

## CHAPTER 7 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

### 7.1 Mitigation Measures

#### 7.1.1 Aesthetics

**M-AE-1** Stationary construction sites, staging, and storage areas within the Project Area shall be visually screened using temporary screening fencing. Fencing shall be of an appropriate design and color for each specific location to minimize the visibility of stationary construction sites, staging, and storage areas from off-site residential viewing locations.

**M-AE-2** The applicant, or its designee, shall prepare a Landscape Master Plan. The Landscape Master Plan shall demonstrate compliance with Otay Ranch General Development Plan/Otay Subregional Plan policies pertaining to the use of landscape materials that are complementary to the existing natural setting and that reflect the natural environmental. The Landscape Master Plan shall also demonstrate compliance with San Diego County General Plan Conservation and Open Space Element policies pertaining to the minimization of visual impacts through implementation and use of appropriate scale, materials, and design to complement the surrounding natural landscape. In addition, the Landscape Master Plan shall be consistent and in compliance with the Fire Protection Plan, the Preserve Edge Plan, the Water Conservation Plan, and the design guidelines specified in the Specific Plan. The Landscape Master Plan shall identify phasing of the Proposed Project and shall be consistent with the phasing plan included in the Specific Plan. The Landscape Master Plan shall be approved by the Director of Planning & Development Services (or his/her designee) prior to the issuance of grading permits.

#### 7.1.2 Agricultural and Forestry Resources

**M-AG-1** As required by the Otay Ranch General Development Plan/Otay Subregional Plan (Otay Ranch GDP/SRP), an Agricultural Plan shall be prepared by the Proposed Project applicant, or its designee, prior to approval of any Specific Plan affecting on-site agricultural resources and will be required for each subsequent development proposal (i.e., villages, Town Center, the Eastern Town Center, the University, and Rural Estate Planned Community). The Agricultural Plan shall indicate the type of agricultural activity allowed as an interim use. Specifications shall include buffering guidelines designed to prevent potential land use interface impacts related to noise, odors, dust, insects, rodents, and chemicals that may accompany agricultural

activities and operations. Adequate buffering shall be provided between the proposed development area and the interim agriculture use. Buffering measures may include the following: (1) a 200-foot distance between property boundaries and agricultural operations; (2) if permitted interim agricultural uses require the use of pesticide, then commercially reasonable limits shall be placed on the time of day, the type of pesticide application, and the appropriate weather conditions under which such application may occur; (3) use of vegetation along the field edges adjacent to development that can be used for shielding (i.e., corn); and (4) notification of adjacent property owners of potential pesticide applications and use of fencing. The County of San Diego department with jurisdiction over these areas shall review the Agricultural Plan to verify that proposed guidelines are adequate to prevent impacts associated with incompatible land uses from occurring.

### **7.1.3 Air Quality**

**M-AQ-1 Tier 4 Final Rock Crushing Equipment.** Diesel-powered generators (engines greater than 750 horsepower) used for rock-crushing operations shall be equipped with Tier 4 Final engines.

**M-AQ-2 Blasting and Rock-Crushing Notification.** Prior to construction activities, the applicant or its designee shall employ a construction relations officer who shall address community concerns regarding on-site construction activity. The applicant shall provide public notification in the form of a visible sign containing the contact information of the construction relations officer, who shall document complaints and concerns regarding on-site construction activity. The sign shall be placed in easily accessible locations along Proctor Valley Road and noted on grading and improvement plans.

**M-AQ-3 Blasting and Rock-Crushing Dust Controls.** The following provisions shall be implemented to reduce emissions associated with blasting and rock-crushing activities:

- a. During blasting activities, the construction contractor shall implement all feasible engineering controls to control fugitive dust including exhaust ventilation, blasting cabinets and enclosures, vacuum blasters, drapes, water curtains, or wet blasting. Watering methods, such as water sprays and water applications, also shall be implemented during blasting, rock crushing, cutting, chipping, sawing, or any activity that would release dust particles to reduce fugitive dust emissions.
- b. During rock-crushing transfer and conveyance activities, material shall be watered prior to entering the crusher. Crushing activities shall not exceed an

opacity limit of 20% (or Number 1 on the Ringelmann Chart) as averaged over 3 minutes in any period of 60 consecutive minutes, in accordance with San Diego Air Pollution Control District (SDAPCD) Rule 50, Visible Emissions. A qualified opacity observer shall monitor opacity from crushing activities once every 30 days while crushers are employed on site to ensure compliance with SDAPCD Rule 50. Water sprayers, conveyor belt enclosures, or other mechanisms shall be employed to reduce fugitive dust generated during transfer and conveyance of crush material.

- M-AQ-4 Tier 4 Interim Construction Equipment.** Prior to the commencement of any construction activities, the applicant or its designee shall provide evidence to the County of San Diego (County) that, for off-road equipment with engines rated at 75 horsepower or greater, no construction equipment shall be used that is less than Tier 4 Interim. An exemption from these requirements may be granted by the County in the event that the applicant documents that equipment with the required tier is not reasonably available and corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment.<sup>1</sup> Before an exemption may be considered by the County, the applicant shall be required to demonstrate that three construction fleet owners/operators in the San Diego Region were contacted and that those owners/operators confirmed Tier 4 equipment could not be located within the San Diego region.
- M-AQ-5 Construction Equipment Maintenance.** The primary contractor shall be responsible for ensuring that all construction equipment is properly tuned and maintained in accordance with manufacturer's specifications before and for the duration of on-site operation.
- M-AQ-6 Use of Electrical-Powered Equipment.** Electrical hookups shall be provided on site for hand tools such as saws, drills, and compressors used for building construction to reduce the need for electric generators and other fuel-powered equipment. The use of electrical construction equipment shall be employed, where feasible.
- M-AQ-7 Best Available Control Technology.** Construction equipment shall be outfitted with best available control technology (BACT) devices certified by the California Air

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<sup>1</sup> For example, if a Tier 4 Interim piece of equipment is not reasonably available at the time of construction and a lower tier equipment is used instead (e.g., Tier 3), another piece of equipment could be upgraded from a Tier 4 Interim to a higher tier (i.e., Tier 4 Final) or replaced with an alternative-fueled (not diesel-fueled) equipment to offset the emissions associated with using a piece of equipment that does not meet Tier 4 Interim standards.

Resources Board. A copy of each unit's BACT documentation shall be provided to the County of San Diego at the time of mobilization of each applicable unit of equipment.

**M-AQ-8 Haul Trucks.** Haul truck staging areas shall be provided for loading and unloading soil and materials, and shall be located away from sensitive receptors at the furthest feasible distance.

**M-AQ-9 Facilitate Use of Electrical Lawn and Garden Equipment.** Prior to the issuance of residential building permits, the applicant or its designee shall provide evidence to the County of San Diego that building design plans require that residential structures be equipped with outdoor/exterior electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.

**M-AQ-10 Low-VOC/Green Cleaning Product Educational Program.** Prior to the occupancy of any on-site development, the applicant or its designee shall provide evidence to the County of San Diego that the applicant/phase developer has developed a Green Cleaning Product and Paint education program to be made available at rental offices, leasing spaces, and/or websites.

#### **7.1.4 Biological Resources**

**M-BI-1 Biological Monitoring.** To prevent disturbance to areas outside the limits of grading, all grading shall be monitored by a biologist. Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits for any areas adjacent to the Otay Ranch Resource Management Plan (RMP) Preserve and the off-site areas, the Proposed Project applicant or its designee shall provide written confirmation that a biological monitor approved by the County of San Diego has been retained and shall be present during clearing, grubbing, and/or grading activities within sensitive resources.

Biological monitoring shall include the following:

- a. Attend the preconstruction meeting with the contractor and other key construction personnel prior to clearing, grubbing, or grading to reduce conflict between the timing and location of construction activities with other mitigation requirements (e.g., seasonal surveys for nesting birds).
- b. Conduct meetings with the contractor and other key construction personnel describing the importance of restricting work to designated areas prior to clearing, grubbing, or grading. Perform weekly inspection of fencing and erosion control measures (daily during rain events) near proposed preservation areas.

- c. Discuss procedures/training for minimizing harm to or harassment of wildlife encountered during construction with the contractor and other key construction personnel prior to clearing, grubbing, or grading.
- d. Supervise and monitor vegetation clearing, grubbing, and grading to ensure against direct and indirect impacts to biological resources that are intended to be protected and preserved.
- e. Flush species (i.e., avian or other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities.
- f. Verify that the construction site is implementing the stormwater pollution prevention plan (SWPPP) best management practices. The SWPPP is described in further detail in M-BI-14.
- g. Periodically monitor the construction site in accordance with the Proposed Project's fugitive dust control plan. Periodically monitor the construction site to see that dust is minimized according to the fugitive dust control plan and that manufactured slopes are revegetated as soon as possible.
- h. Periodically monitor the construction site to verify that artificial security light fixtures are directed away from open space and are shielded.
- i. Oversee the construction site so that cover and/or escape routes for wildlife from excavated areas are provided on a daily basis. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges covered with soils and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and prior to sealing the exposed area) by a qualified biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.

**M-BI-2**

**Temporary Construction Fencing.** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, the Proposed Project applicant or its designee shall install prominently colored fencing and signage wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the

Preserve and for all off-site facilities constructed within the Preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of Planning & Development Services (or his/her designee) and the Director of Parks and Recreation that work was conducted as authorized under the approved land development permit and associated plans.

Based on the standard mitigation ratio of 1.188, the required conveyance for on-site impacts would be 776.8 acres (653.9 acres  $\times$  1.188 = 776.8 acres) (**M-BI-3**). See Table 2.4-20, Estimated Otay Ranch RMP Preserve Conveyance Obligation. Impacts to sensitive habitat within CDFW lands impacted by construction of the two connector roads would require 9.1 acres of mitigation. This impact would be mitigated by conveying an additional 10.8 acres to the Otay Ranch RMP Preserve (9.1 acres  $\times$  1.188 = 10.8 acres) (**M-BI-3**). This 10.8 acres is included in the 776.8 acre calculation. The BMO would require an additional 24.6 acres of mitigation. Impacts to City of San Diego Cornerstone Lands would require an additional 11.3 acres of mitigation. Therefore, the total ~~required~~ mitigation for the Proposed Project is anticipated to be approximately 812.7 acres as determined by the Preserve Conveyance Obligation. The overall conveyance acreage will be satisfied through onsite and off-site conveyance. Additional mitigation as a result of the BMO analysis may be satisfied through onsite or offsite conveyance (**M-BI-3**) or Conserved Open Space (**M-BI-4**). Impacts to San Diego Cornerstone lands will be mitigated through City of San Diego mitigation requirements and may include the use of Conserved Open Space (**M-BI-4**). While not proposed as a specific mitigation measure, the RMP requires an open space easement to be placed over areas of non-graded LDA which would provide additional habitat preservation.

**M-BI-3 Habitat Conveyance and Preservation.** Prior to the approval of the first Final Map for the Proposed Project, the Proposed Project applicant or its designee shall coordinate with the County of San Diego (County) to establish and/or annex the Project Area into a County-administered Community Facilities District to ~~pay fund~~ for the ongoing management and maintenance of the Otay Ranch Resource Management Plan (RMP) Preserve. Prior to the recordation of the first Final Map within each Tentative Map, the Proposed Project applicant shall convey land within the Otay Ranch RMP Preserve to the Otay Ranch Preserve Owner/Manager or its designee at 1.188 acres for each “developable acre” impacted, as defined by the Otay Ranch RMP. ~~At the standard 1.188 mitigation ratio, the required conveyance for this Proposed Project is 776.8 acres (653.9 acres  $\times$  1.188 = 776.8 acres). Common uses within the Project Area include 15.2 acres of public parks, the 9.6-acre elementary school site, 12.8 acres of major circulation, 3.6 acres for the on-site water tank and access road, and the 2.3-acre public safety site. In addition, Planning Area 16 contains 127.1 acres of LDA that is not subject to conveyance. Areas of Conserved Open~~

~~Space are also excluded from the conveyance total (72.4 acres). Total Proposed Project impacts, less these common areas, Conserved Open Space, and LDA, and including roads within Planning Areas 16/19, is 653.9 acres. Based on the analysis in the Draft EIR, it is anticipated that the~~The Proposed Project would shall convey a total of 776.8 acres, 426.7 acres of which is anticipated to be conveyed within Village 14 and Planning Areas 16/19. The actual conveyance will be based on the 1.188 mitigation ratio as determined at Final Map. The remaining 350.1 acres of conveyance needs shall would be met through off-site acquisitions within the Otay Ranch RMP, which wouldwill then be conveyed to the Otay Ranch RMP Preserve. In addition, the BMO analysis determined mitigation requirements for areas subject to the BMO (PV1, PV2 and PV3) are more stringent for certain types of habitat than the Otay Ranch RMP Preserve Conveyance Obligation. Accordingly, the BMO analysis identified an additional 24.6 acres of mitigation, beyond the 203.5 acres required by the Otay Ranch RMP Preserve Conveyance Obligation, for impacts in PV1, PV2 and PV3, for a total of 228.1 acres. The mitigation provided for impacts to PV1, PV2, and PV3 would be like-kind or up-tiered habitat.

**M-BI-4**

**Biological Open Space Easement.** Areas of Conserved Open Space shall be preserved on site and shall either be added to the Otay Ranch Resource Management Plan (RMP) Preserve (see M-BI-3), given to the City of San Diego to mitigate for impacts to Cornerstone Lands, or managed under a County of San Diego (County) approved RMP through the County biological open space easement to satisfy the additional mitigation requirements as a result of the BMO analysis. This easement shall be for the protection of biological resources, and all of the following shall be prohibited on any portion of the land subject to said easement: grading; excavating; placing soil, sand, rock, gravel, or other material; clearing vegetation; constructing, erecting, or placing any building or structure; vehicular activities; dumping trash; or using the area for any purpose other than as open space. Granting this biological open space shall authorize the County and its agents to periodically access the land to perform management and monitoring activities for species and habitat conservation. The only exceptions to this prohibition are the following:

1. Selective clearing of vegetation by hand to the extent required by written order of the fire authorities for the express purpose of reducing an identified fire hazard. Although clearing for fire management is not anticipated with the creation of this easement, such clearing may be deemed necessary in the future for the safety of lives and property. All fire clearing shall be pursuant to the applicable fire code of the fire authority having jurisdiction, and the Memorandum of Understanding

dated February 26, 1997, between the wildlife agencies and the fire districts and any subsequent amendments thereto.

2. Activities conducted pursuant to a revegetation or habitat management plan approved by the Director of Department of Planning & Development Services.
3. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the County of San Diego Department of Environmental Health.
4. Construction, use, and maintenance of multi-use, non-motorized trails.

The applicant shall show the on-site biological open space easement on the Final Map and biological open space easement exhibit with the appropriate granting language on the title sheet concurrent with Final Map Review, then submit them for preparation and recordation with the Department of General Services, and pay all applicable fees associated with preparation of the documents.

If areas of Conserved Open Space are managed through the County to provide for the long-term management of the proposed Conserved Open Space, an RMP shall be prepared and implemented prior to the approval of the Final Map. The RMP shall be submitted to the County and agencies for approval as required.

The final RMP cannot be approved until the following has been completed to the satisfaction of the Director of Department of Planning & Development Services, and, in cases where the Director of the Department of Parks and Recreation has agreed to be the owner/manager, to the satisfaction of the Director of the Department of Parks and Recreation:

1. The RMP shall be prepared and approved pursuant to the most current version of the County of San Diego Biological Report Format and Content Requirements.
2. The biological open space easements shall be dedicated to ensure that the land is protected in perpetuity.
3. A resource manager shall be selected and evidence provided by the applicant as to the acceptance of this responsibility by the proposed resource manager,
4. The RMP funding costs, including a PAR (Property Assessment Record) or other equally adequate forecast, shall be identified. The funding mechanism (endowment or other equally adequate mechanism) to fund annual costs for the RMP and the holder of the security shall be identified and approved by the County.



5. A contract between the applicant and County shall be executed for the implementation of the RMP.
6. Annual reports shall include an accounting of all required tasks and details of tasks addressed during the reporting period, and an accounting of all expenditures and demonstration that the funding source remains adequate.

**M-BI-5 Permanent Fencing and Signage.** To protect the Otay Ranch Resource Management Plan Preserve and areas of Conserved Open Space from entry upon occupancy of any housing units, an open space fence or wall shall be installed along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the Proctor Valley Village 14 and Preserve Edge Plan and Proposed Fencing, Preserve Signage, and Fuel Modification Zones. The barrier shall be a minimum construction of vertical metal fencing, but may be other suitable construction material, as approved by Department of Planning & Development Services and the Director of Parks and Recreation. To protect the Preserve from entry, informational signs shall be installed, where appropriate, along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the Proctor Valley Village 14 and Preserve Edge Plan. The signs must be corrosion resistant, a minimum of 6 inches by 9 inches, on posts not less than 3 feet in height from the ground surface, and state, "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited."

**M-BI-6 Nesting Bird Survey.** To avoid any direct impacts to raptors and/or any migratory birds protected under the Migratory Bird Treaty Act, removal of habitat that supports active nests on the proposed area of disturbance shall occur outside of the nesting season for these species (January 15 through August 15, annually). If, however, removal of habitat on the proposed area of disturbance must occur during the nesting season, the Proposed Project applicant or its designee shall retain a biologist approved by the County of San Diego (County) to conduct a preconstruction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The preconstruction survey must be conducted within 72 hours prior to the start of construction, and the results must be submitted to the Director of Planning & Development Services for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the County, shall be prepared and include proposed measures to be implemented to ensure that disturbance of nesting activities are avoided. The report or mitigation plan shall be submitted to the County for review and approval and implemented to the satisfaction of the Director

of Planning & Development Services (or her/his designee). The County's mitigation monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

**M-BI-7** **San Diego Fairy Shrimp Take Authorization.** The Project Applicant shall consult with the USFWS to determine if~~ff~~ take authorization is required for impacts to San Diego fairy shrimp suitable habitat. If such take authorization is required, the Proposed Project applicant shall demonstrate, to the satisfaction of the Director of Planning & Development Services (or his/her designee) and prior to the issuance of the first grading permit that impacts suitable San Diego fairy shrimp habitat, that it has secured from any necessary take authorization from the USFWS. Take authorization may be obtained through the Section 7 Consultation or Section 10 incidental take permit requirements. Preconstruction surveys for San Diego fairy shrimp will be a condition of this Project if required by the USFWS pursuant to the FESA. If required by the USFWS, the surveys shall be performed prior to the commencement of any clearing, grubbing, or grading activities. If required as a permit condition,~~The~~ preconstruction surveys will follow protocols set by the USFWS unless the USFWS authorizes a deviation from those protocols, as permitted under Section IX, subdivision a, of the "Survey Guidelines for the Listed Large Branchiopods," issued by USFWS on May 21, 2015. Note this measure will not apply to off-site areas under the jurisdiction of the City of San Diego or the City of Chula Vista. Take for San Diego fairy shrimp is provided by the City of San Diego's Vernal Pool Habitat Conservation Plan and the City of Chula Vista's Subarea Plan.

**M-BI-8** **Quino Checkerspot Butterfly Take Authorization.** The Project Applicant shall consult with the USFWS to determine if~~ff~~ take authorization is required for impacts to Quino checkerspot. If such take authorization is required, the Proposed Project applicant, or its designee, shall demonstrate, to the satisfaction of the Director of Planning & Development Services (or his/her designee) and prior to the issuance of the first grading permit that impacts suitable Quino checkerspot butterfly habitat, that it has secured from any necessary take authorization. Take authorization may be obtained through the Section 7 Consultation or Section 10 incidental take permit requirements. The Applicant will comply with any and all conditions, including preconstruction surveys, that the USFWS may require for take of Quino checkerspot butterfly pursuant to the FESA. If required as a permit condition, ~~Preconstruction~~ preconstruction surveys will be conducted in accordance with USFWS protocols unless the USFWS authorizes a deviation from those protocols.

Take may also be obtained through the County of San Diego Multiple Species Conservation Program Subarea Plan Quino Checkerspot Butterfly Addition, if/when approved. If the Quino checkerspot butterfly is included as an addition to the South County MSCP, and the Applicant seeks take under the Quino Addition, the Applicant will comply with any and all conditions required under the County MSCP Subarea Plan for Quino checkerspot Checkerspot butterfly Butterfly Addition.

**M-BI-9 Quino Checkerspot Butterfly Habitat Preservation.** The Proposed Project shall convey 404.8 acres of potential habitat for Quino checkerspot butterfly. In addition, per M-BI-4, an biological open space easement shall be placed over 72.4 acres of potential habitat within Conserved Open Space. ~~As a condition of the RMP, and open space easement will be placed over 83.7 acres of potential habitat within non-graded LDA.~~ Therefore, ~~560.9477.2~~ acres of potential habitat for Quino checkerspot butterfly shall be conveyed to the Otay Ranch Resource Management Plan Preserve or not be impacted by the Proposed Project. An additional 350.1 acres of conveyance is required for the Proposed Project's impacts and shall be selected to include suitable Quino checkerspot butterfly habitat. For the off-site mitigation parcel(s) to be acceptable as mitigation for sensitive plant and wildlife species, including Quino checkerspot butterfly, vegetation within the off-site parcel must be mapped and the site must have suitable habitat to support Quino checkerspot butterfly per the survey guidelines definition of habitat. Thus, the Proposed Project shall provide mitigation acreage at a ratio in excess of 1:1 (preservation of 1 acre for every 1 acre of impact) and shall adequately mitigate impacts to potential Quino checkerspot butterfly habitat. This mitigation measure also satisfies the mitigation requirements for those portions of the Project Area subject to the Biological Mitigation Ordinance. These areas shall be managed under a Quino Checkerspot Butterfly Management/Enhancement Plan, as discussed further in M-BI-10.

**M-BI-10 Quino Checkerspot Butterfly Management/Enhancement Plan.** Prior to the issuance of the first grading permit that impacts habitat identified as suitable for Quino checkerspot butterfly, the Proposed Project shall prepare a long-term Quino Checkerspot Butterfly Management/Enhancement Plan. At a minimum that plan shall include focused surveys within suitable habitat in the Otay Ranch Resource Management Plan Preserve and Conserved Open Space to determine if the species and suitable host plants are present, and determine areas of potential habitat restoration. The plan shall be submitted to and receive approval from the Director of the Department of Planning & Development Services (or her/his designee) and the Director of Parks and Recreation. The Quino Checkerspot Butterfly

Management/Enhancement Plan shall either be superseded or unnecessary upon completion and adoption of a future County Multiple Species Conservation Program Subarea Plan Quino Checkerspot Butterfly Addition. Adaptive management techniques shall be included in the plan, with contingency methods for changed circumstances. These measures shall ensure that the loss of habitat for the species related to the proposed development are adequately offset by measures that will enhance the potential for Quino checkerspot butterfly to occupy the Preserve, and shall provide data that will help the species recover throughout its range.

**M-BI-11 Biological Resource Salvage and Restoration Plan.** Mitigation requirements for the Proposed Project's impacts on special-status plants are based on the analysis within Section 2.4.3.1 (~~Impacts BI-4, BI-5, BI-9, and BI-10~~) and the Biological Mitigation Ordinance (BMO) analysis provided in Appendix A of the Biological Resources Technical Report for the Proposed Project. Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable sensitive biological resources, including San Diego goldenstar, variegated dudleya, San Diego barrel cactus, San Diego marsh-elder, and Robinson's pepper grass (including plant materials and soils/seed bank), the Proposed Project applicant or its designee shall prepare a Biological Resource Salvage and Restoration Salvage Plan. The Resource Salvage and Restoration Plan shall be prepared by a biologist approved by the City of Chula Vista and County of San Diego, to the satisfaction of the Development Services Director (or her/his designee) and in conjunction with the POM. Mitigation ratios for impacts to plant populations subject to the BMO are more robust than those required under the RMP. The mitigation for impacts to species subject to the BMO and the City of Chula Vista and County of San Diego subarea plans shall be provided as follows:

Species Scientific Name/ Common Name	Impacts	Mitigation Ratio	Mitigation Provided
San Diego Goldenstar ( <i>Bloomeria clevelandii</i> )	17 individuals	3:1	51 individuals
<i>Dudleya variegata</i> Variegated dudleya	35 individuals	3:1	105 individuals
<i>Ferocactus viridescens</i> San Diego barrel cactus	36 individuals	2:1	70 individuals (2 individuals are preserved on site)
<i>Iva hayesiana</i> San Diego marsh-elder	1,057 individuals	1:1	1,057 individuals
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	112 individuals	2:1	218 individuals (6 individuals are preserved on site)

The Resource Salvage and Restoration Plan will also include compliance with the mitigation standards set forth in the RMP, including those related to restoration and translocation for San Diego goldenstar (translocation 758 of impacted individuals), San Diego marsh-elder in drainages (0.65 acres of impacts at a 2:1 ratio), and San Diego County needle grass (translocation of 93 impacted individuals). The mitigation requirements for variegated dudleya and San Diego barrel cactus are satisfied with the BMO mitigation requirements.

The Resource Salvage and Restoration Plan shall, at a minimum, evaluate options for plant salvage and relocation, including individual plant salvage, native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Otay Ranch Resource Management Plan Preserve. The Resource Salvage and Restoration Plan shall include incorporation of relocation and restoration efforts for San Diego goldenstar, San Diego County needle grass, variegated dudleya and San Diego barrel cactus, and include San Diego marsh-elder, and Robinson's pepper-grass within restoration areas associated with M-BI-12 or other suitable sites within the Otay Ranch RMP Preserve. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site, and shall be based on the most reliable methods of successful relocation. The program shall also include a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The program shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, success criteria, and any relevant contingency measures to ensure that no-net-loss is achieved. The program shall also be subject to the oversight of the Development Services Director (or her/his designee). In addition to relocation of existing populations for San Diego goldenstar, variegated dudleya and San Diego barrel cactus, the Biological Resource Salvage and Restoration Plan shall also include additional plantings of these species to achieve a 3:1 and 2:1 mitigation ratio (see the table above).

If populations of San Diego marsh-elder, and Robinson's pepper-grass are found within the ~~350.1 acres of~~ off-site mitigation, preservation of these populations may be used for mitigation instead of restoration activities.

As required per RMP Policy 3.2, the Project Applicant will coordinate with the Otay Ranch POM to meet the restoration requirements for Munz's sage and San Diego viguiera dominated coastal sage scrub.

**M-BI-12 Restoration of Temporary Impacts.** The Proposed Project would result in temporary impacts to sensitive upland and jurisdictional aquatic resources along the

off-site portions of Proctor Valley Road, as well as temporary impacts associated within on-site road development. Road development within Village 14 would include 3.7 acres of temporary impacts to sensitive resources and 6.6 acres within the Otay Ranch Resource Management Plan (RMP) Preserve. Within Planning Areas 16/19, there would be 3.4 acres of temporary impacts within the Otay Ranch RMP Preserve. Off-site temporary impacts to sensitive resources would total 49.4 acres: 2.4 acres of temporary impacts to City of Chula Vista land, 21.1 acres of temporary impacts to City of San Diego Cornerstone Lands, and 25.9 acres of temporary impacts to California Department of Fish and Wildlife (CDFW)-owned lands. In addition, there would be minor impacts to County of San Diego lands totaling 0.1 acres. Restoration areas may incorporate salvaged materials, such as seed collection and translocation of plant materials, as determined to be appropriate. The Proposed Project biologist shall review the plant materials prior to grading and determine if salvage is warranted. Prior to grading the Proposed Project, a Conceptual Upland and Wetlands Restoration Plan for impacts within County of San Diego shall be submitted to and receive approval from the Director of the Department of Planning & Development Services (or her/his designee) and the Director of Parks and Recreation. Prior to grading, a separate Conceptual Upland and Wetlands Restoration Plan shall also be prepared and submitted to each city's Development Services Director (or her/his designee) and CDFW for their approval.

The Conceptual Upland and Wetlands Restoration Plans shall include the following to ensure the establishment of the restoration objectives: a 24- by 36-inch map showing the restoration areas, site preparation information, type of planting materials (e.g., species ratios, source, size of container), planting program, 80% relative native cover success criteria, 5-year monitoring plan, and detailed cost estimate. The cost estimate shall include planting, plant materials, irrigation, maintenance, monitoring, and report preparation. The report shall be prepared by a City of Chula Vista-, City of San Diego-, and County of San Diego-approved biologist and a California-licensed landscape architect. The habitat restored pursuant to the plan must be placed within an open space easement dedicated to the appropriate managing entity prior to or immediately following approval of the plan.

**M-BI-13 Burrowing Owl Preconstruction Survey.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the Proposed Project applicant or its designee shall retain a County of San Diego (County)-approved biologist to conduct focused preconstruction surveys for burrowing owl. The surveys shall be performed no earlier than ~~30~~ seven days prior to the commencement of any clearing, grubbing, or grading activities. If occupied

burrows are detected, the County-approved biologist shall prepare a passive relocation mitigation plan subject to review and approval by the Wildlife Agencies (i.e., California Department of Fish and Wildlife and U.S. Fish and Wildlife Service) and the County, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.

**M-BI-14 SWPPP.** Prior to issuance of grading permits in portions of the Development Footprint that are adjacent to the Preserve, the Proposed Project applicant or its designee shall develop a stormwater pollution prevention plan (SWPPP). The SWPPP shall be developed, approved, and implemented during construction to control stormwater runoff such that erosion, sedimentation, pollution, and other adverse effects are minimized. The following performance measures contained in the Proctor Valley Preserve Edge Plan shall be implemented to avoid the release of toxic substances associated with construction runoff:

- Sediment shall be retained within the Development Footprint by a system of sediment basins, traps, or other appropriate measures.
- Permanent energy dissipaters shall be included for drainage outlets.
- The best management practices contained in the SWPPP shall include silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydroseeding.

The Project Area drainage basins shall be designed to provide effective water quality control measures, as outlined in the SWPPP. Design and operational features of the drainage basins shall include design features to provide maximum infiltration; maximum detention time for settling of fine particles; maximum distance between basin inlets and outlets to reduce velocities; and maintenance schedules for periodic removal of sedimentation, excessive vegetation, and debris.

**M-BI-15 Erosion and Runoff Control.** During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This shall protect sensitive vegetation from being inundated with sediment-laden runoff.

Dewatering shall be conducted in accordance with standard regulations of the Regional Water Quality Control Board (RWQCB). A National Pollutant Discharge Elimination System permit, issued by RWQCB to discharge water from dewatering activities, shall be required prior to start of construction. This shall minimize erosion, siltation, and pollution within sensitive communities.

Design of drainage facilities shall incorporate long-term control of pollutants and stormwater flow to minimize pollution and hydrologic changes. An Urban Runoff Plan and operational best management practices shall be approved by the San Diego County Department of Planning & Development Services prior to construction.

**M-BI-16**     **Prevention of Invasive Plant Species.** A County of San Diego (County)–approved plant list, as described in the Preserve Edge Plan, shall be used for areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species that reflect the adjacent native habitat. A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasive species shall be used for slope stabilization in transitional areas. Per the Preserve Edge Plan, only County-approved vegetation shall be planted in streetscapes or within the 100-foot “edge” between development and the Otay Ranch Resource Management Plan Preserve.

1. The Planning & Development Services Landscape Architect shall require that all final landscape plans comply with the following: no invasive plant species as included on the most recent version of the California Invasive Plant Council’s California Invasive Plant Inventory for the Proposed Project region shall be included, and the plant palette shall be composed of native species that do not require high irrigation rates. The Proposed Project biologist shall periodically check landscape products for compliance with these requirements.

**M-BI-17**     **Prevention of Chemical Pollutants.** Weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County of San Diego (County) agriculture commissioner. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Adviser and implemented by a licensed applicator. Where manual and/or mechanical methods are used, disposal of the plant debris shall follow the regulations set by the County agriculture commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the Pest Control Adviser, the County agriculture commissioner, and the California Invasive Plant Council, with the goal of controlling populations before they start producing seeds. A manual weeding program shall be implemented on the manufactured slope adjacent to the Preserve to control weeds that are likely to be encouraged by irrigation within the 100-foot Preserve edge/fuel modification zone. Weed control efforts shall occur quarterly or as needed to prevent weeds on the manufactured slopes from moving into the adjacent Preserve. Either the homeowner’s association or County’s landscape monitoring firm shall be responsible to check the irrigated slopes during plant



establishment to verify that excessive runoff does not occur and that any weed infestations are controlled.

During Proposed Project operation, all recreational areas that use chemicals or animal by-products, such as manure, that are potentially toxic or impactful to sensitive habitats or plants shall incorporate best management practices on site to reduce impacts caused by the application and/or drainage of such materials into the Otay Ranch Resource Management Plan Preserve. In addition, use of rodenticides will not be allowed within the 100-foot Preserve edge.

**M-BI-18** **Noise.** Uses in or adjacent to the Otay Ranch Resource Management Plan (RMP) Preserve with impacts that are not reduced through implementation of the Preserve Edge Plan shall be designed to minimize potential noise impacts to surrounding wildlife species by constructing berms or walls adjacent to commercial areas and any other uses, such as community parks, that may introduce noises that could impact or interfere with wildlife use of the Otay Ranch RMP Preserve.

Construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) adjacent to breeding/nesting areas shall incorporate noise-reduction measures (described below) or be curtailed during the breeding/nesting season of sensitive bird species.

There shall be no construction-related activities allowed during the breeding season of migratory birds or raptors (January 15 through August 31) or coastal California gnatcatcher (February 15 through August 31). The Director of Planning & Development Services may waive this condition, through written concurrence from the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife (i.e., Wildlife Agencies), provided that no nesting or breeding birds are present within 300 feet of the construction activities (500 feet for raptors) based on a preconstruction survey.

If construction-related activities that are excessively noisy (e.g., clearing, grading, grubbing, or blasting) occur during the period of February 15 through August 31, a County of San Diego (County)-approved biologist shall conduct preconstruction surveys in suitable nesting habitat adjacent to the construction area to determine the location of any active nests in the area. If the habitat is suitable for raptors, the survey area shall extend to 500 feet from the impact area, and if the habitat is suitable only for nesting by non-listed and non-raptor avifauna, the survey area shall extend 50 to 300 feet from the impact area, depending on the habitat type. The survey shall begin not more than 3 days prior to the beginning of construction

activities. If nesting birds are detected by the biologist, the following buffers shall be established: (1) no work within 50 feet of a non-listed and non-raptor avifauna nest; (2) no work within 300 feet of a federally or state-listed species, such as coastal California gnatcatcher; and (3) no work within 500 feet of a raptor nest. The buffer shall be flagged in the field and mapped on the construction plans. To the extent possible, the non-construction buffer zones shall be avoided until the nesting cycle is complete. However, it may be reasonable for the County to reduce these buffer widths depending on site conditions (e.g., the width and type of screening vegetation) or the existing ambient level of activity (e.g., existing level of human activity within the buffer distance). If construction-related activities must take place within these buffer widths, the Proposed Project applicant or its designee shall contact the County to determine how to best minimize impacts to nesting birds.

Specific to coastal California gnatcatcher and nesting raptors, construction-related noise levels in coastal California gnatcatcher-occupied habitat within 500 feet of construction activity shall not exceed 60 A-weighted decibels equivalent continuous sound level (dBA  $L_{eq}$ ) or preconstruction ambient noise levels, whichever is greater. Proposed Project construction within 500 feet of occupied habitat shall occur outside of the breeding season, if possible. If necessary, construction activities during the breeding season shall be managed to limit noise levels in occupied habitat within 500 feet of the site, or noise attenuation measures, such as temporary sound walls, shall be implemented to reduce noise levels below 60 dBA  $L_{eq}$  or below existing ambient noise levels, whichever is greater.

**M-BI-19**      **Fire Protection.** To minimize the potential exposure of the Project Area to fire hazards, all features of the Fire Protection Plan for Otay Ranch Village 14 and Planning Areas 16/19 shall be implemented in conjunction with development of the Proposed Project.

**M-BI-20**      **Lighting.** Lighting of all developed areas adjacent to the Otay Ranch Resource Management Plan Preserve shall be directed away from the Preserve, wherever feasible and consistent with public safety. Where necessary, development shall provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration shall be given to the use of low-pressure sodium lighting.

**M-BI-21**      **Federal and State Agency Permits.** Prior to impacts occurring to U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) (collectively, the

Resource Agencies) jurisdictional aquatic resources, the Proposed Project applicant or its designee shall obtain the following permits: ACOE 404 permit, RWQCB 401 Water Quality Certification, and CDFW Fish and Game Code 1600 Streambed Alteration Agreement. The overall ratio of wetland/riparian habitat mitigation shall be 3:1. Impacts shall be mitigated at a 1:1 impact-to-creation ratio by either the creation, or purchase of credits for the creation, of jurisdictional habitat of similar functions and values. An additional 2:1 enhancement-to-impact ratio shall be required to meet the overall 3:1 impact-to-mitigation ratio for impacts to wetlands/riparian habitat. Impacts to unvegetated and ephemeral stream channels shall occur at a 1:1 impact-to-creation ratio. A suitable mitigation site shall be selected and approved by the Resource Agencies during the permitting process.

If mitigation is proposed to occur within the Project Area or within the additional off-site areas needed for conveyance, then a Wetlands Mitigation and Monitoring Plan shall be prepared. Prior to issuance of land development permits, including clearing, grubbing, and grading permits for activities that would impact jurisdictional aquatic resources, the Proposed Project applicant shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the Director of Planning & Development Services (or his/her designee), the Director of Parks and Recreation, ACOE, RWQCB, and CDFW. The Conceptual Wetlands Mitigation and Monitoring Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation. 7.1.5 Cultural Resources

### **7.1.5 Cultural Resources**

**M-CR-1 Temporary Fencing.** To prevent inadvertent disturbance of archaeological sites within the avoidance areas (open space), temporary fencing shall be installed where resources are located within 50 feet of the area of direct impact (ADI). The temporary fencing shall include the following requirements:

1. Prior to the commencement of any grading and/or clearing in association with the grading and/or improvement plan, temporary orange construction fencing shall be placed to protect archaeological sites from inadvertent disturbance within the avoidance areas (open space) and the unimpacted portions of sites outside of the ADI during earth-disturbing activities. Temporary fencing shall be installed prior to the pre-construction meeting and any clearing, grubbing,

trenching, grading, or land disturbances; remain for the duration of earth-disturbing activities; and include the following:

- Temporary fencing is required in all locations of the Proposed Project where proposed grading or clearing is within 50 feet of any archaeological site within avoidance areas (open space) or the unaffected portions of sites outside of the ADI.
  - The placement of such fencing shall be approved by the County of San Diego (County). Upon approval, the fencing shall remain in place until the conclusion of grading activities, after which the fencing shall be removed.
  - Installation of temporary fencing shall require the presence of monitor(s) (Archaeological & Native American) pursuant to M-CR-2.

**M-CR-2** In total, 57 sites are located within the area of direct impact (ADI) and would be impacted during development of the Proposed Project (**Impact CR-2**). There is also the potential for the discovery of unknown cultural resources during ground-disturbing activities associated with construction of the Proposed Project (**Impact CR-4**). The mitigation measures described below would reduce potentially significant impacts to less than significant:

**Archaeological Monitoring.** To mitigate for potential impacts to undiscovered, buried archaeological resources in the Project Area, an archaeological monitoring program and potential data recovery program shall be implemented pursuant to the County of San Diego's (County's) Guidelines for Determining Significance and Report Format and Requirements for Cultural Resources and the California Environmental Quality Act (CEQA) and shall include the following requirements:

- a. Pre-Construction
  - The applicant shall contract with a County-approved archaeologist to perform archaeological monitoring. The project archaeologist shall contract with a Kumeyaay monitor to conduct Native American monitoring for the Proposed Project.
  - The pre-construction meeting shall be attended by the project archaeologist and the Kumeyaay Native American monitor.
- b. Construction
  - **Monitoring.** Both the project archaeologist and Kumeyaay Native American monitor are to be on site during all earth-disturbing activities. The frequency

and location of monitoring of native soils shall be determined by the project archaeologist and the Kumeyaay Native American monitor. The project archaeologist and the Kumeyaay Native American monitor shall evaluate fill soils to ensure that they are negative for cultural resources.

- Inadvertent Discoveries
  - The project archaeologist and the 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 the Kumeyaay Native American monitor, shall determine the significance of discovered resources.
  - Construction activities shall be allowed to resume after the County archaeologist has agreed with the significance evaluation.
  - Isolates and non-significant deposits shall be minimally documented in the field. If the isolates and non-significant deposits are not 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, to cap identified sacred sites or unique cultural resources and to place development over the cap if avoidance is infeasible; and to perform data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).

c. Human Remains

- The property owner or their representative shall contact the County coroner and the County Planning & Development Services 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 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 California Public Resources Code, Section 5097.98, has been conducted.
- California Public Resources Code, Section 5097.98; CEQA Guidelines, Section 15064.5; and California Health and Safety Code, Section 7050.5, shall be followed in the event that human remains are discovered.

d. Rough Grading

- Upon completion of rough grading, a monitoring report identifying whether resources were encountered shall be prepared. A copy of the monitoring report shall be provided to any culturally affiliated tribe that requests a copy.

e. Final Grading

- A final report substantiating that earth-disturbing activities are completed and whether cultural resources were encountered shall be prepared. A copy of the final report shall be submitted to the South Coastal Information Center (SCIC) and any culturally affiliated tribe that requests a copy.

f. Disposition of Cultural Material

The final report shall include the following:

- Evidence that all prehistoric materials have been curated at a San Diego curation facility or tribal curation facility that meets federal standards according to Title 36, Part 79, of the Code of Federal Regulations or alternatively have been repatriated to a culturally affiliated tribe.
- Evidence that historic materials have been curated at a San Diego curation facility that meets federal standards according to Title 36, Part 79, of the Code of Federal Regulations.

**M-CR-3**

**Data Recovery.** To mitigate potential impacts to the eastern portion of sites CA-SDI-12397 and CA-SDI-12373, a phased data recovery program shall be implemented prior to construction by a County of San Diego (County)-approved archaeologist. The phased data recovery (prepared as a separate document) would involve either surface collection and curation/repatriation to prevent looting (CA-

SDI-12373 (Locus A), or excavation of a series of shovel test pits (STPs) to identify subsurface deposits and then excavation of control units (CUs) within those areas where subsurface deposits are identified. The number of CUs to be excavated would depend on the quantity and variety of artifacts and features identified and the presence/absence of a midden deposit because the data potential of the site is contained within those components of the site. Archaeological materials recovered during the data recovery efforts shall be cleaned, sorted, cataloged, and analyzed following standard archaeological procedures and shall be documented in a data recovery report. Upon completion of fieldwork, the County-approved archaeologist shall submit a letter report summarizing the field work efforts and stating that the scientifically significant sample of the site has been recovered. Upon approval from the County archaeologist, construction may begin at this location.

### **7.1.6 Geology and Soils**

**M-GE-1** Prior to issuance of a grading permit, a final geotechnical report shall be prepared by a registered civil or geotechnical engineer. The report shall include any additional field efforts, including borings, sampling, and associated laboratory testing, to determine whether liquefaction, rockfall, landslides, and/or expansive soils are concerns for the Proposed Project. The report shall specify foundation designs that are adequate to preclude substantial damage to the proposed structures due to liquefaction. Mapping and evaluation of hard rock slopes shall be performed by an engineering geologist prior to and during site development. The report shall be submitted with the building plans, and all recommendations of the report shall be incorporated into the design of the buildings.

Measures developed in the geotechnical report shall be based on site-specific conditions. Measures would likely include the following, which are provided as examples only:

#### Liquefaction

- Deposits of concern shall be over-excavated and recompact.
- Deposits of concern shall be replaced with engineered fill.
- Fill shall be surcharged (temporary overloading with fill) to facilitate settlement.
- Densification of deposits of concern shall be performed in place, potentially including any combination of placement of vibra-stone columns and use of wick and blanket drains, compaction grouting, and dynamic compaction.
- Subdrains shall be incorporated.

### Rockfall

Impacts related to rockfall are not anticipated; therefore, this example measure would only apply if unforeseen rockfall hazards are encountered during the clearing, grubbing, and grading stages of construction:

- Scaling of the slope faces shall occur.
- Construction of catchment areas or debris fences shall occur.
- Removal of precariously situated boulders shall occur.

### Landslides

Impacts related to landslides are not anticipated; therefore, this example measure would only apply if unforeseen landslides are encountered during the clearing, grubbing, and grading stages of construction:

Design features to reduce the potential effects of landslides shall include remedial grading and removal of landslide debris or slope stabilization in the areas of proposed development. In areas where landslide debris would be left in place, the construction of buttress fills shall be required to mitigate the potential for instability of cut slopes composed of landslide debris.

### Expansive Soil

Highly expansive soils (typically the upper 3 feet below finish grade) shall be removed and replaced with soils with low expansion potential, lime treatment shall be applied, or moisture conditioning shall occur, in accordance with the standards contained within the then-current edition of the California Building Code. Concrete slabs shall be used in structure foundations, as necessary.

## **7.1.7 Greenhouse Gas Emissions**

**M-GHG-1** As to construction greenhouse gas (GHG) emissions, prior to the County of San Diego's (County) issuance of each grading permit, the Proposed Project applicant or its designee shall purchase and retire carbon offsets in a quantity sufficient to offset 100% of the Proposed Project's construction emissions (including sequestration loss from vegetation removal) associated with each such grading permit, consistent with the performance standards and requirements set forth below.

**First**, "carbon offset" shall mean an instrument issued by any of the following: (i) the Climate Action Reserve, the American Carbon Registry, and Verra



~~the (previously, Verified Carbon Standard); or (ii) any registry approved by the California Air Resources Board (CARB) to act as a registry under the state's cap-and-trade program; or (iii) if no registry is in existence as identified in options (i) and (ii), above, then any other reputable registry or entity that issues carbon offsets.~~

**Second**, any carbon offset used to reduce the Proposed Project's greenhouse gas (GHG) emissions shall be a carbon offset that represents the past or forecasted reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4(c)(3)).

**Third**, "Proposed Project applicant" shall mean Jackson Pendo Development Company's or its designee.

**Fourth**, as to construction and from vegetation removal GHG emissions, prior to the County's issuance of each grading permit, the Proposed Project applicant or its designee shall provide evidence to the satisfaction of the Director of the Planning & Development Services Department (PDS) that the Proposed Project applicant has purchased and retired carbon offsets in a quantity sufficient to offset 100% of the construction GHG emissions and sequestration loss from vegetation removal generated by the Proposed Project, as associated with each such grading permit. The emissions reduction obligation associated with each grading permit shall be calculated by reference to the certified environmental impact report's Greenhouse Gas Emissions Technical Report (Appendix 2.7-1), which determined total construction-related emissions as equaling 21,845,22,760 metric tons of carbon dioxide equivalent (MT CO<sub>2e</sub>). This would increase to 21,854,22,769 MT CO<sub>2e</sub> if the Proctor Valley Road North Option is selected. In making such a determination, the Director of the PDS shall require the Project applicant or its designee to provide an attestation or similar documentation from the selected registry(ies) that a sufficient quantity of carbon offsets meeting the standards set forth in this measure have been purchased and retired, thereby demonstrating that the necessary emission reductions are realized.

**Fifth**, the purchased carbon offsets used to reduce construction and vegetation removal GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (California Health & Safety Code Section 38562(d)(1)).

**Sixth**, ~~the County of San Diego Planning & Development Services shall consider,~~ all carbon offsets required to reduce the Proposed Project's construction and vegetation removal emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes to the

satisfaction of the Director of PDS, the following geographic priorities for GHG reduction features, and GHG reduction projects and programs: (1) project design features/on-site reduction measures; (2) off-site, within the unincorporated areas of the County of San Diego; (3) off-site, incorporated areas of within the County of San Diego; (4) off-site areas within California; (5) off-site areas within the United States; and (6) off-site internationally areas. As listed, geographic priorities would focus first on local reduction features options (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits to other environmental resource areas related to air quality criteria pollutant reductions within the San Diego Air Basin, and to aid in San Diego County jurisdictions' efforts to meet their GHG reduction goals.

The Director of the PDS shall issue a written determination Proposed Project applicant or its designee shall first pursue offset projects and programs locally within unincorporated areas of the County of San Diego to the extent such offset projects and programs are financially competitive in the global offset market, that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project applicant or its designee to use offsets from the next lower priority category. In making such a determination, the Director of the PDS shall consider information available at the time each Project-related grading permit request is submitted, including but not limited to:

- The availability of in-State emission reduction opportunities, including funding and partnership opportunities with the County, other public agencies, or environmental initiatives with demonstrated integrity;
- The geographic attributes of carbon offsets that are listed for purchase and retirement;
- The temporal attributes of carbon offsets that are listed for purchase and retirement;
- The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or,
- Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets.

Seventh, over the course of the construction period, the Project applicant or its designee shall submit annual reports to PDS that identify the quantity of emission reductions required by this mitigation measure, as well as the carbon offsets retired to achieve compliance with this measure. The annual reports shall identify the

locational attributes of the carbon offsets in order to allow PDS to track and monitor the implementation of the geographic priority provision. Such tabulation and tracking shall be to the satisfaction of the Director of the PDS.

**M-GHG-2** As to operational greenhouse gas (GHG) emissions, prior to the County of San Diego’s (County) issuance of building permits for each implementing Site Plan (“D” Designator), the applicant or its designee shall purchase and retire carbon offsets for the incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational greenhouse gas (GHG) emissions from that incremental amount of development to net zero, consistent with the performance standards and requirements set forth below.

**First**, “carbon offset” shall have the same meaning as set forth in M-GHG-1.

**Second**, any carbon offset used to reduce the Proposed Project’s GHG emissions shall be a carbon offset that represents the past or forecasted reduction or sequestration of ~~one~~ metric ton of carbon dioxide equivalent that is “not otherwise required” (CEQA Guidelines Section 15126.4(c)(3)).

**Third**, “the Proposed Project applicant” shall have the same meaning as set forth in M-GHG-1.

**Fourth**, as to operational emissions, prior to the County of San Diego’s issuance of building permits for each implementing Site Plan (“D” Designator), the Proposed Project applicant or its designee shall provide evidence to the satisfaction of the Director of Planning & Development Services Department (PDS) that it has purchased and retired carbon offsets for the incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational GHG emissions from the incremental amount of development to net zero. The “project life” is 30 years. This methodology is consistent with the 30-year project life time frame used by the South Coast Air Quality Management District’s GHG guidance (SCAQMD 2008), as well as the methodological parameters used by the California Air Resources Board when reviewing AB 900 projects. (For more information on the evidence supporting the 30-year temporal period, please see Section 8.4.5, Use of Carbon Offsets, and Response to Comment O-5-90.)

The emissions reduction obligation associated with each building permit shall be calculated by reference to the certified environmental impact report’s (EIR) Greenhouse Gas Emissions Technical Report (Appendix 2.7-1), which determined total operational~~construction~~-related emissions as equaling 16,159 metric tons of

carbon dioxide equivalent (MT CO<sub>2</sub>e) annually, which equates to 484,770 MT CO<sub>2</sub>e over 30 years.

In making such a determination, the Director of the PDS shall require the Project applicant or its designee to provide an attestation or similar documentation from the selected registry(ies) that a sufficient quantity of carbon offsets meeting the standards set forth in this measure have been purchased and retired, thereby demonstrating that the necessary emission reductions are realized.

**Fifth**, the purchased carbon offsets used to reduce operational GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (California Health & Safety Code Section 38562(d)(1)).

**Sixth**, the amount of carbon offsets required for each implementing Site Plan shall be based on the GHG emissions with the implementing Site Plan, and shall include operational GHG emissions as identified in the approved Greenhouse Gas Emissions Technical Report.

**Seventh**, each implementing Site Plan shall include a tabulation that identifies the overall carbon offsets required to mitigate the entire Proposed Project's GHG emissions (i.e., Table 2.3-13), and shall identify: (1) the amount of carbon offsets purchased to date as a result of prior Site Plan approvals, (2) the amount of carbon offsets required to be purchased and retired for the incremental portion of the Proposed Project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational greenhouse gas (GHG) emissions from that incremental amount of development to net zero, and (3) as well as the remaining carbon offsets required to reduce the Proposed Project's remaining emissions to net zero. The Project applicant or its designee shall submit annual reports to PDS that identify the quantity of emission reductions required by this mitigation measure, as well as the carbon offsets retired to achieve compliance with this measure. The annual reports shall identify the locational attributes of the carbon offsets in order to allow PDS to track and monitor the implementation of the geographic priority provision. Such tabulation and tracking shall be to the satisfaction of the Director of PDS.

For clarity, the following example is provided to illustrate the Proposed Project's operational GHG emissions purchase and retirement strategy. If 100 single-family residential units are proposed to be developed in conjunction with an implementing Site Plan ("D" Designator), GHG emissions for those land uses would be calculated and carbon offsets for those emissions would be secured for a 30-year period. To facilitate implementation of this strategy, the Proposed Project's total emissions

have been allocated on a per dwelling unit basis; this methodological approach ensures that, when each dwelling unit is developed, the emissions from the Proposed Project's resident-serving non-residential facilities will also be offset. Thus, the 100-single family-residential units contemplated by this example would be multiplied by 15.81 MT CO<sub>2</sub>e/dwelling unit (total project emissions / total # of dwelling units = 16,159 MT CO<sub>2</sub>e /yr / 1,022 dwelling units = 15.81 MT CO<sub>2</sub>e /yr/DU). This value would then be multiplied by 30, to calculate the total carbon offsets required for that phase of development (e.g., 100 single-family residential units × 15.81 MT CO<sub>2</sub>e /du × 30 = 47,430 MT CO<sub>2</sub>e of carbon offsets).

**Eighth**, this EIR acknowledges that the Proposed Project's GHG emissions estimates are conservative because the Proposed Project's GHG emissions are expected to decrease beyond the estimates presented in the EIR's analysis, in part, due to reasonably foreseeable improvements in fuel efficiency, vehicle fleet turnover, technological improvements related to transportation and energy, and updates to emissions models and methodologies. Thus, subject to County oversight, and the processes described below, the operational emission estimates that govern implementation of this Proposed Project are subject to a "true up" at the election of the Proposed Project applicant (as defined above) or its designee and subject to the satisfaction of the ~~Director of PDS~~County's Board of ~~Supervisors~~, as considered pursuant to a noticed public hearing process that accords with applicable legal requirements, including those set forth in CEQA for the post-approval modification of mitigation implementation parameters.

Specifically, if the Project applicant elects to process and a "true-up" exercise subsequent to the County's certification of the Final EIR and approval of the Proposed Project, the Proposed Project applicant shall provide an operational GHG emissions inventory of the Proposed Project's operational emissions for the "true up" operational conditions, including emissions from mobile sources, energy, area sources, water consumption, and solid waste. Subject to the satisfaction of the ~~Director of PDS~~Board of Supervisors, these calculations shall be conducted using a County-approved model and/or methodology and must validate the continuing adequacy of modeling inputs used in the EIR that are not proposed to be altered as part of the "true-up" exercise. The inclusion of the validation requirement ensures that any updated operational GHG emissions inventories for the Project fully account for then-existing information that is relevant to the emissions modeling. Alternatively, the Proposed Project applicant may purchase all carbon offset credits to reduce operational GHG emissions at issuance of the first building permit.

The “true up” operational GHG emissions inventory, if conducted, will be provided in the form of a project-specific Updated Emissions Inventory and Offset Report to the County’s ~~Director of PDS~~ Board of Supervisors (or its designee) prior to the issuance of building permits for the next build-out phase. The subject technical documentation shall be prepared by a County-approved, qualified air quality and greenhouse gas technical specialist. ~~If the Director of PDS (or its designee) tentatively determines that the technical documentation demonstrates that the quantity of project related GHG emissions would be lower than the quantity identified in the certified Final EIR for the Proposed Project, and finds that the technical documentation is supported by substantial evidence, such Planning Director may authorize a reduction in the total carbon offsets value required for the Proposed Project.~~

In all instances, substantial evidence must confirm that any reduction to the total carbon offsets value as identified in the certified Final EIR for the Proposed Project is consistent with the Proposed Project commitment to achieve and maintain carbon neutrality (i.e., net zero emissions) for the 30-year life of the Proposed Project.

Ninth, all carbon offsets required to reduce the Project’s operational emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes~~the County of San Diego Planning & Development Services shall consider, to the satisfaction of the Director of PDS, the following geographic priorities for GHG reduction features, and GHG reduction projects and programs: (1) project design features/on-site reduction measures; (2) off-site, within the unincorporated areas of the County of San Diego; (3) off-site, incorporated areas of within the County of San Diego; (4) off-site areas within California; (5) off-site areas within the United States; and (6) off-site internationally areas.~~ As listed, geographic priorities would focus first on local reduction options~~features~~ (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits related to other environmental resource areas~~air quality criteria pollutant reductions within the San Diego Air Basin, and to aid in San Diego County jurisdictions’ efforts to meet their GHG reduction goals.~~ The Proposed Project applicant or its designee shall first pursue offset projects and programs locally within unincorporated areas of the County of San Diego to the extent such offset projects and programs are financially competitive in the global offset market.

The Director of the PDS shall issue a written determination that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project

applicant or its designee to use offsets from the next lower priority category. In making such a determination, the Director of the PDS shall consider information available at the time each Project-related building permit request is submitted, including but not limited to:

- The availability of in-State emission reduction opportunities, including funding and partnership opportunities with the County, other public agencies, or environmental initiatives with demonstrated integrity;
- The geographic attributes of carbon offsets that are listed for purchase and retirement;
- The temporal attributes of carbon offsets that are listed for purchase and retirement;
- The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or,
- Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets.

**M-GHG-3** Prior to the issuance of residential building permits, the applicant or its designee shall provide evidence to the County of San Diego that the design plans for residential structures include electrical outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.

**M-GHG-4** To reduce greenhouse gas emissions, the applicant or its designee shall provide evidence to the County of San Diego that the following project design features identified for the Proposed Project in Table 2.7-5 and Table 1 of the Mitigation Monitoring and Reporting Program (MMRP), ~~herein~~ will be implemented: PDF-AQ/GHG-1 (Wood-Burning Stoves and Fireplaces), PDF-AQ/GHG-2 (Zero Net Energy Residences), PDF-AQ/GHG-3 (Non-Residential Energy Improvement Standards), PDF-AQ/GHG-4 (Energy Star Appliances), PDF-AQ/GHG-5 (Solar Water Heating), PDF-AQ/GHG-6 (Efficient Outdoor Lighting), PDF-AQ/GHG-7 (New Resident Information Packet), PDF-AQ/GHG-8 (Cool Roofs), PDF-AQ/GHG-9 (Cool Pavement), PDF-AQ/GHG-10 (Electric Vehicle Charging Stations), PDF-TR-1 (TDM Program), PDF-UT-1 (Hot Water Pipe Insulation – Residential and Non-Residential), PDF-UT-2 (Pressure Reducing Valves – Residential and Non-Residential), PDF-UT-3 (Water Efficient Dishwashers), ~~and~~ PDF-UT-4 (Residential Landscaping) and PDF-UT-5 (Water Conservation).

### 7.1.8 Noise

#### Exterior Residential Noise Levels

**M-N-1** The single-family residential lots shown in Figure 2.8-4 with rear- or side-yard exposures adjacent to Proctor Valley Road shall include minimum 6-foot-high solid noise barriers along the exposure. The noise barriers may be constructed as a wall or berm, or a combination of both. The materials used in construction of the barrier shall have a minimum surface density of 4 pounds per square foot. They may consist of masonry material, 0.625-inch-thick Plexiglas, 0.25-inch-thick plate glass, or a combination of these materials. The barriers must be designed so there are no openings or cracks.

#### Interior Residential Noise Levels

**M-N-2** Prior to issuance of building permits (and after preparation of detailed building plans) for proposed single-family residential units directly adjacent to Proctor Valley Road, as shown in Figure 2.8-4, the building permit applicant or its designee shall demonstrate that interior noise levels will not exceed the applicable County of San Diego noise ordinance standard of 45 dBA CNEL for the subject land use. In addition to the installation of sound walls that shall be constructed under mitigation measure M-N-1, it is anticipated that compliance with the applicable standard shall be achieved by structure setbacks, acoustically rated windows and doors, and/or air conditioning or equivalent forced air circulation to allow occupancy with closed windows, which, for most construction, would provide sufficient exterior-to-interior noise reduction. A supplemental acoustical study shall be prepared to demonstrate and verify that interior noise levels will be below 45 dBA CNEL within habitable residential rooms.

**Implementation:** Applicant or its designee, and primary contractor(s) of all Proposed Project phases for the single-family residential units directly adjacent to Proctor Valley Road.

**Timing:** A Noise Restriction Easement shall be dedicated to the Final Map, required prior to issuance of building permits for development of on-site single-family residential units directly adjacent to Proctor Valley Road, and after detailed building plans are available and model numbers/types have been sited on a precise grading plan.

**Enforcement:** County of San Diego



**On-Site Stationary-Source Noise Impacts**

**M-N-3** Prior to the issuance of any building permit for stationary noise-generating equipment such as heating, ventilation, and air conditioning (HVAC) systems, the Proposed Project applicant or its designee shall prepare a supplemental acoustical study of the proposed stationary noise sources associated with the HVAC systems for submittal to the County of San Diego (County) for review and approval. Best engineering practices shall be implemented, and the placement of noise-generating equipment and shielding shall be considered when installing stationary noise sources associated with HVAC systems. The acoustical study shall identify noise-generating equipment and predict noise levels from identified equipment at the applicable property lines. Where predicted noise levels would exceed those levels deemed acceptable as established by the County's Noise Ordinance, Section 36.404, the acoustical study shall identify mitigation measures shown to effectively reduce noise levels (e.g., enclosures, barriers, site orientation) to comply with Section 36.404. Such mitigation measures shall be implemented by the applicant or its designee prior to issuance of any building permits.

**Implementation:** Applicant or its designee, and primary contractor(s) of all Proposed Project phases

**Timing:** Prior to issuance of building permits

**Enforcement:** County of San Diego

**Construction Noise Impacts**

**M-N-4** The Proposed Project applicant or its designee shall take those steps necessary to ensure that construction equipment is properly maintained and equipped with noise-reduction intake, exhaust mufflers, and engine shrouds in accordance with manufacturer recommendations. Equipment engine shrouds shall be closed during equipment operation.

**M-N-5** The Proposed Project applicant or its designee shall take those steps necessary to ensure that, whenever feasible, electrical power shall be used to run air compressors and similar power tools.

**M-N-6** The Proposed Project applicant or its designee shall take those steps necessary to ensure that equipment staging areas are located as far as feasible from occupied residences and schools.

**M-N-7** The Proposed Project applicant or its designee shall take those steps necessary to ensure that for construction activities on and off the Project Area, noise attenuation techniques are employed to ensure that noise levels remain below 75 dBA  $L_{eq}$  at existing noise-sensitive land uses. Such techniques shall include use of sound blankets on noise-generating equipment and construction of temporary sound barriers adjacent to construction sites near affected uses to achieve noise levels below 75 dBA  $L_{eq}$ .

**Implementation:** Applicant, or its designee, and primary contractor(s) of all Proposed Project phases involving construction

**Timing:** Prior to and during Proposed Project construction

**Enforcement:** County of San Diego

#### Impulsive Noise Impact (Blasting and Rock Crushing)

**M-N-8** Prior to approval of the grading permit issued for any portion of the Project Area, the Proposed Project applicant or its designee shall direct that the designated contractor prepare a blasting and monitoring plan with an estimate of noise and vibration levels of each blast at noise-sensitive land uses within 1,000 feet of each blast. Where potential exceedance of either the County of San Diego's (County) Noise Ordinance or the City of Chula Vista's Noise Control Ordinance is identified, the blast drilling and monitoring plan shall identify mitigation measures shown to effectively reduce noise and vibration levels (e.g., altering orientation of blast progression, increased delay between charge detonations, presplitting) to be implemented to comply with the noise level limits of the County's Noise Ordinance, Sections 36.409 and 36.410; the Chula Vista Noise Control Ordinance, Chapter 19.68; and the vibration-level limits of 1 inch per second peak particle velocity. Such measures shall be implemented by the Proposed Project applicant or its designee prior to the issuance of the grading permit. Additionally, Proposed Project phases involving blasting shall conform to the following requirements:

- Blasting activities shall be performed by a blast contractor and blasting personnel licensed to operate in the County.
- Each blast shall be monitored and recorded with an air-blast overpressure monitor and groundborne vibration accelerometer that is located outside the closest residence to the blast and is approved by the County. Blasting shall not exceed 0.1 inch per second peak particle velocity at the nearest occupied residence, in accordance with County of San Diego's Noise Guidelines, Section 4.3.

**Implementation:** Applicant or its designee, and primary contractor(s) of all Proposed Project phases involving blasting

**Timing:** Prior to and during Proposed Project blasting activities

**Enforcement:** County of San Diego

**M-N-9**

Prior to approval of the grading permit for any portion of the Proposed Project, the Proposed Project applicant or its designee shall take those steps necessary to ensure that on-site rock-crushing facilities are located a minimum of 250 feet from the property line of occupied residences or other noise-sensitive uses.

**Implementation:** Applicant or its designee, and primary contractor(s) of all Proposed Project phases involving rock crushing

**Timing:** Prior to and during Proposed Project related rock-crushing activities

**Enforcement:** County of San Diego

**On-Site Groundborne Vibration Impacts****M-N-10**

Prior to beginning construction of any Proposed Project component within 300 feet of an existing or future occupied residence, the Proposed Project applicant or its designee shall require preparation of a Vibration Monitoring Plan (VMP) for submittal to the County of San Diego (County) noise control officer for review and approval. At a minimum, the VMP shall require data to be sent to the County noise control officer or designee on a weekly basis or more frequently as determined by the noise control officer. The data shall include vibration-level measurements taken during the previous work period.

In the event that the County noise control officer determines there is reasonable probability that future measured vibration levels would exceed allowable limits, the County noise control officer or designee shall take the necessary steps to ensure that future vibration levels do not exceed such limits, including suspending further construction activities that could result in excessive vibration levels, until either alternative equipment or alternative construction procedures can be used that generate vibration levels that do not exceed 0.004 inches per second root mean square (RMS) or 0.1 inches per second peak particle velocity (PPV) at the nearest residential structure. Construction activities not associated with vibration generation could continue.

The VMP shall be prepared and administered by a County-approved noise consultant. In addition to the data described previously, the VMP shall include the location of vibration monitors, the vibration instrumentation used, a data acquisition and retention plan, and exceedance notification and reporting procedures. A description of these plan components is as follows:

***Location of Vibration Monitors:*** The VMP shall indicate monitoring locations, including the location of measurements to be taken at construction site boundaries and at nearby residential properties.

***Vibration Instrumentation:*** Vibration instrumentation shall be capable of measuring maximum unweighted RMS and PPV levels triaxially (in three directions) over a frequency range of 1 to 100 Hertz. The vibration instrumentation shall be set to automatically record daily events during working hours, and to record peak triaxial PPV values in 5-minute-interval histogram plots. The method of coupling the geophones to the ground shall be described and included in the VMP. The vibration instrumentation shall be calibrated within 1 year prior to the measurement, and a certified laboratory conformance report shall be included in the VMP.

***Data Acquisition:*** The information to be provided in the data reports shall include, at a minimum, daily histogram plots of PPV versus time of day for three triaxial directions, and maximum peak vector sum PPV and maximum frequency for each direction. The reports shall also identify the construction equipment in operation during the monitoring period, and their locations and distances to vibration measurement locations.

***Exceedance Notification and Reporting Procedures:*** The VMP shall include a description of the notification of exceedance and reporting procedures, and the follow-up procedures taken to reduce vibration levels to below the allowable limits.

***Implementation:*** Applicant or its designee, and primary contractor(s) of all Proposed Project phases involving the use of heavy construction equipment within 300 feet of existing or future occupied residences

***Timing:*** Prior to and during construction activities

***Enforcement:*** County of San Diego

### 7.1.9 Transportation and Traffic

- M-TR-1 Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary (Project-Specific Impact, City of Chula Vista):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to widen the roadway segment of Proctor Valley Road between Northwoods Drive and the City of Chula Vista boundary from a two-lane roadway to a Class I Collector prior to issuance of a building permit for the 1,229th equivalent dwelling unit (EDU). (This mitigation measure applies under Existing Plus Project Build-Out (Impact TR-1), Year 2025 (Impact TR-3), Year 2030 Cumulative Conditions (Impact TR-5), and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property (Impact TR-8). Under the Year 2025, Year 2030, and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the building permit threshold is the 563rd EDU.)
- M-TR-2 Intersection at SR-94 and Lyons Valley Road (Direct Impact, Cumulative Impact, Caltrans Facility):** The Proposed Project applicant, or its designee, shall coordinate with Caltrans to install a traffic signal at the intersection of SR-94 and Lyons Valley Road prior to issuance of a building permit for the 741st EDU. (This mitigation measure applies under Existing Plus Project Build-Out (Impacts TR-9), Year 2025 (Impacts TR-11), Year 2030 Cumulative Condition (Impacts TR-13), and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property (Impacts TR-15).)
- M-TR-3 Intersection at Northwoods Drive/Agua Vista Drive and Proctor Valley Road (Project-Specific Impact, City of Chula Vista):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to install a traffic signal at the intersection of Northwoods Drive/Agua Vista Drive and Proctor Valley Road prior to issuance of a building permit for the 660th EDU. (This mitigation measure applies under Existing Plus Project Build-Out (Impacts TR-10), Year 2025 (Impacts TR-12), Year 2030 Cumulative Conditions (Impacts TR-14), and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property (Impacts TR-24). Under the Year 2025, Year 2030 Cumulative Conditions, and Year 2030 With Cumulative Conditions Plus Hypothetical Development of State Preserve Property, the threshold is the 287th EDU.)
- M-TR-4** The Proposed Project applicant, or its designee, shall pay the appropriate County of San Diego Transportation Impact Fee (TIF) to reduce the Proposed Project's identified significant **cumulative impact** along the following roadway segments of Proctor Valley Road:

- Proctor Valley Road between the City of Chula Vista boundary and Project Driveway No. 1 (this mitigation applies under Year 2025 (Impact TR-2a), as well as Year 2030 Cumulative Conditions (Impact TR-4a))
- Proctor Valley Road between Project Driveway No. 1 and Project Driveway No. 2 (this mitigation applies under Year 2025 (Impact TR-2b), as well as Year 2030 Cumulative Conditions (Impact TR-4b))
- Proctor Valley Road between Project Driveway No. 2 and Project Driveway No. 3 (this mitigation applies under Year 2030 Cumulative Conditions (Impact TR-4c))
- Proctor Valley Road, between Project Driveway No. 3 to Project Driveway No. 4 (this mitigation applies under Year 2030 Cumulative Conditions (Impact TR-4d))

(This mitigation measure applies under Year 2025 and Year 2030 Cumulative Conditions.)

- M-TR-5 Proctor Valley Road, between the City of Chula Vista Boundary and Project Driveway No. 1 (Cumulative Impact, County of San Diego; Impact TR-6a):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or it's designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).
- M-TR-6 Proctor Valley Road, between Project Driveway No. 1 and Project Driveway No. 2 (Cumulative Impact, County of San Diego; Impact TR-6b):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or it's designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).
- M-TR-7 Proctor Valley Road, between Project Driveway No.2 Project Driveway No. 3 (Cumulative Impact, County of San Diego; Impact TR-6c):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or it's designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).

- M-TR-8 Proctor Valley Road, between Project Driveway No. 3 and Project Driveway No. 4 (Cumulative Impact, County of San Diego; Impact TR-6d):** In the event development of the Rancho Jamul Preserve were to be approved, and construction commenced prior to buildout of the Proposed Project, to mitigate an over-capacity road segment, the project applicant, or its designee, would be required to pay its fair-share of the costs to widen Proctor Valley Road from a 2-Lane Collector with Raised Median (2.2A) to a 4-Lane Major (4.1A).
- M-TR-9 Proctor Valley Road, between Hunte Parkway and Northwoods Drive (Project Specific Impact, City of Chula Vista; Impact TR-7):** If development of the Rancho Jamul Preserve is approved, and construction commenced prior to buildout of the Proposed Project, the project applicant, or its designee, shall coordinate with the City of Chula Vista to widen Proctor Valley Road between Hunte Parkway and Northwoods Drive from a four-lane roadway to a six-lane Major Street, by the issuance of the building permit for the 487th equivalent dwelling unit.
- M-TR-10 Proctor Valley Road and Project Driveway No. 1 (Cumulative Impact, County of San Diego; Impact TR-17):** Signalization would mitigate the cumulative impact at the intersection. This impact would occur with the full development of the Proposed Project as well as the development of 74 additional units within the Rancho Jamul Preserve.
- M-TR-11 Proctor Valley Road and Project Driveway No. 2 (Cumulative Impact, County of San Diego; Impact TR-18):** Widening Proctor Valley Road from two to four lanes would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 1,083 additional units within the Rancho Jamul Preserve.
- M-TR-12 Proctor Valley Road and Project Driveway No. 3 (Cumulative Impact, County of San Diego; Impact TR-19):** Signalization would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 397 additional units within the Rancho Jamul Preserve.
- M-TR-13 Proctor Valley Road and Project Driveway No. 4 (Cumulative Impact, County of San Diego; Impact TR-20):** Signalization would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 563 additional units within the Rancho Jamul Preserve.

**M-TR-14 Proctor Valley Road and Project Driveway No. 5 (Cumulative Impact, County of San Diego; Impact TR-21):** Signalization would mitigate the cumulative impact at this intersection. This impact would occur with the full development of the Proposed Project as well as the development of 481 additional units within the Rancho Jamul Preserve.

If the Rancho Jamul Preserve is developed and these improvements are therefore required, the Proposed Project applicant, or its designee, shall pay its fair share of the proposed improvement costs of the following:

**M-TR-15 Intersection at Paseo Ranchero and East H Street (Cumulative Impact, M-TR-15: Intersection at Paseo Ranchero and East H Street (Cumulative Impact, City of Chula Vista; Impact TR-16):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to restripe the eastbound approach to the intersection of Paseo Ranchero and East H Street to include an exclusive right-turn lane.

**M-TR-16 Intersection at Mt. Miguel Road and East H Street (Project Specific Impact City of Chula Vista; Impact TR-22):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to restripe the westbound approach to the intersection of Mt. Miguel Road and East H Street to include an exclusive right-turn lane prior to issuance of a building permit for the 638th equivalent dwelling unit.

**M-TR-17 Intersection at Lane Avenue and East H Street (Project Specific Impact City of Chula Vista; Impact TR-23):** The Proposed Project applicant, or its designee, shall coordinate with the City of Chula Vista to adjust the median and restripe the westbound approach at the intersection of Lane Avenue and East H Street to include a second left-turn lane.

#### 7.1.10 Paleontological Resources

**M-PR-1** A Qualified Paleontologist shall supervise a Paleontological Monitoring Program. A Qualified Paleontologist is a person who has, to the satisfaction of the County of San Diego Director of Planning & Development Services:

- a Ph.D. or M.S. or equivalent in paleontology or closely related field (e.g., sedimentary or stratigraphic geology, evolutionary biology);
- demonstrated knowledge of Southern California paleontology and geology; and



- documented experience in professional paleontological procedures and techniques.

The Qualified Paleontologist shall conduct or supervise the following mitigation tasks:

- Monitoring of excavation operations to discover unearthed fossil remains, generally involving monitoring of ongoing excavation activities (e.g., sheet grading pads, cutting slopes and roadways, basement and foundation excavations, and trenching). A Paleontological Resources Monitor must have at least 1 year of experience in field identification and collection of fossil materials.
- Salvaging of unearthed fossil remains, typically involving simple excavation of the exposed specimens, but possibly also plaster-jacketing of individual large and/or fragile specimens, or more elaborate quarry excavation of richly fossiliferous deposits.
- Recording of stratigraphic, geologic, and geographic data to provide a context for the recovered fossil remains, including accurate plotting (mapping) on grading plans and standard topographic maps of all fossil localities, description of lithologies of fossil-bearing strata, measurement and description of the overall stratigraphic section (unless considered by the Project Paleontologist to be infeasible), and photographic documentation of the geologic setting.
- Laboratory preparation (cleaning and repair) of collected fossil remains to the point of identification (not exhibition), generally involving removal of enclosing sedimentary rock material, stabilization of fragile specimens (using glues and other hardeners), and repair of broken specimens.
- Curating prepared fossil remains, typically involving scientific identification and cataloguing of specimens, and entry of data into one or more accredited institutional (museum or university) collection (specimen/species lot and/or locality) databases. Curation is necessary so that the specimens are available for scientific research.
- Transferal, for archival storage, of cataloged fossil remains and copies of relevant field notes, maps, stratigraphic sections, and photographs to an accredited institution (museum or university) in California that maintains paleontological collections, preferably one of the following:
  - San Diego Natural History Museum
  - Los Angeles County Museum
  - San Bernardino Museum of Natural History

- University of California Museum of Paleontology, Berkeley
- Anza-Borrego Desert State Park (if the fossils were salvaged in the desert)
- Preparation of a final report summarizing the results of the field investigation, laboratory methods, stratigraphic information, types and importance of collected fossils, and any necessary graphics to document the stratigraphy and precise fossil collecting localities.

### **7.1.11 Tribal Cultural Resources**

#### **M-TCR-1 Data Recovery**

To mitigate potential indirect impacts to the eastern portion of site CA-SDI-12373, a phased data recovery program shall be implemented by a County of San Diego (County) approved archaeologist prior to granting any easement for trail uses. The phased data recovery (prepared as a separate document) shall involve implementation of surface collection and curation/repatriation of artifacts to prevent looting. All archaeological materials recovered during the data recovery efforts shall be cleaned, sorted, cataloged, and analyzed following standard archaeological procedures, and shall be documented in a data recovery report. Upon completion of fieldwork, the County-approved archaeologist shall submit a letter report summarizing the field work efforts and stating that the scientifically significant sample of the site has been recovered. Upon approval from the County archaeologist, the trail easement may be granted.

## **7.2 Project Design Features**

### **7.2.1 Air Quality and Greenhouse Gas Emissions**

**PDF-AQ-1 Fugitive Dust Control.** The Proposed Project shall implement the following measures to minimize fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>), comply with County Code Section 87.428 (Grading Ordinance), and comply with San Diego Air Pollution Control District (SDAPCD) Rule 55 (Fugitive Dust Control):

- a. Water or another SDAPCD-approved dust control non-toxic agent shall be used on the grading areas at least three times daily.
- b. All main roadways shall be constructed and paved as early as possible in the construction process.
- c. Building pads shall be finalized as soon as possible following site preparation and grading activities.

- d. Grading areas shall be stabilized as quickly as possible.
- e. Chemical stabilizer shall be applied, a gravel pad shall be installed, or the last 100 feet of internal travel path within the construction site shall be paved prior to public road entry and for all haul roads.
- f. Wheel washers shall be installed adjacent to the apron indicated in (c) for tire inspection and washing prior to vehicle entry on public roads.
- g. Visible track-out into traveled public streets shall be removed with the use of sweepers, water trucks, or similar method within 30 minutes of occurrence.
- h. Sufficient perimeter erosion control shall be provided to prevent washout of silty material onto public roads.
- i. Unpaved construction site egress points shall be graveled to prevent track-out.
- j. Construction access points shall be wet-washed at the end of the workday if any vehicle travel on unpaved surfaces has occurred.
- k. Transported material in haul trucks shall be watered or treated.
- l. All soil disturbance and travel on unpaved surfaces shall be suspended if winds exceed 25 miles per hour.
- m. On-site stockpiles of excavated material shall be covered.
- n. A 15 mile per hour speed limit on unpaved surfaces shall be enforced.
- o. Haul truck staging areas shall be provided for loading and unloading of soil and materials and shall be located away from sensitive receptors at the farthest feasible distance.
- p. Construction traffic control plans shall route delivery and haul trucks required during construction away from sensitive receptor locations and congested intersections to the extent feasible. Construction Traffic Control plans shall be finalized and approved prior to issuance of grading permits.

**PDF-AQ-2 Construction Architectural Coating Limits.** The Proposed Project shall comply with the following volatile organic compound (VOC) content limits for architectural coatings during construction for residential and non-residential and uses: 50 grams per liter VOC for interior surfaces and 100 grams per liter VOC for exterior coatings.

**PDF-AQ/GHG-1 Wood-Burning Stoves and Fireplaces.** Prior to the issuance of residential building permits, the Proposed Project applicant or its designee shall submit building plans illustrating that no wood-burning stoves or fireplaces would be constructed.

**PDF-AQ/GHG-2 Zero-Net Energy Development – Residential Land Uses.** Prior to the issuance of residential building permits, the Proposed Project applicant or its designee shall submit building plans illustrating compliance with the zero net energy (ZNE) design standards defined by the California Energy Commission.

**PDF-AQ/GHG-3 Non-Residential Energy Improvement Standards.** Prior to the issuance of non-residential building permits, the Proposed Project applicant or its designee shall submit building plans illustrating that the Proposed Project’s non-residential land uses shall achieve a 10% greater building energy efficiency than required by the 2016 state energy efficiency standards in Title 24, Part 6 of the California Code of Regulations.

**PDF-AQ/GHG-4 Energy Star Appliances.** All appliances (washer/dryers, refrigerators, and dishwashers) that will be installed by builders in residences and commercial businesses shall be Energy Star rated or equivalent.

**PDF-AQ/GHG-5 Solar Water Heating.** Prior to the issuance of private recreation center building permits, the Proposed Project applicant or its designee shall submit swimming pool heating design plans to the County of San Diego for review and approval. The design plans shall demonstrate that swimming pools located at private recreation centers in the Project Area have been designed and shall be constructed to use solar water heating or other technology with an equivalent level of energy efficiency.

**PDF-AQ/GHG-6 Outdoor Lighting.** Prior to the issuance of building permits, the Proposed Project applicant or its designee shall submit building plans that demonstrate that all outdoor lighting shall be LED (light emitting diodes) or use other high efficiency lightbulbs.

**PDF-AQ/GHG-7 New Resident Information Package.** Prior to the issuance of Certificates of Occupancy for new residences, the Proposed Project applicant or its designee shall submit certification that it has provided information on energy efficiency, energy efficient lighting and lighting control systems, energy management, and existing energy incentive programs to new homebuyers.

**PDF AQ/GHG-8 Cool Roofs.** Prior to the issuance of residential building permits, the Proposed Project applicant or its designee shall submit building plans illustrating that residential structures shall meet the U.S. Green Building Council standards for cool roofs. This is defined as achieving a three-year solar reflectance index (SRI) of 64 for a low-sloped roof and an SRI of 32 for a high- sloped roof.

Prior to the issuance of non-residential building permits, the Proposed Project applicant or its designee shall submit building plans illustrating non-residential structures shall meet the U.S. Green Building Council standards for cool roofs. This is defined as achieving a three-year SRI of 64 for a low-sloped roof and 32 for a high- sloped roof.

**PDF AQ/GHG-9 Cool Pavement.** Prior to the issuance of building permits, the Proposed Project applicant or its designee shall submit building plans illustrating that outdoor pavement, such as walkways and patios shall use paving materials with three-year SRI of 0.28 or initial SRI of 0.33.

**PDF-AQ/GHG-106 Electric Vehicle Charging Stations.** Prior to the issuance of residential building permits, the applicant or its designee shall submit plans for the installation of a dedicated 208/240 dedicated branch circuit in each garage of every residential unit and one Level 2 electric vehicle (EV) charging station in the garage of half of all residential units to the County of San Diego for review and approval. Prior to the issuance of non-residential building permits in the Proposed Project's Village Core area, the applicant or its designee shall submit plans for the installation of Level 2 EV charging stations in 10 parking spaces located in the Village Core's commercial development area and P1 through P4 park area parking spaces to the County of San Diego for review and approval.

## **7.2.2 Transportation and Traffic**

**PDF-TR-1 Transportation Demand Management (TDM).** The Proposed Project applicant or its designee shall implement TDM program to facilitate increased opportunities for transit, bicycling, and pedestrian travel, as well as provide the resources, means, and incentives for ridesharing and carpooling. The following components are to be included in the TDM program:

- Develop a comprehensive pedestrian network designed to provide safe bicycle and pedestrian access between the various Proposed Project phases, land uses, parks/open spaces, schools, and the Village Core. Where approved by the appropriate jurisdiction, the pedestrian network would also provide connections to the various recreational trails and multimodal facilities accessing the Project Area.
- Provide bicycle racks along main travel corridors adjacent to commercial developments and at public parks and open spaces within the Project Area.

- Coordinate with the San Diego Association of Governments' (SANDAG) iCommute program for carpool, vanpool, and rideshare programs that are specific to the Proposed Project.
- Promote available websites providing transportation options for residents and businesses.
- Create and distribute a “new resident” information packet addressing alternative modes of transportation.
- Coordinate with San Diego Metropolitan Transit System (MTS) and SANDAG about the future sighting of transit stops/stations within the Project Area.
- Provide a school carpool program by coordinating with the local school district and SANDAG. Provide dedicated parking space for the school carpool program in the Village Core.
- Implement a school bus program in coordination with the school district.
- Require homeowner’s associations within the Project Area to coordinate with the local school district and partner with the on-site elementary school to create a “walking school bus program” for neighborhood students to safely walk to and from school. The Proposed Project applicant or its designee would also coordinate with the local school district to encourage the provision of bicycle storage facilities at the on-site elementary school.
- To ensure that the TDM Program strategies are implemented and effective, a transportation coordinator (likely as part of a homeowner’s association (HOA)) would be designated to monitor the TDM Program, and would be responsible for developing, marketing, implementing, and evaluating the TDM Program.

### 7.2.3 Utilities and Service Systems

**PDF-UT-1 Hot Water Pipe Insulation.** Hot water pipes shall be insulated, and hot and cold water piping shall be separated. Resulting in annual savings of 2,400 gallons per unit.

**PDF-UT-2 Pressure Reducing Valves.** The maximum service pressure shall be set to 60 pounds per square inch to reduce potential leakage and prevent excessive flow of water from appliances and fixtures. Resulting in annual water savings of 1,800 gallons per unit.

**PDF-UT-3 Water Efficient Dishwashers.** Water efficient dishwashers that carry the Energy Star label shall be installed in residential units resulting in an estimated yearly water savings of 650 gallons per unit.

**PDF-UT-4 Residential Landscaping.** Residential landscaping shall comply with the Model Water Efficient Landscape Ordinance, California Code of Regulations Title 23, Division 2, Chapter 2.7 (Section 490 et seq.). By complying with this ordinance, it is estimated that outdoor water use at single family residences will be reduced by approximately 10 percent. ~~With an estimated total water use of 500 gpd per home and approximately 50 percent of this water used outdoors, the estimated annual water savings is 9,125 gallons per home.~~ Residential water use can vary widely based on the size of lots; however, based on OWD factors for the Proposed Project, estimated water use for a typical single family home is 435 gpd for densities of 3.0 to 10 units per acre, 700 gpd for densities of 1.0 to 3.0 units per acre, and 1,000 gpd for densities of less than 1.0 units per acre. With an estimated 50% of this water used outdoors, the estimated annual water savings is 7,940 gallons per single family residence where densities are from 3.0 to 10 units per acre, 12,775 gallons per single family residence where densities are from 1.0 to 3.0 units per acre, and 18,250 gallons per single family residence where densities are less than 1.0 units per acre based on these assumptions.

**PDF-UT-5 Homeowners Association.** The Homeowner's Associations shall appropriately regulate the use of water for cleaning outdoor surfaces and vehicles through the Covenants, Conditions, and Restrictions.

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