

CHAPTER 7 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

7.1 Agricultural Resources

7.1.1 Mitigation Measures

M-AGR-1 The applicant shall purchase mitigation credits through the County of San Diego's (County) Purchase of Agricultural Easements (PACE) program. The County's PACE program is an approved mitigation banking method, which uses in-lieu fees to purchase PACE credits to offset agricultural impacts. Each acre of land permanently protected with an agricultural conservation easement under the PACE program would equate to one mitigation credit. Therefore, prior to issuance of a grading permit, the applicant shall mitigate for the 5.82 acres of assumed impacts at a 1:1 ratio by the purchase of 5.82 mitigation credits through the County's PACE program.

M-AGR-2 Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the responsibility and jurisdiction of Caltrans to approve, Caltrans can and should assess, or cause to be assessed, whether the improvements would have a potentially significant impact on any agricultural, farmland, timberland, or forest resources as part of the NEPA/CEQA process. Where such impacts are unavoidable, Caltrans can and should require such impacts are mitigated in the manner prescribed by the environmental review document.

7.2 Air Quality

7.2.1 Mitigation Measures

M-AQ-1 Prior to SANDAG's next update to the Regional Housing Needs Assessment, the County of San Diego shall prepare a revised population, employment and housing forecast for SANDAG that reflects anticipated growth generated from the proposed project. The updated forecast provided to SANDAG shall be used to inform the SDAPCD update to the Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP). The County of San Diego also shall prepare and submit a letter notifying the SDAPCD of this revised forecast for use in the future update to the RAQS and SIP as required.

- M-AQ-2** Prior to the County of San Diego's approval of any construction-related permits, the project applicant or its designee shall place the following requirements on all plans, which shall be implemented during each construction phase to minimize VOC, CO and NO_x emissions:
- a. ~~Heavy-duty~~ All diesel-powered construction equipment shall be equipped with Tier 4 Final or better diesel engines, except where Tier 4 Final or better engines are not available for specific construction equipment. The County shall verify and approve all pieces within the construction fleet that would not meet Tier 4 Final standards. 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 Tier 4 equipment could not be located within the region;
 - b. Minimize simultaneous operation of multiple construction equipment units. During construction, vehicles in loading and unloading queues shall not idle for more than 5 minutes and shall turn their engines off when not in use to reduce vehicle emissions;
 - c. All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications;
 - d. The use of electrical or natural gas-powered construction equipment shall be employed where feasible, including forklifts and other comparable equipment types;
 - ~~d.e.~~ The use of catalytic reduction for gasoline-powered equipment shall be employed where feasible;
 - ~~e.f.~~ Electrical hookups shall be provided on-site for the use of hand tools such as saws, drills, and compressors used for building construction to reduce the need for electric generators and other fuel-powered equipment;
 - ~~f.g.~~ A Construction Traffic Control Plan shall be developed to ensure construction traffic and equipment use is minimized to the extent practicable. The Construction Traffic Control Plan shall include measures to reduce the amount of large pieces of equipment operating simultaneously during peak construction periods, scheduling of vendor and haul truck trips to occur during non-peak hours, establish dedicated construction parking areas to encourage carpooling and efficiently accommodate construction vehicles, identify alternative routes to reduce traffic congestion during peak activities and increase construction employee carpooling.

A conceptual construction traffic control has been provided in Section 16 of the Traffic Impact Analysis (Appendix R), which includes specific construction traffic control measures. In addition to measures outlined in the Traffic Impact Analysis, the following measure shall be implemented to encourage employee carpooling:

The construction contractor shall implement a construction worker ridership program to encourage workers to carpool to and from the construction site to reduce single-occupancy vehicle trips. The construction manager will log all daily construction worker trips using the San Diego iCommute program (SANDAG 2015) (<http://www.icommute.com/>) or a comparable tracking method. The construction contractor shall notify all construction personnel of the program prior to the start of construction activities and shall notify construction personnel of the iCommute program RideMatcher feature, or similar communication method, to ensure personnel can identify available carpooling program participants. Trip data will be made readily available to County inspectors at the construction trailer on-site throughout the construction period.

g.h. Signs shall be posted in designated queuing areas and job sites to remind drivers and operators of the idling limit.

M-AQ-3

Prior to the County of San Diego's approval of any grading permits and during project construction, a Fugitive Dust Plan shall be prepared demonstrating compliance with SDAPCD Rule 55 and County Code Section 87.428 (Grading Ordinance), to the satisfaction of the County. The project applicant or its designee shall require implementation of the following fugitive dust measures to minimize PM₁₀ emissions as part of the Fugitive Dust Plan. All measures shall be designated on grading and improvement plans. Measure shall include but are not limited to:

- a. Prior to construction activities, the project applicant shall employ a construction relations officer who will 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 will document complaints and concerns regarding on-site construction activity. The sign shall be placed in easily-accessible locations along Deer Springs Road and noted on grading and improvement plans;
- b. Water, or use another SDAPCD-approved dust control, non-toxic agent, on the grading areas at least four times daily to minimize fugitive dust;

- c. All permanent roads and roadway improvements shall be constructed and paved as early as possible in the construction process to reduce construction vehicle travel on unpaved roads. Building pads shall be finalized as soon as possible following Site preparation and grading activities to reduce fugitive dust from earth moving operations;
- d. Stabilize grading areas as quickly as possible to minimize fugitive dust;
- e. Apply chemical stabilizer, install a gravel pad, or pave the last 100 feet of internal travel path within the construction site prior to public road entry;
- 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. Remove any visible track-out into traveled public streets with the use of sweepers, water trucks or similar method within 30 minutes of occurrence;
- h. Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads. Unpaved construction site egress points shall be graveled to prevent track-out;
- i. Wet wash the construction access point at the end of the workday if any vehicle travel on unpaved surfaces has occurred;
- j. Cover haul trucks or maintain at least 2 feet of freeboard to reduce blow-off during hauling;
- k. Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 miles per hour;
- l. Cover on-site stockpiles of excavated material;
- m. Enforce a 15-mile-per-hour speed limit on unpaved surfaces;
- n. Pave permanent roads as quickly as possible to minimize dust;
- 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 furthest 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.

- M-AQ-4** The following measure shall be included as part of the proposed project's Fugitive Dust Plan 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 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 percent (or Number 1 on the Ringelmann Chart) as averaged over a 3 minute period in any period of 60 consecutive minutes, in accordance with 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-5** Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the responsibility and jurisdiction of Caltrans to approve, Caltrans can and should require that project-appropriate measures for the proposed interchange project are implemented to avoid or minimize temporary construction-related impacts to air quality, such as compliance with Caltrans Standard Specifications 10-Dust Control and 18-Dust Palliative.
- M-AQ-6** Educational material shall be provided to all residents, commercial tenants, and school employees regarding alternative modes of transportation internal and external to the site, including information on the project-provided electric bike share program, shuttle services, bus routes, and other forms of alternative transportation. This information shall be made available in easily accessible areas in all commercial business spaces, school administrative offices, and residential lease offices on-site. This shall include the distribution of a "new resident" information packet addressing alternative modes of transportation.

- M-AQ-7** Preferential parking shall be provided for electric-powered vehicles, compressed natural gas vehicles and carpool/vanpool rideshare programs.
- M-AQ-8** The project applicant/phase developer shall develop a Green Cleaning Product education program to be made available at rental offices, leasing spaces, and/or on websites. The education program is intended for households and institutional consumers and consists of (1) provision of educational materials on low ROG/VOC consumer products; (2) educational materials addressing the use of detergents, cleaning compounds, polishes, floor finishes, cosmetics, personal care products, home, lawn and garden products, disinfectants, sanitizers, aerosol paints, automotive specialty products, low ROG/VOC paints and architectural coatings, and low-emissions landscape equipment; (3) educational materials on the importance of recycling and purchasing recycled material.
- M-AQ-9** To minimize idling time and combustion of vehicle fuels, the project applicant or its designee shall ensure that any nonresidential building that uses large-scale refrigerated storage (e.g., restaurant, grocery store) equips each loading dock with an electrical hook-up to power refrigerated trucks.
- M-AQ-10** To reduce air quality emissions, the project applicant (as defined above) shall implement the project design features listed above.
- M-AQ-11** Construction activities that would occur within 100 feet of an on-site or off-site residence shall be limited to 10 acres of disturbance per day.
- M-AQ-12** During blasting activities, the construction contractor(s) 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 shall be implemented during blasting, rock crushing, cutting, chipping, sawing, or any activity that would release dust particles to reduce fugitive dust emissions. Respirators and other personal protective equipment approved for protection against silica shall be issued to construction workers during blasting and rock crushing operations.
- M-AQ-13** The applicant or its designee shall install high-efficiency return air filters on all heating, ventilation, and air conditioning (HVAC) system serving any residential unit located in the northeastern and southeastern portions of the Town Center that is identified as having a risk factor of 10 in 1 million or higher, as illustrated in Figure 2.3-1, Cancer Risk: 30-Year Exposure on Residential Receptor Locations. The air

filtration system shall reduce at least 95 percent of particulate matter emissions, which can be achieved with a Minimum Efficiency Reporting Value 16 (MERV 16) air filtration system installed on return vents in residential units. The property management company for the homeowner's association (HOA) shall maintain the air filtration system on any HVAC system installed for the specified residential units in accordance with the manufacturer's recommendations for the life of the project.

- M-AQ-14** The applicant or its designee shall locate air intake vents on the residential buildings having a risk factor of 10 in 1 million or higher, as illustrated in Figure 2.3-1, Cancer Risk: 30-Year Exposure on Residential Receptor Locations, such that they do not face Interstate 15 (I-15) and are as far from I-15 as practicable.
- M-AQ-15** A County of San Diego–approved, ASHRAE-certified specialist shall verify the implementation of the installation of high-efficiency air filtration systems on return vents to reduce ambient particulate matter concentrations prior to occupancy of residential units having a risk factor of 10 in 1 million or higher, as illustrated in Figure 2.3-1, Cancer Risk: 30-Year Exposure on Residential Receptor Locations.
- M-AQ-16** The applicant or its designee shall require the following measures be implemented into the final design of the residential units located in the northeastern and southeastern portions of the multi-family residential development area in the Town Center that is identified as having a risk factor of 10 in 1 million or higher, as illustrated in Figure 2.3-1, Cancer Risk: 30-Year Exposure on Residential Receptor Locations:
- Openable doors and windows shall be located on building faces that do not face Interstate 15. All windows facing Interstate 15 shall be fixed in place and not openable.
 - No playgrounds, benches, or other passive or active activity areas shall be located in the risk-impacted northeastern and southeastern corners of the Town Center, in order to limit outdoor activities and exposure.
- M-AQ-17** As part of landscape design and vegetation palette for the project, installation of tiered vegetative landscaping is encouraged, including the installation of evergreen trees between Interstate 15 and the Town Center residential units identified as having a risk factor of 10 in 1 million or higher, as illustrated in Figure 2.3-1, Cancer Risk: 30-Year Exposure on Residential Receptor Locations. Any vegetation selected shall be compatible with the project's Fire Protection Plan. The tiered vegetation shall be maintained by the property management company for the homeowner's association (HOA) as part of the residential Community landscaping areas where feasible.

7.2.2 Project Design Features

- PDF-1** Provide a mix of land uses, including residential, commercial, educational, and parks, so that residents of the project have access to basic shopping, school, and recreation opportunities without having to travel outside of the project Site. This would lower vehicle miles traveled because residents can use alternative transportation modes to reach the various land uses available within the Site.
- PDF-2** Develop a comprehensive trail network designed to provide multi-use trails between the various project components, land uses, parks/open spaces, school, and the Town Center. The trails network would provide connections to the various recreational trails and multi-modal facilities accessing the project Site. Additionally, the loop road includes 5-foot-wide bike lanes on both sides of the roadway.
- PDF-3** Provide bicycle racks along main travel corridors, adjacent to commercial developments, at public parks and open spaces, and at retail and multi-family buildings within the project Site.
- PDF-4** Implement an electric bike-share program to further link the project neighborhoods to one another and to reduce motorized vehicle trips. The bike share program includes the placement of eight kiosks throughout the Community. Electric bikes can be taken from one kiosk and left at another to promote sustainable transportation between planning areas. It is anticipated that each kiosk will contain 10 to 20 electric bikes.
- PDF-5** Coordinate with a car-share organization to install three car-share stations with one car each (for a total of three cars) in the commercial area of the project Site, available to residents on an on-demand basis.
- PDF-6** Coordinate a ride share or shuttle system that connects the various project neighborhoods to the Town Center and to external transit facilities and resources such as the park-and-ride lots and the Escondido Transit Center.
- PDF-7** Coordinate with the San Diego Association of Governments (SANDAG) iCommute program for carpool, vanpool, and rideshare programs that are specific to the project's residents.
- PDF-8** Promote the adjacent park-and-ride lots at the northeast quadrant of the Deer Springs Road/Mesa Rock Road intersection and at the northwest quadrant of the Deer Springs Road/Old Highway 395 intersection to residents to encourage carpooling.

- PDF-9** Provide transit subsidies for residents.
- PDF-10** Promote available websites providing transportation options for residents.
- PDF-11** Create and distribute a “new resident” information packet addressing alternative modes of transportation.
- PDF-12** Promote a transportation option app for use on mobile devices.
- PDF-13** Coordinate with NCTD and SANDAG about future siting of transit stops/stations at the adjacent park-and-ride lots.
- PDF-14** Provide transit subsidies for employees of the project’s Town Center.
- PDF-15** Promote available websites providing transportation options for businesses in the Town Center.
- PDF-16** Promote the adjacent park-and-ride lots to employees to support carpooling.
- PDF-17** Implement a demand-responsive shuttle service that provides access throughout the project Site, to the park-and-ride lots, and to the Escondido Transit Center.
- PDF-18** Coordinate with SANDAG’s iCommute program for carpool, vanpool, and rideshare programs that are specific to the project’s employees.
- PDF-19** Coordinate with NCTD and SANDAG on the future siting of transit stops/stations at the adjacent park-and-ride lots.
- PDF-20** 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 established to monitor the TDM Program, and would be responsible for developing, marketing, implementing, and evaluating the TDM Program.
- PDF-21** Landform alteration shall be minimized by clustering development and preserving natural topography, open spaces, and view corridors. Community open space areas shall be integrated into Site design and building layout.
- PDF-22** Solar panels shall be required on all residential units. Where feasible, roof-integrated solar panels should be considered to minimize visual impacts. All light fixtures along public roads shall be solar powered. The project can use centralized solar arrays (e.g., a solar array on top of a shade structure in a parking lot) to implement this requirement.

- PDF-23** All private residential garages shall include an electric vehicle charger, and in all public-parking areas with ten or more spaces (i.e., commercial parking lots and at community and public parks), electric vehicle charging stations shall be installed in 3 percent of the parking spaces.~~The garages of all single family homes shall include an electric vehicle charger in the garage, and electric vehicle charging stations shall be installed in 3 percent of the Town Center's commercial core parking spaces.~~
- PDF-24** All common area landscapes shall meet an evapotranspiration adjustment factor of 0.55 within residential neighborhoods and 0.45 within non-residential areas. An evapotranspiration adjustment factor of 1.0 is allowed for special landscape areas (i.e., recreational and community garden areas), as noted in County Ordinance Number 10032. All irrigation shall be designed to meet or exceed an average irrigation efficiency rating of 0.75 for spray/rotor irrigation and 0.81 for drip irrigation.
- PDF-25** Turf grass shall be prohibited in residential front yards and within street rights-of-way. Turf in rear or side yards of single-family homes shall be warm-season turf or shall have a plant species factor of 0.6 or lower.
- PDF-26** All single-family homes shall be plumbed for greywater systems for use in private yards.
- PDF-27** The amount of stormwater run-off and pollutant discharge shall be minimized through the use of open vegetated swales along roadways and within neighborhoods; water quality and detention basins; permeable paving, where feasible; and other similar low-impact-development techniques.
- PDF-28** An area within the maintenance yard of the Sierra Farms Park shall be designated for collection of common area landscape trimmings. These landscape trimmings shall be chipped and ground into either mulch or compost and used to return organic matter and nutrients to the project's landscaped areas. The green waste collection area shall be designed to collect approximately 30 to 40 yards of material at a time (approximately three open stalls 10 feet wide by 10 feet long by 6 feet tall). A buffer of screening shrubs shall be planted between the collection area and the street. The green waste area shall be maintained by the HOA.
- PDF-29** Vineyards and community gardens shall be incorporated to connect the Community to the region's agrarian history and provide productive landscapes.

- PDF-30** Residential structures will have solar photovoltaic panels installed on rooftops. Non-residential structures will comply with the 2016 Title 24 requirements for cool roofs. Outdoor pavement, such as walkways and patios, will use paving materials with three-year SRI of 0.28 or initial SRI of 0.33. Where feasible, commercial structures would use cool roof technologies and light-colored paving.
- PDF-31** Builders would offer residents their choice of energy-efficient appliances (including washer/dryers, refrigerators), and appliances (including dishwashers) installed by builders would be Energy Star rated or equivalent.
- PDF-32** The project would not install wood-burning fireplaces for heating purposes. All fireplaces would be natural-gas-fired.

7.3 Biological Resources

7.3.1 Mitigation Measures

- M-BIO-1 CONSTRUCTION MONITORING:** To prevent inadvertent disturbance to areas outside the limits of grading, all grading shall be monitored by a biologist. A “Project Biologist” approved by the County of San Diego (County) shall be contracted to perform biological monitoring during all grading, clearing, grubbing, trenching, and construction activities.

The following shall be completed:

1. The Project Biologist shall perform the monitoring duties before, during, and after construction pursuant to the most current version of the *County of San Diego Report Format and Content Requirements, Biological Resources*. The contract provided to the County shall include an agreement that this will be completed, and a Memorandum of Understanding (MOU) between the biological consulting company and the County shall be executed. The contract shall include a cost estimate for the monitoring work and reporting. In addition to performing monitoring duties pursuant to the most current version of the *County of San Diego Report Format and Content Requirements, Biological Resources*, the Project Biologist shall perform the following duties:
 - 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 and report deficiencies immediately to the Department of Public Works (DPW) Construction Inspector.
- 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. Review and/or designate the construction area in the field with the contractor in accordance with the final grading plan prior to clearing, grubbing, or grading.
- e. Conduct a field review of the staking to be set by the surveyor, designating the limits of all construction activity prior to clearing, grubbing, or grading.
- f. 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.
- g. Flush special-status and other species (i.e., avian and other mobile species) from occupied habitat areas immediately prior to brush-clearing and earth-moving activities.
- h. Verify that the construction site is implementing the following storm water pollution prevention plan best management practices: dust-control fencing, removal of construction debris and a clean work area, covered trash receptacles that are animal-proof and weather-proof, prohibition of pets on the construction site, and a speed limit of 15 miles per hour during the daylight and 10 miles per hour during dark hours.
- i. Periodically monitor incoming landscape products for compliance with the prohibition on non-native invasive species and the requirement for landscaping composed of native species that do not require high irrigation rates.
- j. Periodically monitor the construction site in accordance with the project's fugitive dust control plan in compliance with San Diego County Air Pollution Control District's regulations to reduce particulate matter less than 10 microns in diameter (PM₁₀) and fine particulate matter less than 2.5 microns in diameter (PM_{2.5}) emissions during construction (refer to the Air Quality Technical Report). 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.

- k. Periodically monitor the construction site to see that artificial security light fixtures are directed away from open space and are shielded.
- l. 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. Stop or divert all work when deficiencies require mediation and notify DPW Construction Inspector and the County Construction Inspector within 24 hours; produce periodic (monthly during grading) and final reports and submit to the Wildlife Agencies and the PDS (final report will release bond);
- n. Confer with the Wildlife Agencies and the County Construction Inspector within 24 hours any time protected habitat or gnatcatchers or other special-status species are being affected by construction.
- o. Keep daily monitoring notes for the duration of grading for submittal in a final report to substantiate the biological supervision of the grading activities and the protection of the biological resources.
- ~~o.p.~~ Make monthly updates available to the Wildlife Agencies and County based on the daily monitoring notes described above, until such time as the North County MSCP Plan is adopted, after which the MSCP plan provisions will replace this measure

The cost estimate of the monitoring (provided in the contract) shall be added to the grading bonds that will be posted with the DPW, or bond separately with the PDS. The bond for monitoring shall be released upon the acceptance of the monitoring report for each Final Map.

Documentation: The applicant shall submit the monitoring contract, cost estimate, and MOU to the PDS for review and approval. The applicant shall provide verification that the cost of the monitoring has been added to the grading bond.

Timing: Monitoring shall be performed throughout the duration of grading; if this project includes more than one Final Map, each shall have separate monitoring contracts and documentation.

Monitoring: The PDS shall review the contract, MOU, and cost estimate or separate bonds for compliance with this condition. The cost estimate shall be forwarded to the project manager for inclusion in the grading bond cost estimate and grading bonds. The DPW shall add the cost of the monitoring to the grading bond costs.

M-BIO-2 CONSTRUCTION FENCING: To prevent inadvertent disturbance to sensitive vegetation and species, temporary construction fencing shall be installed. The temporary fencing shall be placed to confine project activities to the areas approved for construction activities and to protect from inadvertent disturbance all open space easements and preserve areas that do not allow grading, brushing, or clearing. Temporary fencing shall also be required in all locations of the project where proposed grading or clearing is within 100 feet of open space or preserve boundaries. The placement of such fencing shall be approved by the Department of Planning & Development Services (PDS), Permit Compliance Section. Upon approval, the fencing shall remain in place until the conclusion of grading activities, after which the fencing shall be removed.

Documentation: The applicant shall provide evidence that the fencing has been installed and have a California licensed surveyor certify that the fencing is located on the boundary of the open space easement(s). The applicant shall submit the certification letter to PDS for approval.

Timing: Prior to the preconstruction conference for each Final Map area, and prior to any clearing, grubbing, trenching, grading, or land disturbances, the fencing shall be installed, and shall remain for the duration of grading and clearing. This may be done in association with grading and improvement plans for each Final Map.

Monitoring: The County of San Diego Construction Inspector shall attend either the preconstruction conference and approve the installation of the temporary fencing, or review the certification and pictures provided by the applicant.

M-BIO-3 MONITORING REPORT: To ensure that the biological monitoring occurred during the grading phase of the project, a final biological monitoring report shall

be prepared. The report shall substantiate the supervision of the grading activities and state that grading and construction activities did not impact any additional areas or any other sensitive biological resources. The report shall conform to the County of San Diego *Report Format and Content Requirements, Biological Resources*, and include the following items:

1. Photos of the temporary fencing that was installed during the trenching, grading, and clearing activities.
2. Monitoring logs showing the date and time that the monitor was on site.
3. Photos of the site after the grading and clearing activities.
4. Lists of species observed with special-status species mapped.

Documentation: The Project Biologist shall prepare the final report and submit it to the Department of Planning & Development Services (PDS) for review and approval.

Timing: Upon approval of each Final Map, and prior to approval of the associated grading and improvement plans, the monitoring contract and bonding shall be submitted and complete. Upon completion of grading activities for each Final Map, and prior to rough grading final inspection (Grading Ordinance Section 87.421.a.2), the final report shall be completed and accepted by the PDS.

Monitoring: The PDS shall review the final report for compliance with this condition and the report format guidelines. Upon approval of the report, the PDS shall inform the Department of Public Works (DPW) that the requirement is complete and the bond amount can be relinquished. If the monitoring was bonded separately, then PDS shall inform DPW to release the bond back to the applicant.

M-BIO-4 INVASIVE SPECIES PROHIBITION: The Department of Planning & Development Services (PDS) Landscape Architect shall require that all final landscape plans comply with the following: (1) no invasive plant species as included on the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region shall be included, and (2) the plant palette shall be composed of native species that do not require high irrigation rates. The Project Biologist shall periodically check landscape products for compliance with this requirement.

Monitoring: The PDS shall approve the final landscape plans; M-BIO-1 includes periodic monitoring of landscaping products brought to the project Site.

M-BIO-5 NESTING BIRD MANAGEMENT, MONITORING, AND REPORTING PLAN: To avoid impacts to nesting migratory birds and raptors and other nesting birds, which are a sensitive biological resource pursuant to CEQA, the MBTA and Fish and Game Code, breeding season avoidance shall be implemented on all plans.

DESCRIPTION OF REQUIREMENT: There shall be no brushing, clearing, blasting and/or grading allowed during the breeding season of migratory birds or raptors (between January 15 and August 31) or coastal California gnatcatcher (between February 15–August 15). The Director of PDS [PDS, PCC] may waive this condition, through written concurrence from the USFWS and the CDFW (i.e., Wildlife Agencies), provided that no nesting or breeding birds are present within 300 feet of the brushing, clearing or grading (500 feet for raptors) based on a pre-construction survey conducted by a County-approved biological consultant within seven days prior to the proposed start of clearing/grading. Prior to preconstruction conference and prior to any clearing, grubbing, trenching, grading, or any land disturbances and throughout the duration of the grading and construction, compliance with this condition is mandatory unless the requirement is waived by the County upon receipt of concurrence from the Wildlife Agencies. If construction work must occur during the avian breeding season (February 1 through August 31, and as early as January 1 for some raptors), the applicant shall prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds. This plan shall be designed in coordination with the Wildlife Agencies. To avoid impacts to nesting birds the applicant shall:

1. Prepare an NBMMRP that shall include the following: nest survey protocols describing the nest survey methodologies; a management plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks; a monitoring and reporting plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log with sufficient details to monitor the applicant's compliance with California Fish and Game Code Sections 3503, 3503.5, 3511, and 3513; guidance for the monitoring biologists on reducing stress and harm to the nesting birds as a result of monitoring activities, including instructions on frequency of monitoring visits and distance to keep from the nest; the schedule for the submittal (usually weekly) of the Nest Monitoring Log; standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks; a detailed explanation of how the buffer widths were determined; and measures the applicant will implement to

preclude birds from using project-related structures (e.g., construction equipment, facilities, or materials) for nesting.

2. Conduct preconstruction nesting bird surveys within 72 hours ~~of~~ prior to construction-related activities and implement appropriate avoidance measures for identified nesting birds.
3. If feasible, conduct surveys beyond the project Site to determine presence of nesting birds that the project activities may affect—300 feet for passerine birds and 500 feet for raptors and coastal California gnatcatchers. The survey protocols shall include a detailed description of methodologies used by CDFW-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols shall include the size of the site being surveyed, method of search, and behavior that indicates active nests.
4. Include each nest identified on the project Site in the Nest Monitoring Logs. The Nest Monitoring Logs shall be updated daily and submitted to CDFW weekly. Since the purpose of the Nest Monitoring Logs is to allow CDFW to track compliance, the logs shall include information necessary to allow comparison between nests protected by standard buffer widths recommended for the project (300 or 500 feet) and nests with buffer widths that were reduced by encroachment of project-related activities. The Nest Monitoring Logs shall provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The Nest Monitoring Logs shall allow for tracking the success and failure of the buffers, and shall provide data on the adequacy of the buffers for certain species.
5. Rely on its avian biologists to coordinate with CDFW and USFWS to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths shall be Site- and species-/guild-specific and data-driven, and not based on generalized assumptions regarding all nesting birds. Determination of the buffer widths shall consider the following factors:
 - a. Nesting chronologies
 - b. Geographic location
 - c. Existing ambient conditions (human activity within line of sight—cars, bikes, pedestrians, dogs, noise)
 - d. Type and extent of disturbance (e.g., noise levels and quality—punctuated, continual, ground vibrations; blasting-related vibrations)

proximate to tern colonies are known to make the ground-nesting birds flush the nests)

- e. Visibility of disturbance
 - f. Duration and timing of disturbance
 - g. Influence of other environmental factors
 - h. Species' site-specific level of habituation to the disturbance
 - i. Construction-related noise levels in coastal California gnatcatcher occupied habitat within 500 feet of construction activity would not exceed 60 dBA Leq or pre-construction ambient noise levels, whichever is greater. Project construction within 500 feet of occupied habitat would occur outside of the breeding season if possible. If necessary, construction activities during the breeding season would be managed to limit noise levels in occupied habitat within 500 feet of the project or noise attenuation measures, such as temporary sound walls, would be implemented to reduce noise levels below 60 dBA Leq or below existing ambient noise levels, whichever is greater.
6. Apply the standard buffer widths to avoid the potential for project-related nest abandonment and failure of fledging, and minimize any disturbance to nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened.
7. Avoidance and buffering of nests in the process of being built on construction equipment or developed structures shall not be necessary. Additionally, although direct impacts to nests with eggs or chicks shall not be allowed, no buffer requirements shall apply.

Documentation: The applicant shall submit the NBMMRP for review and approval by the County of San Diego (County) and the Wildlife Agencies.

Timing: The NBMMRP shall be submitted and approved prior to approval of the first Final Map. No grading shall occur until concurrence is received from the County and the Wildlife Agencies. The Nest Monitoring Logs shall be submitted to the County and the Wildlife Agencies prior to the preconstruction conference and prior to any clearing, grubbing, trenching, grading, or any land disturbances, and throughout the duration of the grading and construction. Compliance with this condition is mandatory unless the requirement is waived by the County upon receipt of concurrence from the Wildlife Agencies.

Monitoring: The County Construction Inspector shall not allow any grading during the specified dates, unless a concurrence from the Wildlife Agencies is received and reviewed by the Department of Planning & Development Services.

M-BIO-6 REVEGETATION PLAN: To compensate for temporary impacts to special-status vegetation and wildlife habitat impacts, a final Revegetation Plan shall be submitted and approved for temporary impacts from grading to areas within the preserve and outside of the LBZ easement and FMZ. The revegetation plan shall be in compliance with the conceptual restoration plan (Appendix J of the Biological Resources Technical Report (Appendix H)), and provide replacement of comparable native vegetation. The final revegetation plan shall include, at a minimum, the implementation strategy; appropriate seed/source materials (including seed sourced from the existing on-site native plants, to the extent feasible); appropriate planting method; an irrigation plan; quantitative and qualitative success criteria; a maintenance, monitoring, and reporting program; estimated completion time; and contingency measures. The revegetation plan shall conform to the most current version of the County of San Diego (County) *Report Format and Content Requirements for Revegetation Plans*. To ensure project completion and success of the revegetation plan, a surety shall be provided and an agreement shall be executed with the County and consist of a letter of credit, bond, or cash for 100 percent of the estimated costs associated with implementation of the revegetation plan and a 10 percent cash deposit of the cost of all improvements (no less than \$3,000; no more than \$30,000). The surety shall be released upon completion of the revegetation plan, provided the installed vegetation is in a healthy condition and meets the plan's success criteria.

Documentation: The applicant shall prepare the revegetation plan and submit it for review with the applicable review fees and deposits.

Timing: Prior to the approval of the first associated map and prior to the approval of the first associated plan or issuance of the first associated permit, the revegetation plan shall be approved by the Department of Planning & Development Services (PDS).

Monitoring: The PDS Landscape Architect shall review the revegetation plan for conformance with this condition and the County's *Report Format and Content Requirements for Revegetation Plans*. Upon approval of the revegetation plan, a Director's Decision of approval shall be issued to the applicant, with the request for compliance with a Secured Agreement for implementation of the revegetation plan. Upon receipt of the compliance letter, the PDS Landscape Architect shall

sign the Agreement for the Director of PDS and ensure that the cash deposit is collected. Upon acceptance of the Agreement, securities, and cash deposit, the PDS Landscape Architect shall provide a confirmation letter acknowledging acceptance of the securities.

- M-BIO-7 LIGHTING PLAN:** All artificial outdoor light fixtures shall be installed so they are directed away from open space and are shielded in accordance with the project's lighting plan standards as outlined in the Specific Plan for the project. Light fixtures shall be installed in conformance with the County of San Diego's (County) Light Pollution Code, Building Code, Electrical Code, and lighting requirements specified in Section 6324 (Lighting Permitted in Required Yards) and Section 6326 (Lighting Not in Required Yards) of the Zoning Ordinance, along with any other related state and federal regulations such as California Title 24.

Documentation: The applicant shall submit building plans to the County for review in compliance of the above regulations.

Timing: Prior to the approval of all building permits.

Monitoring: The County building inspector shall review structures for compliance with this condition. During construction, the Project Biologist shall review lighting for compliance with this measure as part of the construction monitoring requirement.

- M-BIO-8A PRESERVE:** The applicant shall preserve in permanent open space approximately 1,420.9 acres of native habitats, generally consistent with the assemblage of vegetation communities impacted by the project in a proposed on-site and off-site open space preserve area (see Table 2.4-27) (see Appendix K to the BTR for the off-site mitigation site description). This shall include preservation of 1,420.9 acres of native habitats to mitigate for project impacts to 760.6 acres of special-status vegetation communities (both upland and riparian), thereby preserving compensatory habitat that provides equal or greater benefits to plant and wildlife species. Proposed on-site open space preserve has already been evaluated and may be used to satisfy this requirement through M-BIO-8B through M-BIO-8E.

Documentation: An RMP shall be prepared per M-BIO-8D and an application for the RMP shall be submitted to the PDS.

Timing: Prior to issuance of a grading permit, the mitigation shall occur.

Monitoring: The PDS shall accept an application for an RMP, and PDS and DPR shall review the RMP submittal for compliance with this condition and the RMP Guidelines.

M-BIO-8B BIOLOGICAL OPEN SPACE EASEMENT. The County of San Diego (County) shall be granted a biological open space easement, as shown on the approved Tentative Map for the on-site open space and a separate open space easement exhibit for the off-site biological open space. These easements 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 for any purpose other than as open space. Granting this 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 exception(s) 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.~~
- 2.1. Activities conducted pursuant to a revegetation or habitat management plan approved by the Director of the Department of Planning & Development Services, Department of Parks and Recreation, and Department of Public Works.
- 3.2. 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.
- 4.3. Uses, activities, and placement of structures expressly permitted and shown on the plot plan.
- 5.4. Construction, use, and maintenance of multi-use, non-motorized trails per the specific plan (Figure 1-3, Parks and Trails Plan).

Documentation: The applicant shall show the on-site open space easement on the Final Map and 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 [DGS, RP] and pay all applicable fees associated with preparation of the documents. For the off-site open space an easement will be dedicated to the County through a separate document.

Timing: Prior to the approval of each Final Map, and on the associated map and prior to the approval of any associated plan and issuance of any associated permit, the on-site and off-site biological open space easements shall be recorded.

Monitoring: For recordation on the map, the [PDS, LDR] shall route the Final Map to [PDS, PCC] for approval prior to map recordation. The [PDS, PCC] shall preapprove the language and estimated location of the easements prior to recordation. The [PDS LDR] shall satisfy the condition after map recordation.

M-BIO-8C LIMITED BUILDING ZONE EASEMENT: A Limited Building Zone Easement shall be granted to prohibit the building of structures that would require vegetation clearing within the protected biological open space for fuel management purposes. The easement must extend at least 100 feet from the Biological Open Space boundary.

DESCRIPTION OF REQUIREMENT: Grant to the County of San Diego a LBZ Easement as shown on the Tentative Map. The purpose of this easement is to limit the need to clear or modify vegetation for fire protection purposes within the adjacent biological open space easement and prohibit the construction or placement of any structure that would require vegetation clearing within the protected biological open space for fuel management purposes. The only exceptions to this prohibition are Structures that do not require fuel modification/vegetation management.

Documentation: The applicant shall show the easement on the Final Map with the appropriate granting language on the title sheet concurrent with Final Map review, then submit them for preparation and recordation with the [DGS, RP] and pay all applicable fees associated with preparation of the documents.

Timing: Prior to the approval of each Final Map, and on the associated map and prior to the approval of any associated plan and issuance of any associated permit, the Limited Building Zone easements shall be recorded.

Monitoring: For recordation on the map, the [PDS, LDR] shall route the Final Map to [PDS, PCC] for approval prior to map recordation. The [PDS, PCC] shall preapprove the language and estimated location of the easements prior to recordation. The [PDS LDR] shall satisfy the condition after map recordation.

M-BIO-8D RESOURCE MANAGEMENT PLAN: To provide for the long-term management of the proposed biological open space preserve, a Resource Management Plan (RMP) shall be prepared and implemented. Conceptual RMPs are provided as Appendix L (on-site open space) and Appendix M (off-site open space) to the Biological Resources Technical Report.

DESCRIPTION OF REQUIREMENT: Submit to and receive approval from the Director of the Department of Planning & Development Services (PDS), an RMP consistent with the project's RPP, on file as Environmental Review Number PDS2014-MPA-14-018. The final RMP cannot be approved until the following has been completed to the satisfaction of the Director of PDS, and, in cases where 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 (County) Biological Report Format and Content Requirements.
2. The habitat land to be managed shall be completely purchased.
3. The biological open space easements shall be dedicated to ensure that the land is protected in perpetuity.
4. A resource manager shall be selected, and evidence provided by the applicant as to the acceptance of this responsibility by the proposed resource manager.
5. The RMP funding costs, including a Property Assessment Record or other equally adequate forecast. 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.
6. A contract between the applicant and County shall be executed for implementation of the RMP.
7. 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.

Documentation: The applicant shall prepare the RMP and submit it to the PDS and pay all applicable review fees.

Timing: Prior to approval of the first Final Map, submit the RMP for review and approval.

Monitoring: The PDS shall review the RMP for compliance with the content guidelines, the conceptual RMP, and this condition.

M-BIO-8E BIOLOGICAL OPEN SPACE FENCING AND SIGNAGE: To protect the proposed open space easement from unauthorized entry or disturbance, permanent post and rail fencing, or similar permeable fence, shall be installed along the boundaries of the biological open space. Open space signage shall be placed approximately every 200 feet along the fencing (see Figure 2.4-11, Proposed Biological Open Space/Conceptual Signage and Fencing).

DESCRIPTION OF REQUIREMENT: Open space fencing or walls shall be placed adjacent to residential uses and roads as shown on figure 2.4-11. Open space signage shall be installed as shown on Figure 2.4-11, Proposed Biological Open Space/Conceptual Signage and Fencing, and shall 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 must state the following:

Sensitive Environmental Resources

Area Restricted by Easement

Entry without express written permission from the County of San Diego is prohibited. To report a violation or for more information about easement restrictions and exceptions, contact the County of San Diego, Planning & Development Services (Reference: PDS2015-ER-15-08-001)

Documentation: The applicant shall install the fencing or walls as indicated on Figure 2.4-11, Proposed Biological Open Space/Conceptual Signage and Fencing Plan, and include them on the building plans. The applicant shall install the signage as indicated on the Proposed Biological Open Space/Conceptual Signage and Fencing Plan, and have them photographed and verified by a California Registered Engineer or licensed surveyor.

Timing: Prior to occupancy, the fencing or walls and signs shall be in place.

Monitoring: The Department of Planning & Development Services shall verify compliance of the fencing or walls through review of the building permits and this condition. Evidence of the signage shall be photos and a statement from a California

Registered Engineer or licensed surveyor that the biological open space signs have been installed in accordance with the Open Space Fencing and Signage Plan.

- M-BIO-9 HORKELIA RELOCATION PLAN:** For any direct loss of Ramona horkelia (*Horkelia truncata*), the applicant shall prepare and implement a relocation plan prior to the issuance of grading permits. The relocation plan shall provide for replacement of individual plants to be removed at a minimum 1:1 ratio within suitable receptor sites(s) where no future construction-related disturbance will occur. The relocation plan shall specify, at minimum, the following: (1) the location of the receptors site(s) in protected open space areas within the project Site; (2) appropriate methods for replacement (e.g., harvesting seeds, salvaging and transplantation of impacted plants, and/or nursery propagation); (3) receptor site preparation methods; (4) schedule and action plan for maintaining and monitoring the receptor site(s); (5) list of performance criteria and standards for successful mitigation; (6) measures to protect the receptor site(s) (e.g., trespass and erosion control, weeding); and (7) cost of implementing the relocation plan.

Documentation: The applicant shall prepare a final Horkelia Mitigation Plan that complies with the Conceptual Restoration Plan and submit it for review with the applicable review fees and deposits (this is considered a revegetation plan submittal).

Timing: Prior to the approval of the first associated map and prior to the approval of the first associated plan or issuance of the first associated permit, the Horkelia Mitigation Plan shall be approved.

Monitoring: The Department of Planning & Development Services shall review the Horkelia Mitigation Plan for conformance with this condition and the applicable elements of the most current version of the County of San Diego *Report Format and Content Requirements for Revegetation Plans*. Upon approval of the Horkelia Mitigation Plan, security for success of the Horkelia Mitigation Plan shall be collected and the applicant shall provide a confirmation letter acknowledging acceptance of securities.

- M-BIO-10 CONTROL OF INVASIVE SPECIES:** ~~Weed~~ The Resource Manager will map occurrences of perennial, non-native species that have a rating of moderate or high by the California Invasive Plant Council. If found, weed control treatments shall include all legally permitted chemical, manual, and mechanical methods applied with the authorization of the County of San Diego 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 advisor

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 of San Diego agriculture commissioner.

Timing: The timing of the weed control treatment shall be on an as-needed basis determined for each plant species in consultation with the pest control advisor, County of San Diego agriculture commissioner, and California Invasive Plant Council with the goal of controlling populations before they start producing seeds.

Monitoring: The County requires monthly monitoring of the open space. The Resource Manager shall visit the open space each month in order to monitor the overall conditions of the open space and determine if any management tasks are required. The Resource Manager shall monitor the treated areas until the invasive species are determined to be eradicated.

Documentation: An annual monitoring letter report will be submitted to the County at the end of January, which summarizes the overall condition of vegetation communities and sensitive species in the Open Space Preserve, outlines proposed management tasks for the following year, and provides results of management activities proposed in the previous report

M-BIO-11 FIRE PROTECTION PLAN: To minimize the potential exposure of the project Site to fire hazards, all features of the Fire Protection Plan for the Newland Sierra Project shall be implemented in conjunction with development of the project.

M-BIO-12 FEDERAL AND STATE AGENCY PERMITS: To comply with the state and federal regulations for impacts to U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdictional resources, the following agency permits are required, or verification that they are not required shall be obtained.

The following permit and agreement shall be obtained, or evidence from the respective resource agency, satisfactory to the director of the Department of Planning & Development Services (PDS) that such an agreement or permit is not required, shall be provided:

- a. A Clean Water Act, Section 401/404 permit issued by the California RWQCB and ACOE for all project-related disturbances of waters of the United States and/or associated wetlands.

- b. A Section 1602 Streambed Alteration Agreement issued by CDFW for all project-related disturbances of any streambed and/or associated riparian habitat.

Documentation: The applicant shall consult each agency to determine if a permit or agreement is required. Upon completion of the agency review of this project, the applicant shall provide a copy of the permit(s)/requirement(s)/agreement(s).

Timing: Prior to approval of any grading and or improvement plans and issuance of any grading or construction permits.

Monitoring: PDS shall review the permits/agreements for compliance with this condition. Copies of these permits shall be included on the grading plans.

- M-BIO-13 I-15 INTERCHANGE IMPROVEMENTS:** Caltrans can and should prepare, or cause to be prepared, a biological resources study to evaluate these potential impacts. Remaining potentially significant biological impacts of the interchange improvements require further detail as to the Caltrans-selected “build” project or alternative, along with its size, configuration, and disturbance zones.

7.4 Cultural Resources

7.4.1 Mitigation Measures

- M-CR-1 Pre-Grade and Data Recovery for Historic 1901 Structure Location Features (Impact CR-1).** In order to mitigate for potential impacts to the 1901 Historic Structured/ Location that is a significant cultural resources pursuant to Section 15064.5 of the California Environmental Quality Act (CEQA) but is not determined to be significant pursuant to Section 86.602.o of the Resource Protection Ordinance (RPO), a pre-grade data recovery program shall be implemented. The Pre-Grade and Data Recovery Program shall include pre-grade excavations to locate possible buried features and analyze features and materials recovered; a report of any findings shall be prepared. This plan shall also include a ground-penetrating radar survey and controlled backhoe excavation to assess the area for ground anomalies and subjectively explore other areas to determine the presence and/or absence of buried historic resources. If subsurface features and artifacts are identified, a data recovery program shall be conducted, to include excavation of 1- by 1-meter units, block excavations, feature excavations, and analysis of artifacts. Special studies may include glass, ceramic, metal, and faunal analyses.

- M-CR-2 Open Space Easement for Sites CA-SDI-5951 and CA-SDI-9822 (Impacts CR-3 and CR-4).** In order to protect sensitive Cultural Resources at CA-SDI-5951 and

CA-SDI-9822, a Cultural Resource Open Space Easement shall be granted over the portions of these sites that are outside of the Deer Springs Road right-of-way. The open space easement prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; installation of wet or dry infrastructure, including irrigation systems; or use for any purpose other than as open space. The sole exceptions to this prohibition are:

- a. Placement and burial of the cultural site resources and soils that are excavated as part of the development per specifications that are executed in agreement with the Pechanga and San Luis Rey Tribes.
- b. 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.
- c. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the Department of Environmental Health, in a location and manner approved in writing by the Director of PDS.
- d. Access shall be provided for Luiseño tribes.

M-CR-2a Natural Park Preserve-in-Place for Site CA-SDI-4558 (Impacts CR-2, and CR-9). In order to protect sensitive Cultural Resources at CA-SDI-4558, those portions of the site outside the Deer Springs Road right-of-way shall be preserved in place within a natural park pursuant to CEQA Guidelines section 15126.4(b)(3)(B), option 2. No development or ground disturbance will be permitted within those portions of the park that are located within site 4558, and all park trails shall be located outside the delineated boundary of site 4558. Once the park is established, it will be conveyed and dedicated to the County as a public park, at which point the County will take responsibility for maintaining the park and protecting the resources within it.

M-CR-3 Temporary Fencing (Impacts CR-2, CR-3, CR-4, CR-9 and CR-10). In order to mitigate for potential impacts to sites CA-SDI-4558, CA-SDI-5951 and CA-SDI-9822 during construction, a temporary fencing plan shall be implemented pursuant to the County of San Diego Guidelines for Determining Significance for Cultural Resources and CEQA Section 15064.5. The temporary fencing shall include the following requirements:

- a. Provide evidence to the Director of Planning & Development Services that the following notes have been placed on the Grading and/or Improvement Plan:

- (1) In the event that construction activities are to take place within 100 feet of archaeological site(s) CA-SDI-4558, CA-SDI-5951 and CA-SDI-9822, the temporary fencing plan shall be implemented under the supervision of a County approved archaeologist that consists of the following:
 - a. The project archaeologist shall identify the site boundaries in consultation with the San Luis Rey Band and Pechanga Band.
 - b. The project archaeologist shall determine an adequate buffer for the protection of the site(s) in consultation with the County archaeologist, the San Luis Rey Band and the Pechanga Band. Upon approval of buffers, install fencing under the supervision of the project archaeologist and San Luis Rey and Pechanga Native American monitor.
 - c. Submit to the Planning & Development Services for approval, a signed and stamped statement from a California Registered Engineer, or licensed surveyor that temporary fences have been installed in all locations of the project where proposed grading or clearing is within 100 feet of the archaeological site(s), CA-SDI-4558, CA-SDI-5951 and CA-SDI-9822.
 - d. Fencing may be removed after the conclusion of construction activities.

M-CR-4 Permanent Fencing (Impact CR-2, CR-3, CR-4, CR-9 and CR-10). In order to mitigate for the potential long-term, indirect impacts to sites CA-SDI-4558, CA-SDI-5951 and CA-SDI-9822, permanent fencing shall be implemented pursuant to the County of San Diego Guidelines for Determining Significance for Cultural Resources and CEQA Section 15064.5. The permanent fencing type shall be determined during the development of the Treatment Plan Agreement and Preservation Plan, and in consultation with the San Luis Rey Band and Pechanga Band. The fence, if deemed appropriate by the County, the San Luis Rey Band and Pechanga Band shall be installed under the supervision of the County approved archaeologist and the San Luis Rey and Pechanga Native American Monitors prior to any occupancy or final grading release. Fencing may include a vegetation barrier.

M-CR-5 Data Recovery Program (Impacts CR-2, CR-3, CR-4, CR-6 and CR-10). In order to mitigate for potential impacts to significant cultural resources that are (1) not subject to Section 86.602.0 of the Resource Protection Ordinance (RPO) and (ii) cannot be feasibly avoided or preserved in place, pursuant to Section 15126.4(b)(3)15064.5 of the California Environmental Quality Act (CEQA), Guidelines which are not subject to Section 86.602.0 of the Resource Protection Ordinance (RPO), a data recovery and index sampling plan shall be implemented. (CEQA Guidelines, § 15126.4(b)(3)(C).) The Data Recovery and Index Sampling

Plan shall comply with research design and performance standards provided in Appendix D of the cultural study, shall be agreed to by the San Luis Rey and Pechanga Tribes and shall include the following requirements:

- a. Phase I and Phase II data recovery including artifact analysis, column samples, soil samples, floatation, and analysis of features.
- b. Specialized studies may include pollen and phytolith analysis, lithic, groundstone, ceramic, shell, obsidian hydration and sourcing, groundstone use wear and residue, and radiocarbon dating.
- c. Re-analysis of the Palomar College collection.
- d. High-resolution, 3-dimensional scanning of a sample of artifacts.
- e. ~~Reinterment~~ Reinterment of Native American cultural materials.
- f. Curation of historic materials (Non-Native American).
- g. Preparation of a final report.

The Data Recovery and Index Sampling Plan will be a part of the Treatment Plan Agreement and Preservation Plan developed in consultation with the San Luis Rey Band and Pechanga Band. Data recovery, sampling index and archaeological testing will not apply to TCP resources, tribal cultural resources and Native American human remains and burial goods.

M-CR-6 Dust Control Plan (Impact CR-5). In order to mitigate for potential impacts to the pictograph at site CA-SDI-9822, during any grading or ground-disturbing activities, dust control measures shall be implemented pursuant to the County of San Diego Guidelines for Determining Significance for Cultural Resources and CEQA Section 15064.5. The Dust Control Plan shall be prepared and implemented by the contractor in consultation with the project archaeologist and the San Luis Rey Band and Pechanga Band of Luiseño Indians. The Dust Control Plan shall include the following requirements:

- a. Prior to placing protective material to shield the pictograph, photo-document the condition of the existing pictograph.
- b. Place appropriate cloth or material to shield the pictograph and mitigate impacts from dust. The covering must be of a material that will not cause damage to the pictograph.

- c. Periodic inspections of the pictograph shall be conducted to evaluate the status of the protective covering and to determine whether maintenance of the covering or replacement is necessary.
- d. Upon conclusion of construction, the protective cover may be removed and the pictograph shall be photo-documented to determine the status of the resource.
- e. After construction has concluded, the Project Archaeologist shall prepare a final letter report that details how the dust control plan was implemented and the condition of the pictograph at the beginning and end phases of construction.

The Data Recovery and Index Sampling Plan will be a part of the Treatment Plan Agreement and Preservation Plan developed in consultation with the San Luis Rey Band and Pechanga Band.

M-CR-7 Archaeological Monitoring Program/Treatment of Human Remains (Impacts CR-7, CR-8, CR-10). In order to mitigate for potential impacts to undiscovered archaeological resources and human remains, including those that may be encountered in the TCP, an Archaeological Monitoring Program and potential Data Recovery Program shall be implemented pursuant to the County of San Diego Guidelines for Determining Significance for Cultural Resources and the California Environmental Quality Act (CEQA). The Archaeological Monitoring Program shall be developed in consultation with the San Luis Rey Band and Pechanga Band and shall include the following requirements:

a. Pre-Construction

The Project Applicant shall contract with a County approved archaeologist to perform Archaeological Monitoring and a contract with a Luiseño Native American monitor to conduct Native American monitoring for the project.

The pre-construction meeting shall be attended by the Project Archaeologist, the Luiseño Native American monitor, and a representative from the San Luis Rey and Pechanga Bands.

b. Construction

1. Monitoring. Both the Project Archaeologist and Luiseño Native American monitor are to be on site during all earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist and the Luiseño Native American monitor. The Project Archaeologist and the Luiseño Native American monitor shall evaluate fill soils, whether imported, exported or from an on-site borrow location, to ensure that they are negative for cultural resources.

2. Controlled Grading and Grubbing. All grubbing shall be controlled in areas of concern as determined by the Project Archaeologist and the Luiseño Native American monitor, and as reflected in the Treatment Agreement and Preservation Plan developed in consultation with the San Luis Rey Band and Pechanga Band, and shall be inspected by the Project Archaeologist and Luiseño Native American monitor prior to initiating grading for those areas. Grading shall be controlled within the area of CA-SDI-4558, CA-SDI-5951, and CA-SDI-9882 using a slope board or similar equipment to allow soil to be removed in increments of only a few inches at a time. Other areas which may require controlled grading shall be determined by the Project Archaeologist and the Luiseño Native American monitor, as reflected in the Treatment Agreement and Preservation Plan developed in consultation with the San Luis Rey Band and Pechanga Band.
3. Milling Features. Milling features shall be relocated to on-site open space or landscaped areas prior to disturbance, if feasible, and as reflected in the Treatment Agreement and Preservation Plan developed in consultation with the San Luis Rey Band and Pechanga Band.
4. Deer Springs Road Right-of-Way. Soils from Deer Springs Road right-of-way, as indicated on the Deer Springs Road Right-of-Way exhibit located in the confidential appendix of the cultural study, shall be reinterred on site in the designated location that was approved by the County of San Diego, the applicant, the San Luis Rey Band of Mission Indians, and the Pechanga Band of Luiseño Indians (the “~~reinterment~~reinterment area”). Prior to final ~~reinterment~~reinterment, the soils shall be treated in accordance to the terms reflected in the Treatment Agreement and Preservation Plan developed in consultation with the San Luis Rey Band and Pechanga Band. Once the cultural materials are placed in the ~~reinterment~~reinterment area, a cap shall be placed over the resources and hydroseeded with a native plant mix, developed in consultation with the San Luis Rey Band and Pechanga Band, to prevent erosion. Note that no subsurface ground disturbance activities or subsurface facilities will be permitted within the ~~reinterment~~reinterment area, including utility trenches and irrigation systems (except for surface drip systems.)
5. Inadvertent Discoveries:
 - Both the Project Archaeologist and the Luiseño Native American monitor have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.
 - The Project Archaeologist shall contact the County Archaeologist.

- The Project Archaeologist in consultation with the County Archaeologist and the Luiseño Native American shall determine the significance of discovered resources.
 - If appropriate, construction activities will be allowed to resume after the County Archaeologist has concurred with the significance evaluation.
 - Isolates and non-significant deposits shall be minimally documented in the field and collected by the Project Archaeologist. Native American isolates shall be reinterred on site and historic (Non-Native American) isolates shall be curated or culled.
 - If cultural resources are determined to be significant by the Tribes, the County Archaeologist and/or the Project Archaeologist, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the San Luis Rey and Pechanga Tribes, and approved by the County Archaeologist. The preferred option is preservation (avoidance).
6. Human Remains Discovered Outside the Recorded Sites and the Deer Springs Road Right-of-Way.
- The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.
 - If the human remains are reasonably believed to be Native American, then the human remains are to remain *in situ* (“in place”), or in a secure location in close proximity to where they were found, and shall be examined in the field, in the presence of a Luiseño Native American monitor, by a forensic anthropologist or osteologist, ~~if feasible~~. Any transportation of the remains shall be done in the presence of a Luiseño Native American monitor. Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin.
 - If the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.
 - The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their

recommendations as required by Public Resources Code Section 5097.98 has been conducted.

- Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.
7. Fill Soils. The Project Archaeologist and Luiseño Native American monitor shall evaluate fill soils (including, but not limited to, exported, imported and borrow-site soils) to determine that they are clean of cultural resources.
 8. Reporting. The Project Archaeologist shall submit monthly status reports to the Director of Planning and Development Services starting from the date of the Notice to Proceed to the termination of implementation of the archaeological monitoring program. The report shall briefly summarize all activities during the period and the status of progress on overall plan implementation. Upon completion of the implementation phase, a final report shall be submitted describing the plan compliance procedures and site conditions before and after construction. Rough Grading. A copy of the monitoring report shall be provided to the South Coastal Information Center, the San Luis Rey Band of Mission Indians, the Pechanga Band of Luiseño Indians, and any culturally-affiliated tribe who requests a copy.
 9. The County Archaeologist shall make a determination for any disagreements between the Project Archaeologist, Luiseño Native American monitor, the San Luis Rey Band and Pechanga Band related to archaeological monitoring.
- c. Final Grading
 1. A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. A copy of the final report shall be submitted to the South Coastal Information Center, the San Luis Rey Band of Mission Indians, the Pechanga Band of Luiseño Indians and any culturally-affiliated tribe who requests a copy.
 - d. Disposition of Cultural Material.

The final report shall include:

 1. Evidence that all Native American cultural materials have been repatriated to the San Luis Rey Band and Pechanga Band, or the MLD, if applicable,

and reinterred on site as reflected in the Preservation Plan developed in consultation with the San Luis Rey Band and Pechanga Band.

2. The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79.

The Archaeological Monitoring Program/Treatment of Human Remains will be a part of the Tribal Treatment Plan (See **M-CR-10**, below) that shall be developed in consultation with the San Luis Rey Band and Pechanga Band.

- M-CR-8 Environmentally Sensitive Area - Cultural Open Space (Impact CR-7).** In order to provide an on-site location for the ~~reinterment~~reinterment of cultural materials including cultural soils removed from the TCP, an Environmentally Sensitive Area (ESA) Open Space Easement shall be developed in consultation with the San Luis Rey Band and Pechanga Band, and granted to the County by the applicant. The open space easement prohibits all of the following on any portion of the land subject to said easement: grading; excavation; placement of soil, sand, rock, gravel, or other material; clearing of vegetation; construction, erection, or placement of any building or structure; vehicular activities; trash dumping; or use for any purpose other than as open space. No subsurface ground disturbance activities or subsurface facilities will be permitted within the Open Space Easement, including utility trenches and irrigation systems (except for surface drip systems and the preparation of the ~~reinterment~~reinterment area.) The sole exceptions to this prohibition are:
- a. Preparation of the ~~reinterment~~reinterment area that may require earth-disturbing activities such as grading; excavation; placement of soil, sand, rock, gravel, or other material; and clearing of vegetation.
 - b. ~~Reinterment~~Reinterment of cultural materials and cultural soils which may require earth-disturbing activities such as grading; excavation; placement of soil, sand, rock, gravel, or other material; and clearing of vegetation.
 - c. Capping and hydroseeding the ~~reinterment~~reinterment area for the purposes of erosion control.
 - d. 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.
 - e. Vegetation removal or application of chemicals for vector control purposes where expressly required by written order of the Department of

Environmental Health, in a location and manner approved in writing by the Director of PDS.

- f. Access shall be provided for Luiseno tribes.

M-CR-9 Cultural Resources Treatment Agreement and Preservation Plan (“Tribal Treatment Plan”) (Impact CR-2, CR-3, CR-4, CR-7, CR-8, CR-9 and CR-10). In order to mitigate for impacts to Traditional Cultural Properties (TCPs) and impacts to tribal cultural resources, the applicant shall develop in consultation with the San Luis Rey Band of Mission Indians and the Pechanga Band of Luiseño Indians a Cultural Resources Treatment Agreement and Preservation Plan (“Tribal Treatment Plan”). The Tribal Treatment Plan shall include but is not limited to the following:

- a. Parties entering into the agreement and contact information.
- b. Responsibilities of the Property Owner or their representative, Principal Investigator, archaeological monitors, the Luiseño Native American monitors, County, and the San Luis Rey Band and Pechanga Band.
- c. Project grading and development scheduling, and terms of compensation for the monitors, including overtime and weekend rates, in addition to mileage reimbursement.
- d. Authority of the Native American Monitors to stop and redirect grading in the immediate area of a find in order to evaluate the find and determine the appropriate next steps, in consultation with the Project archaeologist. Such evaluation shall include culturally appropriate temporary and permanent treatment pursuant to the Tribal Treatment Plan.
- e. Requirements of the Archaeological Monitoring Program, which shall be incorporated into the Treatment Plan, shall include unanticipated discoveries. The requirements shall address grading and grubbing requirements including controlled grading and controlled vegetation removal in areas of cultural sensitivity, analysis of identified cultural materials, and on-site storage of cultural materials.
- f. Treatment of identified Native American cultural materials.
- g. Treatment of Native American human remains and associated grave goods.
- h. Incorporation of portions of CA-SDI-4558 (i.e., those areas located outside the Deer Springs Road right-of-way) into a natural passive park, as described above in Mitigation Measure M-CR-2a, including the method of vegetation removal

(e.g. tree removal). The landscape design shall be developed in consultation with the San Luis Rey Band and Pechanga Band.

- i. Requirements for the Dust Control Plan (CA-SDI-9822), Temporary Fencing (CA-SDI-4558, CA-SDI-5951, and CA-SDI-9811), Permanent Fencing (CA-SDI-5951 and CA-SDI-9822), Data Recovery Plan (portions of CA-SDI-4558, CA-SDI-5951, and CA-SDI-9822), Bedrock Milling Relocation, and Trail System Design for Oak Park.
- j. Interim treatment of cultural soils and resources prior to final on-site internment, including appropriate on-site storage and security for such resources. Final internment of Native American cultural soils and materials.
- k. Confidentiality of cultural information including location and data.
- l. Negotiation of disagreements should they arise during the implementation of the Agreement and Preservation Plan.
- m. Regulations that apply to cultural resources that have been identified or may be identified during project construction.

M-CR-10 Preservation and Maintenance Plan (Impact CR-1 through CR-9). Prior to the issuance of grading permits, the Project Applicant and the San Luis Rey and Pechanga Tribes shall prepare a Preservation and Maintenance Plan for the long-term care and maintenance of CA-SDI-4558, CA-SDI-5951 and CA-SDI-9822, and their associated cultural resources and features. The Plan shall indicate, at a minimum, the specific areas to be included in and excluded from long-term maintenance; prohibited activities; methods of preservation to be employed (fencing, vegetative deterrence, etc.); the entity or entities responsible for the long-term maintenance; maintenance scheduling and notification; appropriate avoidance protocols; monitoring by the Tribes and compensation for services; and necessary emergency protocols. The Project Applicant shall submit a fully executed copy of the Preservation and Maintenance Plan to the County to ensure compliance with this mitigation measure.

M-CR-11 Fair Share Contribution Towards Regional Ethno-historic Study (Impact CR-2 through CR-4, CR-7 through 9). In order to mitigate for impacts to Traditional Cultural Properties, the applicant shall make a fair share contribution towards a regional ethno-historic study, which study shall be prepared in consultation with the San Luis Rey and Pechanga Tribes. The applicant shall make a fair share contribution in the amount of \$50,000 to an account held in trust by a third party manager. The fund shall include the following:

- a. An agreement for the preparation of a regional study for the Deer Springs area when funding is 100 percent available. The agreement must identify the entity responsible for the management of the fund, rate of return, and annual management fees. The agreement must be reviewed and approved by the County of San Diego prior to implementation.
- b. Annual reporting to the County of San Diego on the status of the fund is required. The annual report shall include the balance of the fund and an accounting of projects that have contributed to the fund. Project information shall include the project name, project number, condition number and when fair share contributions were made.
- c. The County shall retain under contract a qualified ethnographer or anthropologist to complete a Luiseño ethnographic study of the Project area and the associated vicinity as it relates to Luiseño knowledge, history, and culture. The selection of the consultant retained to conduct the ethnography shall consider qualifications, ability to work collaboratively with the Pechanga and San Luis Rey Tribes, cost, and shall be by mutual agreement of the Tribes and the County. Consultant selection shall be approved by the County and Tribes; however, approval of the consultant by Tribes shall not be unreasonably withheld.
- d. The study shall be completed within 1 year of the execution of the consultant's contract. The Tribes agree to work in good faith with the ethnographer to meet this deadline and the goals of this study.

M-CR-12 Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the responsibility and jurisdiction of Caltrans to approve, Caltrans can and should prepare, or cause to be prepared, a review of literature and historic maps and a records search to determine whether the project area has been previously surveyed and whether cultural resources were identified. If the project area has not been previously surveyed, Caltrans can and should conduct, or cause to be conducted, a survey of the project area as part of the NEPA/CEQA process, and avoid impacts to known significant cultural resources, to the extent feasible. Because of the potential to unearth previously unidentified resources during construction, Caltrans can and should ensure that earth-moving activity within and around any immediate discovery area is diverted until a qualified archeologist, retained by Caltrans, assesses the nature and significance of any such discovery in cooperation with other stakeholders (as

needed). In addition, Caltrans can and should ensure the procedures described in state law if human remains are discovered are followed and implemented.

7.5 Geology, Soils, and Seismicity

7.5.1 Mitigation Measures

- M-GE-1** A geotechnical consultant in the field shall perform geotechnical observation and/or laboratory testing during grading to identify areas of potential liquefaction and develop conclusions and recommendations. All alluvial soils in areas of proposed development or future fill shall be removed and recompacted during grading. Prior to approval of final inspection of site grading for each phase of the affected areas of the proposed project, the removal and recompaction measures shall be reviewed and approved by the Director of the County Department of Planning & Development Services or its designee.
- M-GE-2** A California Certified Engineering Geologist shall complete a final soils report specific to the preliminary design of the proposed development. The final soils report shall include, but not be limited to, a surficial stability analysis. The report shall include conclusions and design recommendations including, but not limited to, buffering areas without structural development, construction of debris walls, catchment basins, or slope buttressing. The final soils report and final grading plans shall be submitted to, and approved by, the County Department of Planning & Development Services or its designee prior to the issuance of grading or construction permits for any phase of the project. The final soils report and final grading plans shall conform to all applicable laws, regulations, and requirements. All geotechnical recommendations provided in the final soils report and final grading plans shall be followed during grading and construction at the project site.
- M-GE-3** A geotechnical consultant in the field shall perform mapping of all cut slopes during grading. If adverse geologic conditions (e.g., highly fractured and jointed rock, clay-lined fractures, seepage zones) are encountered during installation of cut slopes, stabilization measures shall be required and implemented during grading. Specific stabilization measures shall include, but not be limited to, removal of loose boulders or displaced rocks, stability fill, buttresses, rock-bolting, and/or catchment netting. Prior to approval of final inspection of site grading for each phase of the affected areas of the proposed project, the stabilization measures shall be reviewed and approved by the County Department of Planning & Development Services or its designee.

M-GE-4 All boulders located within the proposed development footprint shall be removed during grading. Boulders affecting the 14 locations identified in Table 2.6-2 as potentially hazardous zones shall either be removed, broken in place, or mitigated with catchments as set forth in in Table 2.6-2. The removal or breaking of the boulders, as well as the catchment construction, shall be completed prior to approval of final inspection of site grading for each phase of the affected areas of the proposed project. Prior to such approval of final inspection of site grading, evidence shall be provided to the satisfaction of the County Department of Planning & Development Services or its designee, demonstrating that hazardous boulders have been removed, broken in place, or mitigated with catchments, as required.

In addition, prior to approval of final inspection of site grading for each phase of the affected areas of the proposed project, a written professional opinion from a California Certified Engineering Geologist shall be provided that indicates that the potential risk for rock fall hazards to impact the proposed development has been mitigated to a less than significant level. The written opinion shall also indicate that, with mitigation measures incorporated, the proposed development shall be safe for human occupancy.

M-GE-5 A geotechnical consultant in the field shall perform geotechnical observation and/or laboratory testing during grading to identify areas of highly expansive soils and determine the actual expansion/compression potential of finish-grade soils. All compressible soils in areas of proposed development or future fill shall be removed and recompacted during grading. Prior to approval of final inspection of site grading for each phase of the affected areas of the proposed project, the removal and recompaction measures shall be reviewed and approved by the Director of the County Department of Planning & Development Services or its designee.

M-GE-6: Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the responsibility and jurisdiction of Caltrans to approve, Caltrans can and should prepare, or cause to be prepared, a project geotechnical investigation report describing the geologic conditions present and making recommendations for how to address these conditions during construction of the interchange improvements as part of the NEPA/CEQA process. Caltrans can and should ensure the design and construction of the interchange improvements meet any and all design recommendations to address potential geologic and soils-related considerations including, but not limited to, seismic ground shaking, liquefaction, landslides, rockfall hazards, expansive soils,

and soil erosion. Further, Caltrans can and should ensure a field investigation and construction monitoring program is implemented.

7.6 Greenhouse Gas Emissions

7.6.1 Mitigation Measures

M-GHG-1 The project applicant shall purchase and retire carbon offsets in a quantity sufficient to offset 100 percent of the project's construction emissions (including sequestration loss from vegetation removal) 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 the Verified Carbon Standard, (ii) any registry approved by 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 that is acceptable to the Director of the Planning & Development Services Department. Prior to use of option (iii), it shall be demonstrated that the other reputable registry or entity follows accounting, quantification and monitoring protocols, as well as eligibility and procedural performance standards, that are comparable to those used by the registries identified in option (i).

Second, any carbon offset utilized to reduce the project's GHG emissions shall be a carbon offset that represents the past reduction or sequestration of one metric tonne of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines section 15126.4(c)(3)).

Third, "project applicant" shall mean Newland Sierra LLC or its designee.

Fourth, as to construction and vegetation removal GHG emissions, prior to the County's issuance of the project's first grading permit, the project applicant shall provide evidence to the satisfaction of the Director of the Planning & Development Services Department (PDS) that the project applicant has purchased and retired carbon offsets in a quantity sufficient to offset 100 percent of the construction and vegetation removal GHG emissions generated by the project, which total 93,323 MT CO₂E.

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

~~Sixth, the project applicant or its designee shall demonstrate the County of San Diego Planning & Development Services Department will consider, to the satisfaction of the Development Services Director, that the following geographic priorities for GHG reduction features, and GHG reduction projects and programs carbon offsets have been met: 1) project design features/on-site reduction measures; 12) off-site within the unincorporated areas of the County of San Diego; 23) off-site within the County of San Diego; 34) off-site within the State of California; 45) off-site within the United States; and 56) off-site internationally. As listed, geographic priorities would focus first on local reduction features (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over benefits 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 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 project applicant or its designee shall submit proof to the County that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority category before seeking offsets from the next lower priority category.~~

M-GHG-2 As to operational GHG emissions, to effectuate a total offset of 1,304,940 MT CO₂E over the 30-year life of the project consistent with this measure, prior to the County's issuance of building permits for each implementing Site Plan ("D" Designator), the project applicant shall purchase and retire carbon offsets for the incremental portion of the project within the Site Plan in a quantity sufficient to offset, for a 30-year period, the operational 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 utilized to reduce the project's GHG emissions shall be a carbon offset that represents the past reduction or sequestration of one metric tonne of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines section 15126.4(c)(3)).

Third, "project applicant" shall have the same meaning as set forth in M-GHG-1.

Fourth, as to operational emissions, prior to the County's issuance of building permits for each implementing Site Plan ("D" Designator), the project

applicant shall provide evidence to the satisfaction of the Director of PDS that it has purchased and retired carbon offsets for the incremental portion of the 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).

Fifth, the purchased carbon offsets used to reduce operational GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (Cal. Health & Saf. 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 Report (EIR Appendix K)).

Seventh, each implementing Site Plan shall include a tabulation that identifies the overall carbon offsets required to mitigate the entire project’s GHG emissions, and shall identify the amount of carbon offsets purchased to date as well as the remaining carbon offsets required to reduce the project’s emissions to net zero. Such tabulation and tracking shall be to the satisfaction of the Director of PDS.

For clarity, the following example is provided as to the project’s operational GHG emissions purchase and retirement strategy. If 100 single-family residential units and one park are developed and become operational in the year 2023, GHG emissions for those land uses would be calculated and carbon offsets for those emissions would be secured for a 30-year period; however, to be conservative, an operational year of 2021 has been applied to all land uses. Thus, the 100 single family-residential units would be multiplied by the MT CO₂E/dwelling unit provided in EIR Table 2.7-9 (single-family residential), and the park would be multiplied by the MT CO₂E/acre provided in EIR Table 2.7-14 (parks). These values 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 × 16 MT CO₂E/du × 30).

Eighth, this EIR acknowledges that the project’s GHG emissions estimates are conservative because the 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 project are subject to a “true up” at the election of the project applicant (as defined above) and subject to the ~~satisfaction~~ approval of the 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 ~~Director of PDS~~.

Specifically, if ~~new technological advancements, regulatory updates, or model and methodology updates occur at a future date result in greater GHG efficiencies and less impacts from project operations than the information projected in the certified Final EIR for the project~~ applicant elects to process and a “true-up” exercise is undertaken subsequent to the County’s certification of the Final EIR and approval of the project, the project applicant shall provide an updated operational GHG emissions inventory of for the project’s operational emissions for the “true up” operational conditions, including emissions from mobile sources, energy, area sources, water consumption, and solid waste. If updated GHG emission calculations are conducted for the “true-up” exercise at the project applicant’s election, subject Subject to the satisfaction of the County’s Board of Supervisors ~~Director of PDS~~, 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 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 buildout 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 greenhouse gas~~

~~emissions would be lower than the quantity identified in the certified Final EIR for the 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 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 project is consistent with the project commitment to achieve and maintain carbon neutrality (i.e., net zero emissions) for the 30-year life of the project.

~~Ninth, the County of San Diego Planning & Development Services Department will consider project applicant or its designee shall demonstrate, to the satisfaction of the Development Services Director, that the following geographic priorities for GHG reduction features, and GHG reduction projects and programs carbon offsets have been met: 1) project design features/on-site reduction measures; 12) off-site within the unincorporated areas of the County of San Diego; 23) off-site within the County of San Diego; 34) off-site within the State of California; 45) off-site within the United States; and 56) off-site internationally.~~ As listed, geographic priorities would focus first on local reduction features (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over benefits 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 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 project applicant or its designee shall submit proof to the County that offsets are unavailable and/or fail to meet the feasibility factors defined in CEQA Guidelines Section 15364 in a higher priority category before seeking offsets from the next lower priority category.

M-GHG-3 To reduce GHG emissions, the project applicant (as defined above) shall implement the project design features listed in EIR Table 2.7-7.

7.6.2 Project Design Features

PDF-1 Provide a mix of land uses, including residential, commercial, educational, and parks, so that residents of the project have access to basic shopping, school, and recreation opportunities without having to travel outside of the project Site. This would lower vehicle miles traveled because residents can use alternative transportation modes to reach the various land uses available within the Site.

- PDF-2** Develop a comprehensive trail network designed to provide multi-use trails between the various project components, land uses, parks/open spaces, school, and the Town Center. The trails network would provide connections to the various recreational trails and multi-modal facilities accessing the project Site. Additionally, the loop road includes 5-foot-wide bike lanes on both sides of the roadway.
- PDF-3** Provide bicycle racks along main travel corridors, adjacent to commercial developments, at public parks and open spaces, and at retail and multi-family buildings within the project Site.
- PDF-4** Implement an electric bike-share program to further link the project neighborhoods to one another and to reduce motorized vehicle trips. The bike share program includes the placement of eight kiosks throughout the Community. Electric bikes can be taken from one kiosk and left at another to promote sustainable transportation between planning areas. It is anticipated that each kiosk will contain 10 to 20 electric bikes.
- PDF-5** Coordinate with a car-share organization to install three car-share stations with one car each (for a total of three cars) in the commercial area of the project Site, available to residents on an on-demand basis.
- PDF-6** Coordinate a ride share or shuttle system that connects the various project neighborhoods to the Town Center and to external transit facilities and resources such as the park-and-ride lots and the Escondido Transit Center.
- PDF-7** Coordinate with the San Diego Association of Governments (SANDAG) iCommute program for carpool, vanpool, and rideshare programs that are specific to the project's residents.
- PDF-8** Promote the adjacent park-and-ride lots at the northeast quadrant of the Deer Springs Road/Mesa Rock Road intersection and at the northwest quadrant of the Deer Springs Road/Old Highway 395 intersection to residents to encourage carpooling.
- PDF-9** Provide transit subsidies for residents.
- PDF-10** Promote available websites providing transportation options for residents.
- PDF-11** Create and distribute a "new resident" information packet addressing alternative modes of transportation.
- PDF-12** Promote a transportation option app for use on mobile devices.
- PDF-13** Coordinate with NCTD and SANDAG about future siting of transit stops/stations at

the adjacent park-and-ride lots.

- PDF-14** Provide transit subsidies for employees of the project's Town Center.
- PDF-15** Promote available websites providing transportation options for businesses in the Town Center.
- PDF-16** Promote the adjacent park-and-ride lots to employees to support carpooling.
- PDF-17** Implement a demand-responsive shuttle service that provides access throughout the project Site, to the park-and-ride lots, and to the Escondido Transit Center.
- PDF-18** Coordinate with SANDAG's iCommute program for carpool, vanpool, and rideshare programs that are specific to the project's employees.
- PDF-19** Coordinate with NCTD and SANDAG on the future siting of transit stops/stations at the adjacent park-and-ride lots.
- PDF-20** 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 established to monitor the TDM Program, and would be responsible for developing, marketing, implementing, and evaluating the TDM Program.
- PDF-21** Landform alteration shall be minimized by clustering development and preserving natural topography, open spaces, and view corridors. Community open space areas shall be integrated into Site design and building layout.
- PDF-22** Solar panels shall be required on all residential units. Where feasible, roof-integrated solar panels should be considered to minimize visual impacts. All light fixtures along public roads shall be solar powered. The project can use centralized solar arrays (e.g., a solar array on top of a shade structure in a parking lot) to implement this requirement.
- PDF-23** All private residential garages shall include an electric vehicle charger, and in all public-parking areas with ten or more spaces (i.e., commercial parking lots and at community and public parks), electric vehicle charging stations shall be installed in 3 percent of the parking spaces.~~The garages of all single-family homes shall include an electric vehicle charger in the garage, and electric vehicle charging stations shall be installed in 3 percent of the Town Center's commercial core parking spaces.~~
- PDF-24** All common area landscapes shall meet an evapotranspiration adjustment factor of 0.55 within residential neighborhoods and 0.45 within non-residential

areas. An evapotranspiration adjustment factor of 1.0 is allowed for special landscape areas (i.e., recreational and community garden areas), as noted in County Ordinance Number 10032. All irrigation shall be designed to meet or exceed an average irrigation efficiency rating of 0.75 for spray/rotor irrigation and 0.81 for drip irrigation.

- PDF-25** Turf grass shall be prohibited in residential front yards and within street rights-of-way. Turf in rear or side yards of single-family homes shall be warm-season turf or shall have a plant species factor of 0.6 or lower.
- PDF-26** All single-family homes shall be plumbed for greywater systems for use in private yards.
- PDF-27** The amount of stormwater run-off and pollutant discharge shall be minimized through the use of open vegetated swales along roadways and within neighborhoods; water quality and detention basins; permeable paving, where feasible; and other similar low-impact-development techniques.
- PDF-28** An area within the maintenance yard of the Sierra Farms Park shall be designated for collection of common area landscape trimmings. These landscape trimmings shall be chipped and ground into either mulch or compost and used to return organic matter and nutrients to the project's landscaped areas. The green waste collection area shall be designed to collect approximately 30 to 40 yards of material at a time (approximately three open stalls 10 feet wide by 10 feet long by 6 feet tall). A buffer of screening shrubs shall be planted between the collection area and the street. The green waste area shall be maintained by the HOA.
- PDF-29** Vineyards and community gardens shall be incorporated to connect the Community to the region's agrarian history and provide productive landscapes.
- PDF-30** Residential structures will have solar photovoltaic panels installed on rooftops. Non-residential structures will comply with the 2016 Title 24 requirements for cool roofs. Outdoor pavement, such as walkways and patios, will use paving materials with three-year SRI of 0.28 or initial SRI of 0.33.
- PDF-31** Builders would offer residents their choice of energy-efficient appliances (including washer/dryers, refrigerators), and appliances (including dishwashers) installed by builders would be Energy Star rated or equivalent.

PDF-32 The project would not install wood-burning fireplaces for heating purposes. All fireplaces would be natural-gas-fired.

7.7 Hazards and Hazardous Materials

7.7.1 Mitigation Measures

M-HZ-1 Prior to approval of the Landscape Plan and Final Map, the project applicant shall show that the entire area from the structures to the property boundary is mapped as Zone 1 irrigated on project plans. A heat deflecting wall shall be placed at the top of the slope. Should an off-site fuel modification easement to extend a minimum of 36 feet (to provide 100 feet of FMZ) be agreed to, then that option would be implemented in lieu of the heat deflecting wall.

Heat deflecting walls shall comply with Chapter 7A of the California Building Code and meet the approval of the Deer Springs Fire Protection District.

M-HZ-2 Prior to approval of the Landscape Plan and Final Map, the project applicant shall show that all lots that cannot provide a full 30 feet of setback from the top of slope for two-story homes have the following on the project plans:

- An extended fuel modification zone (2.5 times the required 100 feet); and
- Heat deflecting walls in compliance with Chapter 7A of the California Building Code and that meet the approval of the Deer Springs Fire Protection District.

M-HZ-3 Prior to the approval of the Landscape Plan and Final Map, the project applicant shall show that the following fire measures have been incorporated into the Sierra Farms portion of the proposed project:

- Constructing 2 hour rated exterior walls per latest California Building Code and California Fire Code standards. The storage shed shall be required to have all four sides of the structure built to the 2 hour rated exterior wall standards. All doors for the shed would be non-combustible or be a fire rated door approved by the City of San Marcos Fire Department's Fire Marshal.
- The Community building shall have the north side wall built to the 2 hours rate exterior wall standards with the fire rate wall wrapping around 5 feet on either side of the building.
- Windows on all sides of the storage shed and the north side of the Community building shall be dual pane, both panes tempered.

- M-HZ-4** Upon completion of grading plans and prior to the start of any construction or earth moving activities, the project applicant or its designee shall segregate and evaluate soils in the general vicinity of the lead contaminated soils as identified in the Focused Soil and Soil Vapor Screening Survey prepared by Leighton and Associates, Inc. in July 2015, and subject to approval by the County of San Diego Department of Environmental Health. Soils shall be evaluated and, if necessary, remediated according to all applicable federal, state, and local regulations, including County of San Diego Department of Environmental Health and U.S. Environmental Protection Agency Region 9 standards.
- M-HZ-5** Prior to demolition of the existing structures at 2733 Sarver Lane, the project applicant or its designee shall complete a hazardous building material survey to determine the presence, if any, of lead-based paint or asbestos-containing materials. The project applicant or its designee shall retain a certified lead and asbestos abatement contractor to prepare a comprehensive lead paint and asbestos containing material survey for all areas to be demolished. The survey shall be submitted for review and approval to the County of San Diego Department of Environmental Health. Based on the survey, the certified lead and asbestos contractor shall prepare an abatement work plan in compliance with local, state, and federal regulations for any necessary removal and disposal of such materials. The work plan shall include a monitoring plan to be conducted by a qualified consultant during abatement activities to ensure compliance with the work plan requirements and abatement contractor specifications. Demolition plans and contract specifications shall incorporate any necessary abatement measures for the removal of materials containing lead-based paint and asbestos. The measures shall be consistent with the abatement work plan prepared for the project and conducted by a certified lead and asbestos abatement contractor. Following removal, lead paint and asbestos containing materials shall be disposed of properly in accordance with all federal, state, and local regulations.
- M-HZ-6** Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the ~~responsibility and jurisdiction of Caltrans~~ to approve, Caltrans can and should require demolition materials be disposed of, or reused, after an investigation as appropriate for hazardous materials or contamination issues. Caltrans can and should prepare, or cause to be prepared, such investigation by or through a qualified and licensed inspector either prior to removal of the material, and/or when materials are removed from the site for disposal or reuse.

7.8 Noise

7.8.1 Mitigation Measures

M-N-1 Prior to the issuance of grading permits for construction at the modeled receiver locations listed in Tables 9 and 10 of the Noise Technical Report for the Newland Sierra Project, the project applicant or its designee shall prepare an acoustical study based on the final map design, and shall implement any and all measures recommended as a result of the study, which shall be approved by the County of San Diego Planning & Development Services department (or its designee). The acoustical study shall include the following:

1. The location, height, and building material of any noise barriers to be constructed. The noise barriers shall be a minimum of 6 feet in height, have a surface density of at least 4 pounds per square foot, and be free of openings and cracks. The barriers may be constructed of acrylic glass, masonry material, earthen berm, or a combination of these materials. Noise barrier heights shall be relative to final pad elevation.
2. A detailed analysis that demonstrates that noise barriers and/or setbacks have been incorporated into the project design, such that noise level exposure to residential receivers in all useable outdoor areas, including multi-family residential patios and balconies, is at or below the applicable noise standard (i.e., 60 dBA Community Noise Equivalent Level (CNEL) at single-family residences, and 65 dBA CNEL at multi-family residences).
3. In the event that pad grade elevations, lot configuration/site design, and/or traffic assumptions change during the processing of any final maps, the noise barrier shall be revised to reflect those modifications.
4. Permanent noise barriers shall be installed as part of the landscape plan.

M-N-2 Prior to issuance of building permits for the property lot numbers listed in Table 11 of the Noise Technical Report for the Newland Sierra Project, the applicant or its designee shall demonstrate that interior noise levels due to exterior noise sources at these locations will not exceed the applicable County of San Diego noise ordinance standard for the subject land use. It is anticipated that the typical method of compliance would be to provide noise barriers where appropriate; structure setbacks; acoustically rated windows and doors; 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. An acoustical study shall be prepared to demonstrate and verify that

interior noise levels at all lots listed in Table 11 of the Noise Technical Report for the Newland Sierra Project are below 45 dBA Community Noise Equivalent Level (CNEL) within all habitable residential rooms.

M-N-3 Prior to the issuance of any building permit for stationary noise-generating equipment such as heating, ventilating, air conditioning (HVAC) systems or standby generators, the applicant or its designee shall prepare an acoustical study of the proposed stationary noise sources associated with HVAC systems and standby generators for submittal to the County of San Diego (County) for review and approval. The acoustical study shall identify all noise-generating equipment and predict noise levels from all identified equipment at the applicable property lines. Where predicted noise levels would exceed those levels 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 be implemented, as necessary, to demonstrate compliance with the County's Noise Ordinance, Section 36.404. Mitigation measures also may include implementing best engineering practices, changing the placement of noise-generating equipment, and implementing shielding for stationary noise sources associated with HVAC systems and standby generators. All mitigation measures identified in the acoustical study shall be implemented by the applicant or its designee prior to issuance of any building permit.

M-N-4 Prior to the issuance of any building permit for commercial land uses containing loading docks and delivery areas, the applicant or its designee shall prepare an acoustical study of the proposed commercial land use site plans for submittal to the County of San Diego (County) for review and approval. The acoustical study shall identify all noise-generating areas and associated equipment, and shall calculate predicted noise levels at the applicable property lines from all identified sources. Where predicted noise levels would exceed those established by the County's Noise Ordinance, Section 36.404, the acoustical study shall identify mitigation measures to be implemented (e.g., enclosures, barriers, site orientation, reduction of parking stalls), as necessary, to demonstrate compliance with the property line noise level limits established by the County's Noise Ordinance, Section 36.404. Mitigation measures may include requiring that best engineering practices be used in the placement and shielding of noise-generating equipment and when developing site plans for commercial land uses containing loading docks and delivery areas. This shall ensure that noise levels at the property line comply with the County's noise standards. All mitigation measures identified in

the acoustical study shall be implemented by the applicant or its designee prior to the issuance of a building permit.

M-N-5 Prior to approval of the grading permit for any portion of the proposed project, the project applicant or the designated contractor shall prepare, or cause to be prepared, a blast drilling and monitoring plan. The plan shall include estimates of the drill noise levels, maximum noise levels (L_{max}), air-blast overpressure levels, and groundborne vibration levels at each residential property line within 1,000 feet of the blasting location, and shall be submitted to the County of San Diego (County) for review prior to the first blast. Blasting shall not commence until the County has approved the blast plan. Where potential exceedances of the County's Noise Ordinance are 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, and the vibration-level limits of 1 inch per second peak particle velocity. The identified mitigation measures shall be implemented by the applicant or its designee prior to the issuance of the grading permit. Additionally, all project phases involving blasting shall conform to the following requirements:

- All blasting 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 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 (County of San Diego 2009a).

M-N-6 To reduce temporary construction noise, the project applicant shall implement project design features 33 through 38.

M-N-7 Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the responsibility and jurisdiction of Caltrans to approve, Caltrans can and should prepare, or cause to be prepared, a noise impact study to analyze the potential for construction-related noise impacts as part of the CEQA/NEPA process. Caltrans can and should ensure

standard measures to minimize or reduce the potential for significant noise impacts due to project construction are implemented. In addition, Caltrans can and should ensure additional options to minimize construction noise during the design phase, such as pre-drilling foundation pile holes where soil conditions allow, or using noise control blankets to shroud any pile driving hammer are implemented in the event of any such construction occurring proximate to noise-sensitive areas (if any).

M-N-8

Prior to beginning construction of any project component within 200 feet of an existing or future occupied residence, the project applicant or its designee shall require preparation of a vibration monitoring plan for submittal to the County of San Diego (County) noise control officer for review and approval. At a minimum, the vibration monitoring plan shall require data 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 steps necessary to ensure that future vibration levels do not exceed such limits, including suspending further construction activities that would 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 inch per second root mean square (RMS) or 0.1 inch per second peak particle velocity (PPV) at the nearest residential structure. Construction activities not associated with vibration generation could continue.

The vibration monitoring plan shall be prepared and administered by a County-approved noise consultant. In addition to the data described previously, the vibration monitoring plan 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 provided in the following text.

Location of Vibration Monitors: The vibration monitoring plan shall include a scaled plan indicating monitoring locations, including the location of measurements to be taken at construction site property lines and at nearby residential properties.

Vibration Instrumentation: Vibration monitors 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 monitor 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 report. The vibration monitors shall be calibrated within 1 year of the measurement, and a certified laboratory conformance report shall be included in the report.

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 operation during the monitoring period and their locations and distances to all vibration measurement locations.

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

7.8.2 Project Design Features

- PDF 33** The project applicant, or its designee, shall take those steps necessary to require that all construction equipment shall be properly maintained and equipped with noise-reduction intake, exhaust mufflers, and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- PDF 34** The project applicant, or its designee, shall take those steps necessary to require that whenever feasible, electrical power shall be used to run air compressors and similar power tools.
- PDF 35** The project applicant, or its designee, shall take those steps necessary to require that equipment staging areas are located as far as feasible from occupied residences or schools.
- PDF 36** The project applicant, or its designee, shall take those steps necessary to require that for all construction activity (on-site and off-site improvement work), noise attenuation techniques shall be employed, as needed, to ensure that noise levels remain below 75 dBA L_{eq} at existing residences. Such techniques may include, but are not limited to, the use of sound blankets on noise-generating equipment and the construction of temporary sound barriers adjacent to construction sites between affected uses.

PDF 37 The project applicant, or its designee, shall take those steps necessary to ensure that on-site rock crusher facilities are located a minimum of 600 feet from the property line of existing residences and future on-site residences.

PDF 38 Maximum noise levels resulting from pile driving operations shall be limited to 20 percent of every hour.

7.9 Paleontological Resources

7.9.1 Mitigation Measures

M-PR-1 Paleontological Resources Monitoring

For excavation into geologic units of high or moderate paleontological potential (i.e., Town Center, the Valley, Sierra Farms park, and Sarver Lane), a Project Paleontologist or Paleontological Resources Monitor (under the supervision of the Project Paleontologist) shall be on -site during initial cutting, grading, or excavation into the substratum. The Project Paleontologist is a person with a PhD or master's degree in paleontology or a related field, and who has knowledge of San Diego County paleontology and documented experience in professional paleontological procedures and techniques. A Paleontological Resources Monitor is defined as an individual with at least 1 year of experience in field identification and collection of fossil materials under the supervision of a Project Paleontologist. The Paleontological Resources Monitor shall work under the direct supervision of the Project Paleontologist. The applicant shall authorize the Project Paleontologist and/or Paleontological Resources Monitor to direct, divert, or halt any grading activity, and to perform all other tasks required by the provisions listed below.

1. Monitor initial cutting, grading or excavation into the substratum;
2. If paleontological resources are unearthed the Project Paleontologist or Paleontological Resources Monitor, under supervision by the Project Paleontologist, shall:
 - a. Direct, divert, or halt any grading or excavation activity until such time that the sensitivity of the resource can be determined and the appropriate recovery implemented;
 - b. Salvage unearthed fossil remains, including simple excavation of exposed specimens or, if necessary, plaster-jacketing of large and/or fragile specimens or more elaborate quarry excavations of richly fossiliferous deposits;

- c. Record stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including a detailed description of all paleontological localities within the stratigraphic section, if feasible, and photographic documentation of the geologic setting;
 - d. Prepare collected fossil remains for curation, to include cleaning the fossils by removing the enclosing rock material, stabilizing fragile specimens using glues and other hardeners, if necessary, and repairing broken specimens;
 - e. Curate, catalog and identify all fossil remains to the lowest taxon possible, inventory specimens, assign catalog numbers, and enter the appropriate specimen and locality data into a collection database; and
 - f. Transfer the cataloged fossil remains to an accredited institution (museum or university) in California that maintains paleontological collections for archival storage and/or display. The transfer shall include copies of relevant field notes, maps, stratigraphic sections, and photographs.
3. The Project Paleontologist shall prepare a final Paleontological Resources Mitigation Report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered (if applicable), and the significance of the curated collection (if applicable).
 4. Submit two hard copies of the final Paleontological Resources Mitigation Report to the Director of Planning & Development Services for final approval of the mitigation, and submit an electronic copy of the report according to the County Planning & Development Services' Electronic Submittal Format Guidelines.
 5. If no paleontological resources are unearthed the Project Paleontologist or Paleontological Resources Monitor, under supervision by the Project Paleontologist, shall prepare and submit a signed letter, stating that monitoring was conducted and no fossils were encountered during grading and excavation to Planning & Development Services.

Mitigation will be deemed complete when the County receives and approves the final report.

If no fossils of greater than 12 inches in any dimension are found during grading and excavation, the project applicant or designee shall submit a letter to the County Department of Planning & Development Services identifying who conducted the monitoring, stating that no fossils were found, and signed by the Project Paleontologist or Paleontological Resources Monitor. The letter shall be submitted to

the County within 90 days following cessation of grading and excavation. Mitigation will be deemed complete when the letter report from the Project Paleontologist or Paleontological Resources Monitor stating that monitoring was conducted and no fossils were encountered during grading and excavation is submitted to and approved by Planning & Development Services.

- M-PR-2** Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the responsibility and jurisdiction of Caltrans to approve, Caltrans can and should require paleontological monitors to be present during grading activities to monitor the improvements and confirm no significant resources are encountered. The monitor should provide preconstruction coordination with contractors, oversee original cutting in previously undisturbed areas, halt or redirect construction activities as appropriate to allow recovery of newly discovered fossil remain, and oversee fossil salvage operations and reporting.

7.10 Transportation and Traffic

7.10.1 Mitigation Measures

- M-TR-1** Prior to the issuance of the certificate of occupancy for the 370th EDU, the project applicant, or its designee, shall coordinate with the California Department of Transportation (Caltrans) to improve the Interstate 15/Deer Springs Road interchange. Interchange improvements to implement the lane configuration ultimately selected by Caltrans as part of the Caltrans subject to their PID, PA&ED, and PS&E processes required for the planning, environmental review, design, and construction of the updated or improved new interchange.

Subject to Caltrans concurrence, the Interchange improvements would include ramp meters, acceleration/deceleration lanes, and improvements to the existing park-and-ride facility. Newland Sierra shall provide full funding for the construction of all Interchange improvements, including costs incurred by Caltrans with regard to the associated planning, environmental review, and design of such improvements, with Caltrans serving as the lead agency for the joint environmental documents required under CEQA and NEPA.

- M-TR-2** Prior to the issuance of the certificate of occupancy for the 900th equivalent dwelling unit (EDU), the project applicant, or its designee, shall reconstruct the Deer Springs Road/Mesa Rock Road intersection to provide the following intersection configuration.
- Southbound – Two left-turn lanes, one shared through/right lane
 - Westbound – One right-turn lane, one shared through/right lane, one through lane, and one left-turn lane
 - Northbound – One through lane, one right lane and one left-turn lane
 - Eastbound – Two left-turn lanes, one through lane, and one through/right lane
- M-TR-3** Prior to the issuance of the certificate of occupancy for the 350th equivalent dwelling unit, the project applicant, or its designee, shall reconstruct the Deer Springs Road/Sarver Lane intersection to provide the following intersection configuration:
- Southbound – One left-turn lane and one right-turn lane
 - Westbound – One shared through/right lane and one through lane
 - Eastbound – Two through lanes and one left-turn lane
- M-TR-4** Prior to the issuance of the certificate of occupancy for the 280th equivalent dwelling unit, the project applicant, or its designee, shall reconstruct the Twin Oaks Valley Road/Deer Springs Road intersection to provide the following intersection configuration:
- Southbound – Two through lanes and one right-turn lane
 - Northbound – One left-turn lane and two through lanes
 - Eastbound – One left-turn lane and one right-turn lane
- M-TR-5** Prior to the issuance of the certificate of occupancy for the 80th equivalent dwelling unit, the project applicant, or its designee, shall reconstruct the Twin Oaks Valley Road/Buena Creek Road intersection to provide the following intersection configuration:
- Southbound – One left-turn lane, two through lanes, and one right-turn lane
 - Westbound – One shared left/through/right lane
 - Northbound – One left-turn lane, one through lane, and one shared through/right lane
 - Eastbound – Two left-turn lanes and one shared through/right lane

- M-TR-6** Prior to the issuance of the certificate of occupancy for the 165th equivalent dwelling unit, the project applicant, or its designee, shall implement one of the following mitigation options:
1. provide a traffic signal and the following lane configuration improvements at the intersection of Buena Creek Road/Monte Vista Drive:
 - Southbound – One shared left/right turn lane
 - Westbound – One through lane, and one right-turn lane with right-turn-overlap
 - Eastbound – One left-turn lane, and one through lane
 2. Build a roundabout at this intersection.
- M-TR-7** Prior to the issuance of the certificate of occupancy for the 273th equivalent dwelling unit, the project applicant, or its designee, shall improve the Buena Creek Road/ S. Santa Fe Avenue intersection to provide dedicated right and left turn lanes on southbound Buena Creek Road. As the S. Santa Fe Avenue intersections with Buena Creek Road and Robelini Drive operate under a single traffic controller, as additional mitigation, the signal timing plan would be modified and the intersection signal equipment would be upgraded.
- M-TR-8** Prior to the issuance of the certificate of occupancy for the 24th equivalent dwelling unit, the project applicant, or its designee, shall widen the segment of Deer Springs Road between Mesa Rock Road and I-15 to San Diego County 4.1A Major Road standards, and to be consistent with the requirements set forth in the Caltrans Project Study Report prepared for the Deer Springs Road I-15 interchange improvements.
- M-TR-9** If Option A is approved, prior to the issuance of the certificate of occupancy for the 58th EDU, the Project applicant, or its designee, shall widen Deer Springs Road between Sarver Lane and Mesa Rock Road to a San Diego County 2.1B Community Collector with a two-way center turn lane standards.
- Or,
- If Option B is approved, prior to the issuance of the certificate of occupancy for the 58th EDU, the Project applicant, or its designee, shall widen Deer Springs Road to San Diego County 4.1B Major Road standards between Sarver Lane and Mesa Rock Road.

- M-TR-10** Prior to the issuance of the certificate of occupancy for the 40th equivalent dwelling unit, the project applicant, or its designee, shall widen the segment of Deer Springs Road between Twin Oaks Valley Road and the City of San Marcos (City) limits to City four-lane major arterial standards, and shall widen the segment between the San Marcos City Limits to Sarver Lane to the County's 4.1A Major Road standards.
- M-TR-11** Prior to the issuance of the certificate of occupancy for the 41st EDU, the project applicant, or its designee, shall widen Twin Oaks Valley Road to City of San Marcos 4-Lane Major Arterial standards between Deer Springs Road and Buena Creek Road.
- M-TR-12** The project applicant, or its designee, shall signalize this intersection if the intersection is not yet signalized by issuance of the certificate of occupancy for the 40th EDU.
- M-TR-13** The project applicant, or its designee, shall contribute the project's fair share toward implementing a dedicated southbound right-turn lane and a third westbound left-turn lane at this intersection with appropriate signal modifications prior to the issuance of the first certificate of occupancy in the project.
- M-TR-14** The Project applicant, or its designee, shall participate in the County TIF Program.
- M-TR-15** Prior to the issuance of the first certificate of occupancy, the project applicant, or its designee, shall pay a fair share towards providing a third southbound lane on Twin Oaks Valley Road between Deer Springs Road and Buena Creek Road.
- M-TR-16** Prior to the issuance of the first certificate of occupancy, the project applicant, or its designee, shall pay a fair share towards providing a dedicated southbound right-turn lane on Twin Oaks Valley Road at Richmar Avenue.
- M-TR-17** Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the responsibility and jurisdiction of Caltrans to approve, Caltrans can and should prepare, or cause to be prepared, a traffic and transportation assessment as part of the CEQA/NEPA process. In addition, Caltrans can and should require temporary traffic control to minimize such temporary effects as a result of the interchange improvements.
- M-TR-18** The project applicant, or its designee, shall implement PDF-39 prior to issuance of the first grading permit and as required for individual grading and construction permits associated with off-site improvements.

7.10.2 Project Design Features

PDF-39 Each TCP for the project will be prepared consistent with the MUTCD, Caltrans Manual, Greenbook, and WATCH, and, where applicable, shall incorporate the following specific measures:

- During peak periods of construction activity, construction shifts shall be staggered to the extent feasible such that worker and contractor arrivals and departures from the project Site avoid the peak hours of the day (i.e., arrive by 7:00 a.m. and leave by 4:00 p.m.).
- The TCP shall identify delivery vehicle routes for all vehicles delivering materials and equipment to the project Site or offsite work zones. Unless directed otherwise by the Director of Public Works, heavy trucks and the delivery of heavy equipment shall use the nearest interchange and/or arterial road (e.g., the Deer Springs Road/I-15 interchange) to gain access to and from the project Site and offsite construction zones. To the extent feasible, the delivery of materials and equipment shall occur outside the AM and PM peak hours of traffic.
- In offsite construction zones, where possible, construction vehicles, contractors, and workers shall remain confined to active work areas for movement throughout the construction zone to minimize impacts on those portions of the road that remain open to through traffic.
- Vehicular access to nearby communities shall be maintained at all times. To the extent feasible, one lane in each direction on all roadways subject to construction shall remain open at all times. In the event that temporary lane closures require that only a single lane can be open for traffic in both directions, such a condition shall be limited to off peak hours and temporary traffic signals/stop lights and flaggers shall be used as a traffic control measure.
- Where applicable, the TCP shall include traffic control measures specific to each phase or sub-phase of work associated with the improvements.
- The TCP shall identify sufficiently sized staging areas and construction worker parking areas. Construction worker parking along offsite roads (outside of designated construction worker parking areas as described in the TCP) shall be prohibited.
- Construction activities requiring travel on local roads, including worker commute trips, shall be limited to off-peak hours to the extent possible.
- Temporary traffic signals/stop lights, if necessary, shall be installed in the event traffic volumes and safety concerns warrant such an installation.

- Signage for advance noticing of pending major construction activities or any temporary lane closures shall be placed along affected roadways in accordance with the Traffic Control Plan at least two weeks prior to the start of construction.
- The disruption of use for any pedestrians and/or bicyclists along the affected roadway shall be limited to the extent feasible. Wherever possible, along roads with existing sidewalk improvements, safe, through pedestrian access shall be maintained on one side of the affected roadway at all times. Temporary closures of pedestrian access along both sides of a roadway shall be noticed at least two weeks in advance. Permanent pedestrian access improvements shall be constructed as soon as is feasible in the construction process.

7.11 Utilities and Service Systems

7.11.1 Mitigation Measures

- M-UT-1** Prior to the issuance of building permits that allow construction, the project applicant of any subdivision map, or its designee, shall fund, or pay fair-share fees toward, all new or expanded water facilities and infrastructure shown in the project's Master Plan of Water (January 30, 2017).
- M-UT-2** The project applicant or its designee shall be prohibited from installing irrigation in any of the project's dedicated open space (approximately 1,209 acres) and non-irrigated fuel modification zones (approximately 272.2 acres) within the project.
- M-UT-3** Pursuant to CEQA Guidelines Section 15091(a)(2), the Vallecitos Water District's 2014 water demand factors are within the responsibility and jurisdiction of the District, and those water demand factors can and should be revised to remove the allocation of any water usage assigned to dedicated open space and non-irrigated fuel modification zones within its service area unless it is shown to be needed for health or safety concerns, which is not the case for the Newland Sierra Specific Plan project that is the subject of this EIR.
- M-UT-4** Prior to recordation of a final map, a "written verification" and supporting documents from the water supplier indicating the availability of a "sufficient water supply" as required by Section 66473.7 of the Subdivision Map Act (Senate Bill 221) shall be provided to the satisfaction of County departments.
- M-UT-5** Pursuant to California Public Resources Code Section 21081(a)(2), in coordination with the I-15 interchange improvement project, which is to be fully funded and constructed by the project applicant, though is within the

~~responsibility and jurisdiction of Caltrans to approve~~, Caltrans can and should ensure any required utilities relocation(s) are coordinated with the appropriate utility provider, including any design considerations. In addition, Caltrans can and should require standard transportation management techniques to minimize construction-related delays and inconvenience to the traveling public due to the I-15 interchange improvements.