secure the ongoing funding for the perpetual maintenance, monitoring, and management of the biological conservation easement area by an agency, non-profit organization, or other entity approved by the City. Upon approval of the draft Long-Term Management Plan, the applicant shall submit the final Long-Term Management Plan to the City and/or other responsible agencies of the Project and a contract with the approved land manager, as well as transfer the funds for the non-wasting endowment to a non-profit conservation entity.

The Project applicant shall install appropriate permanent fencing, along the boundary of the open space to discourage human access. The Project applicant shall also install signage on the fence to educate and inform the public about the open space and to prohibit access. The fencing shall be shown on all final Project plans.

M-BI-3 Mature and Protected Tree Replacement. The Project applicant shall replace impacted mature trees at a minimum 1:1 ratio, unless otherwise determined by the City. The Project applicant shall replace protected trees at a minimum 2:1 ratio, unless otherwise determined by the City. The number, size, and species of replacement trees shall be determined on a case-by-case basis by the City's Director of Community Development.

7.2.2 Project Design Features

No project design features.

7.3 Cultural Resources

7.3.1 Mitigation Measures

M-CR-1 An archaeological resources monitoring program shall be implemented that shall include the following:

1. Prior to issuance of a grading permit, the applicant shall provide written verification to the City of Escondido (City) that a certified archaeologist has been retained to implement the monitoring program. This verification shall be presented in a letter from the Project archaeologist to the City. The City, prior to any preconstruction meeting, shall approve all persons involved in the monitoring program.
2. The qualified archaeologist and a Native American representative(s) shall attend the pre-grading meeting with the grading contractors to explain and coordinate the requirements of the monitoring program. Native American monitors/representatives from the Rincon Band of Luiseño Indians, the San Luis Rey Band of Mission Indians, and the Kumeyaay Nation shall be invited to participate in the monitoring program.
3. During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and tribal representative shall be on site, as determined by the consulting archaeologist, to perform periodic inspections of the excavations. The frequency of inspections will depend upon the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The consulting archaeologist shall have the authority to modify the monitoring program if the potential for cultural resources appears to be less than anticipated.

4. Isolates and clearly non-significant deposits will be minimally documented in the field so the monitored grading can proceed.
5. In the event that previously unidentified cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance operation in the area of discovery to allow for the evaluation of potentially significant cultural resources. The archaeologist shall contact the Project manager at the time of discovery. The archaeologist, in consultation with the Project manager for the lead agency, shall determine the significance of the discovered resources. The lead agency must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the lead agency before being carried out using professional archaeological methods. If any human bones are discovered, the San Diego County coroner and the lead agency shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposal of the remains.
6. Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The archaeological monitor(s) shall determine the amount of material to be recovered for an adequate artifact sample for analysis.
7. All cultural material collected during the grading monitoring program shall be processed and curated according to the current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation.
8. A report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the lead agency prior to the issuance of any building permits. The report will include DPR Primary and Archaeological Site Forms.

M-CR-2 Prior to commencement of Project construction, a qualified paleontologist shall be retained to attend the Project pre-construction meeting and discuss proposed grading plans with the Project contractor(s). If the qualified paleontologist determines that proposed grading/excavation activities would likely affect

previously undisturbed areas of Pleistocene-age alluvial deposits, then monitoring shall be conducted as outlined below.

1. A qualified paleontologist or a paleontological monitor shall be on site during original cutting of Pleistocene-age alluvial deposits. A paleontological monitor is defined as an individual who has at least 1 year of experience in field identification and collection of fossil materials, and who is working under the direction of a qualified paleontologist. Monitoring of the noted geologic unit shall be conducted at least half-time at the beginning of excavation, and may be either increased or decreased thereafter depending upon initial results (per direction of a qualified paleontologist).
2. In the event that well-preserved fossils are discovered, a qualified paleontologist shall have the authority to temporarily halt or redirect construction activities in the discovery area to allow recovery in a timely manner (typically on the order of 1 hour to 2 days). All collected fossil remains shall be cleaned, sorted, cataloged and deposited in an appropriate scientific institution (such as the San Diego Natural History Museum) at the applicant's expense.
3. A report (with a map showing fossil site locations) summarizing the results, analyses, and conclusions of the above-described monitoring/recovery program shall be submitted to the City within 3 months of terminating monitoring activities.

M-CR-3

As specified by California Health and Safety Code, Section 7050.5, if human remains are found on the Project site during construction or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the San Diego County Coroner's office. Determination of whether the remains are human shall be conducted on site and in situ (where they were discovered) by a forensic anthropologist, unless the forensic anthropologist and the Native American monitor agree to remove the remains to an off-site location for examination. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the Coroner has made the necessary findings as to origin and disposition. A temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area would be protected, and consultation and treatment could occur as prescribed by law. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains in

accordance with California Public Resources Code, Section 5097.98. The Native American remains shall be kept in situ, or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on site and in the presence of a Native American monitor.

7.3.2 Project Design Features

No project design features.

7.4 Greenhouse Gas Emissions

7.4.1 Mitigation Measures

M-GHG-1 The applicant or its designee will purchase and retire greenhouse gas (GHG) offsets to reduce the Project's GHG emissions level to 3.15 metric tons carbon dioxide equivalent (MT CO₂E) per service population per year, consistent with the performance standards and requirements set forth below.

1. The GHG offsets shall be secured from an accredited registry that is recognized by the California Air Resources Board (CARB) or a California air district, or from an emissions reduction credits program that is administered by CARB or a California air district.
2. The GHG offsets shall represent the past reduction or sequestration of 1 MT CO₂E that is "not otherwise required," in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.4(c)(3).
3. The GHG offsets shall be real, permanent, quantifiable, verifiable, and enforceable.
4. The quantity of GHG offsets required to achieve the service population value set forth above shall be calculated in and supported by technical documentation that is submitted to the City of Escondido (City) as part of the Mitigation Monitoring and Reporting Program, using an approved methodology demonstrating the quantity of reductions is valid and sufficient.

The applicant shall offset the Project's GHG emissions prior to receiving the 196th certificate of occupancy from the City. This represents 50% of the Project's residential build-out and thus the Project's emissions would be offset prior to completion of the Project.

7.4.2 Project Design Features

PDF-GHG-1 Use reclaimed water for park and greenbelt irrigation.

PDF-GHG-2 Use low-flow water fixtures.

PDF-GHG-3 The Project includes 10 publicly accessible electric-vehicle charging stations at the Village Center.

7.5 Hazards and Hazardous Materials

7.5.1 Mitigation Measures

M-HZ-1 Prior to any Project construction, including demolition, excavation, or other earth-moving or soil disturbance activities, any areas of the Project site identified as containing or formerly containing aboveground storage tanks (ASTs), suspected underground storage tanks (USTs), floor drains, and/or clarifiers, shall be assessed for the presence of potential contaminants of concern. Any areas of the Project site found to be contaminated shall be remediated in conformance with applicable federal, state, and local laws. Assessment and remediation shall be to the satisfaction of the City of Escondido Fire Department, the County of San Diego Department of Environmental Health, or other applicable agency. No Project construction activities shall commence until written regulatory concurrence is obtained that no further action is required with respect to the areas of the Project site identified as containing or formerly containing ASTs, suspected USTs, floor drains, and clarifiers.

M-HZ-2 Prior to demolition, all on-site structures shall be tested to determine if they include asbestos-containing materials (ACMs). If present, ACMs shall be removed and disposed of by a licensed and certified asbestos abatement contractor, in accordance with all applicable federal, state, and local laws and regulations for asbestos removal and demolition operations.

M-HZ-3 Prior to demolition, all on-site structures shall be sampled to determine if they contain lead-based paint. If lead-based paint is present, health and safety procedures shall be initiated to protect workers during demolition activities, in accordance with all applicable federal, state, and local laws and regulations.

M-HZ-4 Prior to excavation and other earth-moving or soil disturbance activities, representative soil samples shall be collected from areas subject to historical agricultural use, submitted to a State of California-certified laboratory, and analyzed for the following potential contaminants of concern, as follows:

- Organochlorine Pesticides using U.S. Environmental Protection Agency (EPA) Method No. 8081A

- Arsenic using EPA Method No. 6010
- CAM-17 Metals, including lead, using EPA Method Nos. 6000/7000 series

Any soil identified as contaminated shall be remediated in accordance with all applicable federal, state, and local laws to the satisfaction of the City of Escondido Fire Department, the County of San Diego Department of Environmental Health, or other applicable agency. No excavation or other earthmoving or soil-disturbance activities shall commence until written regulatory concurrence is obtained that no further action is required with respect to the historical agricultural use of the Project site.

7.5.2 Project Design Features

No project design features.

PDF-HZ-1 The Project would incorporate an Agriculture Operations Plan as part of the Specific Plan. Performance standards for agricultural operations at the community farm would include the following:

- All fertilizers, pesticides, and herbicides shall be organic or non-toxic to humans.
- All mechanical equipment shall be either electrical (including storage battery) operated or muffled to the most practical extent possible if operated by internal combustion.
- No farming activity producing noise audible to adjacent residential uses shall be done before 7:00 on weekdays or 8:00 on weekend days or holidays; or after dusk.
- Composting facilities for organic material produced on site shall be located a minimum of 100 feet from and not produce odors detectable from adjacent residential uses. Only organic material produced on site shall be composted.

7.6 Noise

7.6.1 Mitigation Measures

M-N-1 Construction noise levels are anticipated to exceed the applicable City of Escondido (City) noise restrictions when equipment is operating less than approximately 200 feet from existing residences in the Project vicinity. The following mitigation is required:

- Install temporary noise barriers around the construction site to minimize construction noise to 75 A-weighted decibels (dBA) as measured at the

applicable property lines of the adjacent uses, unless an acoustical engineer submits documentation that confirms that the barriers are not necessary to achieve the attenuation levels.

- All construction equipment employing an internal combustion engine shall be equipped with suitable exhaust and intake silencers that are in good working order.
- Stationary construction equipment such as generators or compressors shall be located on site as far away from adjacent residential property boundaries as is practicable.
- Minimize, to the extent practical, the number of pieces of construction equipment operating simultaneously.

M-N-2 Prior to issuance of building permits for the commercial structures to be located in the Village Center, an acoustical analysis shall be conducted to evaluate sound levels from proposed heating, ventilation, and air-conditioning equipment at the adjacent residential property lines, in order to ensure compliance with the City's daytime limit of 50 dBA equivalent continuous sound level (L_{eq}). Shielding of equipment, selection of low-noise-generating equipment, or both shall be specified as necessary to achieve compliance with this standard.

M-N-3 Prior to issuance of building permits for the commercial structures that include outdoor sound amplification systems, an acoustical analysis shall be conducted to evaluate sound levels from use of the proposed amplification systems at the adjacent residential property lines, in order to ensure compliance with the City's daytime limit of 50 dBA L_{eq} . Location and orientation of the speakers, volume governors, and/or sound barriers between the areas with sound amplification use and adjacent residences shall be specified, as necessary, to achieve compliance with this standard.

M-N-4 To comply with the City's 60 dBA community noise equivalent level (CNEL) exterior noise standard for single-family and duplex rear yards, noise barriers would be required for some home lots along Country Club Way and Nutmeg Street within the Project boundaries; see Table M-N-1, Barrier Heights at Rearyard Boundaries, for specific locations. Placing a barrier between the sound source (roadway) and receiver location (backyard) is an effective means of reducing sound levels at the receiver. If the barrier blocks a direct line of site between receiver and sound source, the minimum attenuation is approximately 5 dB; with increasing height of the wall, effective attenuation rates up to approximately 15 dB can be achieved. A standard barrier attenuation calculation was performed to determine the minimum necessary

barrier height to achieve compliance with the 60 dBA CNEL criterion. Noise barriers shall either be (1) solid masonry walls, or (2) tongue-and-groove walls with 1-inch-thick lumber. Based on future predicted traffic noise levels, barriers with the indicated heights would be required along the rearyard boundary of the residences identified in Table M-N-1.

Table M-N-1
Barrier Heights at Rearyard Boundaries

Roadway	Distance from Road	Required Barrier
West Country Club Road	Yard boundary greater than 75 feet from road edge	No barrier required
West Country Club Road	Yard boundary between 74 feet and 55 feet from road edge	5.5-foot-high barrier along yard boundary facing road
West Country Club Road	Yard boundary between 54 feet and 30 feet from road edge	6-foot-high barrier along yard boundary facing road
West Country Club Road	Yard boundary less than 30 feet from road edge	8-foot-high barrier along yard boundary facing road
North Nutmeg Street	Yard boundary between 50 feet and 25 feet from road edge	6-foot-high barrier along yard boundary facing road (for the closest lot in row perpendicular to Nutmeg; other adjacent lots further away also protected)

M-N-5 Restrict blasting operations to no more than 3 minutes of any given hour during allowable construction time periods.

M-N-6 To reduce adverse effects related to rock blasting, the following measures shall be adhered to:

- The blasting contractor shall design the blasts to reduce vibration velocity levels from each blast below the damage threshold of 3.0 inches per second at the closest nearby residences (i.e., as close as 100 feet from the blast area).
- A blast signal (e.g., air horn) shall be used to notify nearby residents that blasting is about to occur per the California Code of Regulations, Title 8, Section 5291 Firing of Explosives regulations.
- All complaints shall be responded to and investigated as they occur.

7.6.2 Project Design Features

PDF-N-1 No outdoor amplified entertainment or announcements shall be allowed after 9 p.m. on weeknights or after 10 p.m. on weekend or holiday nights.

PDF-N-2 Maximum occupancy for special events at the meeting and banquet facilities and event courtyard shall be 300 people.

7.7 Transportation and Traffic

7.7.1 Mitigation Measures

M-TR-1 **Intersection #8. El Norte Parkway/Woodland Parkway.** Prior to issuance of a building permit for the 158th dwelling unit, the Project applicant, or its designee, shall restripe the westbound approach of El Norte Parkway at Woodland Parkway to provide one left-turn lane, two through lanes, one right-turn lane, and a bike lane. The westbound leg (west of Woodland Parkway, now Borden Road) shall be restriped with two receiving lanes and a bike lane. The striped median and eastbound left-turn lane will be restriped to correct the offset. The westbound right-turn lane striping on Borden Road to the church driveway will be removed. The two westbound lanes shall continue westbound to Amber Drive, where a lane drop shall be striped to transition to a single westbound through lane. Traffic signal equipment at the El Norte Parkway/Woodland Parkway intersection shall also be modified to serve the revised geometry. No widening of El Norte Parkway or Borden Road will be required.

M-TR-2 **Intersection #9. El Norte Parkway/Country Club Lane.** Prior to issuance of a building permit for the 60th dwelling unit, the Project applicant, or its designee, shall restripe the eastbound approach of El Norte Parkway to provide a second eastbound left-turn lane, and shall also restripe northbound Country Club Lane (north of El Norte Parkway) to accept the two left-turn lanes and to taper to one lane south of the Country Club Lane/Golden Circle Driveway. The existing raised median on El Norte Parkway would be removed and reconstructed to accommodate the second eastbound left-turn lane. The eastbound through lanes shall also be restriped to accommodate the improvement. Traffic signal equipment at the El Norte Parkway/Country Club Lane intersection shall also be modified to serve the revised geometry. No widening of El Norte Parkway or Country Club Lane will be required. These improvements were included into the modeling and are thus accounted for in the LOS findings.

M-TR-3 **Segment #10. El Norte Parkway from Nutmeg Street/Nordahl Road to I-15 SB Ramps.** Prior to issuance of a building permit for the 272nd dwelling unit, the Project applicant, or its designee, shall revise and enhance the right-turn/right edgeline striping serving the commercial uses between Bourbon Road and the I-15 southbound ramps, commensurate with the striping improvements recently

installed by the City of Escondido between Nutmeg Street/Nordahl Road and Bourbon Road to improve ingress and reduce driver confusion with respect to the commercial driveways right-turn movement to Nutmeg Street. The Project shall also restrict the northbound left-turns from Bourbon Road to westbound El Norte Parkway with striping and signage, consistent with left-turn restrictions for the commercial driveway located directly across the intersection. The eastbound U-turn restriction at the El Norte Parkway/I-15 northbound ramps intersection should be removed to serve the displaced left-turns that will become downstream U-turns. There is sufficient distance in the intersection to serve the displaced left-turns from Bourbon Road, and the modest volume would not affect efficiency of the intersection. If Caltrans will not allow the U-turn at this intersection, the movement is allowed at the signalized El Norte Parkway/7 Oaks intersection located approximately 350 feet farther east. Removal of left-turns from Bourbon Road to El Norte Parkway will eliminate a conflicting midblock movement and enhance operations on El Norte Parkway. Construction of **M-TR-6** (dual southbound lefts on Nutmeg Street at El Norte Parkway) will also increase efficiency on El Norte Parkway by processing twice as many southbound left-turning vehicles per cycle, allowing for more green time to serve El Norte Parkway. **M-TR-5** (additional ramp storage on the I-15 southbound on-ramp) will further improve operations on this segment by reducing the eastbound queuing that occurs on El Norte Parkway during the AM peak hour and queuing those vehicles on the ramp instead of the segment. Although it is not a mitigation measure, the proposed adaptive signal control proposed for the El Norte Parkway corridor within the study area will also improve capacity along this segment.

M-TR-4 **Segment #15. Nutmeg Street from Country Club Lane to Via Alexandra.** Prior to issuance of a building permit for the 145th dwelling unit, the Project applicant, or its designee, shall construct interim improvements in the existing right-of-way on southbound Nutmeg Street between La Paloma Avenue and Via Alexandra to provide a wider travel lane, and curb, gutter, and sidewalk improvements to the satisfaction of the City engineer. These improvements will enhance vehicular, pedestrian, and bicycle circulation and will increase capacity to mitigate the Project's impact. Furthermore, **M-TR-6** (dual southbound left-turns from Nutmeg Street to El Norte Parkway) will serve to enhance the overall Nutmeg Street corridor operations by increasing traffic flow from Nutmeg Street to El Norte Parkway.

M-TR-5 **El Norte Parkway to I-15 Southbound On-Ramp.** Prior to issuance of a building permit for the 170th dwelling unit, the Project applicant, or its designee, shall provide

an additional Single Occupancy Vehicle (SOV) lane to the southbound on ramp. However, because the improvement would be located within the jurisdiction and control of the State of California (Caltrans), and neither the applicant nor the City of Escondido can assure that Caltrans will permit the improvement to be made, for the purposes of this analysis, the long-term significant cumulative impact at this location is considered significant and unavoidable.

M-TR-6 **Intersection #12. El Norte Parkway/Nutmeg Street/Nordahl Road.** Prior to issuance of a building permit for the 300th dwelling unit, the Project applicant, or its designee, shall restripe the south leg of Nutmeg Street to provide two southbound left-turn lanes, one shared through-right turn lane and a bike lane. The median on the north leg will need to be restriped. Traffic signal equipment at the subject intersection shall also be modified to serve the revised geometry. No widening of El Norte Parkway, Nutmeg Street or Nordahl Road will be required. This improvement will primarily improve the efficiency of the intersection by serving the dominant movement with two lanes instead of one. The secondary effect will be more green time per cycle to be allocated to El Norte Parkway. Another benefit will be to address the existing offset issue affecting north-south drivers through the intersection. Moving the through lane to the east will better align it with the receiving lane on the side (Nordahl Road) of the intersection.

M-TR-7 **Segment #17. Bennett Avenue from El Norte Parkway to Toyon Glen.** Prior to issuance of a building permit for the 162nd dwelling unit, the Project applicant, or its designee, shall restripe a two-way left-turn lane between El Norte Parkway and Toyon Glen. There are currently left-turn pockets striped at intervals along this segment. As such, there is sufficient room in the existing curb-to-curb width to stripe in the two-way left-turn lane. While the existing pockets serve to allow turning vehicles from Bennett Avenue to queue outside of the through lanes, they do not provide refuge for vehicles turning from the minor streets along the segment to Bennett Avenue.

7.7.2 Project Design Features

PDF-TR-1 The Project will include appropriate work zone traffic control plans to ensure efficient ingress/egress of vehicles, and to maintain access to the degree possible to Country Club Lane during construction.

7.8 Energy

7.8.1 Mitigation Measures

No mitigation measures.

7.8.2 Project Design Features

No project design features.

7.9 Geology and Soils

7.9.1 Mitigation Measures

No mitigation measures.

7.9.2 Project Design Features

PDF-GE-1 The Update Geotechnical Report and Recommended Grading Specifications (Appendix 3.1.3-1, prepared by GEOCON Inc.), shall be adhered to for construction of the Project. The recommendations and site design features include but are not limited to the following:

- All Project site slopes would be landscaped with drought-tolerant vegetation, having variable root depths and requiring minimal landscape irrigation.
- All Project slopes would be drained and properly maintained to reduce erosion.
- Concrete cracking would be prevented by limiting the slump of the concrete, proper concrete placement and curing, and placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

7.10 Hydrology and Water Quality

7.10.1 Mitigation Measures

No mitigation measures.

7.10.2 Project Design Features

PDF-HY-1 Low Impact Development (LID) strategies have been incorporated into the Project design, including:

- Minimize impervious areas.

- Avoid compaction in planned landscape spaces.
- Till and amend soil for improved infiltration capacity.
- Drain rooftops, roads, or sidewalks into adjacent landscape areas.
- Drain impervious surfaces through pervious areas.
- Replace pervious drainage ditches with open, vegetated swales.
- Collect runoff.
- Landscape with native or drought-tolerant species.
- Manage stormwater within proposed biofiltration BMPs.

PDF-HY-2 The Project design includes 10 proposed biofiltration BMPs, which would discharge runoff into proposed vegetated channels that ultimately would convey stormwater off site. All of the proposed biofiltration BMPs would be designed for water quality and hydromodification management plan requirements, per County of San Diego Watershed Protection, Storm Water Management, and Discharge Control Ordinance (WPO) specifications. Eight of the 10 BMPs would be designed to provide 100-year detention in order to route post-Project peak discharges back to pre-Project conditions for the Project site as a whole.

PDF-HY-3 The Project includes an area that, due to site constraints, cannot be conveyed into one of the 10 biofiltration BMPs; therefore, this area will include modular wetlands systems to treat stormwater.

PDF-HY-4 Anticipated frontage and off-site street improvements will be addressed using green street elements outlined in the City of Escondido BMP Design Manual. Green Street components will be addressed during final engineering.