CHAPTER 7.0 – LIST OF MITIGATION MEASURES AND PROJECT DESIGN FEATURES

7.1 Comprehensive Listing of Mitigation Measures

7.1.1 Mitigation for Aesthetics Impacts

M-AE-1 Initial installation of the landscaping and rock staining on the manufactured slopes to ensure long-term visual continuity and screening of the manufactured slopes will be occur as each phase of rough grading is completed:

- Landscaping beyond the minimal erosion control vegetation (one 1-gallon shrub per 100 s.f.) to provide one 1-gallon shrub per each 75 s.f. in areas of exposed soil (i.e., non-rocky areas).
- Exposed newly cut rocks shall be stained to soften and screen the appearance of the manufactured slopes.
- The HOA for the Proposed Project shall have the responsibility to maintain the installed landscaping along the manufactured slopes.

M-AE-2 Visual character impacts related to retaining walls would be mitigated by the following measures:

- Retaining wall(s) shall be textured and stained or colored to reduce visibility as shown in the Project Landscape Concept Plan. Other retaining walls shall be screened by landscaping.

7.1.2 Mitigation for Air Quality

M-AQ-1 A revised housing forecast shall be sent to SANDAG to ensure that revisions to the population and employment projections used in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

7.1.3 Mitigation for Agricultural Resources

M-AG-1 In order to mitigate for on-site direct impacts to 13.0 acres of agricultural resources encompassing candidate soils, on or offsite suitable agricultural resources at a 1:1 ratio shall be preserved prior to approval of any grading, improvement or final map. The developer shall provide evidence that 13.0 acres of suitable mitigation area has been obtained by one of the following: (1) the acquisition of agricultural easements , through the acquisition of agricultural mitigation credits through the County PACE Program; (2) providing a combination of PACE mitigation credits and establishment of on and/or off-site agricultural easements; or (3) purchasing off-site agricultural lands or easements that meet the intent of the County Agricultural Guidelines, all to the satisfaction of the Director of PDS.

7.1.4 Mitigation for Biological Resources

M-BI-1a and b

Mitigation for impacts to non-native grassland habitat (typically a 0.5:1 ratio) must include impacts to sensitive species (grasshopper sparrow and raptors) which increases the mitigation ratio to 1:1, for a mitigation requirement of 53.1 acres[1]. Mitigation for impacts to 20.5 acres of extensive agriculture, which provides more limited habitat value to species, will occur at the base ratio of 0.5:1, for a mitigation requirement of 10.3 acres. Mitigation for impacts to raptor foraging habitat and grasshopper sparrow habitat would occur prior to recordation of the first Final Map through one or a combination of the following: off-site preservation of grassland habitat and/or other like-functioning habitat within the NC MSCP boundaries, or purchase of grassland credits or like-functioning habitat at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies. The 0.6 acre of mitigation for non-native grassland and 10.3 acres of mitigation for extensive agriculture within the Elfin Forest Harmony Grove Community Plan (EFHGCP) shall demonstrate conformance with the EFHGCP to the satisfaction of the Director of PDS.

M-BI-2 No grubbing, clearing or grading within 300 feet of an active raptor nest during the raptor breeding season (February 1 through July 15) will occur. All grading permits, improvement plans and the final map will include such statement. If grubbing, clearing or grading is proposed during the raptor breeding season, a pre-grading survey will be conducted within three days prior to clearing to determine if raptors occur within the areas directly impacted by grading or indirectly impacted by noise. If there are no raptors nesting (includes nest building or other breeding/nesting behavior) within this area, development will be allowed to proceed upon approval of the Director of PDS with concurrence from USFWS and CDFW. However, if raptors are observed nesting or displaying breeding/nesting behavior within the area, construction will be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after July 15; or (2) a temporary noise barrier or berm is constructed at the edge of the development footprint to reduce noise levels below 60 dB L_{EQ} or ambient (if ambient is greater than 60 dB L_{EQ}), to the satisfaction of the Director of PDS with concurrence from USFWS and CDFW. Alternatively, if approved by the Director of PDS with concurrence from USFWS and CDFW, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB L_{EQ} or ambient (if ambient is greater than 60 dB L_{EQ}) in lieu of or in concert with a wall or other sound attenuation barrier.

[1] A total of 53.1 acres of grassland mitigation would be provided for impacts to 53.8 acres of non-native grassland. The remaining 0.7 acre would be mitigated through oak woodland mitigation, as impacts to 0.7 acre of non-native grassland occur within the oak root zone as defined by the County and are considered impacts to oak woodland.

M-BI-3a Impacts to 0.17 acre of southern riparian forest will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.51 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.

M-BI-3b Impacts to 0.04 acre of southern willow scrub will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.12 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.

M-BI-3c Impacts to 0.01 acre of mule fat scrub will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.03 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.

M-BI-3d Impacts to 0.02 acre of herbaceous wetland will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.06 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.

M-BI-3e Impacts to 0.08 acre of disturbed wetland will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.24 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.

M-BI-3f Impacts to 6.7 acres of coast live oak woodland and 0.9 acre of oak woodland buffer (consisting of 0.7 acre non-native grassland and 0.2 acre of eucalyptus woodland) will be mitigated at a 2:1 ratio for the 2.4 acres occurring within the LBZ around biological open space, and at a 3:1 ratio for the remaining 4.3 acres of impact and 0.9 acre of buffer impact. A 2.4-acre Oak Tree Protection Easement would be recorded over the 2.4 acres of coast live oak woodland remaining within the LBZ, which would limit fuel modification to clearing of the understory and prohibit the removal of mature oak trees. Mitigation would be accomplished through the purchase of 20.4 acres of oak woodland, oak riparian woodland, or oak riparian forest credits at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies. The 9.8 acres of mitigation for oak woodland within the EFHGCP shall demonstrate conformance with the EFHGCP to the satisfaction of the Director of PDS.

M-BI-3g Direct impacts to 1.0 acre of Diegan coastal sage scrub and indirect impacts to 0.8 acre of Diegan coastal sage scrub will be mitigated prior to recordation of the First Final Map at a 2:1 ratio through the purchase of 3.6 acres of coastal sage scrub credits at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies; and/or off-site acquisition and preservation of land within the NC MSCP boundaries containing Diegan coastal sage scrub. The 0.2 acre of mitigation for coastal sage scrub within

the EFHGCP shall demonstrate conformance with the EFHGCP to the satisfaction of the Director of PDS.

M-BI-3h Impacts to 3.1 acres of granitic southern mixed chaparral will be mitigated prior to recordation of the first Final Map at a 0.5:1 ratio through one or a combination of the following: the purchase of 1.6 acres of chaparral credits at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies; or off-site acquisition and preservation of land within the NC MSCP boundaries containing southern mixed chaparral.

M-BI-3i Impacts to 53.8 acres of non-native grassland will be mitigated at a 1:1 ratio as described in Mitigation Measure M-BI-1a and b, above.

M-BI-4 Impacts to 0.02 acre of USACE herbaceous wetland will be mitigated prior to recordation of the first Final Map at a 3:1 ratio as described in Mitigation Measure M-BI-3d, above. Impacts to 0.19 acre of non-wetland WUS will be mitigated by purchase of 0.19 credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies. All mitigation for WUS will occur in consultation with the USACE.

M-BI-5 Impacts to 0.66 acre of vegetated Waters of the State will be mitigated prior to recordation of the first Final Map by the implementation of the above Mitigation Measures M-BI-3a (southern riparian forest), M-BI-3b (southern willow scrub), M-BI-3c (mule fat scrub), M-BI-3d (herbaceous wetland), M-BI-3e (disturbed wetland) and M-BI-3f (coast live oak woodland).

Impacts to 0.26 acre of streambed Waters of the State will be mitigated prior to recordation of the first Final Map by the implementation of Mitigation Measure M-BI-4, above, plus purchase of an additional 0.07 acre credit at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.

M-BI-6 Impacts to 0.18 acre of County RPO wetlands (0.17 acre of southern riparian forest and 0.01 acre of mule fat scrub) will be mitigated by the implementation of Mitigation Measure M-BI-3a and M-BI-3c, above.

M-BI-7 In order to ensure compliance with the MBTA, grading and clearing of vegetation will occur outside of the breeding season of most avian species (February 1 through September 1). All grading permits, improvement plans and the final map(s) will include such statement. Grading or clearing during the breeding season of MBTA-covered species could occur with PDS approval and wildlife agency concurrence if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present immediately prior to clearing and grading. A pre-construction survey will be conducted within seven days prior to clearing and grading activities to determine if breeding or nesting avian species occur within impact areas.

7.1.5 Mitigation for Cultural Resources

M-CR-1 A data recovery program will be implemented at the site prior to approval of any grading or improvement plans that will cause the direct impact. The research design and data recovery plan are included as Appendix F of the Cultural Resources Inventory and Assessment. The data recovery program will be implemented prior to any grading and/or improvements and prior to the approval of the first Final Map. All data recovery shall include a Kumeyaay and a Luiseño Native American monitor.

M-CR-2 A grading monitoring and data recovery program will be implemented to mitigate potential impacts to undiscovered buried archaeological resources on the Project and off-site roadway alignments site to the satisfaction of the Director of Planning & Development Services. In addition, a pre-grading survey shall also be conducted. This program shall include, but shall not be limited to, the following actions:

a. Provide evidence to the Department of Planning & Development Services that a County certified archaeologist has been contracted to implement a grading monitoring and data recovery program, and a pre-grading survey to the satisfaction of the Director of Planning & Development Services. A letter from the Principal Investigator shall be submitted to the Director of Planning & Development Services. The letter shall include the following guidelines:

(1) The project archaeologist shall contract with both a Kumeyaay and Luiseno Native American monitor to be involved with the grading monitoring program and pre-grading survey as outlined in the County of San Diego Report Format and Content Guidelines (2007). This area is of importance to both the Kumeyaay and Luiseño communities; both groups should be given the opportunity to have representatives present as monitors.

(2) The County approved archaeologist and Native American monitor(s) shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program as outlined in the County of San Diego Report Format and Content Guidelines (2007).

(3) The consulting archaeologist and Native American monitor(s) shall re-survey areas of the project site including off-site improvements as determined by the Project Archaeologist in consultation with the Native American monitor(s). The site boundaries of CA-SDI-17,506 shall be adequately defined to determine whether the site can be avoided and prevent the requirement for data recovery.

(4) The archaeological monitor and Native American monitor(s) shall monitor all areas identified for development including off-site improvements.

(5) An adequate number of monitors (archaeological/historical/Native American) shall be present to ensure that all earthmoving activities are

observed and shall be on-site during all grading activities including off-site improvements.

(6) During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be on site as determined by the Project Archaeologist of the excavations. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist in consultation with the Native American monitor(s). Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator in consultation with the Native American monitor(s).

(7) Isolates and clearly non-significant deposits will be minimally documented in the field and the monitored grading can proceed. Should the cultural materials of isolates and non-significant deposits not be collected by the Project Archaeologist, then the Native American monitors may collect the cultural material for transfer to a Tribal Curation facility or repatriation program.

(8) In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s) or Native American monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the County Archaeologist at the time of the discovery. The Principal Investigator, in consultation with County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist 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 in coordination with the Native American monitor(s) and approved by the County Archaeologist, then carried out using professional archaeological methods. The Research Design and Data Recovery Program shall include (1) reasonable efforts to preserve (avoidance) unique cultural resources pursuant to CEQA §21083.2(g) or for Sacred Sites as the preferred option (2) the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap, if avoidance is infeasible, and (3) data recovery for non-unique cultural resources.

(9) If any human remains are discovered, the Property Owner or their representative shall contact the County Coroner. 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 by the Property Owner or their representative in order to determine proper treatment and disposition of the remains. All requirements

of Health & Safety Code §7050.5 and Public Resources Code §5097.98 shall be followed.

(10) Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The Principal Investigator shall determine the amount of material to be recovered for an adequate artifact sample for analysis.

(11) In the event that previously unidentified cultural resources are discovered, all prehistoric cultural material collected during the survey, testing, grading monitoring, and data recovery programs shall be processed and curated at a San Diego curation facility or Tribal curation facility of appropriate affiliation that meets federal standards per 36 CFR Part 79, and therefore will be professionally curated and made available to other archaeologists/researchers for further study. 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. Evidence shall be in the form of a letter from the curation facility identifying that prehistoric cultural materials have been received and that all fees have been paid. Alternatively, the prehistoric cultural material collected may be repatriated to a Native American Tribe of appropriate affiliation.

Historic cultural material collected during the survey, testing, grading monitoring, and data recovery programs shall be processed and curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79 and, therefore, will be professionally curated and made available to other archaeologists/researchers for further study. The historic 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. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.

(12) Monthly status reports shall be submitted to the Director of Planning & Development Services starting from the date of the notice to proceed to termination of implementation of the grading monitoring program and pre-grading survey. The reports shall briefly summarize all activities during the period and the status of progress on overall plan implementation. Upon completion of the implementation phase, a final report shall be submitted describing the plan compliance procedures and site conditions before and after construction.

(13) In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifacts and research data within the research context shall be completed

and submitted to the satisfaction of the Director of Planning & Development Services prior to the issuance of any building permits. The report will include Department of Parks and Recreation Primary and Archaeological Site forms.

(14) In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of Planning & Development Services by the consulting archaeologist that the grading monitoring activities have been completed.

b. Provide evidence to the Director of Public Works (DPW) that the following notes have been placed on the Grading Plan:

(1) The County approved archaeologist and Native American monitor(s) shall attend the pre-construction meeting with the contractors to explain and coordinate the requirements of the monitoring program and pre-grading survey.

(2) The archaeological monitor and Native American monitor(s) shall monitor all areas identified for development including off-site improvements.

(3) The consulting archaeologist and Native American monitor(s) shall re-survey areas of the project site including off-site improvements as determined by the Project Archaeologist in consultation with the Native American monitor(s). The site boundaries of CA-SDI-17,506 shall be adequately defined to determine whether the site can be avoided and prevent the requirement for data recovery.

(4) During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite as determined by the Principal Investigator of the excavations. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist in consultation with the Native American monitor(s). Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator in consultation with the Native American monitor(s).

(5) In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s) or Native American monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the County Archaeologist at the time of the discovery. The Principal Investigator in coordination with the Native American monitor(s) shall consult with the County staff archaeologist to determine the significance of the discovered resources. The County Archaeologist 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 Principal Investigator and approved by the County Archaeologist, then carried out using professional archaeological methods. The Research Design and Data Recovery Program shall include (1) reasonable efforts to preserve (avoidance) unique cultural resources pursuant to CEQA §21083.2(g) or for Sacred Sites as the preferred option (2) the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap, if avoidance is infeasible, and (3) data recovery for non-unique cultural resources.

(6) The archaeological monitor(s) and Native American monitor(s) shall monitor all areas identified for development including off-site improvements.

(7) If any human remains are discovered, the Property Owner or their representative shall contact the County Coroner. 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 by the Property Owner or their representative in order to determine proper treatment and disposition of the remains. All requirements of Health & Safety Code §7050.5 and Public Resources Code §5097.98 shall be followed.

(8) The Principal Investigator shall submit monthly status reports to the Director of Planning & Development Services starting from the date of the notice to proceed to termination of implementation of the grading monitoring program and pre-grading survey. The reports shall briefly summarize all activities during the period and the status of progress on overall plan implementation. Upon completion of the implementation phase, a final report shall be submitted describing the plan compliance procedures and site conditions before and after construction.

(9) Prior to rough grading inspection sign-off, provide evidence that the field grading monitoring and pre-grading survey activities have been completed to the satisfaction of the Director of Planning & Development Services. Evidence shall be in the form of a letter from the Project Investigator.

(10) Prior to Final Grading Release, submit to the satisfaction of the Director of Planning & Development Services, a final report that documents the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program and Pre-Grading Survey. The report shall also include the following:

- Department of Parks and Recreation Primary and Archaeological Site forms.

- Evidence that all prehistoric cultural material collected during the survey, testing, grading monitoring, and data recovery programs has been curated at a San Diego curation facility or Tribal curation facility of appropriate affiliation that meets federal standards per 36 CFR Part 79, and therefore shall be professionally curated and made available to other archaeologists/ researchers for further study. The prehistoric 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. Evidence shall be in the form of a letter from the curation facility identifying that prehistoric cultural materials have been received and that all fees have been paid. Alternatively, the prehistoric cultural material collected may be repatriated to a Native American Tribe(s) of appropriate affiliation, as determined by agreement among the Tribes, the Principal Investigator, and County staff.

  Historic cultural material collected during the survey, testing, grading monitoring, and data recovery programs shall be processed and curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79 and, therefore, will be professionally curated and made available to other archaeologists/researchers for further study. 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. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.

  or

  In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of Planning & Development Services by the Principal Investigator that the grading monitoring activities have been completed.

7.1.6 Mitigation for Noise

M-N-1 Existing plus Cumulative plus Project (worst-case near-term) traffic noise levels at the Project's residential exterior use areas facing Country Club Drive shall be mitigated to County Standards by the following measure:

- A 6-foot high noise control wall shall be installed along the outer perimeter of the residential use areas for Lots 283 through 289 to reduce noise impacts in the outdoor use area to less than 60 CNEL (refer to Table 2.6-1). Please see Figure 2.6-1 for the locations of the proposed sound walls. The noise control wall must wrap around the ends of the property with 30-foot long returns wherever there is a break or terminus of the wall along Country Club Drive. Required sound attenuation barriers shall be solid and constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, with no cracks or gaps, through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least one-inch total thickness or have a density of at least 3½ pounds per s.f. Where architectural or aesthetic factors allow, glass or clear plastic 3/8 of an inch thick or thicker may be used on the upper portion, if it is desirable to preserve a view. Sheet metal of 18-gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of one-inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.

M-N-2 A final exterior-to-interior analysis shall be conducted to demonstrate that interior residential noise levels are below 45 CNEL. This analysis will be submitted with the final building plan submittal for the residential units along Country Club Drive.

M-N-3 If a residential air conditioning condenser is installed within 35 feet of a property line. a 5.5 foot-high noise control barrier shall be installed between the residential use areas and the condensers to reduce related noise impacts in the outdoor use areas to less than 45 dBA L_{EQ}. The barrier shall extend in each direction beyond the condenser location so that any location without a barrier at the adjacent property is at least 35 feet from the condenser unit. The applicant shall provide proof that the installed condensers have a manufacturer's sound power noise rating of less than 75 dBA. If the condenser is placed beyond a distance of 35 feet from the property line, no mitigation will be required.

M-N-4 In order to ensure compliance of the WRF with applicable noise regulations, design options shall be employed to reduce noise levels. These design measures could include the following:

1. Stationary equipment noise may be controlled by the following methods:

    a. Providing a tall exterior enclosure wall and gate to control offsite noise impacts for all WTWRF equipment (excluding the diesel generator).
    b. Enclosing the WTWRF equipment inside a noise control CMU structure or specific design enclosures.
    c. Increasing property line setbacks of WTWRF noise sources where feasible.
    d. Locating WTWRF noise sources such that noise shielding will be provided from on-site buildings or structures.
    e. Incorporating noise control measures such as acoustical louvers or paneling into the WTWRF design.

2. Diesel generator noise may be controlled by the following methods:

    a. Enclosing the diesel generator within a custom designed noise control structure (such as a steel enclosure).
    b. Placing the diesel generator within a CMU building that includes noise control feature such as (but not limited to) acoustical louvers or paneling, etc.

The applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the WTWRF prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line nighttime limit completed to the satisfaction of the County PDS. The conditions of approval of the MUP will ensure that the correct equipment/structural noise barriers will be properly installed to reduce noise levels to less than significant levels. The conditions of approval of the MUP will ensure that the correct equipment/structural noise barriers will be properly installed to reduce noise levels to less than significant levels.

M-N-5 The booster pump and diesel generator noise may be controlled by various methods, including but not limited to: enclosing the diesel generator within a custom designed noise control structure (such as a steel enclosure); placing the pump equipment and diesel generator within a CMU construction building that includes noise control features increase property line setbacks of the generator location, locating noise sources such that noise shielding will be provided from on-site intervening structures or topography.

The applicant shall provide a final noise impact analysis for the booster pump station backup power generators prepared by a County-approved noise consultant

demonstrating compliance with the County 45 dBA L_{EQ} property line requirement completed to the satisfaction of the County PDS.

M-N-6 Diesel generator noise may be controlled by the various methods, including but not limited to: enclosing the diesel generator within a custom designed noise control structure (such as a steel enclosure); placing the pump equipment and diesel generator within a CMU construction building that includes noise control features increase property line setbacks of the generator location, locating noise sources such that noise shielding will be provided from on-site intervening structures or topography..

The applicant shall be required to provide a final noise impact analysis for the pump station backup power generators prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line requirement completed to the satisfaction of the County PDS.

M-N-7 If ripping, drilling, or excavation is required within 180 feet of a residentially occupied off-site or on-site property line, a 12-foot high barrier shall be erected along a length of the property line. This barrier shall be of sufficient length to block the line of sight between the occupied property and any ripping operations within 180 feet of the property. Additionally, the barriers shall extend at least 10 feet beyond the horizontal line of sight in each direction. Figure 5 of the acoustical study (contained in Appendix G of this EIR) shows the 12-foot barrier noise mitigation noise contours. The final barrier must break the line of sight between the top of the equipment exhaust and the residential receiver at all visible locations, and when taking into consideration all topography in relevant areas.

If new information is provided to prove and certify that the construction equipment and noise measures being used is different prior to grading plan approval, then then a new construction noise analysis maybe reviewed to the satisfaction of the [PDS, PCC]. The supplemental noise analysis shall be prepared by a County Approved Noise Consultant and the report shall comply with the Noise Report Format and Content Requirements. Any proposed alternative methods, or the reduction or modification of measures maybe approved if the construction activities are reduced to 75 dB and below at the occupied property line.

M-N-8 If a breaker is required on-site during construction, then it shall not be used within 300 feet of property lines of occupied residences.

M-N-9 Prior to and during construction activities, the applicant shall be required to prepare and implement a blast plan to reduce impacts associated with air blast over-pressure generated by project-related construction activities and to incorporate any required noise reducing measures to comply with County Noise Ordinance regulations. The project applicant shall conform to the blast plan which will be comprised of the following (but not limited to): No blasting shall occur at a distance of less than 600 feet from any off-site structure without specific analysis by the blasting

contractor showing less than significant vibration impacts to the structure. Any livestock showing distress from blasting activity at any distance should be removed to a remote location for the duration of blasting operations. Initial planning shall consider livestock within 300 feet of a minor blast or 600 feet of a major blast to be removed to these minimum distances for the appropriate blast size prior to the commencement of blasting. All blast planning shall be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County Sheriff blasting permits, and all other applicable local, state, and federal permits, licenses, and bonding. The blasting contractor or owner shall conduct all notifications, inspections, monitoring, major or minor blasting requirements planning, with seismograph reports as necessary.

Construction equipment associated with blasting (i.e. drilling, pre and post blasting work) shall comply with the County Noise Ordinance, Section 36.408, 36.409, and 36.410. The blast plan shall include any necessary noise measures such as (but not limited to) temporary noise barriers and blankets, increased setbacks, limiting construction equipment operations, and any other methods specified within the blasting plan must be implemented to comply with County Noise Ordinance requirements.

7.1.7 Mitigation for Paleontological Resources

M-P-1 In order to mitigate for potential impacts to paleontological resources on the project site, a monitoring program during grading, trenching or other excavation into undisturbed rock layers beneath the soil horizons and a fossil recovery program, if significant paleontological resources are encountered, shall be implemented pursuant to the County of San Diego Guidelines for Determining Significance for Paleontological Resources. A County approved Paleontologist shall be contracted to perform paleontological resource monitoring and a fossil recovery program if significant paleontological resources are encountered during all grading, trenching, or other excavation into undisturbed rock layers beneath the soil horizons for on and offsite grading associated with the Proposed Project's grading permit. The following shall be completed:

a. A County approved Paleontologist shall perform the monitoring duties pursuant to the most current version of the County of San Diego Guidelines for Determining Significance for Paleontological Resources, including the authorization to direct, divert, or halt any grading activity, and to perform all other acts required by the provisions listed below. If the qualified paleontologist or paleontological monitor ascertains that the Santiago Formation or river terrace deposits are not fossil bearing, the qualified paleontologist shall have the authority to terminate the monitoring program. The contract provided to the county shall include an agreement that the grading/ trenching/excavation monitoring will be completed, and a Memorandum of Understanding (MOU) between the approved Paleontologist and the County of San Diego shall be executed. The contract shall include a cost estimate for the monitoring work and reporting.

b. The cost of the monitoring shall be added to the grading bonds or bonded separately and include:

1. Salvage unearthed fossil remains.

2. Record stratigraphic and geologic data to provide a context for the recovered fossil remains.

3. Prepare collected fossil remains for curation.

4. Curate, catalog, and identify all fossil remains to the lowest taxon possible, inventory specimens, assign catalog numbers, and enter the appropriate specimen and locality data into a collection database.

5. Transfer the cataloged fossil remains to an accredited institution (museum or university) in California that maintains paleontological collections for archival storage and/or display.

6. In order to ensure the final Paleontological Resource Mitigation Report documents the results, analysis, and conclusions of all phases of the Paleontological Monitoring Program, the following shall be completed. The report shall and include the following items:

- If no paleontological resources were discovered, submit a Negative letter report, which states that the monitoring has been completed and that no paleontological resources were discovered.

- If resources were discovered and recovered during grading, a detailed report shall be prepared by the Project Paleontologist. The report shall comply with the County of San Diego's Guidelines for Determining Significance for Paleontological Resources. The report shall identify which accredited institution has agreed to accept the curated fossils and include proof of the Transfer of Paleontological Resources, in the form of a letter, from the director of the paleontology department of the accredited institution to the Director of PDS verifying that the curated fossils from the project site have been received by the institution."

The Project Paleontologist shall prepare the final report and submit it to *PDS* for approval prior to final grading release. If resources were discovered then the applicant shall complete the following:

- Transfer the cataloged fossil remains and copies of relevant field notes, maps, stratigraphic sections, and photographs to an accredited institution (museum or university) in California that maintains paleontological collections for archival storage and/or display, and

- The applicant shall submit hard and electronic copies of the final Paleontological Resources Mitigation Report to the *PDS* for final approval

of the mitigation. In addition, submit the report to the San Diego Natural History Museum and to the institution that received the fossils.

M-P-2 Prior to approval of any grading and/or improvement plans and issuance of any Grading or Construction Permits, the applicant shall provide a copy of the Grading Monitoring Contract, cost estimate, and MOU to the PDS. Additionally, the cost amount of the monitoring work shall be added to the grading bond cost estimate. Upon acceptance of the report, the bond amount can be relinquished.

7.1.8 Mitigation for Transportation/Traffic

M-TR-1a and b

For significant impacts to Country Club Drive from Auto Park Way to Hill Valley Drive in the City of Escondido, the EB approach at the Auto Park Way/ Country Club Drive intersection shall be restriped to provide one left-turn lane, one shared left-turn/through lane, and one right turn lane, with the east/west approach to "split" phasing.

The Applicant has proposed a prohibition on street parking along this portion of Country Club Drive that may or may not be permitted by the Escondido City Council. Mitigation for this impact shall be funded or constructed subject to the satisfaction of the City of Escondido.[1]

M-TR-2 In order to mitigate the cumulative impact along Country Club Drive between Hill Valley Drive and Kauana Loa Drive, the Applicant shall pay the appropriate TIF amount towards the County TIF Program.

M-TR-3 No mitigation measures are proposed for the significant directs and the impact remains significant and unavoidable. Appendix K to the TIA contained in Appendix H to this EIR contains a copy of the City Council Agenda approving the Escondido *General Plan* FEIR.

M-TR-4 The mitigation measures recommended in M-TR-1 to restripe the EB approach at this intersection to provide one left-turn lane, one shared left-turn/through lane, and one right-turn lane with a signal timing modification to change the east/west approach to "split" phasing also will mitigate this cumulative intersection impact by improving operations at this intersection to a better capacity than pre-Project conditions.

7.1.9 Mitigation for Hazards/Hazardous Materials

M-HZ-1a Excavation and/or grading activities near the location of the on-site AST in Neighborhood 5 shall be actively monitored by a Registered Environmental Assessor (REA) for the potential presence of hydrocarbon contaminated soils. In the event of encountering contaminated soils, these soils shall be properly tested, managed, and disposed of at a licensed facility in accordance with County DEH requirements.

M-HZ-1b Soils near the on-site AST within Neighborhood 1 shall be assessed to identify the vertical and lateral limits of DRO and ORO contaminated soils. Contaminated soils shall be disposed of at a licensed facility in accordance with County DEH requirements.

M-HZ-2 Potential impacts related to the possible presence of ACM and/or LCP in the structures on site shall be mitigated by additional assessment in the form of an ACM and LCP survey conducted prior to demolition activities. This survey shall be utilized to confirm the absence or presence of these materials. Additionally, it shall be used to determine appropriate health and safety requirements for demolition, and appropriate disposal methods for demolition debris.

M-HZ-3a Prior to approval of the (first) Final Map: 1) the Project shall complete City of San Marcos Grant of Easement forms to modify hazardous fuels on adjacent properties, specifically APNs 232-491-01, 232-491-42, and 232-492-02.

M-HZ-3b Prior to occupancy of any structure that does not meet the five minute travel time according to Figure 7 of the approved FPP, either the Harmony Grove Fire Station must be in operation and providing service, or alternate mitigation measures must be provided to the satisfaction of the County Fire Authority and the PDS Director.

M-HZ-4 Prior to approval of the first Final Map, a Manure Management and Fly/Vector Control Plan would be prepared according to applicable standards and submitted to the DEH for approval. The Plan would include operational procedures to minimize on-site fly, mosquito and vector production and would be enforced by DEH.

7.1.10 Mitigation for Geology and Soils

M-GE-1 A site-specific geotechnical investigation shall be conducted by a qualified engineer or engineering geologist during Project grading to assess potential impacts related to seismically-induced settlement and related effects (if applicable). All recommendations provided by the Project engineer/geologist to address potential efftcts related to seismically-induced settlement shall be implemented as part of the Project design/construction efforts, with such measures potentially including: installation of subdrains in appropriate areas to avoid near-surface saturation; removal of unsuitable (e.g., compressible) deposits in areas proposed for development; and replacement of unsuitable materials with engineered fill (i.e., fill exhibiting characteristics such as proper composition, moisture content, application methodology and compaction, GEOCON 2012a and 2012b).

M-GE-2 A site-specific geotechnical investigation shall be conducted by a qualified engineer or engineering geologist during Project grading to assess potential impacts related to manufactured slope instability (including rockfall hazards). All recommendations provided by the Project engineer/geologist to address potential efftcts related to manufactured slope instability shall be implemented as part of the Project design/

construction efforts, with such measures potentially including: proper compaction and/or surface treatment of fill slopes (potentially including overbuilding by three feet and cutting back to finish grade); replacement of unsuitable materials with engineered fill (i.e., fill exhibiting characteristics such as proper composition, moisture content, application methodology and compaction); use of applicable slope height and grade limitations; over-excavation or over-blasting for cut slopes in granitic rock (to reach unweathered and stable rock exposures); and use of drought-tolerant landscaping and irrigation controls (GEOCON 2012a and 2012b).

M-GE-3 A site-specific geotechnical investigation shall be conducted by a qualified engineer or engineering geologist during Project grading to assess potential impacts related to expansive soils. All recommendations provided by the Project engineer/geologist to address potential efftcts related to expansive soils shall be implemented as part of the Project design/construction efforts, with such measures potentially including: replacement or (if applicable) mixing of unsuitable materials with engineered fill (i.e., fill exhibiting characteristics such as proper composition, moisture content, application methodology and compaction); capping expansive materials with engineered fill in applicable areas (per site-specific geotechnical recommendations); and use of appropriate foundation and/or footing design (e.g., post-tensioned concrete slab foundations, per site-specific geotechnical recommendations, GEOCON 2012a and 2012b).

7.1.11 Mitigation for Utilities

The mitigation measure would be implemented when the reservoir is being designed and approved. The agency responsible for approving the facility (Rincon MWD) would also be responsible for the mitigation to reduce utility-related impacts to less than significant.

M-UT-1 The Applicant will coordinate with Rincon MWD at the time the tank is designed and constructed to ensure that there is adequate mitigation for utility-related impacts. The mitigation is anticipated to include, but may not be limited to:

- In order to be fully consistent with seen elements of notable tanks east of Harmony Grove, tall trees shall be planted around the tank to provide more height screening than may be provided by grove trees. These plantings shall soften the line of the tank top, which otherwise would provide a rigid horizontal element to the view. Rincon MWD shall plant this facility similarly to their other nearby tanks for visual continuity.

- If impacts to the WUS/streambed crossings cannot be avoided by constructing structures spanning these areas rather than using fill, Rincon MWD shall obtain permits from the USACE, Regional Water Quality Control Board, and CDFW, and shall provide appropriate mitigation.

7.2 Project Design Features/Conditions of Approval

7.2.1 Design Considerations for Aesthetics

1. In compliance with the approved conceptual landscape plans, the Landscape Plans shall require:

    - Landscaping be installed at the earliest possible point in time within each construction phase in the following manner: prior to certification of "rough grading" of an area, permanent landscaping shall be installed on the manufactured slopes.

    - A Tree Preservation Plan be prepared for each phase of development in consultation with a California Certified Arborist and/or Biologist, to identify the locations and protection techniques necessary for onsite trees or groups of trees, and other vegetation to remain or be preserved during all stages of Project development. The plan shall include transplantation of existing small oak trees.

    - All irrigation plans for HOA maintained slopes and common areas be designed for the future use of reclaimed water from the wastewater treatment and water reclamation facility and shall be reviewed and approved for this source of irrigation water from the Department of Environmental Health prior to approval by PDS.

    - The location and detail of all walls, fences, and walkways be shown on the plans, including height from grade and type of material.

    - A lighting plan and light standard details be included in the plans (if applicable) and shall be in compliance with the County's Light Pollution Code.

2. In compliance with site plan or major use permit implementation, lighting shall be in compliance with the Project's visual study and specific plan, and implemented through approved building and construction plans. Specific conditions and approved building plans as it relates to lighting, include:

    - Lighting would be designed and located to minimize ambient light levels throughout the community but be consistent with public safety standards, in compliance with the LPC.

    - Full cutoff fixtures (meaning lights will turn off at 11:00 p.m.), low-reflective surfaces (matte surfaces that do not reflect glare) and low-angle spotlights (to focus light on specific features and not allow "spill") would be used.

    - Lighting would be designed to minimize glare and the direct view of light sources. No lighting would blink, flash, or be of unusually high intensity or brightness.

    - Light would be generated by efficient light sources to save energy and minimize operating costs.

    - WTWRF lighting would be planned to minimize illumination of neighboring uses and use full cut off fixtures for all lights. Pole lights would be shielded, 10 to 14 feet tall, and would only be activated when workers are present.

- Street lights would be located only at intersections and be a shielded downlight of 18 feet to 20 feet tall.
- Lighting design would include the use of full cut off light fixtures and glare louvers, ensuring that light rays are projected downward and that glare and spillage into the sky or onto adjacent property are limited to standards specified in the LPC.
- Views of the current backdrop of high hills would be retained, landscaping would be implemented along the roadway, street trees would be planted within the dense areas of the Proposed Project, lots and hillsides would be landscaped to provide a buffer between the road and the proposed homes, and multi-use trails would be sited along roadways to reinforce the existing semi-rural character of the community, and to minimize the perceived dominance of the proposed development when seen by off-site viewers.
- A neighborhood park would be sited, and a pond and existing eucalyptus grove area would be retained to help soften views to built-elements in Neighborhood 5 from the north-south trending portion of Country Club Drive.
- Varied structure styles with differing design elements would be used, and a large amount of open space (park areas, retained/enhanced biological set-aside, steep slope easements and existing groves/agricultural preserve in the northern portion of the Project) would occur.
- Project landscaping would provide visual screening of homes, walls/fences and the WTWRF and contribute to the general visual continuity with the surrounding area.
- The WTWRF would have a maximum of three small buildings, not to exceed 20 feet in height, which would incorporate design elements to reference barn structures.
- Olive trees at entrances, and oak trees included in streetscape, would include 36- to 48-inch box specimens so that these trees are more mature at installation.
- Dark roofs (gray, brown) of varying shades will be used rather than lighter colors or red tile.

7.2.2 Design Considerations for Agricultural Resources

1. In compliance with the Project Tentative Map, a 36.5-acre agricultural easement consisting of avocado orchards shall be granted to the County of San Diego to protect associated agricultural uses. Allowed uses include retention of the existing viable avocado orchards, establishment of additional agricultural uses such as avocados, vineyards and/or other orchards (e.g., citrus, pomegranates, nuts and olives). The agricultural easement would preclude development other than agriculture, uses incompatible with agriculture, and non-agricultural uses. Exceptions to the prohibitions include grading and construction for agricultural wells, water distribution systems, other activities/facilities required for agricultural operation, and fuel management activities required by a written order from the Fire Marshal.

2. Prior to approval of the first Final Map, an Agricultural Management Agreement will be executed between the County and the Project owner(s) and/or HOA to maintain the 36.5-acre agricultural easement. This agreement shall include the following elements:

    - The Project owner(s) and/or HOA shall retain an agricultural manager to oversee the continued operation of agricultural activities within the 36.5-acre easement area.

    - Agricultural fencing and signage shall be installed along the easement boundaries and shall be maintained as necessary.

    - Signage will be corrosion resistant, a minimum size of 6 inches by 9 inches, spaced 100 feet apart, attached to fencing not less than three feet in height from the ground surface, and will state "County Easement: Agricultural Uses Only (Project Ref: 3100-5575 (TM))."

    - The wells and water distribution facilities used for the operations within the 36.5-acre easement will be properly maintained.

    - A security adequate to cover 10 years of operations in the 36.5-acre easement will be provided, based on a cost estimate generated by the Project applicant and/or HOA and approved by the Director of PDS.

    - Implementation of the *County Agricultural Enterprises and Consumer Information Ordinance* (County Code Section 63.401 et seq.). This Ordinance is intended primarily to identify and limit the circumstances under which agricultural activities may constitute a nuisance. The Ordinance notes that agricultural uses may be converted to other uses or zones, whether or not the parcels are zoned for agricultural uses. It prohibits land use changes near existing agricultural uses that would result in existing agricultural uses to be deemed a nuisance. The Ordinance requires prospective property buyers (whether new sales or re-sales) to be notified in writing that agricultural activities may occur in the vicinity, and that associated inconveniences, irritations or discomforts could potentially result.

3. Irrigation for the ongoing agricultural operation would be provided from an existing on-site well and related facilities that have been used to irrigate the existing avocado orchards.

4. The Project design includes minimum 150-foot setbacks between residential structures and off-site agricultural uses.

5. Transitional uses such as small private orchards and gardens would be allowable within applicable individual residential lots on the proposed development.

7.2.3 Design Considerations for Air Quality - Construction

1. In accordance with the SDAPCD Rule 55 - Fugitive Dust Control, no dust and/or dirt would leave the property line. The following measures would be implemented to ensure the requirements of this rule are met.

- No visible dust emissions would be discharged into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.
- Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out would be minimized by the use of the following erosion control measures: (a) track-out grates or gravel beds at each egress point; (b) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks; (c) secured tarps or cargo covering, watering, or treating of transported material.
- Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out would be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. If a street sweeper is used to remove any track-out/carry-out, only particulate matter smaller than 10 microns in diameter (PM10)-efficient street sweepers certified to meet the most current South SCAQMD Rule 1186 requirements would be used. The use of blowers for removal of track-out/carry-out will be prohibited under any circumstances.

2. The Project applicant would require the contractor(s) to implement a minimum of two applications of water during grading between dozer/scraper passes.
3. The Project applicant would require the contractor(s) to implement paving, chip sealing or chemical stabilization of internal roadways after completion of grading.
4. Dirt storage piles would be stabilized by chemical binders, tarps, fencing or other erosion control.
5. The Project would require the construction fleet to use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or utilize CARB/USEPA Engine Certification Tier 4, or other equivalent methods approved by the CARB.
6. The Project would use building products that have at least a 10-percent recycled content.
7. Low VOC coatings would be used during construction and maintenance in accordance with SDAPCD Rule 67 requirements.
8. A 15-mile per hour (mph) speed limit would be enforced on unpaved surfaces.
9. On dry days, dirt and debris spilled onto paved surfaces would be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites would be cleaned daily of construction-related dirt in dry weather.
10. Disturbed areas would be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County and/or SDAPCD to reduce dust generation.
11. Grading would be terminated if winds exceed 25 mph.
12. Any blasting areas would be wetted down prior to initiating the blast.

7.2.4 Design Considerations for Air Quality - Operation

1. As implemented through the D-Designator Site Plan, The Specific Plan specifies energy efficiency in compliance with 2013 Title 24 standards, which exceeds the 2008 Title 24 standards by a minimum of 15 percent.
2. As implemented through the D-Designator Site Plan, the Specific Plan specifies installation of advanced plumbing systems, such as parallel hot water piping or hot water recirculation systems, and buyer-optional high-efficiency clothes washers.
3. As implemented through the D-Designator Site Plan, educational materials (such as brochures) that provide information regarding the use of low-VOC paints and consumer products shall be provided to every residence.
4. The Project would install natural gas fireplaces in the residences. No wood-burning fireplaces would be allowed.
5. The WTWRF will include the measures to control odor release:
    - The facilities would be covered to avoid uncontrolled odor release.
    - Active odor control units would be located to manage gases from the wet and solids stream treatment processes.
    - All processes and equipment would be housed (or otherwise contained) and ventilation controlled such that no objectionable odors would be discernible at the Project site boundaries.
    - A misting system with odor neutralizing liquids to break down the foul smelling chemical compounds in the biogases would be installed.
    - Bio filters would be utilized to capture odor causing compounds in a media bed where they are oxidized by naturally occurring micro-organisms.
    - Wastewater operators would routinely check the digester pressure relief valves to make sure they are not venting to the outdoors and that the waste gas burner is performing optimally.

7.2.5 Design Considerations for Biological Resources – Construction

1. A biological monitor would be present during brushing, clearing, and grading activities.
2. Brushing, clearing, and grading activities would not be permitted during the avian breeding season (February 15 through August 31).
3. Native topsoil (top three to five inches) would be salvaged and stockpiled within a disturbed on-site location. Stockpiles would not be greater than six feet high and would not be mixed with other excavated materials. Following completion of construction activities, stockpiled native topsoil would be re-spread as applicable.

4. The construction site would maintain adequate storm water BMPs (erosion) and air quality control (dust).

5. Grading plan notes will require temporary protective fencing to keep construction equipment and people out of sensitive habitats that are not proposed to be graded.

6. The Project would comply with wet weather grading restrictions (October 1 to April 30) to avoid habitat damage in applicable locations.

7. As shown on the conceptual landscape plan, project landscaping would exclude exotic invasive pest plants and require native vegetation (i.e., species not listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC; 2007]).

8. As discussed in section 3.1.3, the Project would not accelerate or increase storm water or non-storm water flows to sensitive downstream areas.

9. All Project-related lighting would be required by the D Designator Site Plan to adhere to Division 9 of the LPC. Lighting within the Project footprint adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded and directed away from these sensitive habitats.

10. Biological open space areas would be fenced off from the proposed development.

11. Signage would be placed along the edge of the biological open space area to deter human incursion.

12. RPO wetlands and buffers (at least 50 feet) would be preserved within biological open space easements dedicated on the Final Map.

13. Each biological open space easement would be surrounded by a Limited Building Zone easement dedicated on the Final Map that does not allow any structures, in order to prevent fire clearing from extending into biological open space.

14. The southernmost entrance road into Neighborhood 5 would include a con-span bridge measuring 20 feet wide by 6 feet high with an earthen bottom. This Project Design Feature would allow for local movement of aquatic and terrestrial species between the on-site and off-site open space and is of sufficient size for deer to pass through, thereby reducing the potential for road mortality to wildlife.

7.2.6 Design Considerations for Noise

1. The Tentative Map Resolution will require that the Grading Plan notes require forty-eight hour notice prior to a blasting activity for each residence within or partially within 600 feet of the blasting location. If livestock may be affected, the resident will be given the option to move their livestock to a designated remote location for the duration of the blasting operation. The remote location(s) will be identified on the blasting plan and will be the responsibility of the blasting contractor.

2. The Grading Plan notes will designate that blasting contractor is responsible to post notice on all equestrian trails within 600 feet of the blasting operations for the duration of the blasting. Warning tape, as deemed necessary, and signage with specific blast information will be placed at the trailhead and at the noise sensitive location.

7.2.7 Design Considerations for Transportation/Traffic

1. The Proposed Project would include the preparation and approval of a Traffic Control Plan, including measures to reduce traffic delays and minimize public safety impacts, such as the use of flagpersons, traffic cones, detours and advanced notification signage, pedestrian/equestrian detours, movement restrictions, and temporary lane closures. In addition, the construction contractor would provide a means for public liaison/contact information for public inquiries and concerns.
2. The Proposed Project would include traffic calming measures as part of the site design, if approved by the San Marcos Fire Department. These would occur at trail crossings to further reduce speed along the main parkway. Traffic calming features are also designed to help move traffic, while reducing speeds and fostering a comfortable, safe environment for pedestrians and bicyclists.
3. A stop sign would be installed on Mt. Whitney Road where one does not exist today, when warrants are met.
4. Sight distance meeting County standards, or design exception approved by DPW, shall be provided at each of the four access locations along Country Club Drive.
5. Northbound left-turn pockets shall be installed at each of the four access locations.
6. Installation of sidewalks on the east side of Country Club Drive between Hill Valley Drive and Auto Park Way may be required by the City of Escondido as a Project Design Feature.
7. Hill Valley Drive may be improved for full access to the northern portion of the Project.

7.2.8 Design Considerations for Greenhouse Gases

The Proposed Project's Project Design Features would be included as D designator Site Plan conditions and verified prior to the issuance of final certificate of occupancy, as follows:

1. The Proposed Project would be designed in accordance with the Building Industry Association's California Green Builder program, a professionally recognized green building program that identifies building performance standards to achieve improved energy efficiency, water conservation, sustainable materials use, waste reduction, lumber conservation, indoor air quality, and heat island avoidance.
2. The Proposed Project would be designed to meet or exceed the 2013 Title 24 energy code requirements. It would accomplish this through improved HVAC systems and duct seals; enhanced ceiling, attic and wall insulation; Energy Star appliances; high-efficiency water heaters (with 19 percent of residential water heating needs accommodated by solar water heaters); energy-efficient three-coat stucco exteriors; energy-efficient lighting; and high-

efficiency window glazing. These energy features would undergo independent third party inspection and diagnostics as part of the CGB verification and commissioning process. The energy features would also be demonstrated/verified in the Project's Title 24 Compliance Report submitted during the building permit process.

3. The residential units would be designed to be "solar ready."

4. The residential units would be designed with sufficient electrical capacity and appropriate circuitry in proximity to parking areas and/or garages, to support residential electric vehicle charging stations.

5. The Proposed Project would incorporate advanced plumbing systems, such as parallel hot water piping or hot water recirculation systems, and fixtures such as ultra-low flow toilets, water-saving showerheads and kitchen faucets, and buyer-optional high-efficiency clothes washers.

6. The Project's outdoor landscaping plan would minimize turf, maximize drought-tolerant plants, and incorporate weather-based irrigation controllers, multi-programmable irrigation clocks, and high efficiency drip irrigation systems. At the time of final inspection, a manual would be placed in each building that includes, among other things, information about water conservation.

7. The Proposed Project would utilize reclaimed water from the proposed WTWRF for outdoor irrigation.

8. In accordance with CalGreen criteria and state and local laws, at least 50 percent of on-site construction waste and ongoing operational waste would be diverted from landfills through reuse and recycling. Areas for storage and collection of recyclables and yard waste would be provided for each residence.

9. To maximize shade and reduce heat island effects, the landscape plan includes strategic location of deciduous trees and other vegetation. Impervious surfaces would also be minimized and pervious pavers used instead where practical.

10. No CFC-based refrigerants would be used, and interior finishes, adhesives, sealants, paints and coatings, and carpet systems would be low in VOCs, and they would meet the testing and product requirements of one or more nationally recognized green product labeling programs.

11. The Project would include photovoltaic (PV) systems which would provide a minimum of 30 percent of residential electricity needs for each Neighborhood (1-5).

12. The Proposed Project would utilize building products that have at least a 10 percent recycled content.

7.2.9 Design Considerations for Geologic Hazards

1. Project grading, excavation and construction activities (including all on- and off-site areas) would be subject to on-the-ground geotechnical observations and testing by the Project Geotechnical Engineer to verify or (if applicable) modify the design measures and

recommendations identified in the Project geotechnical investigations, based on site-specific conditions and standard engineering practices.

2. The Project design would incorporate measures to accommodate projected seismic loading pursuant to recommendations in the Project geotechnical investigations and the on-the-ground observations/testing noted above, as well as applicable seismic elements of the IBC, CBC, County Building Code and other pertinent regulatory sources. Specifically, such measures would include incorporating the recommended peak ground acceleration levels, as well as other applicable factors such as the frequency and duration of motion and the underlying soil conditions.

7.2.10 Design Considerations for Hazards and Hazardous Waste

1. Plant species planted for the Proposed Project would include those listed in the San Diego County Approved Plant List for High Fire Hazard Areas (Appendix A of the FPP). Highly flammable, non-fire resistive vegetation would be removed and not re-planted within the area. Three specific non-fire resistive plants that would not be permitted to grow in the Fuel Management Zones even as specimen plants because of their flammability are:

    - California sagebrush, *Artemisia californica*;
    - Flat-topped buckwheat, *Eriogonum fasciculatum*; and,
    - Black sage, *Salvia mellifera*

2. All newly constructed structures would be built to "Enhanced" building requirements, as specified in the FPP (Firewise 2014). The installation of automatic interior fire sprinkler systems (National Fire Protection Association – Standard 13D and 2010 California Building Standards Code) would be required. All glass or other transparent, translucent or opaque materials, including skylights, would be constructed of tempered glass or dual glazed windows with minimally one pane of tempered glass.

3. Each lot owner would be individually responsible for the fuel modification maintenance on their own lots, including all measures included in the FPP. Property owners would be members of a legally constituted HOA which would maintain common areas (including roadsides) in perpetuity. Please refer to Appendix L for specific requirements for the ongoing fuel modification maintenance.

4. The following Project Design Features would be included for each dwelling within the Project that provides more than a 100-foot defensible space, but less than 150-foot defensible space required by the San Marcos Fire Department (SMFD).

    - The following lots fall below the 150-foot defensible space requirement: 1, 3, 4, 119-123, 127, 135, 149, 150, 158, 162, 163, 170, 171, 258, 289 and would be called out on a separate plan sheet in plan submittal. The plan sheet for these dwelling units would list the following requirements shown below in items 2 thru 13.

    - The exterior walls of the dwelling unit facing the open space that fall within the area that is less than the 150-foot defensible space requirement would be two-hour fire rated. A

detail sheet on plan that identifies two-hour rated exterior walls as approved by I.C.C. Evaluation Services would be provided.

- All roofs would be Class 'A' material. Roof or floor coverings for patio covers or balconies would also be Class A' rated or non-combustible material.
- All eaves, overhangs or projections would be non-combustible material. No exposed wood would be allowed.
- All windows would be dual pane, with both window panes being tempered glass. This also applies to any skylights being installed.
- All vents would be Ember-Resistant type with Baffles; Brandguard, O'Hagan or equivalent. No vents would be on side of dwelling facing vegetation.
- Any accessory attachments or structures such as patio covers, decks, partially enclosed exterior patios; sheds play structures, etc; would be non-combustible or heavy timber and comply with OSFM requirements for fire resistive materials and this would only apply to that area of the lot that fall below the 150-foot setback requirement.
- Exterior fire sprinklers would be required for any projection from dwelling that exceeds four feet in width and/or length.
- All spaces of dwelling would be sprinklered throughout; including attic and concealed spaces, closets or other areas.
- Exterior fences attached to dwellings would be non-combustible material on the side of the dwelling facing Open Space that is within the 150-foot defensible space.
- No fire pits would be allowed. Enclosed exterior fireplaces may be allowed on case by case basis.
- In areas that fall within the 150-foot defensible space requirement: 1) new trees would be planted a minimum of 40 feet from dwelling; 2) no tree canopy at full maturity would grow within 20 feet of any wall of dwelling; 3) trees would be planted in a manner that tree canopies at full maturity would be spaced a minimum of 30 feet from each other.
- Any new vegetation planted would be fire resistive, drought tolerant and meet San Diego County list of requirements for plants, shrubs and trees.

5. Additional features of the Proposed Project that would reduce risks from wildland fires shall include the approval of a submitted grading plan by SMFD, the setback of single-story structures at a minimum of 15 horizontal feet from the top of a slope, fire access roadways throughout the development free of speed control devices, the removal of brush and flammable vegetation prior to the commencement of any construction activity, a lighted directory map installed near the entrance with approval from SMFD, the review of specific plans related to gates should they be proposed, and a continuous water supply.

6. The potential septic tanks on site (utilized for some of the structures) would be abandoned in accordance with San Diego County Requirements.

7. A Hazardous Material Risk Management and Business Plan would be prepared to document the type of materials proposed for plant operations, as well as proposed storage and handling procedures and procedures for transport of materials, for submittal to the County DEH HMD.

7.2.11 Design Considerations for Hydrology/Water Quality – Construction

Water Quality

Erosion/Sedimentation

1. The Proposed Project would comply with County storm water requirements and the related NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) during all grading and land-disturbance activities. This includes preparation of a CSMP, a Risk Assessment to determine the Project's Risk Level (1, 2 or 3), and appropriate Risk Level Requirements as outlined in the Construction General Permit. Prior to land disturbance activities, a SWPPP would be prepared by a qualified SWPPP preparer, with this plan to be located on site at all times.

2. If the site is determined to be a Risk Level 2 or 3 site, a REAP would be prepared and implemented 48 hours prior to any likely precipitation event (50 percent or greater probability of producing precipitation in the Project area). The REAP would be prepared for all phases of construction and implemented for construction activities to provide enhanced erosion and sediment control measures during predicted storm events.

3. The Project would comply with seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable locations/conditions.

4. Existing vegetation would be preserved wherever feasible, and phased grading schedules would be used to limit the area subject to erosion at any given time.

5. Storm water and non-storm water flows would be properly managed to minimize runoff.

6. Erosion control/stabilizing measures, such as geotextiles, mulching, mats, plastic sheets/tarps, fiber rolls, soil binders, compost blankets, soil roughening, and/or temporary hydroseeding (or other plantings) in appropriate areas (e.g., disturbed areas and graded slopes), would be used.

7. Sediment controls would be used to protect the construction site perimeter and prevent off-site sediment transport, including measures such as temporary inlet filters, silt fence, fiber rolls, silt dikes, biofilter bags, gravel bag berms, compost bags/berms, temporary sediment basins, check dams, street sweeping/vacuuming, ATS (if applicable based on risk assessment), energy dissipators, stabilized construction access points/sediment stockpiles, and properly fitted covers for sediment transport vehicles.

8. BMP materials would be stored in applicable on-site areas to provide "standby" capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.

9. Full erosion control would be provided in disturbed areas not scheduled for additional activity for 14 or more consecutive calendar days.

10. Appropriate training would be provided for the personnel responsible for BMP installation and maintenance.

11. Solid waste management efforts, such as proper containment and disposal of construction debris, would be used.

12. The Proposed Project would comply with local dust control requirements (see measures listed under Air Quality).

13. Permanent landscaping, with emphasis on native and/or drought-tolerant varieties, would be installed as soon as feasible during or after construction.

14. Appropriate monitoring and maintenance efforts (e.g., prior to and after storm events) would be implemented to ensure proper BMP function and efficiency.

15. Sampling/analysis, monitoring/reporting and post-construction management programs would be implemented per NPDES and/or County requirements, along with additional BMPs as necessary to ensure adequate erosion and sediment control.

Construction-related Hazardous Materials

1. The amount of hazardous materials used and stored on the site would be minimized, and use/storage locations will be restricted to areas at least 50 feet from storm drains and surface waters.

2. Raised (e.g., on pallets), covered, and/or enclosed storage facilities would be used for all hazardous materials.

3. Accurate and up-to-date written inventories and labels would be maintained for all stored hazardous materials.

4. Berms, ditches, and/or impervious liners (or other applicable methods) would be used in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.

5. Warning signs would be placed in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal.

6. All construction equipment and vehicles would be properly maintained so as not to release fuels, oils, or solvents.

7. Paving operations would be restricted during wet weather, appropriate sediment control devices/methods would be used downstream of paving activities, and wastes and/or slurry from sources including concrete, dry wall and paint would be contained or disposed of by using properly designed and contained washout areas.

8. Training for applicable employees would be provided in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.

9. Absorbent and clean-up materials would be stored in readily accessible on-site locations.

10. Portable wastewater facilities would be properly located, maintained, and contained.

11. Solid waste management efforts such as proper containment and disposal of construction debris, and restricting construction debris storage areas to appropriate locations at least 50 feet from storm drain inlets and water courses would be implemented.

12. Regular (at least weekly) monitoring and maintenance would be conducted for all hazardous material use/storage facilities and operations to ensure proper working order.

13. A licensed waste disposal operator would be employed to regularly (at least weekly) to remove and dispose of construction debris at an authorized off-site location.

14. Recycled or less hazardous materials would be used wherever feasible.

15. Regulatory agency telephone numbers and a summary guide of clean-up procedures would be posted in a conspicuous on-site location.

16. Additional BMPs would be implemented as necessary (and in conformance with applicable requirements) to ensure adequate hazardous material control.

Demolition-related Debris Generation

1. Appropriate (i.e., non-hazardous) construction debris would be recycled for on- or off-site use whenever feasible.

2. Dust-control measures such as watering to reduce particulate generation would be used for pertinent locations/activities (e.g., concrete removal).

3. Appropriate erosion prevention and sediment control measures would be used downstream of all demolition activities.

4. The Project would conform with applicable requirements related to the removal, handling, transport and disposal of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport and disposal of hazardous materials generated during Project construction.

Disposal of Extracted Groundwater

1. Dewatering operations conducted during Project construction, if required, would conform with all applicable treatment and disposal requirements under the NPDES General Permit for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay (Groundwater Permit). This may include standard measures such as: (1) using appropriate erosion and sediment controls in applicable areas/conditions (e.g., disposal of extracted groundwater on slopes or graded areas); (2 testing extracted groundwater for appropriate contaminants prior to discharge; and (3) treating extracted groundwater prior to discharge, if required, to provide conformance with applicable Groundwater Permit discharge criteria, through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant.

7.2.12 Design Considerations for Hydrology/Water Quality – Operation

Drainage Alteration

1. The Project design would include a series of storm drain facilities to capture, convey, and regulate flows within and through the site, including separate drainage systems for flows within/from off-site drainages and on-site pervious areas where possible to prevent mingling of runoff from these areas with runoff from developed sites. The described storm drain system(s) would retain the overall drainage patterns and directions within and from the Project site, with flows within the developed areas continuing to move primarily to the east and south (similar to existing conditions) and eventually entering Escondido Creek before continuing west to San Elijo Lagoon and the Pacific Ocean. The northernmost portion of the site, which drains north to San Marcos Creek, would not be impacted by Project development, with associated flow characteristics to remain unchanged from existing conditions.

Runoff Rates/Amounts

1. The proposed storm drain system(s) would include a series of curb/gutter inlets, crossing structures (culverts), and 16 extended detention basins (with bioretention layers), all of which would be tied to an underground system of pipelines/related structures and designed to accommodate peak 100-year storm flows. With implementation of the described drainage system(s), post-development flows leaving the site would be equal to or less than existing flow rates/amounts.

2. Additional or upgraded drainage crossing structures would be installed in association with off-site roadway improvements at Mt. Whitney Road (a triple 12- by 6-foot box culvert), with these facilities designed to accommodate peak 100-year storm flows (and flow regulation provided upstream by the previously described detention basins).

3. Appropriate energy dissipation facilities (e.g., riprap aprons) would be used at the proposed discharge locations.

Hydromodification

1. The Project design would include the previously described 16 appropriately located and sized detention basins, as well as three bio-retention facilities, to provide conformance with County of San Diego Final Hydromodification Management Plan, pursuant to recommendations in the Project Hydromodification Management Study.

Floodplains/Flooding

1. The Project design would include a series of storm drain facilities to capture, convey, and regulate flows within and through the site as previously described, with these facilities to accommodate 100-year peak storm flows and address all related potential concerns regarding on- and off-site flooding.

Groundwater

1. Pervious surfaces would be retained on approximately 75 percent of the Project site to minimize potential effects to surface water infiltration and associated groundwater recharge capacity.
2. The previously described detention basins, as well as the wet weather storage area associated with the Project wastewater reclamation facility, would include an impermeable layer (e.g., concrete or impermeable membrane) to avoid localized additional infiltration of surface water and associated potential effects to groundwater levels and related facilities such as septic systems.

Water Quality

Low Impact Development (LID) Site Design BMPs

1. Well-draining (Type B) soils, significant trees, critical areas (e.g., steeper slopes), and areas near drainages would be preserved wherever feasible to provide natural buffer zones.
2. Appropriate set-backs from drainages would be provided for development envelopes, and construction equipment access will be restricted in planned green/open space areas.
3. Curb cuts to direct flows into landscaped areas, minimum street widths, and permeable surfacing would be used in appropriate areas to minimize and disconnect impervious surfaces.
4. Sidewalks would be eliminated or provided on one side of streets only, and permeable pavement would be used where feasible to minimize impervious surfaces.
5. Downspouts would be provided to direct drainage from rooftops into vegetated areas where feasible.

6. Reuse of native topsoils, "smart" irrigation systems (e.g., appropriate water schedules and rain/pressure-sensitive shutoff devices), and appropriate native and/or drought-tolerant landscaping (including street trees) would be installed.

7. Disturbance would be limited on slopes, retaining walls would be used where feasible, rounding/shaping of slopes would be employed to reduce concentrated flows, and concentrated flows on slopes would be collected in stabilized drains and channels.

Source Control BMPs

1. "No dumping" stencils/tiles and/or signs with prohibitive language (per current County guidelines) would be installed at applicable locations such as drainages, storm drain inlets, catch basins and public access points to discourage illegal dumping.

2. Trash storage areas in applicable locations (i.e., WTWRF and public areas such as parks) would be designed to reduce pollutant discharge through methods such as providing an adequate number of receptacles, paving with impervious surfaces, installing screens or walls to prevent trash dispersal, providing attached lids and/or roofs for trash containers to prevent direct precipitation contact, precluding disposal of liquid or hazardous materials, implementing daily inspection/clean up and as-need facility repair, storing clean up materials on-site, providing pre-treatment prior to discharge of associated runoff, and discharging to the sanitary sewer if applicable.

3. Regular (e.g., monthly, or as needed based on site-specific conditions) street sweeping would be implemented in areas such as plazas, sidewalks and parking lots, and associated debris and washwater would be precluded from entering the storm drain system.

4. Applications of chemical pesticides, herbicides and fertilizers would be minimized; licensed professionals would be used for application of such chemicals in common landscaped areas; the rates and times of fertilizer applications would be restricted to minimize potential discharge in irrigation or precipitation runoff; building design features such as sand barriers under floor slabs would be used as pest shields; and Integrated Pest Management information would be provided to on-site owners, lessees and operators.

5. Site landscaping would be designed to maximize the retention and/or use of appropriate native, drought-tolerant and pest-resistant varieties; and appropriate plant varieties would be used in areas such as storm water facilities to ensure successful establishment and viability.

6. Industrial processes and associated drainage would be restricted to indoor areas at the Project site WTWRF.

7. Proper outdoor material/equipment storage would be implemented at the Project site wastewater reclamation facility, potentially including measures such as preventing run-on and runoff (e.g., through structural controls), use of secondary containment/covers, pre-treatment of runoff prior to discharge to the storm drain system, and compliance with hazardous materials requirements if applicable (e.g., limiting on-site storage quantities and use of proper storage/containment).

8. Secondary containment would be provided for rooftop equipment with the potential to produce pollutants; and the use of copper or other unprotected metals would be avoided for roofing, gutters and trim.

LID and Treatment Control BMPs

1. The Project design would include 16 extended detention basins with a bioretention layer, designed to function as water quality basins, as well as trash rack catch basin inserts with hydrocarbon booms, and four bio-retention facilities in applicable locations to treat runoff prior to off-site discharge and provide conformance with applicable regulatory requirements.

2. Monitoring and maintenance efforts for the water quality basins would be implemented by the Project owner(s) through: (1) submitting annual (at a minimum) Maintenance Notifications to the County; and (2) entering into a written BMP Maintenance Agreement with the County for Second Category BMPs (i.e., all proposed treatment BMPs). Specific monitoring and maintenance efforts associated with proposed BMP facilities and programs include monitoring and reporting to document that programs/activities are being implemented as designed, inspection and maintenance of physical facilities, and making necessary modifications/repairs to ensure that intended BMP functions and regulatory requirements are being met.

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