

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 Exposed newly cut rocks and horizontal drainage features shall be stained in earth tones (through spraying or dripping onto fresh rock face) to soften their contrast on Project cut slopes. Staining of rock shall occur during slope landscape installation and shall be in colors that match the surrounding rock. Application of stain shall be overseen by a qualified expert. Before staining, several test sections will be completed on the rock cut to determine the type of stain that will create the best match with the surrounding rock (i.e., pigmented stains, or creation of new color by leaching minerals from the rock or through photo-reactivity). The slope shall be dry and all loose material and vegetation shall be removed before stain is applied. If necessary, the slope face will be pressure-washed to remove fine-grained particles that could inhibit the stain penetration. Horizontal hillside drainage features will contain color-integrated cement as part of the installation.

7.1.2 Mitigation for Transportation/Traffic

Roadway Segments

City of Escondido

M-TR-1a and 1b Prior to occupancy of 80 Project units, Country Club Drive shall be widened to provide a paved width of 36 feet consisting of two travel lanes and a 10-foot striped center turn lane starting 220 feet southwest of Auto Park Way for a length of approximately 830 feet. Improvements will include connecting the existing sidewalk along the northern side of this roadway section with a 5-foot sidewalk complete with a 6-inch curb and gutter and providing a 4-foot decomposed granite pathway along the south side of this segment with a 6-inch asphalt berm. With the additional 12 feet added to the paved width, the roadway capacity of this Local Collector would increase to 15,000 ADT.¹

M-TR-3 Prior to occupancy of 176 Project units, the Project shall widen Country Club Drive at the Country Club Drive/Eden Valley Lane intersection to provide a dedicated northbound left-turn lane onto Eden Valley Lane.

M-TR-4 The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Country Club Drive and Harmony Grove Village Parkway.

¹ Because this mitigation would be located in the City of Escondido it is currently identified as significant and unmitigated (infeasible) as described in Subchapter 2.2, Section 2.2.7.

- M-TR-5** The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Harmony Grove Village Parkway and Kauana Loa Drive.
- M-TR-6** Project payment toward the County of San Diego TIF program as part of mitigation provided under M-TR-10, below, will mitigate impacts to this segment of Harmony Grove Road between Kauana Loa Drive and Enterprise Street.
- M-TR-7** Prior to occupancy of 135 Project units, the Project shall provide a northbound to eastbound right-turn overlap phase at the Harmony Grove Road/Harmony Grove Village Parkway signalized intersection.

Intersections

City of Escondido

- M-TR-8** Prior to occupancy of 293 Project units, the Project shall restripe the eastbound approach of the Auto Park Way/Country Club Drive 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.²
- M-TR-9** Prior to occupancy of 54 Project units, the Project shall pay a fair share toward the approved Citracado Parkway Extension Project, which would improve the intersection operations with an additional through lane in the southbound direction.³

County

- M-TR-2a and 2b** Prior to occupancy of 23 Project units, the Project shall widen the northbound approach of Country Club Drive to Harmony Grove Road to provide one left-turn, one through lane, and one dedicated right-turn lane with an overlap phase in order to mitigate this direct and cumulative impact to the Harmony Grove Road Country Club intersection. In addition, the Project shall make a payment toward the County of San Diego TIF program.
- M-TR-10** The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the Harmony Grove Road/Kauana Loa Drive signalized intersection.

² Because this mitigation would be located in the City of Escondido it is currently identified as significant and unmitigated (infeasible) as described in EIR Subchapter 2.2, Section 2.2.7.

³ Because this mitigation would be located in the City of Escondido and there is no current funding mechanism, the impact is currently identified as significant and unmitigated (infeasible) as described in EIR Subchapter 2.2, Section 2.2.7.

7.1.3 Mitigation for Biological Resources

M-BI-1a Prior to issuance of a grading permit, the Project Applicant shall preserve 34.8 acres of on-site biological open space (BOS) determined to support sensitive species and habitat functions and values contiguous with the Del Dios Highlands Preserve to the south through the establishment of a conservation easement and the preparation of an RMP approved by the County and Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, by a qualified entity approved by the County and Wildlife Agencies.

The 34.8-acre BOS is depicted on Figure 1-9 and Figure 2.3-5. The habitat types within the BOS are summarized within Table 11 of Appendix E. The RMP shall address the location of the mitigation sites that meet the specific mitigation requirement for the type of habitat (e.g., in-kind habitat preservation, no net loss, presence of special status species, etc.) within the Project site. The open space easement shall be owned by a conservancy, the County, or other similar, experienced entity subject to approval by the County. Funding shall be provided through a non-wasting endowment, Community Facility District or other finance mechanism approved by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

M-BI-1b Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to Diegan coastal sage scrub occupied by coastal California gnatcatcher shall occur at a 2:1 ratio for a total of 20.8 acres of occupied habitat through a combination of on-site preservation of 0.5 acre, on-site restoration and preservation of 1.8 acres, and off-site preservation of 18.5 acres through land acquisition and/or purchase of conservation bank credits, as specified below and approved by the County and Wildlife Agencies as part of the required HLP process.

An additional 18.5 acres of occupied, Intermediate Value or High Value coastal sage scrub, and/or other like-functioning habitat as approved by the County and Wildlife Agencies, shall be provided through one or a combination of the following:

- Off-site preservation of mitigation land, through the recordation of a BOS easement, and preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. Long-term management shall be funded through a non-wasting endowment in

an amount determined through preparation of a Property Assessment Record (PAR) or similar method for determining funding amount. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

- If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of occupied coastal sage scrub credits at an approved conservation bank, such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, or other bank deemed acceptable by the County and Wildlife Agencies.

To further prevent inadvertent direct impacts to coastal California gnatcatcher individuals during construction, no grading or clearing shall occur of occupied Diegan coastal sage scrub during the species' breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the gnatcatcher, a pre-construction survey shall be conducted to determine whether gnatcatchers occur within the impact area(s). To avoid take under the federal ESA, impacts to occupied habitat shall be avoided. If there are no gnatcatchers nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any gnatcatchers are observed nesting or displaying breeding/nesting behavior within the area, construction in that area shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after August 31. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-1c Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest suitable for least Bell's vireo shall occur at a 3:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and preservation of riparian habitat and/or other like-functioning habitat; and/or off-site purchase of riparian habitat mitigation and/or other like-functioning habitat at an approved mitigation bank in the local area, such as the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies (USACE, RWQCB, and CDFW), as applicable. The establishment/creation component must be at least 1:1 while the remaining 2:1 can be restoration and enhancement.

To further prevent inadvertent direct impacts to least Bell's vireo individuals during construction, no grading or clearing shall occur within riparian habitat during the breeding season of the least Bell's vireo (March 15 to September 15). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the least Bell's

vireo, a pre-construction survey shall be conducted to determine whether vireos occur within the impact area(s). To avoid take under the federal and California ESAs, impacts to occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any vireos are observed nesting or displaying breeding/nesting behavior within that area, construction shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after September 15. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-2a Prior to issuance of a grading permit, mitigation for impacts to seven summer holly and 1,963 wart-stemmed ceanothus individuals shall occur at a minimum ratio of 3:1 for summer holly and 1:1 for wart-stemmed ceanothus through the preservation of at least 21 summer holly and 1,963 wart-stemmed ceanothus within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) described above in M-BI-1a.

M-BI-2b Prior to issuance of a grading permit, mitigation for impacts to 44.2 acres of non-native grassland that provides suitable nesting and foraging habitat for several bird species, including raptors, shall occur at a 0.5:1 ratio through the preservation of 0.2 acre on site within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a, in addition to one or a combination of the following: off-site preservation of 21.9 acres of grassland habitat and/or other like-functioning habitat through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The proposed open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage BOS be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 21.9 acres of grassland credits or like-functioning habitat at an approved conservation bank such as the Brook Forest Conservation Bank or other location deemed acceptable by the County. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-2c Prior to issuance of a grading permit, mitigation for impacts to yellow-breasted chat nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest, shall be provided at a 3:1 ratio through

implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3a Prior to issuance of a grading permit, mitigation for loss of foraging area that could impact long-term survival of County Group 2 animals shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-3b Prior to issuance of a grading permit, mitigation for impacts to yellow warbler nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest at a 3:1 ratio, shall be provided through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3c Prior to issuance of a grading permit, mitigation for loss of raptor foraging habitat shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-4 If operation of construction dozers, excavators, rock crushers, pile drivers or cast-in-drilled-hole equipment occurs during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist as appropriate prior to issuance of a grading permit, to determine whether these species occur within the areas potentially impacted by noise. If it is determined at the completion of pre-construction surveys that active nests belonging to these sensitive species are absent from the potential impact area, construction shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to these sensitive species, then operation of the following equipment shall not occur within the specified distances from an active nest during the respective breeding seasons: a dozer within 400 feet; an excavator within 350 feet; rock crusher equipment within 1,350 feet; a breaker within 500 feet; a pile driver within 2,600 feet; and cast-in-drilled holes equipment within 350 feet. All grading permits, improvement plans, and the final map shall state the same. Operation of construction dozers, excavators, rock crushers, pile drivers, cast-in-drilled-hole equipment and other noise-generating activities shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient. Decibel output will be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that conditions have not changed will be required. If pre-construction surveys identify coastal California gnatcatcher, nesting raptors, or least Bell's vireo, blasting will be restricted to the non-breeding season for the identified birds (September 1 to February 14 for coastal California gnatcatcher; July 16 to January 14 for nesting raptors; and

September 16 to March 14 for least Bell's vireo) or be completed using wholly chemical means.

- M-BI-5a** Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest shall occur at a 3:1 ratio with at least 1:1 creation as specified in M-BI-1c, above.
- M-BI-5b** Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to occupied Diegan coastal sage scrub shall occur at a 2:1 ratio as specified in M-BI-1a and M-BI-1b, above.
- M-BI-5c** Prior to issuance of a grading permit, mitigation for 4.5 acres of impacts to coastal sage-chaparral transition shall occur at a 2:1 ratio through one or a combination of the following: off-site preservation of 9.0 acres of coastal sage-chaparral scrub and/or other like-functioning habitat, through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 9.0 acres of coastal sage-chaparral scrub credits or like-functioning habitat at an approved mitigation bank such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, Brook Forest Conservation Bank, or other location deemed acceptable by the County and Wildlife Agencies.
- M-BI-5d** Prior to issuance of a grading permit, mitigation for 15.6 acres of impacts to southern mixed chaparral shall occur at a 0.5:1 ratio through the preservation of a minimum 7.8 acres on site within BOS easement (which shall include preparation and implementation of an RMP and monitoring, maintenance, management, and reporting directives), as required by M-BI-1a.
- M-BI-5e** Prior to issuance of a grading permit, mitigation for 44.2 acres of impacts to non-native grassland shall occur through implementation of M-BI-2b, above.
- M-BI-5f** Prior to issuance of a grading permit, mitigation for 0.2 acre of impacts to upland coast live oak woodland shall occur at a 3:1 ratio through the preservation of 0.6 acre on site within BOS easement (which shall include preparation and

implementation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a.

- M-BI-6a** Prior to issuance of a grading permit, demonstration that regulatory permits from the USACE and RWQCB have been issued or that no such permits are required shall be provided to the County. Impacts to 0.31 acre of USACE/RWQCB-jurisdictional wetland waters of the U.S./State shall be mitigated at a 3:1 ratio as described in M-BI-1c, above, unless otherwise required by the USACE and RWQCB. Impacts to 0.03 acre of USACE/RWQCB-jurisdictional non-wetland waters of the U.S./State shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.03 acre on site within BOS easement (which shall include preparation implementation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by the USACE and RWQCB. If required by the USACE and/or RWQCB during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the USACE and RWQCB.
- M-BI-6b** Prior to issuance of a grading permit, demonstration that regulatory permits from CDFW have been issued or that no such permits are required shall be provided to the County. Impacts to 0.80 acre of CDFW-jurisdictional areas will be mitigated as follows. Impacts to less than 0.01 acre mule fat scrub and 0.71 acre southern riparian forest shall be mitigated at a 3:1 ratio, as described in M-BI-1c, unless otherwise required by CDFW. Impacts to 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed on site within BOS easement (which shall include preparation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by CDFW. If required by CDFW during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by CDFW.
- M-BI-6c** Prior to issuance of a grading permit, impacts to 0.72 acre of RPO wetland (less than 0.01 acre mule fat scrub, 0.71 acre southern riparian forest, and 0.01 acre RPO-jurisdictional coast live oak woodland) shall be mitigated at a 3:1 ratio with at least 1:1 creation. Impacts to mule fat scrub and southern riparian forest shall be mitigated as described in M-BI-1c, above. Impacts to 0.01 acre RPO coast live oak woodland shall be provided through purchase of establishment or re-establishment mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County.

- M-BI-7** Prior to issuance of a grading permit, impacts to 0.31 acre of federal wetlands shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6a, above, unless otherwise required by USACE.
- M-BI-8** Prior to issuance of a grading permit, impacts to 0.72 acre of RPO-protected wetland shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6c, above.
- M-BI-9** No grubbing, clearing, or grading shall occur during the general avian breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If grubbing, clearing, or grading would occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until nesting behavior has ceased, nests have failed, or young have fledged.

7.1.4 Mitigation for Cultural Resources and Tribal Cultural Resources

M-CR-1 and 2 An archaeological monitoring and data recovery program would be implemented to mitigate potential impacts to undiscovered buried archaeological resources on the Project site to the satisfaction of the Director of PDS. This program shall include, but shall not be limited to, the following actions:

- Pre-Construction
 - Provide evidence that a County approved archaeologist has been contracted to implement the Archaeological Monitoring program.
 - The Project Archaeologist shall contract with a Luiseño Native American monitor.
 - The pre-construction meeting shall be attended by the Project Archaeologist and Luiseño Native American monitor to explain the monitoring requirements.
- Construction
 - Monitoring. Both the Project Archaeologist and Luiseño Native American monitor are to be on site during earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist in consultation with the Luiseño Native American monitor. Monitoring of previously disturbed soils will be determined by the Project Archaeologist in consultation with the Luiseño Native American monitor.

- If cultural resources are identified:
 - Both the Project Archaeologist and Luiseño Native American monitor have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.
 - The Project Archaeologist shall contact the County Archaeologist.
 - The Project Archaeologist in consultation with the County Archaeologist and Luiseño Native American shall determine the significance of discovered resources.
 - Construction activities will be allowed to resume after the County Archaeologist has concurred with the significance evaluation.
 - Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Luiseño Native American monitor may collect the cultural material for transfer to a Tribal curation facility or repatriation program.
 - If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Luiseño Native American monitor and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources of Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).
- Human Remains.
 - The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.
 - Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin.
 - If the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.
 - The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development

activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.

- Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.
- Rough Grading
 - Upon completion of Rough Grading, a monitoring report shall be prepared identifying whether resources were encountered.
- Final Grading
 - A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered.
 - Disposition of Cultural Material.
 - The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or culturally affiliated Tribal curation facility that meets federal standards per 36 CFR Part 79, or alternatively has been repatriated to a culturally affiliated Tribe.
 - The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79.

7.1.5 Mitigation for Noise

On-site Exterior Noise

M-N-1 On-Site Noise Barriers: Noise levels at exterior use areas for the proposed residences identified as R9 and R10 on Figure 2.5-1 shall be reduced to the most restrictive County Noise Element threshold of 60 CNEL or below. Noise reduction for on-site exterior traffic noise impacts, which could lead to interior noise impacts, could be accomplished through on-site noise barriers. One 5-foot-high sound wall along the northern perimeter of the affected lot would be installed, with approximately 20-foot long return walls along the western perimeter of the western residence (R9) and the eastern perimeter of the eastern residence (R10).

The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are 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 3.5 pounds per square foot. Where

architectural or aesthetic factors allow, glass or clear plastic $\frac{3}{8}$ 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 doorjamb.

On-site Interior Noise

M-N-2 Exterior-to-Interior Noise Analysis: In accordance with standard County requirements, additional exterior-to-interior noise analysis shall be conducted for the residential units identified as R9 and R10 (where exterior noise levels may exceed 60 CNEL within the second stories) to demonstrate that interior levels do not exceed 45 CNEL. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are found to be in excess of 45 CNEL, the report shall identify architectural materials or techniques that could be included to reduce noise levels to 45 CNEL in habitable rooms. Standard measures such as glazing with Sound Transmission Class (STC) ratings from a STC 22 to STC 60, as well as walls with appropriate STC ratings (34 to 60), should be considered.

Appropriate means of air circulation and provision of fresh air would be provided to allow windows to remain closed for extended intervals of time so that acceptable interior noise levels can be maintained. The mechanical ventilation system would meet the criteria of the International Building Code (Chapter 12, Section 1203.3 of the 2001 California Building Code).

On-site Operational Noise

M-N-3 WTWRF Final Design Noise Shielding: The WTWRF shall be enclosed by a solid 6-foot high wall. Final design for the WTWRF and the noise wall shall demonstrate that exterior noise levels generated from all stationary WTWRF equipment combined shall not exceed the one-hour exterior noise level of 45 dBA L_{EQ} at the property line.

The Applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the WTWRF and noise wall 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.

Construction Noise

M-N-4 Breaker Equipment Operation Limit: If a breaker is required as part of Project construction, then it shall not generate maximum noise levels that exceed 82 dBA L_{MAX} when measured at the property line for 25 percent of a one-hour period, or be used within 125 feet of the property line for any occupied residence. Material that would require a breaker shall be moved a minimum distance of 125 feet from the nearest residence.

M-N-5 Rock Crusher Operation Limit: If a rock crusher is required as part of Project construction, then it shall not be used within 250 feet of the property line for any occupied residence until a temporary noise barrier or berm is constructed at the edge of the development footprint or around the piece of equipment to reduce noise levels below 75 dBA L_{EQ} at the property line for the occupied residences. If a barrier or berm is used, decibel output will be confirmed by a County-approved noise specialist. Otherwise, a rock crusher shall be moved a minimum distance of 250 feet from the nearest residence before use.

M-N-6 Blasting Measures: The following measures would be implemented to reduce impacts from blasting:

- The number of blasts would be limited to three blasting events per week.
- The Project would also include a blasting management plan due to the blasting that is likely to occur on site. All blast planning must be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County Sheriff blasting permits, in compliance with the County Consolidated Fire Code Section 96.1.5601.2 (County 2014a), and all other applicable local, state, and federal permits, licenses, and bonding. The blasting contractor or owner must conduct all notifications, inspections, monitoring, and major or minor blasting requirements planning with seismograph reports, as necessary.
- If boulders must be reduced in size with blasting within 200 feet of the closest residence, the use of chemical expansion via a chemical cracking agent shall be performed instead.

7.1.6 Mitigation for Air Quality Impacts

M-AQ-1 The County shall provide a revised housing forecast to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

7.2 Project Design Features/Conditions of Approval

All Project Design Features (PDFs) identified below will be included as Conditions of Approval on the Project plans issued for construction bid, will be monitored during construction by monitors identified as qualified by the County, will have plans prepared as stated, and will have

review and approval by County staff prior to implementation. Sign-off on infrastructure placement will occur prior to vertical building, and sign-off on final construction requirements will occur prior to occupancy.

7.2.1 Design Considerations for Aesthetics – Construction

1. In compliance with the approved conceptual landscape plans, the Landscape Plans shall require:
 - Final landscape (including container/box plant sizes) along Country Club Drive, at entries, along Project streets, and on manufactured slopes, shall be installed immediately following completion of grading and installation of irrigation.
2. Project grading shall be implemented in accordance with the approved Preliminary Grading Plan, and is designed to follow general rise and fall in existing topography and to avoid sharp or abrupt grade transitions, as feasible.
3. Construction of the Project shall comply with the Project's visual study through approved building and construction plans. Specific elements include:
 - Incorporation of open space corridors and parks. A minimum of approximately 60 percent of the Project shall be in biological open space set-aside or landscaped space.
 - Trails/pathways with equestrian fencing and/or landscaping shall be sited along all Project roadways excluding a portion of the access to Lot 2.
 - Varied rooflines with differing tower/chimney elements.
 - Non-inhabitable roofline elements shall not exceed 5 percent of the structure rooflines.
 - Dark roofs (gray, brown) of varying shades will be used rather than lighter colors or red tile.
 - All trash dumpsters/compactors/receptacles will be screened (by buildings or screen walls) if they would otherwise be visible from a street or common area. Mechanical units also will be screened.
 - Where distinguishable, roof-top equipment will be screened from view from adjacent roads, properties, and pedestrian areas. This equipment may include HVAC, etc. Where shielding of routine roof equipment may not be possible, equipment would be organized in an orderly, uncluttered fashion and painted to match the roof color. Rooftop equipment screening would be identified on site plans.
 - Exterior building materials will variously include stone, masonry, painted or stained horizontal and vertical wood siding, stucco, and metal elements.
 - Architectural elements will seek to reduce the apparent size, bulk, and scale of proposed buildings through use of techniques such as:

- Incorporating roofline variation through use of flat parapet roofs, as well as gables, dormers, overhangs etc.
- Locating garage doors in alleys/courtyards, etc. as opposed to on streets.
- Providing overhead structures at entries, such as porches, trellises, or pergolas.
- Aligning roadways in a curvilinear manner.
- The Project footprint will be consistent with PDS2015-TM-5600 as depicted on Figure 6a of this EIR.

7.2.2 Design Considerations for Aesthetics – Operation

1. Lighting shall be oriented downward, shall not spill onto open space or off-site areas, and will be sited as shown on EIR Figure 1-21a, in compliance with the County LPC. Additional specific Conditions include:
 - Full cutoff fixtures (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”) shall be used.
 - No lighting shall blink, flash, or be of unusually high intensity or brightness.
 - WTWRF lighting shall use full cut off fixtures for all lights. Pole lights shall be shielded, 10 to 14 feet tall, and will only be activated when workers are present.
 - Streetlights shall be located only at intersections and at one location in parking for the Center House and be shielded down lights. Lights will be a maximum of 15 feet to 20 feet tall at Project major intersections and 10 to 15 feet tall at interior street locales shown on EIR Figure 1-21a.
 - Project identification signage will incorporate small scale landscape up-lighting and will not include internally lighted letters.
2. To ensure consistency in format and content of signs, a comprehensive sign package will be developed and submitted to PDS as part of the site plan application. Specific conditions include:
 - Sign posts and other structural elements will be wood or metal with a white, earth tone, black, or natural stain finish. Reflective or bright colors are prohibited.
 - “Way-finding” and informational signage will be located at intersections and decision points so as to generate the fewest number of signs.
 - Project identification signage will be discretely placed within low stone walls or pilaster landscape elements, with secondary signs being smaller in scale.

- The maximum size of residential directory signage will be limited to 25 s.f.
- Center House window signs will be no larger than 25 percent of the window on or behind which they are displayed.
- Rooftop and roof-mounted signs, neon signs, internally illuminated plastic signs, and back lit signs that appear to be internally illuminated shall not be installed and are prohibited.
- Letter and symbol height will be limited to a maximum of 10 inches.
- Center House total sign area is limited to 1 s.f. of sign area per linear foot of building length along Private Drive A and Private Drive J, up to a maximum of 90 s.f.
- One additional building directory sign not exceeding 10 s.f. in size may be allowed at each Center House public entrance for each tenant.

7.2.3 Design Considerations for Transportation/Traffic – Construction

1. Improvements shall be constructed at the intersection of Harmony Grove Road/Country Club Drive consistent with the approved Grading Plan and TM, including the provision of northbound left- and right-turn lanes to merge with the newly constructed condition provided by HGV for approaches from the north, east and west.
2. Country Club Drive shall be widened to three lanes, with one southbound lane, a center lane (for left turns or to function as an emergency access/egress route), and one northbound lane, consistent with the approved Grading Plan and TM.
3. A Traffic Control Plan shall be prepared by the Construction Contractor and approved by County DPW prior to initiation of construction: including measures to reduce traffic delays and minimize public safety impacts, such as the use of flag persons, traffic cones, detours and advanced notification signage, pedestrian/equestrian detours, movement restrictions and temporary lane closures to preclude substantial traffic delays during construction of residential, commercial, recreational and public services/utility project elements. In addition, the construction contractor shall provide a means for public liaison/contact information for public inquiries and concerns.

7.2.4 Design Considerations for Transportation/Traffic – Operation

1. Bicycle spaces shall conform to the standards provided within the County Zoning Ordinance Sections 6758-6783, 6787, and 6792.

7.2.5 Design Considerations for Biological Resources – Construction

Measures regarding control of off-site flows in Hydrology/Water Quality are also applicable to Biological Resources.

1. Brushing, clearing, and grading activities will not be permitted within 500 feet of active California gnatcatcher or raptor nests during the avian breeding season (January 15 through September 15).
2. Temporary protective fencing will be used to keep construction equipment and people out of sensitive habitats that are not proposed to be graded.
3. The Project will comply with wet weather grading restrictions (October 1 to April 30) to avoid habitat damage in applicable locations.
4. Project landscaping will conform to the Conceptual Landscape Plan, species and spacing; including: installation of (a) native species container stock; (b) no invasive exotics in either plants or hydroseed mix; (c) no “California” pepper trees (*Schinus molle*) will be planted within 50 feet of riparian habitat, and (d) use of a hydroseed mix that incorporates native species, is appropriate to the area. This mix shall be approved by the monitoring biologist.

7.2.6 Design Considerations for Biological Resources – Operation

Measures regarding shielded lights in Aesthetics, control of off-site flows in Hydrology/Water Quality, and structure restrictions in the limited building zone (see Hazards) are also applicable to Biological Resources.

1. The Project will provide a 200-foot buffer between RPO riparian areas and proposed residential/commercial/recreational vertical development.
2. BOS areas will be fenced off from the proposed development.
3. Signs will be placed along the edge of the BOS area to deter human incursion.
4. Each BOS easement will 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.

7.2.7 Design Considerations for Noise – Construction

1. All residents within a 0.5-mile radius of the blast location shall receive notice from the blasting contractor prior to blasting, containing the day and hour that blasting will occur. Residents shall receive this notice at least 24 hours before any blasting event.
2. Residents shall be contacted prior to the first notice of blasting to determine their preferred method of contact for the blasting information (e.g., phone, email, regular mail).

3. Signs providing noticing of the blast, including the date and time of the blast, shall be posted by the blasting contractor near the Harmony Grove Road and Country Club Drive intersection, the Country Club Drive and Cordrey Drive intersection, and the entrance to the Del Dios Highland Preserve trail (off Del Dios Highway). This signage shall be posted at least seven days before any blasting event.
4. Both resident notices and posted signage shall contain contact information so residents and visitors can obtain more information if requested.
5. If pile driving is utilized as part of the construction of the bridge over Escondido Creek and the Harmony Grove Equestrian Park is operational during pile driving operations, the following best management practices would be implemented to avoid potential adverse effects to horseback riders, horses, and other park visitors:
 - Bridge construction may use cast in-drilled holes in place of pile driving while the park is occupied; and
 - If pile driving is to be performed, pile driving shall not occur on Saturdays or Sundays so that the equestrian park may remain open on the weekends.

7.2.8 Design Considerations for Air Quality – Construction

1. In accordance with the SDAPCD Rule 55 - Fugitive Dust Control, no dust and/or dirt will leave the property line. The following measures will be implemented:
 - Any areas where ground disturbance occurs shall be watered a minimum of twice daily, or as needed to control dust.
 - If visible dust emissions are discharged into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period, construction activities will be terminated until all dust clears.
 - The following control measures will be implemented to minimize visible roadway dust: (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 resulting from active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. 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 Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be

- used. The use of blowers for removal of track-out/carry-out will be prohibited under any circumstances.
- Dust-control measures such as watering to reduce particulate generation will be used for pertinent locations/activities (e.g., concrete removal).
 - Contractor(s) will implement paving, chip sealing or chemical stabilization of internal roadways after completion of grading.
 - Dirt storage piles will be stabilized by chemical binders, tarps, fencing or other erosion control.
 - A 15-mile per hour (mph) speed limit will be enforced on unpaved surfaces.
 - Haul trucks hauling dirt, sand, soil, or other loose materials will be covered or 2 feet of freeboard will be maintained.
 - The contractor will terminate grading activities if winds exceed 25 mph.
 - Any blasting areas would be wetted down within four hours prior to initiating the blast
 - Disturbed areas shall be hydroseeded within three days, landscaped, or developed as quickly as possible and as directed by the County and/or SDAPCD.
2. Low volatile organic compound (VOC) coatings will be used during construction and maintenance in accordance with SDAPCD Rule 67 requirements.
 3. A Construction and Demolition Debris Management Plan will be developed by the Construction Contractor and implemented to divert debris from construction and demolition away from landfills. The plan will require that 90 percent of inerts and 70 percent of all other materials from the Project are recycled.
 4. Appropriate (i.e., non-hazardous) construction debris will be recycled for on- or off-site use whenever feasible.

7.2.9 Design Considerations for Air Quality – Operation

1. As implemented through the D1-Designator Site Plan, energy efficiency will comply with 2016 Title 24 standards. State personnel will verify installation of Title 24 requirements prior to sale and occupancy.
2. Electrical outlets will be installed on the exterior walls of residences allow use of electric landscape maintenance equipment.
3. Only natural-gas fireplaces will be installed in residential uses.
4. An electric vehicle re-charging station will be installed in the parking area for the Center House.

WTWRF Odor Control

1. PDFs at the WTWRF facilities include: water misting, chemical additives or activated carbon to minimize odors, as required, and include:
 - Covered or housed WTWRF facilities
 - A misting system with odor neutralizing liquids to break down the foul smelling chemical compounds in the biogases
 - Active odor control units to manage gases from the wet and solids stream treatment processes
 - Bio filters to capture odor causing compounds in a media bed where they are oxidized by naturally occurring micro-organisms

7.2.10 Design Considerations for Energy

Measures specified for Air Quality and Greenhouse Gases are also applicable to Energy.

7.2.11 Design Considerations for Geologic Hazards – Construction

1. The Proposed Project design and construction efforts will incorporate applicable standard seismic factors from the County Building Code, IBC/CBC and Greenbook, as identified in the Project geotechnical investigations. Specifically, these factors will be incorporated into the design and construction of facilities such as structures, foundations/slabs, pavement and utilities, as well as related activities including remedial grading (e.g., removal and/or reconditioning unsuitable soils), manufactured slope/retaining wall design, site drainage, and use of properly engineered fill (i.e., fill exhibiting characteristics such as proper composition, moisture content, application methodology and compaction). This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
2. Potential liquefaction hazards will be addressed through compliance with standard measures and Project geotechnical investigations including efforts such as: (1) installation of subdrains in appropriate areas to avoid near-surface saturation; (2) removal of unsuitable (e.g., compressible) deposits in areas proposed for development; and (3) replacement of unsuitable materials with engineered fill. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
3. Acceptable factors of safety for manufactured slopes will be achieved through standard measures and the Project geotechnical investigations including efforts such as: (1) constructing fill slopes with approved material (engineered fill) and surface treatments, using drought-tolerant landscaping and irrigation controls, and limiting grades to a maximum of 2:1 (horizontal to vertical); and (2) designing/constructing cut slopes with maximum grades of 1.5:1 and maximum heights of 90 feet, and over-excavation or blasting of cut slopes in granitic rock to reach unweathered and stable rock exposures. This process will

include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

4. Expansive soils will be addressed per the County Building Code, IBC/CBC, Greenbook and Project geotechnical investigations; including such efforts as: (1) removal and replacement of expansive soils with engineered fill exhibiting very low or low expansion potential (per IBC/CBC or other applicable regulatory/industry criteria); (2) use of appropriate foundation design (including post-tensioned slabs), reinforcement and footing depths; (3) implementation of appropriate concrete placement methodology and design, including proper installation/curing and moisture conditioning, doweling (anchoring) of exterior flatwork and driveways to building foundations, and use of crack-control joints; and (4) use of subdrains in appropriate areas to avoid near-surface saturation. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
5. Corrosive soils will be addressed per the County Guidelines, IBC/CBC, Greenbook and Project geotechnical investigations; including standard efforts such as: (1) removal of unsuitable deposits and replacement with non-corrosive fill; (2) use of corrosion-resistant construction materials (e.g., coated or non-metallic facilities); and (3) installation of cathodic protection devices (e.g., use of a more easily corroded “sacrificial metal” to serve as an anode and draw current away from the structure to be protected). This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
6. Oversize materials will be addressed through standard efforts such as selective disposal (e.g., burial in deeper fills), crushing, use in landscaping efforts, or off-site disposal. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

7.2.12 Design Considerations for Greenhouse Gases – Operation

Measures specified for Air Quality are also applicable to Greenhouse Gases.

1. Project potable water use will be reduced by 20 percent through installation of low-flow water fixtures, reduction of wastewater generation by 20 percent, installation of low-flow bathroom fixtures, and installation of weather-based smart irrigation control systems.
 - The Project’s outdoor landscaping plan will use turf only in sports field, dog park and park/recreation areas, maximize drought-tolerant plants through planting in conformance with the Project Conceptual Landscape Plan, and incorporate weather-based irrigation controllers, multi-programmable irrigation clocks, and high efficiency drip irrigation systems. At the time of final inspection, a manual shall be placed in each building that includes, among other things, information about water conservation.
 - The Project will utilize reclaimed water from the proposed WTWRF for outdoor irrigation.

2. Renewable energy will supply 100 percent of the Project's electricity needs through the required installation of rooftop solar PV panels (a photovoltaic solar system) on all residential units, the Center House, and WTWRP located within the Project site. As an alternative to the installation of PV panels on a particular building unit, enrollment in a renewables program similar to SDG&E's SunRate may be substituted if the program can be verified to supply 100 percent of the electricity needs from renewable sources for that building unit for the life of that unit. The Applicant must provide the County with documentation that the program meets the requirements stated herein by supplying the building unit with its electricity needs from renewable sources of the lifetime of the building. With each building permit, the estimated number of units requiring the installation of solar panel will be provided to the County of San Diego to determine the overall remaining number of units needed to comply with this measure.
3. Other required measures to be installed by the contractor and signed off on during plan and building check include:
 - Programmable thermostat timers
 - Energy efficient appliances (Energy Star™ or equivalent)
 - High efficiency water heaters
 - Energy-efficient three-coat stucco exteriors
 - Enhanced ceiling, attic, and wall insulation
 - High efficiency window glazing
 - Whole house fans
 - Heating, ventilation, and air conditioning (HVAC) units
 - Roof anchors and pre-wiring to allow for the installation of photovoltaic (PV) systems where such systems are not installed as part of Project implementation.

7.2.13 Design Considerations for Hazards and Hazardous Waste – Construction

1. Prior to bringing combustible materials onto the site, utilities shall be in place, fire hydrants operational, an approved all-weather roadway in place, and fuel modification zones will be established and approved.
2. Prior to development construction, perimeter fuel modification areas as depicted in the Project FPP and EIR Figure 3.1.4-1 will be implemented, existing flammable vegetation on vacant lots will be reduced by 60 percent, and trees/shrubs will be properly pruned.

7.2.14 Design Considerations for Hazards and Hazardous Waste – Operation

1. The Project will comply with all recommended measures in the FPP (Dudek 2016, Appendix L to this EIR), including the features listed below.
2. The Proposed Project will provide fair-share funding in accordance with the County Fire Mitigation Fee Ordinance for a fire and emergency medical response facility from the new fire station being built in HGV to the north through fire assessments and fees.
3. The parts of the Project area proposed for development would convert the existing vegetation to a lower flammability, ignition resistant landscape than under current conditions. This conversion would include removal of primarily non-native grasses and construction of roads, structures, and irrigated, managed landscape vegetation.
4. A third travel lane would be provided for the entirety of Country Club Drive from its intersection with Harmony Grove Road to the southernmost Project entrance and would extend within the Project so that no structure exceeds 800 feet from that extra lane as an equivalent form of egress.
5. Existing access for several residences east of the Project crosses the HGV South site (Figure 3.1.4-1). Such access would continue to be provided through the HGV South site after development, but via improved, code conforming on-site roadways, thereby improving the evacuation situation to the west for those off-site residences. Additionally, a route to the east is accessible by typical passenger vehicles, does connect with Johnston Road to the east, and would be available in an emergency situation where people need to be moved to the east and the primary access route (Country Club Drive) is not available.
6. The Project would provide three separate access ways off of Country Club Drive (Figure 3.1.4-1). The first would be a paved service road 450 feet south of Harmony Grove Road adjacent to the HGV South wastewater land use area. The second would be an access into the community approximately 800 feet south of the first access. The third would be approximately 400 feet south of the second. These three access ways are part of a looped interior road system so if one or both of the southern roads are blocked, the northern roadway would still be accessible by all residents. These three ingress/egress points are in addition to the existing evacuation route to the east noted above, and would enable resident evacuation without compromising emergency respondent access to the community.
7. New road and driveway grades would comply with the Fire Code, not exceeding 20 percent. Any sections exceeding 15 percent would be constructed with Portland Concrete surface and provided heavy broom finish or equivalent surfacing and subject to FAHJ approval.
8. Project structures would be a minimum of 100 feet from wildland fuels. Fuel Modification Zone (FMZ) setbacks would exceed the County standard of 100 feet that is typically 50 feet irrigated and 50 feet thinned zones. HGV South would provide 75 feet of irrigated Zone 1 and a minimum of 25 feet of thinned Zone 2. To ensure long-term identification and maintenance, permanent markers would be installed to identify the FMZs on the perimeter of the developed areas. In some locations, particularly the southwestern and eastern sides of the

Project, the setbacks would vary between 110 feet and nearly 200 feet wide to focus FMZs where fire behavior is anticipated to be the most aggressive.

9. Structure setbacks from the top of the slope would be a minimum of 15 horizontal feet from top of slope to the farthest projection from a roof for single-story structures and 30 horizontal feet from top of slope to the farthest projection from a roof for two-story structures where applicable (southwestern portion of the Project). Structures taller than two stories and where the slope is greater than 2:1 may require a setback greater than 30 feet. For lots where a full 30-foot setback would not be possible, installation of a 6-foot tall, non-combustible, heat deflecting, wall would be provided as part of Project Design for additional heat and flame deflection. This wall may be a combination of masonry and dual pane (one pane tempered glazing) materials. During the site plan review process required for this Project, the FAHJ would review setbacks relative to appropriate fire standards and if the appropriate setback is unavailable, the walls would be implemented along one or more of these lots.
10. Fuel modification in environmentally sensitive areas, if any are encountered, would require approval from the County and the appropriate resource agencies (CDFW and USFWS) prior to any vegetation management activities occurring within those areas. Riparian habitat enhancement maintenance/fuel modification at the Escondido Creek bridge crossing would be provided within the roadway easement; including removal of: dead/dying plants, exotic/invasive species and highly flammable species.
11. Crowns of trees located within defensible space would maintain a minimum horizontal clearance of 10 feet for fire resistant trees and mature trees would be pruned to remove limbs one-third the height or six feet, whichever is less, above ground surface. Ornamental trees would be limited to groupings of two to three trees with canopy separation as described in Table 7 of the FPP for trees located on slopes.
12. The internal Project development area between residential structures and building clusters (see green portions of Figure 3.1.4-1) would be cleared of vegetation and re-planted with permanently irrigated fire-resistant plants, thereby excluding native fuels within the development area and minimizing the likelihood of ignitions internal to the Project.
13. Plants used in the fuel modification areas or landscapes would include drought-tolerant, fire resistive trees, shrubs, and groundcovers. The plantings would be consistent with County of San Diego's Suggested Plant List for Defensible Space. The FPP also provides a list of prohibited plant species to avoid planting within the first 50 feet adjacent to a structure in Appendix J to the FPP, unless the potential for spreading fire has been otherwise reduced or eliminated. (The Conceptual Landscape Plan for the Project does not contain any of the plants in Appendix J.) Landscaping would be inspected annually and on an ongoing basis by the FAHJ.
14. The HGV South HOA would be required to ensure long-term funding and ongoing compliance with all provisions of the FPP, including vegetation planting, fuel modification, vegetation management, and maintenance requirements throughout the common areas of the Project site. Individual property owners would be enforced through HOA CC&Rs.

15. Rancho Santa Fe Fire Protection District's (RSFFPD's) Fire Marshal may require a property owner to modify combustible vegetation in the area within 20 feet from each side of the driveway or a public or private road adjacent to their property to establish an FMZ.
16. Fire hydrants would be placed every 300 feet along Project streets (Figure 3.1.4-1), exceeding the Fire Code requirement of 350 feet to the structure. The additional fire hydrants would assist fire operations by reducing operational time to extinguish any fires.
17. The minimum fire flow requirements for the Project would be dual 2,500 gallons per minute (gpm) at 20 pounds per square inch (psi), compliant with the requirements of the Rincon MWD. Thus, the water system would be designed to deliver 5,000 gpm during fire demands, exceeding code requirements by 100 percent.
18. Each of the Project's three entrances would be provided a lighted map directory, and internal signage would be customized to provide clear, intuitive navigation within the Project. Street signs would be customized for the Project and would meet or exceed lettering size to provide clear, easy-to-follow signage to aid emergency response.
19. All site access roads would have fire department turnarounds (cul-de-sacs). Roadway cul-de-sacs would comply with the County's minimum 36-foot radius (72-foot diameter) cul-de-sac bulb standard. Where parking is provided within cul-de-sacs, the additional space would be provided outside the 72-foot diameter bulb.
20. All proposed private streets would have a minimum paved width of 24 feet. Where vehicles would be allowed to park on one side of the street, the road width would be 30 feet. Head-in parking areas would include an additional 18 feet of paved area outside travel lanes.
21. Minimum unobstructed vertical clearance of 13 feet 6 inches would be maintained for the entire required width for all streets, including driveways that require emergency vehicle access.
22. No gates or speed bumps or humps would be allowed within the Project, so that traffic flow (ingress and/or egress) would be able to move more rapidly in the case of emergency. No gates are anticipated at the Project's entrances. If gates are proposed elsewhere, all access gates would comply with CFC Section 503.6. Gates on private roads and driveways would comply with County and FAHJ standards for electric gates, including an emergency key-operated switch overriding all command functions and opening the gate.
23. The Project will provide 434 guest parking spaces. The Project shall implement the Parking Management Plan. The Parking Management Plan will designate the parking area at the community/recreation center as valet/shuttle staging area for all homeowners' events exceeding 10 guests. Homeowners will be required to obtain parking permits for use of guest parking overnight. "No Parking" signs will be installed on designated streets. The HOA will maintain a contract with a towing company so that illegally parked vehicles would be towed within a short period of time.
24. Based on its location and ember potential, the Project is required to include the latest ignition and ember resistant construction materials and methods for roof assemblies, walls, vents,

windows, and appendages, as mandated by San Diego County Fire and Building Codes (Chapter 7A and 2014 CFC). Exterior walls would have a noncombustible covering. Ember resistant vents (BrandGuard, O'Hagin, or similar approved vent of 1/8-inch screening) would be utilized in all structures. Multi-pane glazing would be required with a minimum of one tempered pane, fire-resistance rating of not less than 20 minutes. All habitable structures and garages would be provided interior residential fire sprinklers per County Fire Code requirements.

25. FMZs, including rear yard areas, would be limited building zones (LBZs), as described in the FPP.
26. The individual lot owners would be subject to strict limitations, prohibiting owners from erecting combustible structures, including fences, trellises, arbors, play equipment, etc. as the most critical area for structure protection (besides ember protection) is the structure itself and the immediate landscaping area.
27. A 1-to-3 foot-wide landscape free area will be implemented adjacent to the foundation of stucco structures.

7.2.15 Design Considerations for Hydrology/Water Quality – Construction

Measures regarding landscaping in Aesthetics, dust control/erosion in Air Quality and control of pollutants in Hazards are also applicable to Hydrology/Water Quality.

Water Quality

Erosion/Sedimentation

1. The Project will prepare a Construction Site Monitoring Plan (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.
2. Prior to land disturbance activities, a Storm Water Pollution Prevention Plan (SWPPP) and CSMP will be prepared by a qualified SWPPP preparer, with this plan to be located on site at all times.
3. If the site is determined to be a Risk Level 2 or 3 site, a Rain Event Action Plan (REAP) will be prepared and implemented 48 hours prior to any likely precipitation event (50 percent or greater probability of producing precipitation in the Project area) by the Qualified SWPPP Developer (QSD) or Qualified SWPPP Practitioner (QSP). The REAP shall be prepared for all phases of construction and implemented for construction activities to provide enhanced erosion and sediment control measures during predicted storm events.
4. The Project will comply with seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable locations/conditions.
5. The construction contractor shall use 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), will be used.

6. The construction contractor shall use sediment controls 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, advanced treatment systems (ATS, if applicable based on risk assessment), energy dissipators, stabilized construction access points/sediment stockpiles, and properly fitted covers for sediment transport vehicles.
7. BMP materials will 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.
8. Full erosion control will be provided in disturbed areas not scheduled for additional activity for 14 or more consecutive calendar days.
9. Appropriate training will be provided for the personnel responsible for BMP installation and maintenance.
10. Construction debris will be properly contained at least 50 feet from storm drain inlets and water courses and disposed of so as not to allow runoff into surrounding waters.
11. Prior to and after storm events, BMP function and efficiency will be checked by construction contractor and implementation monitors.
12. Sampling/analysis, monitoring/reporting and post-construction management programs will 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. Hazardous materials 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 will be used for all hazardous materials.
3. Accurate and up-to-date written inventories and labels will be maintained for all stored hazardous materials. This will be checked on a weekly basis.
4. Berms, ditches, and/or impervious liners (or other applicable methods) will 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 will 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 will be properly maintained so as not to release fuels, oils, or solvents. The amount of hazardous materials used and stored on the site will be minimized, and use/storage locations will be restricted to areas at least 50 feet from storm drains and surface waters.
7. Paving operations will be restricted during wet weather, appropriate sediment control devices/methods will be used downstream of paving activities, and wastes and/or slurry from sources including concrete, dry wall and paint will be contained or disposed of by using properly designed and contained washout areas.
8. Training for applicable employees will 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 will be stored in readily accessible locations adjacent to any hazardous material use/storage locations.
10. Portable wastewater facilities will be properly located, maintained, and contained.
11. A licensed waste disposal operator will be employed to regularly (at least weekly) remove and dispose of construction debris at an authorized off-site location.
12. Regulatory agency telephone numbers and a summary guide of clean-up procedures will be posted and maintained in a conspicuous on-site location at the construction trailer by the construction contractor.
13. A licensed waste disposal operator will be employed to regularly (at least weekly) remove and dispose of construction debris at an authorized off-site location.
14. Recycled or less hazardous materials will be used wherever feasible.

Demolition-related Debris Generation

1. The Project will appropriately remove, handle, transport and dispose 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. If required, dewatering operations will include standard measures such as: (1) using appropriate erosion and sediment controls (as noted above for Erosion/Sedimentation) 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.

7.2.16 Design Considerations for Hydrology/Water Quality – Operation

Drainage Alteration

1. The Project design includes a series of storm drain facilities to capture and convey flows within and through the site, including a series of curb/gutter inlets and two subsurface hydromodification/water quality vaults, all of which would be tied to an underground storm drain system of pipelines and related structures, as shown on the Grading Plan.

Runoff Rates/Amounts

1. The proposed storm drain system includes a series of facilities noted above under Drainage Alteration, and that system (including improvements associated with off-site roadway/utility features) will accommodate peak 100-year storm flows and provide flow regulation and energy dissipation per the Project Preliminary Hydrology/Drainage Study (PDC 2017b, Appendix M-1 to this EIR).

Hydromodification

1. Two on-site subsurface hydromodification vaults (north and south) will provide flow duration control at the associated outlets, to be implemented by the construction contractor.
2. Hydromodification vault design details will be verified/refined during the ongoing Project design process, including completion of a geomorphic channel assessment analysis.
3. Energy dissipation facilities will be provided where appropriate (pursuant to recommendations in the Project Drainage Study).

Floodplains/Flooding

1. The Project design includes 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 where applicable.
2. The results of the preliminary Hydrologic Engineering Center-River Analysis System (HEC-RAS) model evaluated in the Project Drainage Study will be implemented for the proposed Escondido Creek bridge crossing along Country Club Drive, to ensure that the proposed bridge would not be subject to flood-related hazards or notably redirect/impede flood flows. The preliminary bridge design criteria used in this analysis will be verified or refined based on a Project-specific HEC-RAS analysis to be conducted as part of the ongoing Project design process.

3. Preliminary design for the potential on-site wastewater treatment plant identifies a pad elevation of 584.2 feet (refer to Figure 1-6a), with mapped 100-year flood elevations in this portion of the site ranging between 571 and 575 feet (FEMA 2012a, refer to Exhibit A of the Project Drainage Study in EIR Appendix M-1), to ensure that this site would be elevated above the 100-year flood level and would not notably redirect/impede flood flows.

Water Quality

Low Impact Development (LID) Site Design BMPs

The Proposed Project will:

1. Preserve well-draining (Type A) soils, significant trees, critical areas (e.g., steep slopes and floodplains), and other sensitive areas wherever feasible.
2. Provide appropriate set-backs from drainages for development envelopes, and restrict construction equipment access in planned green/open space areas.
3. Development has been clustered into a lot design, and design hardscape areas (e.g., streets) to the minimum widths necessary to meet regulatory/safety standards.
4. Restrict construction equipment access in planned green/open space areas, re-till soils compacted during construction, and collect native soil layers for reuse in on-site landscaping efforts.
5. During early revegetation/stabilization of disturbed slopes as soon as possible after/during construction, with permanent landscaping, incorporate “smart irrigation” technology (including appropriate water schedules and rain/pressure-sensitive shutoff devices).
6. Include a harvest/reuse component in the two proposed detention/hydromodification vaults.

Source Control BMPs

The Proposed Project will:

1. Convey flows from applicable sources (e.g., fire sprinkler tests and wash water) to the sanitary sewer.
2. Install “no dumping” stencils/tiles and/or signs with prohibitive language (per current County guidelines) at applicable locations such as drainages, storm drain inlets, catch basins and public access points to discourage illegal dumping.
3. Protect materials stored in outdoor work areas from rainfall, run-on, runoff, and wind dispersal by minimizing storage of potential pollutants, enclosing/covering storage areas, providing secondary containment such as berms, implementing appropriate record keeping, providing appropriate employee/user training, and conducting applicable site inspection and maintenance.

4. Trash storage areas for multi-family residential sites and public areas such as parks and the community center/recreation center will be constructed on paved enclosed areas with impervious surfaces, and use of attached lids and/or roofs for trash containers.
5. Additional BMPs include: on-site storm drain inlet protection, direction of runoff into landscaped/vegetated areas where feasible, use of structural pest controls in lieu of chemical pesticides and proper use/control of chemical pesticides when required, and appropriate design and maintenance of potential HOA-maintained water features.

PDP Pollutant Control BMPs

1. The Project design will include the two (north and south) water quality vaults identified in the Project SWQMP, and two (east and west) proprietary biofiltration units to treat runoff from applicable portions of the site prior to discharge.

BMP Monitoring and Maintenance

1. Monitoring and maintenance for the Project proposed water quality basins will be implemented by the Project HOA, pursuant to associated recommendations in Attachment F (Maintenance Plan) of the Project SWQMP (EIR Appendix N). A written BMP Maintenance Agreement with the County will be completed prior to Project residency, which includes requirements that the facilities be limited to the proposed use, an access easement to the County, and verification of funding as required by the County.
2. The Project owner(s) will dedicate the proposed catch basin inlet inserts (along with associated property and access) to the County, and will provide funding for the initial monitoring and maintenance period (24 months) through means acceptable to the County (with long-term funding and monitoring/maintenance to be the responsibility of the County). Monitoring and maintenance for the Project proposed water quality basins will be implemented by the Project HOA, pursuant to associated recommendations in Attachment F (Maintenance Plan) of the Project SWQMP (EIR Appendix N). A written BMP Maintenance Agreement with the County will be completed prior to Project residency, which includes requirements that the facilities be limited to the proposed use, an access easement as required by the County, and verification of funding.

7.2.17 Design Considerations for Land Use and Planning – Operation

Measures regarding lighting and site layout in Aesthetics, lighting and open space set aside in Biology, GHG controls under GHG, and hazards/FPP specifics under Hazards, etc., are also applicable to Land Use.

1. The Proposed Project shall include a GPA for a partial Land Use designation change from Semi-rural Residential 0.5 to Village 10.9 and Neighborhood Commercial.
2. The Proposed Project shall include a CPA for a Village Boundary Line adjustment.
3. The Proposed Project shall include a zoning designation change from Limited Agriculture (A-70) and Semi-Rural (SR 0.5) to Specific Plan (S-88).

4. The Proposed Project shall obtain a Waiver of Open Space Easement as detailed in RPO Section 86.604[e][2][cc][3]), with regard to steep slope lands, and an Exception for Roads/Utilities as detailed in RPO Section 86.604(e)(2)(bb)(ii).
5. The lighting for the Proposed Project shall be designed to adhere to the regulations of the County LPC.
6. Native and drought- tolerant landscaping shall be irrigated with reclaimed water.
7. Trail connections will be provided through the Project site to other existing and planned trails in HGV and to DDHP and allow residents to walk or bike to nearby destinations without relying on automobiles.
8. Soft-surface road and trail materials that are appropriate to the local setting and desired community character (e.g., decomposed granite) are preferred and will be used as feasible.
9. Trail beds will comply with County standards for width of primary tread. Shade trees shall be planted along Project-implemented sidewalks and pathways, as outlined in the Landscaping Plan which includes specific species, spacing, and installation size.

7.2.18 Design Considerations for Public Services and Utilities – Operation

1. The Proposed Project Applicant shall pay developer fees levied by each applicable school district prior to the issuance of building permits.
2. The project design shall include water conservation measures, including the State-mandated 14 BMPs for water conservation (such as installation of ultra low-flow toilets).
3. Pursuant to the April 2015 Executive Order B-29-15, permanent irrigation with potable water for newly constructed development will be delivered by drip or microspray systems. Reclaimed water would be produced for irrigation of parks, parkways, manufactured slope areas, and other common area landscaping; consistent with the County of San Diego's Water Efficient Landscape Design Manual, the County of San Diego's Water Conservation in Landscaping Ordinance, and the State of California's Model Water Efficient Landscape Ordinance (MWELo).

7.2.19 Design Considerations for Agriculture

1. Disclosure statements included in sales documentation for all proposed residential units will notify potential owners that the adjacent property (future Equestrian Ranch) could potentially be used for agricultural operations and that there could be associated issues such as odors, noise, and vectors.