CHAPTER 7.0 MITIGATION MEASURES

7.1 Air Quality

M-AQ-1: The Project would reduce construction emissions associated with VOC to the extent feasible by utilizing low-VOC coatings in accordance with APCD Rule 67.0.1 requirements.

7.2 Biological Resources

M-BI-1: To mitigate direct impacts to San Diego button-celery (BI-1), the plants located on-site shall be salvaged and translocated to a preserved vernal pool within the Open Space Easement (Lot 20 of the proposed Tentative Map), in conjunction with the approved Fairy Shrimp Translocation and Five Year Monitoring Mitigation Plan. An addendum to the Fairy Shrimp Plan shall be prepared and would specify the methods, monitoring, and success criteria for the San Diego button-celery salvage and translocation. This plan will be reviewed by the County and Wildlife Agencies; additional measures may be required by the Wildlife Agencies during Minor Amendment re-evaluation and will be incorporated into Project design. Wet season protocol surveys will be conducted prior to grading. If a focused survey in a year of adequate rainfall and vernal pool ponding should demonstrate that this group of button-celery is no longer extant, this mitigation measure for direct impacts would not be required.

M-BI-2: The following mitigation measures would be implemented to mitigate Project impacts to San Diego fairy shrimp (BI-2) to below a level of significance:

M-BI-2a: Creation of wetlands suitable for both San Diego and Riverside species of fairy shrimp would fully mitigate impacts to these species to below a level of significance. The restoration effort would incorporate measures to salvage these species from on-site ponds and relocate them into the created pools within the Open Space Easement (Lot 20 of the proposed Tentative Map). The pools would be monitored for fairy shrimp at intervals specified in the RCP for a five-year period. Quarterly reports would be prepared by the applicant's consultant for the first year and annual reports thereafter. If the success criteria listed in the RCP are not met at the end of a given year, remedial action would be taken, pursuant to the direction and approval from the US Army Corps of Engineers and US Fish and Wildlife Service.

M-BI-2b: Impacts to San Diego Fairy Shrimp would be mitigated to a level below significant by the creation of habitat and the preservation of the J-22 vernal pool complex as specified in the Fairy Shrimp Translocation and Five Year Monitoring Mitigation Plan.

M-BI-3: The following mitigation measures would mitigate Project impacts to Riverside fairy shrimp (BI-3) to below a level of significance:

M-BI-3a: Creation of wetlands suitable for both San Diego and Riverside species of fairy shrimp would fully mitigate impacts to these species to below a level of significance. The restoration effort would incorporate measures to salvage these species from on-site ponds and relocate them into the created pools within the open space easement. The pools would be monitored for fairy shrimp at intervals specified in the RCP for a five-year period. Quarterly reports would be prepared by the applicant's consultant for the first year and annual reports thereafter. If the success criteria listed in the RCP are not met at the end of a given year, remedial action would be taken, pursuant to the direction and approval from the US Army Corps of Engineers and US Fish and Wildlife Service.

M-BI-3b: Impacts to Riverside fairy shrimp, which is assumed present, would be mitigated to a level below significance by the creation of habitat and the preservation of the J-22 vernal pool complex as specified in the Fairy Shrimp Translocation and Five Year Monitoring Mitigation Plan. As required by the 2003 USFWS Biological Opinion, wet season and dry season Riverside fairy shrimp surveys shall be conducted in 2016-2017. If a protocol survey (2 wet or 1 dry and 1 wet survey) for Riverside fairy shrimp demonstrates that this species is not present in the agricultural pond, then the success criteria for Riverside fairy shrimp would be dismissed.

M-BI-4: The following mitigation measures would mitigate Project impacts to variegated dudleya to below a level of significance:

M-BI-4a: The applicant shall provide 1:1 offsite mitigation for impacted variegated dudleya plants. The potential impact area shall be surveyed for variegated dudleya plants during the blooming period (May to June). If variegated dudleya are found on-site and outside of the open space easement (Lot 20 of the proposed Tentative Map), the applicant shall purchase and preserve habitat supporting the same number of variegated dudleya plants to be impacted, located at a County approved location as indicated below.

M-BI-4b: *Option 1:* If purchasing mitigation credit the mitigation bank shall be approved by the California Department of Fish and Wildlife. The mitigation should be located within the County MSCP. If mitigation is proposed outside of the County MSCP, provide documentation that a current and thorough search was done and that mitigation land is not available within the subarea. The evidence of purchase shall include the following information to be provided by the mitigation bank:

1. Confirmation that the habitat credits purchase support at least the same number of variegated dudleya plants found in the impact area. Surveys

of the impact site and mitigation site should be conducted within the same blooming season.
2. A copy of the purchase contract referencing the project name and numbers for which the habitat credits were purchased.
3. If not stated explicitly in the purchase contract, a separate letter must be provided identifying the entity responsible for the long-term management and monitoring of the preserved land.
4. To ensure the land would be protected in perpetuity, evidence must be provided that a dedicated conservation easement or similar land constraint has been placed over the mitigation land.
5. An accounting of the status of the mitigation bank. This shall include the total amount of credits available at the bank, the amount required by this project and the amount remaining after utilization by this project.

Option 2: If habitat credits cannot be purchased in a mitigation bank, then the applicant shall provide for the conservation of habitat supporting at least the same number of variegated dudleya plants found in the impact are to the satisfaction of the Department of Planning and Development Services (PDS) as indicated below:

1. The type of habitat and the location of the proposed mitigation must be pre-approved by PDS, PCC before purchase or entering into any agreement for purchase.
2. The mitigation should be located within the South County MSCP. If mitigation is proposed outside the South County MSCP, provide documentation that a current and thorough search was done and that mitigation land is not available within our subarea.
3. If an offsite mitigation property is pursued that does not have an existing management plan, then a Resource Management Plan (RMP) shall be prepared and approved pursuant to the County of San Diego Biological Report Format and Content Requirements to the satisfaction of the Director of PDS. If the offsite mitigation is proposed to be owned and/or managed by Department of Parks and Recreation (DPR), the RMP shall also be approved by the Director of DPR.
4. An open space easement over the land shall be dedicated to the County of San Diego or like agency or the land shall be protected in perpetuity by other suitable mechanism to the satisfaction of the Director of PDS.
5. The final RMP cannot be approved until the following has been completed to the satisfaction of the Director of PDS: The land shall be purchased, the easements shall be dedicated, a Resource Manager shall be selected, and the RMP funding mechanism shall be in place.
6. In lieu of providing a private habitat manager, the applicant may contract with a federal, State or local government agency with the primary mission of resource management to take fee title or function as grantee under an easement and manage the mitigation land. Evidence of satisfaction must include a copy of the contract with the agency, and a

written statement from the agency that (1) the land contains the specified acreage and the specified habitat, or like-functioning habitat, and (2) the land would be managed by the agency for conservation of natural resources in perpetuity.

M-BI-5: A pre-construction burrowing owl survey shall be conducted in the Project development area prior to clearing of the development area and a pre-construction burrowing owl survey to be conducted in the Open Space Easement (Lot 20 of the proposed Tentative Map) prior to disturbance within the Open Space Easement (Lot 20 of the proposed Tentative Map) (such as excavation of new vernal pool).

M-BI-6: Implementation of mitigation measures M-BI-7 and M-BI-8, below, would reduce impacts to turkey vulture (BI-6) to below a level of significance.

M-BI-7: Mitigation requirements for northern harrier (BI-7) would be partially met by the preservation of foraging habitat within the Open Space Easement (Lot 20 of the proposed Tentative Map). The enhancement of the habitat within the open space would further reduce impacts to this species. In addition, initial clearing of vegetation shall occur outside the nesting season (mid-April through July). If that is not possible, a raptor nesting survey shall be conducted. If an active nest is found, grading would cease in the immediate vicinity, and the monitoring biologist and County staff would determine and agree to an acceptable buffer between the nest location and grading activities. Table 3.5 in the 1996 MSCP Plan states that an acceptable buffer would be 900 feet. Once the nest becomes non-active, grading restrictions shall not longer apply. Mitigation in conformance with the BMO for both on- and offsite habitat preservation (as proposed above in the discussion of sage scrub and grassland habitat mitigation) would fully mitigate for the loss of foraging habitat for this species regionally.

M-BI-8: Mitigation requirements for the loss of foraging habitat and potential breeding habitat for white-tailed kite (BI-8) would be met by requiring a qualified biologist to monitor the construction area for suitable nesting habitat (e.g., trees) in the vicinity of construction during the breeding season. The RCP would require that a 'construction-free zone' be created around any identified nesting sites until fledging has occurred. The biologist would coordinate with County staff during the monitoring efforts to determine the size of any required construction zone. This would mitigate the impacts to a level below significant.

M-BI-9: Implementation of mitigation measures M-BI-7 and M-BI-8, above, would reduce impacts to loggerhead shrike (BI-9) to below a level of significance.

M-BI-10: Implementation of mitigation measure M-BI-12, below, would reduce impacts to black-tailed jackrabbit (BI-10) to below a level of significance.

M-BI-11: Implementation of mitigation measures M-BI-7 and M-BI-8, above, would reduce impacts to raptor foraging habitat (BI-11) to below a level of significance.

M-BI-12: The following mitigation measures fully mitigate indirect Project impacts to preserved land in the Biological Open Space (BI-12) to below a level of significance:

M-BI-12a: Human Activities. The adverse effects on vegetation due to the increase in human activity in the area can be minimized by: 1) creating buffer zones adjacent to the open space easements to minimize the effects from noise and lighting; 2) limiting pedestrian and equestrian trails to existing roads or non-sensitive habitats; and 3) discouraging entry into native habitats such as the riparian and vernal pool habitats by installing fencing and barrier plantings and/or signage. In addition, the RCP would require fencing around the entire open space preserve easement to discourage trespassing and illegal dumping.

M-BI-12b: Construction Activities. Indirect impacts to habitats may result from construction activities, such as construction of Lone Star Road. To avoid the potential impacts, the limits of the vernal pool habitats shall be surveyed and staked prior to construction. These limits shall be clearly shown on all construction drawings as 'no impact zones.' This area would have temporary fencing prior to construction to prevent vehicular or pedestrian access, equipment storage, storage of spoils materials, and refuse disposal.

M-BI-12c: Introduced Species. The use of non-native, invasive plant species would be prohibited in the proposed landscaping palettes (including container stock and hydroseed material) for the streetscapes and commercial/industrial. A qualified biologist or native plant horticulturist shall review and sign all landscaping plans to determine the appropriate species to be used in landscaping, prior to project approval. These measures would reduce the potential impacts to below significant.

M-BI-12d: Increased Runoff, Erosion, and Sedimentation. The proposed construction of Lone Star Road would result in the removal of vegetation on hillsides that could result in a temporary increase in runoff into the on-site vernal pools. Increased runoff can, in turn, result in erosion and sedimentation that could adversely affect wetland vegetation or other drainages. Erosion and sedimentation impacts can also be mitigated by employing standard erosion control procedures, such as, sandbagging, diversion ditches, and stream bank stabilization. Prior to project approval, a construction erosion control plan would be reviewed and approved by the County. In addition, the project would be required to obtain a National Pollutant Discharge Elimination System (NPDES) Permit for construction activities from the Regional Water Quality Control Board, of which would require an approved Storm Water Pollution Prevention plan. That plan would require the permit applicant to implement measures to prevent contamination of the surrounding

drainages during construction. These measures would mitigate the potential for significant impacts to a level below significant.

M-BI-12e: Toxic Materials. Spills of toxic materials could occur during both construction and operational phases of the Project. These spills could contaminate drainages and create a significant impact to habitat and water quality. In order to prevent these impacts, a 'no fueling' zone shall be designated within 25 feet of all drainages during the construction period. In addition, all equipment used near drainages during construction shall be routinely maintained and inspected for leaks. Major leaks shall be repaired immediately. Drip pans and tarps shall be placed under minor leaks. Used drip pans and tarps shall be properly disposed of at the end of each work day. Emergency provisions (e.g. straw bales) shall be placed at all drainage crossings, prior to the onset of construction to deal with unintentional spills. All of these measures would be included in approved Storm Water Pollution Prevention Plan (SWPPP) as a part of the RWQCB-required NPDES permit for construction activities. In addition, all commercial/industrial uses that plan to store materials within the proposed commercial/industrial complex would be required to obtain a NPDES permit for operational activities from RWQCB. That permit would also require a SWPPP for each facility to prevent contamination of nearby drainages. These measures would mitigate the potential for significant impacts to a level below significant.

M-BI-12f: Habitat Fragmentation. Lone Star Road could potentially result in habitat fragmentation between the vernal pool complex to the north of Lone Star Road and the one vernal pool to the south of Lone Star Road. The southern vernal pool would be managed as a part of the larger vernal pool complex within the Open Space Easement (Lot 20 of the proposed Tentative Map) to the north. Integrated management of the southern pool with the rest of the vernal pool complex would ensure the long term viability of this pool and associated plant populations. The required RCP includes a management program for the vernal pools and would mitigate the potential for impacts to below significant.

M-BI-12g: Provision should be made to inform the construction contractor(s) (prior to the construction process) about the biological constraints of this project. The contractor(s) would be responsible for impacts lo biological sensitivities beyond those identified in this report and that occur as a direct result of construction activities. All sensitive habitat areas or occurrences of sensitive species to be avoided shall be clearly marked on project maps provided to the contractor. These areas shall be designated as "no construction" or "limited construction" zones. These areas would be flagged by the project biologist prior to the onset of construction activities. In some cases, resources may need to be fenced

or otherwise protected from direct or indirect impacts.

M-BI-12h: A contractor education meeting shall be conducted to ensure that contractors and all construction personnel are fully informed of the biological sensitivities associated with this project. This meeting should focus on: 1) the purpose for resource protection; 2) contractor identification of sensitive resource areas in the field (e.g., areas delineated on maps and by flags or fencing); and 3) sensitive construction practices (see nos. 4-9, on Pages 4.3-106 and 4.3-107 of the Specific Plan EIR), and protocol to resolve conflicts that may arise during the construction process. This meeting shall be conducted by a qualified biologist, and shall be a requirement for all construction personnel.

M-BI-12i: Heavy equipment and construction activities shall be restricted to the development area. Prohibited activities within drainages or other wetland areas (including vernal pools) include staging areas, equipment access, and disposal or temporary placement of excess fill.

M-BI-12j: Staging areas are prohibited within sensitive habitat areas or any habitat included in open space. Staging areas shall be delineated on the grading plans and reviewed by a qualified biologist. Likewise, vehicle access shall be prohibited in all open space areas.

M-BI-12k: Fueling of equipment shall not occur adjacent to drainages. …[F]ueling zones should be designated on construction maps and shall be situated a minimum distance of 7.6 meters (25 feet) from all drainages the open space limits or near storm drains that may drain into Johnson Canyon.

M-BI-12l: Construction in or adjacent to sensitive areas should be appropriately scheduled to minimize potential impacts to biological resources. All work in or near wetlands or other "waters of the U.S." shall take place during periods of minimum flow (i.e., summer through the first significant rain of fall) to avoid excessive sedimentation and erosion.

M-BI-12m: The open space limits must be staked and flagged prior to clearing or grubbing. The limits of the open space must be fenced with a chain link fence at least five feet tall prior to clearing or grubbing. The fence location must be approved by County staff or monitoring biologist prior to receipt of grading permit and would be a permanent protection measure.

M-BI-12n: A Resource Conservation Plan detailing wetland enhancement, preservation, and maintenance, coastal sage scrub habitat preservation, sensitive species salvaging, and transplanting as well as success standards and report requirements must be completed prior to the

initiation of construction.

M-BI-12o: Temporary construction fencing shall be installed.

M-BI-12p: Installation of 3-strand wire fence shall be extended around the entire western, northern, and eastern edges of the northern Open Space Easement (lot 20 of the proposed Tentative Map) due to the ongoing problem of trespassing recreational off-road vehicles (this type of fence would not prevent entry and use by wildlife).

M-BI-13: Significant impacts to 195.99 acres of non-native grassland (BI-13) would be mitigated at a ratio of 0.5:1, as previously approved in the 2000 SEIR. The required 98.00 acres of non-native grassland mitigation would be provided through preservation of 46.76 acres of non-native grassland and 1.96 acres of native grassland within the Open Space Easement (Lot 20 of the proposed Tentative Map), and purchase of 49.28 acres in an approved offsite mitigation bank. On-site non-native grassland mitigation acreage would be within both the northern Open Space Easement (Lot 20 of the proposed Tentative Map) and the smaller vernal pool Open Space Easement (Lot 20 of the proposed Tentative Map). The northern Open Space Easement (Lot 20 of the proposed Tentative Map) would preserve 46.39 acres of non-native grassland and 1.96 acre of native grassland (totaling 48.35 acre of grassland). The southern vernal pool Open Space Easement (Lot 20 of the proposed Tentative Map) would preserve of 0.37 acre of non-native grassland on-site within the southern vernal pool Open Space Easement (Lot 20 of the proposed Tentative Map).

Furthermore, the applicant has satisfied the requirement for purchase of 49.28 acres in an approved off-site mitigation bank. The applicant contributed $243,450 toward the preservation of land in Hollenbeck Canyon, a preserve area in the MSCP subarea, which provided habitat value equal to 5.4 acres of native grassland and 48.6 acres of non-native grassland.

M-BI-14: Significant impacts to 0.11 acre of disturbed wetland (BI-14) would be mitigated at a ratio of 2:1. Mitigation, as previously approved, would consist of 1:1 creation and 1:1 enhancement, in the form of creating 0.11 acre of new wetland habitat in the northern Open Space Easement (Lot 20 of the proposed Tentative Map) (as required by the Fairy Shrimp Translocation and Five Year Monitoring Mitigation Plan), and enhancing 0.11 acre of wetland habitat in the Open Space Easement (Lot 20 of the proposed Tentative Map). The enhancement element consists of enhancing all of the vernal pools in the Open Space Easement (Lot 20 of the proposed Tentative Map) as required by the Long Term Management, Maintenance, and Monitoring Plan and will actually provide 0.21 acre of enhancement. As documented in the Project's December 2000 MSCP Findings (County of San Diego 2000), another 0.1[1] acre of wetland creation would be required to bring up the mitigation ratio to 2:1. The additional 0.11 acre of wetland mitigation should be undertaken in the Johnson Canyon drainage. As an

alternative, the additional 0.11 acre of wetland creation within the mima mound vernal pool area shall be replaced with enhancement/restoration of the 0.39-acre area of non-native riparian habitat. The change from creation to enhancement/restoration would be compensated by an increase in the ratio from 1:1 to slightly over 3:1. A riparian habitat enhancement/restoration plan shall be developed and approved by the County and Wildlife Agencies.

M-BI-15: Mitigation for potential Project impacts to Federally protected wetlands (BI-15) shall consist of wetland creation and enhancement/ restoration as proposed for wetland habitat impacts in M-BI-12, above.

7.3 Cultural Resources

M-CR-1: To mitigate for direct impacts to SDI-9975 and SDI-12730 the following shall be implemented:

- A Biological Open Space Easement shall be dedicated to the County of San Diego which incorporates cultural resources that are to be preserved.

- Prior to any ground disturbance, temporary fencing shall be installed along the southern open space boundary where earth disturbing activities are within 100 feet of the open space easement. Placement of the fencing shall be coordinated by a California licensed surveyor in consultation with the Project Archaeologist and Kumeyaay Native American monitor. If the wetland creation is within 50 feet of CA-SDI-9975 or CA-SDI-12730, temporary fencing including an adequate buffer shall be installed. The fencing shall be installed under the supervision of the Project Archaeologist and Kumeyaay Native American monitor.

M-CR-2: To mitigate for direct impacts to subsurface deposits, an archaeological monitoring program will be implemented that consists of the following:

- Pre-Construction
  - Pre-construction meeting to be attended by the Project Archaeologist and Kumeyaay Native American monitor to explain the monitoring requirements.

- Construction
  - Monitoring. Both the Project Archaeologist and Kumeyaay Native American monitor are to be onsite during earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist in consultation with the Kumeyaay Native American monitor. Both the Project Archaeologist and Kumeyaay Native American monitor will evaluate fill soils to ensure that they are negative for cultural resources

- If cultural resources are identified:
  - Both the Project Archaeologist and Kumeyaay 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 Kumeyaay 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 Kumeyaay 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 Kumeyaay 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.
  - If needed any repatriation will be performed in landscaped areas within the public park or within the parkways along the public streets,

within an area and depth that will not be disturbed by future ground disturbance.

- Rough Grading
  - Upon completion of Rough Grading, a monitoring report shall be prepared identifying whether resources were encountered. A copy of the monitoring report shall be provided to the South Costal Information Center and any culturally-affiliated tribe who requests a copy.

- Final Grading
  - A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center and any culturally-affiliated tribe who requests a copy.
  - Disposition of Cultural Material.
    - The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or Tribal curation facility that meets federal standards per 36 CFR Part 79, or alternatively have 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.

      If requested by the Native American monitor, repatriation of any prehistoric materials, collected by the Native American monitor during construction monitoring will be repatriated to landscaped areas within the public park or within the parkways along the public streets, within an area and depth that will not be disturbed by future ground disturbance.

7.4 Greenhouse Gas Emissions and Energy

M-GHG-1: The Project buildings will exceed Title 24 as of 2016 by 20 percent. This measure was included in the mitigation measures in the CalEEMod Model.

M-GHG-2: The Project will include photovoltaic solar panels (or their equivalent, as approved by the Planning and Development Services Director) designed to provide 50 percent of the project's commercial use electricity needs, and 50 percent of the residential dwelling units shall include photovoltaic solar panels (or their equivalent, as approved by the Planning and Development Services Director) to provide those residential dwelling units' electricity needs. This measure was included in the CalEEMod model under Renewable Energy.

7.5 Hazards and Hazardous Materials

M-HZ-1: As part of Site Plan review, soil sampling shall occur for planning areas A, C, D, E, F, G, and H. If constituents of concern (CoC) -bearing soils are encountered, then a Soil Management Plan (SMP) shall be prepared. The SMP shall identify remedial and cost-effective strategies, integrate environmental issues into the site development process, and provide the means and methods for identifying, segregating, and properly handling CoC-bearing soils at the site.

7.6 Noise

M-N-1: Proper site planning to reduce noise impacts should be considered for all NSLUs. Buildings can be oriented on a site in such a way as to exploit the site's noise attenuating features. By consideration of a site's natural topography, size and shape, it is often possible to reduce and possibly eliminate noise impacts from vehicular traffic and railroads. Site planning techniques include the following:

- Increasing the distance from the noise source to sensitive receptors by creation of setbacks;
- Placing non-noise sensitive uses such as parking lots and utility areas between the noise source and receiver;
- Orienting usable outdoor living space such as balconies, patios, and child play areas away from roadways and aircraft overflight contours;
- Construction of a noise barrier between the noise source and the receptor. The effectiveness of a barrier depends upon factors such as the relative height of the barrier relative to the line-of-sight from the source to the receiver, the distance from the barrier to the source and to the receiver and the reflections of sound. To be effective, a barrier must block the line-of-sight from the source to the receiver. A barrier must also be of solid construction (i.e., masonry) without holes or gaps and be long enough to prevent sound from passing around the ends.

Because noise levels would exceed 60 dBA CNEL, the dedication of a Noise Protection Easement would be required. This Noise Protection Easement would require future noise analysis with subsequent discretionary permits.

In order to mitigate potential traffic noise level impacts where interior noise levels would exceed 45 dBA (Impact N-2), the following mitigation is required:

M-N-2: An interior noise analysis shall be required for new residential development located in areas where future noise levels would exceed 60 dBA CNEL. The interior noise analysis shall evaluate the proposed building shell (exterior wall, windows, and doors) to ensure that interior noise levels will not exceed 45 dBA CNEL. The analysis shall be performed prior to obtaining a building permit. With the implementation of the findings of the interior noise analysis, interior noise levels in habitable rooms would be 45 dBA CNEL or below and comply with the County

of San Diego General Plan Noise requirements.

The location of a building on its site, the arrangement of rooms, and the location of doors and windows all have a bearing on interior noise control. The sides of a building which face a roadway or other noise source should house those activities that can tolerate the greatest amount of noise. Noise-sensitive areas include bedrooms, living rooms and dens. Less noise sensitive areas may include kitchens and bathrooms. Hallways, closets and storage rooms are generally not noise-sensitive.

Indoor noise levels are controlled by the noise reduction characteristics of the building shell. In general, doors and windows are the acoustical weak link in a building. Therefore, careful consideration should be given to their placement. By limiting the number and size of these openings on the sides of the building exposed to noise, interior noise levels will be reduced.

Often it is necessary to allow for a closed window condition to control interior noise. When this occurs, an alternative means of ventilation such as heat pumps or forced air units is required to meet the California Building Code requirements. Heavy-pane or double-pane windows are frequently required to increase the sound insulation within a room. Doors facing a noise source should be solid-core and should be equipped with an appropriate gasket.

An interior noise analysis will be required for new residential development located in areas where future noise levels would exceed 60 dBA CNEL. The interior noise analysis should evaluate the proposed building shell (exterior wall, windows, and doors) to ensure that interior noise levels will not exceed 45 dBA CNEL. The analysis should be performed prior to obtaining a building permit. With the implementation of the findings of the interior noise analysis, interior noise levels in habitable rooms would be 45 dBA CNEL or below and comply with the County of San Diego General Plan Noise requirements. The Project would result in a less than significant interior noise impact with Project features incorporated in accordance with the interior noise analysis.

In order to mitigate the potential on-going operational noise impacts (impact N-3), the following mitigation is required:

M-N-3: A use-specific noise analysis shall occur when individual lots seek approval of site and building plans as part of future site plan reviews. This may include noise measures consisting of:

- Limiting size of equipment
- Specific equipment location, orientation and layout design to increase screening
- Mechanical equipment enclosures, parapet walls, noise barriers
- Any other similar noise reducing noise design and feature

7.7 Paleontological Resources

M-PR-1 Paleontological monitoring shall be conducted during all mass grading and excavation activities in surface exposures of the Otay Formation to mitigate any adverse impacts (i.e., loss or destruction) to potential nonrenewable paleontological resources. A mitigation monitoring and reporting program consistent with County and CEQA guidelines and requirements shall be implemented prior to any mass grading and/or excavation-related activities, including utility trenching, within the Otay Formation. The mitigation monitoring and reporting program shall be conducted in accordance with the following procedures:

A. A Qualified Paleontologist or Paleontological Resources Monitor (under the supervision of the Qualified Paleontologist) shall be on-site during all excavation operations within geologic formations that may contain paleontological resources (i.e., the Otay Formation). The Qualified Project Paleontologist is a person with a Ph.D. or master's degree in paleontology or related field, and who has knowledge of San Diego County paleontology, and documented experience in professional paleontological procedures and techniques. A Paleontological Monitor is defined as an individual with at least 1 year of experience in field identification and collection of fossil materials. The Paleontological Monitor shall work under the direct supervision of the Qualified Paleontologist. The applicant shall authorize the Qualified Paleontologist and/or Paleontological Monitor to direct, divert, or halt any grading activity, and to perform all other acts required by the provisions listed below.

B. The Qualified Paleontologist and/or Paleontological Monitor shall monitor all grading and excavation activities of undisturbed formations of sedimentary rock;

C. If paleontological resources are unearthed, the Qualified Paleontologist or Paleontological Monitor shall do the following:

1. Direct, divert, or halt any grading or excavation activity until such time that the sensitivity of the resource can be determined and the appropriate recovery implemented.

2. Salvage unearthed fossil remains, including simple excavation of exposed specimens or, if necessary, plaster-jacketing of large and/or fragile specimens or more elaborate quarry excavations of richly fossiliferous deposits.

3. Record stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including a detailed description of all paleontological localities within the Project site, as well as the lithology

of fossil-bearing strata within the measured stratigraphic section, if feasible, and photographic documentation of the geologic setting.

4. Prepare collected fossil remains for curation to include cleaning the fossils by removing the enclosing rock material; stabilizing fragile specimens using glues and other hardeners, if necessary; and repairing broken specimens.

5. 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.

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

D. The Qualified Paleontologist shall prepare a final Paleontological Resources Mitigation Report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the significance of the curated collection.

E. Submit two hard copies of the final Paleontological Resources Mitigation Report to the Director of PDS for final approval of the mitigation, and submit an electronic copy of the report according to the County PDS Electronic Submittal Format Guidelines.

7.8 Traffic/Transportation

M-TR-1: In order to mitigate the Project's direct and cumulative impacts to this intersection, it is recommended that the Project contribute a fairshare towards the planned improvements to this intersection as reported in the *Transportation Analysis for the Otay Mesa Community Plan Update,* Urban Systems, August 30, 2013. The study recommends providing the following lane configurations at the intersection:

- Southbound movement: two dedicated right turn lanes, three thru lanes and two dedicated left turn lanes.
- Westbound movement: two dedicated right turn lanes, three thru lanes and two dedicated left turn lanes.
- Northbound movement: two dedicated right turn lanes, three thru lanes and two dedicated left turn lanes.
- Eastbound movement: two dedicated right turn lanes, three thru lanes and two dedicated left turn lanes.

Payment of the Project's fairshare towards these improvements would reduce this direct and cumulative impact to below a level of significance.

M-TR-2: In order to mitigate the Project's direct and cumulative impacts to this Project access intersection, it is recommended that the Project signalize the intersection and provide the following lane configurations:

- Southbound movement: one dedicated right turn lane with overlap phasing and a shared thru / left turn lane.
- Westbound movement: one dedicated right turn lane, three thru lanes and one dedicated left turn lane.
- Northbound movement: one shared thru / right turn / left turn lane.
- Eastbound movement: one shared thru / right turn lane, two dedicated thru lanes and two dedicated left turn lanes.

Since this intersection falls under Caltrans jurisdiction, a signal warrant was conducted to ensure the installation of a signal at the intersection is warranted. Based on the signal warrant included in ***Appendix K*** a signal is warranted at the intersection under Existing + Project conditions.

In addition, the Project should pay the appropriate TIF amount toward the County TIF Program.

Implementation of these recommendations would reduce this direct and cumulative impact to below a level of significance.

M-TR-3: In order to mitigate the Project's direct and cumulative impacts to this Project access intersection, it is recommended that the Project provide the following lane configurations:

- Southbound movement: two dedicated right turn lanes with overlap phasing, one thru lane and one dedicated left turn lane.
- Westbound movement: one shared thru / right turn lane, two dedicated thru lanes and one dedicated left turn lane.
- Northbound movement: one shared thru / right turn lane and two dedicated left turn lanes.
- Eastbound movement: one shared thru / right turn lane, two dedicated thru lanes and two dedicated left turn lanes.

The Project should also pay the appropriate TIF amount toward the County TIF Program.

Implementation of these recommendations would reduce this direct and cumulative impact to below a level of significance.

M-TR-4: In order to mitigate the Project's direct and cumulative impacts to this Project access intersection, it is recommended that the Project signalize the intersection and provide the following lane configurations:

- Southbound movement: one dedicated right turn lane with overlap phasing and one dedicated left turn lane.
- Westbound movement: one shared thru / right turn lane.
- Eastbound movement: one thru lane and one dedicated left turn lane.

The Project should also pay the appropriate TIF amount toward the County TIF Program.

Implementation of these recommendations would reduce this direct and cumulative impact to below a level of significance.

M-TR-5: In order to mitigate the Project's cumulative impact to this intersection, it is recommended that the Project contribute a fairshare towards the planned improvements to this intersection as reported in the *Transportation Analysis for the Otay Mesa Community Plan Update,* Urban Systems, August 30, 2013. The study recommends signalizing the intersection and providing the following lane configurations:

- Southbound movement: two dedicated right turn lanes, two thru lanes and two dedicated left turn lanes.
- Westbound movement: one dedicated right turn lane, two thru lanes and two dedicated left turn lanes.
- Northbound movement: one dedicated right turn lane, two thru lanes and two dedicated left turn lanes.
- Eastbound movement: two dedicated right turn lanes, two thru lanes and two dedicated left turn lanes.

Payment of the Project's fairshare towards these improvements would reduce this cumulative impact to below a level of significance.

M-TR-6: Payment of the appropriate TIF amount toward the County TIF Program would reduce this cumulative impact to below a level of significance.

M-TR-7: In order to mitigate the Project's cumulative impact to this intersection, it is recommended that the Project contribute a fairshare towards the planned improvements to this intersection as reported in the *Transportation Analysis for the Otay Mesa Community Plan Update,* Urban Systems, August 30, 2013. The study recommends providing the following lane configurations:

- Southbound movement: two dedicated right turn lanes, one thru lane and one dedicated left turn lane.

- Westbound movement: one dedicated right turn lane, two thru lanes and one dedicated left turn lane.
- Northbound movement: one dedicated right turn lane, one shared thru / left turn lane and one dedicated left turn lane.
- Eastbound movement: one dedicated right turn lane, three thru lanes and two dedicated left turn lanes.

Payment of the Project's fairshare towards these improvements would reduce this cumulative impact to below a level of significance.

M-TR-8: Payment of the appropriate TIF amount toward the County TIF Program would reduce this cumulative impact to below a level of significance.

M-TR-9: Widening this segment of Otay Mesa Road between Sanyo Avenue and Vann Centre Boulevard along the Project frontage to four-lanes would reduce this direct impact to below a level of significance.

The Project will also be responsible for making ½ width frontage improvements along Otay Mesa Road between Harvest Road and Vann Centre Boulevard to improve the roadway to six-lane Prime Arterial standards per the County's Centerline Ordinance.

M-TR-10: This segment of Otay Mesa Road between Vann Centre Boulevard and Enrico Fermi Drive was analyzed under Existing conditions without the addition of SR 11 between SR 905 / SR 125 and Enrico Fermi Drive to the roadway network. SR 11 is currently under construction and expected to open during the fall of 2015, before completion of the East Otay Mesa Business Park Specific Plan Amendment Project. Under Year 2020 Cumulative conditions, with the addition of SR 11, a significant impact is not calculated along the segment (2 lanes provide adequate operations). Therefore, the construction of SR 11, which is fully funded, will mitigate the Project's direct impact, and no additional mitigation measures are necessary.

M-TR-11: Payment of the appropriate TIF amount toward the County TIF Program would reduce this cumulative impact to below a level of significance.