SUMMARY

S.1 Project Synopsis

This executive summary includes descriptions of the two primary actions analyzed in this EIR. The first action is an amendment to the County Circulation Element changing the classification of Deer Springs Road. The second action is all of the discretionary actions associated with implementation of the Merriam Mountains Specific Plan. In this executive summary, the Circulation Element Amendment is generally described first since action on the Circulation Element Amendment is a predicate action to actions on the Specific Plan.

Location

The Merriam Mountains Project – Circulation Element Amendment (Circulation Element Amendment) consists of approximately 40 acres located generally along the stretch of Deer Springs Road from Champagne Boulevard to the City of San Marcos city limits and the planned segment of Buena Creek Road extending from the intersection of Sugarbush Drive/Buena Creek Road to Deer Springs Road/Sarver Lane.

The remainder of the proposed Merriam Mountains Project (Merriam) consists of approximately 2,327 ac. located within the Merriam Mountains of northern San Diego County (see Figure 1.1-1). The cities of Escondido and San Marcos are approximately 1 mi. south of the project. The site is bordered by Interstate 15 (I-15) to the east, Deer Springs Road (S12) to the south, and Twin Oaks Valley Road to the west; a small portion of the western edge of the site is traversed by Twin Oaks Valley Road, and the northeast corner of the site is traversed by Lawrence Welk Drive. Gopher Canyon Road is located approximately 1 mi. north of the site (see Figures 1.1-1 and 1.1-2). Merriam is located immediately north of the portion of the Circulation Element Amendment affecting Deer Springs Road from the I-15 interchange to Mountain Meadows Parkway.

Setting

The project area lies within the central portion of the Merriam Mountains, a narrow chain of low mountains generally running north to south with a variety of east to west trending ridgelines and scattered peaks. These mountains originate near the northern end of the urban parts of the City of Escondido and are bordered by Gopher Canyon Road to the north, I-15 to the east, and Twin Oaks Valley Road to the west. Land uses surrounding the project area include large-lot single-family residences and avocado groves to the north, west, and south. Existing uses to the south, including a mobile home park, are separated from the site by Deer Springs Road. Existing uses to the east are separated from the site by I-15. South of the site are avocado groves, a nursery,

vacant parcels, and the Golden Door Spa and Resort. Lawrence Welk Village, a 600 ac. vacation resort facility, is located across from the project area on the east side of I-15. Condominium retirement communities are also associated with the Welk Resort San Diego. Other development in the area includes Hidden Meadows, which is a country town of approximately 6,472 residents and 853 dwelling units (du) located on the hills east of I-15 above the Welk Resort. A large granite quarry is located to the north, near the southern tributary to Gopher Canyon. These existing land uses are depicted on Figure 3.5-1 as part of the land use analysis in Section 3.5 of the EIR.

The undeveloped project site contains natural features of scenic value and unique visual characteristics, such as rugged topography and significant rock outcroppings. The elevation on the site ranges from about 800 ft above mean sea level (AMSL) near the intersection of Deer Springs Road and I-15 to about 1,765 ft AMSL in the north-central portion of the property. The site is currently undeveloped and the dominant vegetation is Southern Mixed Chaparral. Although the project area is primarily undeveloped, features of note are an existing greenhouse, located along the southern boundary; a number of dirt roads and trails that provide access to each parcel; and service roads for the existing water infrastructure that crisscross the project site. Runoff from the project area flows either west to the South Fork of Gopher Canyon, east to the South Fork of Moosa Canyon, or southerly to San Marcos Creek. Over the years, portions of the Merriam Mountains have been used for various activities that have left their marks on the character of the site, including a rock quarry and a private landing strip. Existing uses on and near the project site are also shown on Figure 3.5-1.

Description

Circulation Element Amendment: The Circulation Element Amendment proposes three modifications to the County of San Diego Circulation Element: (1) reclassification of Deer Springs Road from a four-lane Major Road to a six-lane Prime Arterial between Champagne Boulevard and the City of San Marcos city limit/Twin Oaks Valley Road; (2) deletion of the planned Circulation Element roadway segment of Buena Creek Road extending westerly from its intersection with Deer Springs Road; and (3) elimination of the planned bicycle path along the segment of Buena Creek Road described in (2). These modifications to Sheet 2 of 8 (Rainbow/Palomar) of the County of San Diego Circulation Element Map are shown on Figure 9.1.1-B. Chapter 9 discusses and analyzes the potential environmental impacts of the Circulation Element Amendment. The Circulation Element Amendment is necessary for the accommodation of traffic that would be generated by the existing Land Use Element of the General Plan, even without additional traffic generated by development of Merriam.

Merriam Mountains Specific Plan: Merriam proposes to develop a master-planned community integrating residential, commercial, recreational, and open space land uses. Merriam will allow a maximum of 2,700 du with an overall density of 1.16 du per acre. Residential density within the planning areas ranges from 0.2 to 22.0 gross du per acre. The higher-density planning areas are in Neighborhood 1, which is the gateway to the Merriam project area at the Deer Springs Road/I-15 interchange. The lower-density planning areas are located in the north-central and northern portions of the property, adjacent to the more semi-rural uses adjoining the site. To ensure compatibility with the rural character of Twin Oaks Valley, Bonsall, and Hidden Meadows, and to provide consistency with the proposed North County Multiple Species Conservation Program (NCMSCP), approximately 1,192 ac. of Biological Open Space would be retained in the northern and eastern portions of the project area.

The proposed Merriam Mountains Specific Plan (SP) will include policies and programs for the preservation and ongoing viability of the natural open space and direction for the development of 1,149 single-family detached units; 1,271 variable residential density (detached and attached/owned) units; 270 multifamily dwelling (apartment/rented) units; 10 estate residences; 10.1 ac. of neighborhood commercial space; 37 parks; 18.3 mi. of trails; and associated community facilities and infrastructure. Approximately 1,729 ac. within the project area would be designated as permanent open space, including 1,192 ac. of Biological Open Space and 537 acres of other open space areas (including fuel modification zones (FMZs)), natural parks, internal Resource Protection Ordinance wetlands, water quality basins, and isolated natural open space acres).

Merriam is located within the service areas of the Bonsall Union Elementary School District (K–8), Fallbrook Union High School District (9–12), San Marcos Unified School District (K–12), Escondido Union School District (K–8), and Escondido Union High School District (9–12). Approximately 2,245 ac. are within the service boundary of the Vallecitos Water District (VWD) and the remaining approximately 81 ac. are in the Rainbow Municipal Water District (RMWD) for water and sewer service. The County of San Diego Sheriff Department's San Marcos Substation would service the project area. Deer Springs Fire Protection District (DSFPD) would provide fire and emergency response services to 2,311 ac. in the northern portion of the site, and the San Marcos Fire Department (SMFD) would provide services to 16 ac. in the southernmost portion of the site (see Figure 4.1-2).

S.2 Summary of Significant Effects and Mitigation Measures that Reduce or Avoid the Significant Effects

Table S-1 provides a summarized impact analysis, mitigation, and the level of significance after mitigation for each significant environmental effect for the General Plan Amendment/Circulation Element addressed in Chapter 9 of the EIR. Table S-2 provides a summarized impact analysis,

mitigation, and the level of significance after mitigation for each significant environmental effect for the Merriam Mountains Specific Plan addressed in Chapters 2 and 3 of the EIR.

S.3 Areas of Controversy

Areas of controversy are considered to include the following:

- Location of the proposed planned community
- Compatibility with regional land-use plans and programs
- Compatibility with surrounding land uses
- Transportation and traffic
- Wildfire danger.

S.4 Issues to be Resolved by the Decision-Making Body

Issues to be resolved by the decision-making body include the following:

- Whether the Merriam SP is a conservation and resource protection plan environmentally superior to what could be developed through strict adherence to the Resource Protection Ordinance (RPO)
- Whether the Merriam site is an appropriate location for a new planned community
- Whether the Merriam SP best achieves the County of San Diego's goals and policies to accommodate growth in a balanced and environmentally sensitive manner?

S.5 Project Alternatives

A summary description of each project alternative and the rationale for the preference of the proposed project over the alternatives is listed below.

Alternative	Description
No Project/No Development (see Section 5.2)	With implementation of the No Project/No Development Alternative, development would not occur as proposed. The No Project/No Development Alternative would avoid the following impacts associated with the proposed project: (1) significant and unavoidable impacts to air quality, traffic, mineral resources, noise, and cultural resources; (2) significant but mitigated impacts to aesthetics, biological resources, land use, hazards, hydrology, and geology; and (3) less than significant impacts to public services, agricultural resources, and recreation. Although this alternative avoids a number of significant environmental impacts, it does not meet five of the six project objectives, including Objectives 1, 2, 3, 5, and 6. The No Project/No Development Alternative would not accommodate existing and projected regional housing demand, conserve biological resources, or create recreational opportunities. Because no development would occur, this alternative also would not meet the objective of providing a compatible community design or constructing a viable planned community.

Alternative	Description
	For these reasons, the proposed project is preferred over the No Project/No Development Alternative.
No Project/Existing General Plan (see Section 5.3)	With implementation of the No Project/Existing General Plan Alternative, 345 dwelling units could be constructed along with 27.2 ac of industrial and 3.5 ac of general commercial development. The No Project/Existing General Plan Alternative would avoid significant and unavoidable impacts identified under the proposed project for air quality, mineral resources, and noise, but not for traffic and cultural resources. Although this alternative avoids or reduces some significant unavoidable impacts, it does not meet five of the six project objectives, including Objectives 1, 2, 3, 5, and 6. Under this alternative, project Objective 1 would not be fully met, as less housing would be constructed to meet regional demand and affordable housing would not be provided. This alternative would not meet project Objective 2, as a variety of residential land uses would not be provided per a compatible community design. In addition, this alternative would not meet project Objective 3 to the degree afforded by the proposed project, as the alternative would not result in conservation of the 1,192-acre Biological Open Space in the Merriam Mountains core area consistent with the National Community Conservation Planning Act of 1991 (NCCP) and the draft NCMSCP. Project Objective 5, which consists of providing accessible recreational opportunities, would also not be met under this alternative, as the opportunities for recreational facilities would be limited. Project Objective 6 would not be met under this alternative, as a master-planned community would not be provided. For these reasons, the No Project/Existing General Plan Alternative does not meet the project objectives listed in Section 1.2, and the proposed project is, therefore, preferred.
785-Unit Reduced Footprint Alternative (see Section 5.4)	This alternative assumes development of about 785 dwelling units and 5 ac of commercial development. The commercial development would be located in the southwest portion of the project site adjacent to Deer Springs Road. This alternative would not include affordable housing and a variety of residential land uses (Objectives 1 and 2). In addition, the biological open space to the north of the development area would not be permanently preserved in connection with the project, but it would be subject to future planning and discretionary development approvals. This alternative would not meet project Objective 3 of preserving a large block of habitat providing east–west connectivity and contributing to a potential NCMSCP preserve. This alternative would not include recreational trails, equestrian trails and outlooks in the northern portion of the project site and, therefore, would not meet the goal of providing the recreational facilities to the public (Objective 5). As this alternative does not meet a majority of the project objectives, the proposed project is preferred.
1300-Unit Reduced Footprint Alternative (see Section 5.5)	This alternative assumes development with about 1,300 dwelling units. The commercial development would be reduced in size from 10 ac to 5 ac and would be located in the southeast portion of the project site. This alternative avoids or substantially lessens several significant unavoidable impacts anticipated with the proposed project, including impacts to air quality and mineral resources. It results in reduced impacts to aesthetics, biological resources, and land use, all of which are less than significant for the proposed project. It results in less than significant impacts (similar to the project) to hazards, hydrology, and water quality. Noise and traffic impacts would also be less but would remain significant and unavoidable under this alternative. However, this alternative would not meet project Objectives 1, 2, 3, and 5. This alternative would not include affordable housing and a variety of residential land uses (Objectives 1 and 2). It would not provide enough commercial development to serve both proposed development and broader community needs (Objective 1). The northern portion of the site would not be placed in biological open space; therefore, permanent preservation of 1,192 ac of biological resources would not be assured. The configuration of the 710-acre biological preserve in the southern half of the site would contribute to the draft NCMSCP, but not to the same extent as the project. Therefore, this alternative does not meet the objective (Objective 3) of designing a project that permanently conserves and manages resources in a configuration that contributes to future assembly of a NCMSCP preserve. This alternative would not include recreational trails and outlooks in the northern portion of the project site and, therefore, would not meet the goal of providing recreational opportunities to the public (Objective 5). As this alternative does not meet a majority of the project objectives, the proposed project is preferred.

Alternative	Description
GP Update Consistent (see Section 5.6)	This alternative would develop the site as anticipated under a draft land use plan for San Diego County's GP Update. This alterative assumes development of rural land totaling about 64 dwelling units and commercial and office professional development in the southeastern portion of the site on about 65 ac, within the existing parcels. Impacts associated with the intensity of land uses, such as impacts to air quality, noise, and mineral resources, would be greatly reduced or avoided under this alternative. Other impacts, such as impacts to biological resources, may be different under this alternative but would likely be significant. However, this alternative does not meet five of the six project objectives, including 1, 2, 3, 5, and 6 : This alternative does not accommodate existing and projected demand for housing and supporting commercial uses, promote a compatible community design, provide for meaningful conservation of biological resources, provide accessible public recreational opportunities, or provide an economically viable planned community. This alternative would not meet the project objectives of developing a master-planned community with a mixture of residential product types along with supporting commercial uses, affordable multifamily units and neighborhood parks (Objectives 1, 2, and 6). Because of probable lack of cooperation among individual landowners, this alternative would not meet the project objective to permanently conserve and manage a large habitat block in the Merriam Mountains west of the I-15 and to contribute a meaningful preserve to San Diego County's draft NCMSCP (Objective 3). This alternative would not meet the project objectives to provide recreational opportunities to the public, because trails and outlooks would not be provided (Objective 5). Based on this analysis, the proposed project is, therefore, preferred.
Off-Site Roadway Improvements along Deer Springs Road (see Section 5.7)	Under this alternative, the roadway design would include placing fill over two significant cultural resource sites in order to cap the cultural resources located near the intersection of Deer Springs Road and Mesa Rock Road. This alternative would result in minimal disturbance of the cultural sites during construction, which would be mitigated to less than significance through data recovery. This alternative would result in short-term significant and unavoidable noise impacts during construction of Deer Springs Road due to construction activities occurring immediately adjacent to residences located at the mobile home park. Construction noise adjacent to the mobile home park would exceed the County of San Diego Noise Ordinance criterion of 75 dB during construction and will require a noise variance, as identified under the proposed project.. This alternative would result in greater air pollutant emissions during construction than would occur under the proposed project. Because this alternative would result in a significant and unavoidable noise impact during construction as with the proposed project and increased air quality impacts, the proposed project's design for this road is preferred.
Deer Springs Road Alignment to Avoid Residence at 1088 Deer Springs Road (see Section 5.8)	This alternative, would revise the alignment of Deer Springs Road to avoid disturbance to the home under construction at 1088 Deer Springs Road. In order to implement this alternative, a design exception would be required. This alternative would result in a reduced grading footprint for the proposed cut slope near Merriam Mountains Parkway, which results in reduced visual effects, overall net reduction in impacts to sensitive vegetation communities due to a reduced grading footprint, a decrease in construction emissions as a result of a reduced grading footprint and net reduction in impact to a significant cultural site. The improvement alternative is preferred because it would avoid taking the house under construction at 1088 Deer Springs Road if the alignment is determined to be feasible.

A summary comparison of unavoidable significant impacts under the proposed project with alternative impacts for air quality, traffic, mineral resources, noise, and cultural resources is provided below.

Comparison of Significant Unavoidable Impacts to Air Quality, Traffic, Mineral Resources, Noise, and Cultural Resources under the Proposed Project with Impacts of Alternatives for Those Environmental Categories

Environmental Issue	Proposed Project (2,700 du and commercial)	ALTERNATIVE B No Project/Existing General Plan (345 du, 3.5 acres commercial, 27.2 acres industrial)	ALTERNATIVE C 785-Unit Reduced Footprint Alternative (785 du, 5 acres commercial)	ALTERNATIVE D 1300-Unit Reduced Footprint Alternative (1300 du, 5 acres commercial)	ALTERNATIVE E GP 2020 Consistent (64 du, 50 acres office professional, 15 acres general commercial)	ALTERNATIVE F Off-Site Roadway Improvements along Deer Springs Road	ALTERNATIVE G Deer Springs Road Alignment to Avoid Residence at 1088 Deer Springs Road
Air Quality Construction	Significant and Unavoidable:	Significant but Mitigated to Less than Significant	Significant but Mitigated to Less than Significant	Significant but Mitigated to Less than Significant	Significant but Mitigated to Less than Significant	Assume proposed project	Same as Project
Traffic	Significant and Unavoidable: 35,526 ADT	Significant and Unavoidable: 13,780 ADT	Significant and Unavoidable: 13,780 ADT	Significant and Unavoidable: 19,060 ADT	Significant and Unavoidable: 23,400 ADT	Assume proposed project	Same as Project
Mineral Resources	Significant and Unavoidable: Precludes ability for future mineral resources extraction	Less than Significant[1]	Less than Significant[1]	Less than Significant[1]	Less than Significant[1]	Assume proposed project	Same as Project
Noise Construction Operations	Significant and Mitigated (on site) Significant and Unavoidable (off site) Direct – Significant but Mitigated to Less than Significant Cumulative - Significant and Unavoidable	Significant but Mitigated to Less than Significant (on site) Significant and Unavoidable (off site) Direct and Cumulative – Significant but Mitigated to Less than Significant[2]	Significant but Mitigated to Less than Significant (on site) Significant and Unavoidable (off site) Direct and Cumulative – Significant but Mitigated to Less than Significant[2]	Significant but Mitigated to Less than Significant (on site) Significant and Unavoidable (off site) Direct – Significant but Mitigated to Less than Significant Cumulative – Significant and Unavoidable	Significant but Mitigated to Less than Significant(on site) Significant and Unavoidable (off site) Direct – Significant but Mitigated to Less than Significant Cumulative – Significant and Unavoidable	Assume proposed project Assume proposed project	Slightly Less than Project Slightly More than Project
Cultural Resources	Significant and Unavoidable[3]	Significant and Unavoidable[3]	Significant and Unavoidable[3]	Significant and Unavoidable[3]	Significant and Unavoidable[3]	Significant but Mitigated to Less than Significant	Slightly Less than Project

Notes:
Alternative A (No Project/No Development) is not included above, as all significant and unavoidable impacts identified for the proposed project would be reduced to a level below significance.
[1] MRZ-2 areas could be developed under this alternative or could be proposed for mineral extraction; therefore, mineral resources extraction would not be precluded under this alternative.
[2] Under this alternative, cumulative traffic levels along Buena Creek Road would be reduced to 17,400 ADT from the 20,000 ADT anticipated under the proposed project, reducing the increase in ambient noise levels along the roadway from 4 dB to 3 dB. This 1 dB reduction in increased noise levels would avoid the significant and unavoidable cumulative noise impact identified for the proposed project.
[3] For any development to occur on the Merriam site, improvements would be required along Deer Springs Road. Land use alternatives (B through E) assume the alignment of the roadway would include the alignment identified for the proposed project. Therefore, impacts to cultural resources are identified as significant and unavoidable, similar to the proposed project. If the land use alternative is developed with the alternative alignment of the roadway (Alternative F), impacts to cultural resources would be reduced to a level below significance with mitigation.

TABLE S-1
Summary of Significant Effects –Deer Springs Road General Plan Amendment/Circulation Element

Impact No.	Impact	**Mitigation**		Significance After Mitigation
Air Quality (see Section 9.2.1)				
GPA/CE-AQ-1	Emissions associated with particulate matter from fugitive dust and diesel engine exhaust associated with construction activities from widening Deer Springs Road to the ultimate six-lane designation under the Circulation Element Amendment.	M- GPA/CE-AQ-1	To reduce the potential for emissions associated with construction of roadway improvements, the construction contractor shall adhere to all San Diego County Air Pollution Control District rules and regulations, which will likely include such measures as minimizing the idling time of construction equipment, wetting down exposed soils to reduce dust, and covering haul trucks. Although compliance with existing regulations is not typically regarded as mitigation, at this program level of analysis, compliance with existing regulations is considered to be appropriate mitigation since more information on which construction techniques will be applied in the future is not known at this time.	Significant and unavoidable
Noise (See Section 9.2.2)				
GPA/CE-NOI-1	Impacts resulting from the exposure of sensitive receptors to noise levels in excess of 60 dB CNEL for plan-to-ground and plan-to-plan scenarios.	M- GPA/CE-NOI-1.	Noise impacts to noise-sensitive land uses shall be mitigated through compliance with the Noise Element of the General Plan and the County's Noise Ordinance, which may include construction of sound walls and/or berms.	Significant and unavoidable
GPA/CE-NOI-2	Impacts resulting from noise generated by construction activities associated with roadway widening.	M- GPA/CE-NOI-2	Noise impacts to noise-sensitive land uses generated by construction shall be mitigated through compliance with the Noise Element of the General Plan and the County's Noise Ordinance, which may include construction of temporary sound walls, limiting the hours of construction operations, and maintaining the mufflers on construction equipment.	Significant and unavoidable
Cultural Resources (see Section 9.2.3)				
GPA/CE-CR-1	Direct impacts to a portion of site CA-SDI-4558 due to improvements to Deer Springs Road would be considered significant.	M- GPA/CE-CR-1a	A grading monitoring and data recovery program for Site CA-SDI-4558 shall be completed as shown in the Cultural Resources Report, prepared by Gallegos and Associates, dated July 2007 (see	Significant and unavoidable

TABLE S-1 (CONT.)

Impact No.	Impact	Mitigation		Significance After Mitigation
			Appendix H to the EIR).	
		M- GPA/CE-CR-1b	All cultural resources excavated or removed from Site CA-SDI-4558 during grading and construction will be curated as described in Appendix H.	
GPA/CE-CR-2	Indirect impacts to site CA-SDI-4558 due to improvements to Deer Springs Road and increased accessibility would be considered significant.	M- GPA/CE-CR-2a	All areas designated as environmentally sensitive during construction will be fenced and have clean fill capping where possible, as well as minor capping where possible, as described in Appendix H.	Less than significant
		M- GPA/CE-CR-2b	The two significant sites will be placed in open space easements and monitored as described in Appendix H to this EIR and Appendix T to the Merriam Mountains Specific Plan Draft EIR, dated August 2007.	
GPA/CE-CR-3	Direct impacts to a portion of site CA-SDI-9822 due to improvements to Deer Springs Road, which may contain human remains would be considered significant.	M- GPA/CE-CR-3	A grading monitoring and data recovery program for Site CA-SDI-9822 shall be completed as detailed in the Cultural Resources Report, prepared by Gallegos and Associates, dated July 2007.	Significant and unavoidable
GPA/CE-CR-4	Indirect impacts to site CA-SDI-9822 due to improvements to Deer Springs Road and increased accessibility would be considered significant.	M- GPA/CE-CR-4	All areas designated as environmentally sensitive will be temporarily fenced during construction and have minor capping as needed, as described in Appendix H. The site will be placed in open space easement and monitored as described in M-GPA/CE-CR-2b.	Less than significant
GPA/CE-CR-5	Potential to discover unknown resources that have not been recorded would be significant should the potential for cultural resources be identified.	M- GPA/CE-CR-5	A field survey will be completed prior to issuance of grading permits for widening to six lanes to determine if any unrecorded cultural sites are located within those portions of the proposed alignment on restricted private property that were not surveyed. If significant sites are identified, appropriate measures will be implemented potentially including data recovery as recommended by the project archaeologist in consultation with the County and consistent with the CEQA Guidelines Section 15064.5 (c) and (f).	Less than significant

TABLE S-1 (CONT.)

Impact No.	Impact	Mitigation		Significance After Mitigation
Transportation/Circulation (see Section 9.2.4)				
GPA/CE-TR-1	An increase in ADT resulting in Twin Oaks Valley Road (Deer Springs Road to Buena Creek Road segment) operating below LOS D, which would be considered significant.	M- GPA/CE-TR-1	The County of San Diego will coordinate with the City of San Marcos regarding a GPA to the City's Circulation Element to incorporate a reclassification of Twin Oaks Valley Road to accommodate planned land uses.	Significant and unavoidable
Biological Resources (see Section 9.3.1)				
GPA/CE-BIO-1	Impacts to sensitive vegetation communities, including wetlands.	M-GPA/CE-BIO-1	For unavoidable permanent impacts to sensitive natural communities including wetlands, the lost habitat shall be mitigated through the conservation or restoration of like-kind habitat in accordance with conservation and mitigation ratios as required by the County as shown in Table 9.3.1-1.	Less than significant
GPA/CE-BIO-2	Impacts to nesting raptor and small bird species during construction activities.	M-GPA/CE-BIO-2	For each phase of grading, a biological survey for nesting bird species must be conducted within the proposed impact area approximately 72 hours prior to ground disturbance. If nesting birds are present, construction activities shall be diverted away from active nests until young birds have fledged.	Less than significant
GPA/CE-BIO-3	Impacts to disturbed coastal sage scrub requiring an HLP permit.	M-GPA/CE-BIO-3	Prior to Circulation Element Amendment implementation and when more detailed design plans are available, impacts to coastal sage scrub will be mitigated at a 2 to 1 ratio and, if deemed necessary by County DPLU, an HLP permit will be prepared and processed prior to grading for Deer Springs Road construction.	Less than significant
GPA/CE-BIO-4	Impacts to wetlands requiring conformance with applicable federal Clean Water Act and California Fish and Game Code permit requirements.	M-GPA/CE-BIO-4	Prior to Circulation Element Amendment implementation and when more detailed design plans are available, impacts to wetlands will be determined along with state and federal permitting requirements for wetlands and, if deemed necessary, state and federal permits will be prepared and processed prior to grading for Deer Springs Road construction. Impacts to wetlands will be mitigated at County of San Diego and	Less than significant

TABLE S-1 (CONT.)

Impact No.	Impact	Mitigation		Significance After Mitigation
			applicable agency mitigation requirements.	
Hydrology and Water Quality (see Section 9.3.2)				
GPA/CE-WQ-1a	Potential short-term impacts may occur to water quality during construction.	M-GPA/CE-WQ-1a	Prior to construction of Deer Springs Road, a Storm Water Pollution Prevention Plan (SWPPP) that describes Best Management Practices (BMPs) would be developed and implemented before, during, and after construction to minimize erosion and runoff from construction activities. A General Construction Permit will be required and a Notice of Intent (NOI) submitted to the State Water Resources Control Board. A WDID number will be issued, permitting construction activity stormwater discharge from the site. BMPs required by the SWPPP would include Erosion Control BMPs, Sediment Control BMPs, Non-Stormwater Management BMPs, and Material Management BMPs. Construction BMPs shall be specified on project plans and specifications and implemented at all construction areas and staging areas. BMPs shall be implemented to avoid potential contamination of the surface water quality downstream. Measures to avoid runoff from each staging and storage area shall be specified on project plans. Petroleum products, concrete, asphalt or other coating materials, and other materials shall be prevented from entering surface waters.	Less than significant
GPA/CE-WQ-1b	Potential long-term impacts from roadway operation may impact water quality.	M-GPA/CE-WQ-1b	Permanent BMPs shall be incorporated into project plans and specifications to reduce roadway drainage and storm water runoff velocities before entering, and within, drainages adjacent to the reconstructed roadway. This shall include BMPs or other comparable storm water controls and filtering systems.	Less than significant

TABLE S-1 (CONT.)

Impact No.	Impact	Mitigation		Significance After Mitigation
GPA/CE-WQ-2	Increase in impervious surfaces may result in exceedance of stormwater drainage system capacity upon completion of roadway improvements.	M-GPA/CE-WQ-2	Prior to implementation of the Circulation Element Amendment, a drainage study shall be completed in accordance with standards established by the County Department of Public Works. The study shall identify drainage structure improvements necessary to accommodate increased runoff from the Deer Springs Road ROW and to ensure flows are reduced to pre-construction conditions.	Less than significant
Aesthetics (see Section 9.3.3)				
GPA/CE-AE-1	Impacts to the intactness/unity and visual character for passing motorists due to the introduction of manufactured cut-and-fill slopes, sound walls, the change in pavement width, the removal of existing mature vegetation, and the change in near views along Deer Springs Road, would be considered significant.	M- GPA/CE-AE-1	Grading and landscaping design criteria upon final design shall retain the natural shape of the landform and reflect the topographic features of the terrain. This could include using variable slope gradients; staining of cut-slopes; blending slope contours with the natural topography; and using vegetation to alleviate sharp, angular slopes. The landscape will need to be designed to convey the character of the region and enhance the integration of the proposed road improvements into the existing environment.	Less than significant

TABLE S-2
Summary of Significant Effects –Merriam Mountains Specific Plan

Impact No.	Impact	Mitigation		Significance After Mitigation
Air Quality (see Section 2.1)				
AQ-1	Operational emissions for CO and VOCs would be above screening-level thresholds in 2015.	M-AQ-1	The following Project Design Features shall be included as part of the proposed project to reduce project trips and associated vehicular emissions as follows: • Provide ride-share/bus shelters at internal locations. The shelters will likely encourage carpooling, ride-sharing and enhance service to the existing Deer Springs park-and-ride facility. The shelters will also be suitable for future bus service. • Central location of the project with respect to major employment centers and transportation corridors creating the opportunity for residents to shorten their commutes and reduce aggregate vehicle miles traveled. • Provision of mixed use development, incorporating a mix of multifamily housing types, single family housing, and commercial uses; this design approach helps reduce trips and vehicle miles traveled by providing residents with retail choices close to their homes. • Provision of bicycle and pedestrian facilities, including sidewalks through the project, bicycle lanes, multi-use trails, and regional bicycle facilities to encourage residents to use alternative modes of transportation. • Encouragement of ridesharing/carpooling/vanpooling through creation of an online ridesharing program that matches potential carpoolers immediately through email. • Improvements to existing street segments and intersections in the project vicinity, increasing miles per gallon by allowing for more efficient vehicle speeds on major roadways.	Less than significant.
AQ-2	Emissions associated with construction activities are above the screening level thresholds for criteria pollutants (NO_x, VOCs, $PM_{2.5}$, and PM_{10}).	M–AQ–2a	The grading contractor shall provide evidence that 10% of the construction fleet shall use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters, and/or CARB-certified Tier I, II, or III equipment has been utilized during grading phases.	Significant and unavoidable
		M–AQ–2b	The Grading and Improvement Plans shall include specifications that three applications of water during grading between dozer/scraper passes.	
		M–AQ–2c	Paving, chip sealing, or chemical stabilization of internal construction roadways after completion of grading to reduce fugitive dust emissions.	
		M–AQ–2d	The construction relations officer shall require the use of sweepers or water trucks to remove "track-out" at any point of public street access, and termination of grading if winds exceed 25 mph.	
		M–AQ–2e	Stabilization of dirt storage piles by chemical binders, tarps, fencing, or other erosion control.	
		M–AQ–2f	Hydroseeding or the application of bonded fiber matrix on graded residential lots if needed prior to construction to reduce fugitive dust emissions.	
		M–AQ–2g	Grading operations shall be limited to 40acres per day to ensure construction emissions do not exceed projections completed as part of the air modeling..	

TABLE S-2 (CONT.)

		M–AQ–2h	The Grading and Improvement Plans shall require trucks hauling soil, sand, and other loose materials to be covered, or require trucks to maintain at least 2 feet of freeboard.	
		M–AQ–2i	The Grading and Improvement Plans shall require construction vehicle tires to be inspected and washed so as to be cleaned free of dirt prior to entering public roadways.	
		M–AQ–2j	The Grading and Improvement Plans shall require unpaved exits from the construction site to be graveled to prevent track out to public roadways.	
		M–AQ–2k	The Grading and Improvement Plans shall require construction vehicles to enter the construction site through the graveled roadways, unless an alternative route has been submitted to and approved for use by the County of San Diego.	
		M–AQ–2l	Prior to issuance of grading plans, the project applicant shall: (1) submit contact information for a construction relations officer who will act as a community liaison concerning on-site construction activity, including resolution of issues related to PM10 generation; and (2) install a publicly readable sign with the telephone number of a person to contact regarding dust complaints. The sign shall be placed in conspicuous locations along Deer Springs Road and noted on Grading and Improvement Plans.	
		M–AQ–2m	Grading and Improvement Plans shall designate staging zones on the Merriam property for trucks waiting to load and unload. This zone shall be established in an area where it will not impact adjacent residences.	
		M–AQ–2n	Grading and Improvement Plans shall designate restricted construction equipment areas in the vicinity of sensitive receptors. Construction equipment shall enter these areas only to complete specific construction-related activities and then equipment shall be moved away from the receptors immediately after the activities have been completed.	
		M–AQ–2o	Construction Traffic Control Plans shall be finalized prior to the associated Grading Permits for each phase, which will require construction trucks to be routed away from congested streets or sensitive receptor areas to the extent feasible.	
AQ-3	Simultaneous grading of the proposed project and cumulative projects located in close proximity could result in a cumulatively significant, if temporary, impact on air quality	M-AQ-3	Air Quality Mitigation Measures during construction (M-AQ-1 through M-AQ-2o).	Significant and unavoidable
Traffic (see Section 2.2)				
TR-1	I-15 NB Ramps/Deer Springs Road (LOS "F" in the PM peak hour) (Direct Impact)	M-TR-1	Widen the I-15/Deer Springs Road interchange to provide the lane configuration resulting from the Caltrans Project Study Report process (currently underway). This configuration could be the following based on work completed to date on the PSR: NB – Two left-turn lanes and two right-turn lanes WB – Two through lanes and one right-turn lane EB – Two left-turn lanes and two through lanes. This mitigation measure is required prior to issuance of a certificate of occupancy for the first	Significant and unavoidable

TABLE S-2 (CONT.)

			dwelling unit in Phase I.	
TR-2	I-15 SB Ramps/Deer Springs Road (LOS "E" in the PM peak hour) (Direct Impact)	M-TR-2	Widen the I-15/Deer Springs Road interchange to provide the lane configuration resulting from the Caltrans Project Study Report process (currently underway). This configuration could be the following based on work completed to date on the PSR: SB – One left-turn lane and two right-turn lanes WB – Two through lanes and one left-turn lane EB – Three through lanes and two right-turn lanes. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Significant and unavoidable
TR-3	Mesa Rock Road/Deer Springs Road (LOS "F" in the AM and PM peak hours) (Direct Impact)	M-TR-3	Improve the intersection to provide the lane configuration resulting from the Caltrans Project Study Report process (currently underway). This configuration could be the following geometry: • SB – One left-turn lane and one shared through/right-turn lane • WB – One left-turn lane, three through lanes, and one right-turn lane • NB – One left-turn lane and one shared through/right-turn lane • EB – One left-turn lane, two through lanes, and one shared through/right-turn lane. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Less than significant.
TR-4	Twin Oaks Valley Road/Deer Springs Road (LOS "E" in the PM peak hour) (Direct Impact)	M-TR-4	If not completed by another development, ensure the following lane configuration improvements are implemented to the satisfaction of the County of San Diego and City of San Marcos Department of Public Works. • SB – One through lane and one shared through/right-turn lane • NB – One left-turn lane and two through lanes • EB – One left-turn lane and one right-turn lane. This mitigation shall be implemented prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Significant and unavoidable
TR-5	Twin Oaks Valley Road/Buena Creek Road (LOS "E" in the PM peak hour) (Direct Impact)	M-TR-5	If not completed by another development, ensure the following lane configuration improvements are implemented to the satisfaction of the City of San Marcos Department of Public Works. • SB – One left-turn lane, two through lanes, and one right-turn lane • WB – One shared left/through/right lane • NB – One left-turn lane, one through lane, and one shared through/right lane • EB – Two left-turn lanes and one shared through/right lane. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Significant and unavoidable
TR-6	Monte Vista Drive/Buena Creek Road (LOS "F" in the AM and PM peak hours) (Direct Impact)	M-TR-6	If not completed by another development, ensure a traffic signal and the following lane configuration improvements are implemented to the satisfaction of the County of San Diego Department of Public Works. A detailed signal warrant analysis shall be conducted prior to issuance of a certificate of	Less than significant.

TABLE S-2 (CONT.)

			occupancy for the first dwelling unit in Phase I. The signal shall be installed when warrants are met. • SB – One shared left/right lane • WB – One through lane and one right-turn lane with right-turn-overlap • EB – One left-turn lane and one through lane. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	
TR-7	Merriam Mountains Parkway/Deer Springs Road (LOS "F" in the AM and PM peak hours) (Direct Impact)	M-TR-7	Provide a traffic signal and implement the following lane configuration improvements to the satisfaction of the County of San Diego Department of Public Works. A detailed signal warrant analysis shall be conducted prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I. The signal shall be installed when warrants are met. • SB – Two left-turn lanes and one right-turn lane • WB – One right-turn lane and two through lanes • EB – Two left-turn lanes and two through lanes. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Less than significant.
TR-8	Meadow Park Lane/Deer Springs Road (LOS "E" in the AM peak hour) (Direct Impact)	M-TR-8	Provide a traffic signal and implement the following lane configuration improvements to the satisfaction of the County of San Diego Department of Public Works. A detailed signal warrant analysis shall be conducted prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I. The signal shall be installed when warrants are met. • SB – Two left-turn lanes and one right-turn lane • WB – One through lane, one shared through/right lane and one right-turn lane • EB – One left-turn lane and two through lanes. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Less than significant.
TR-9	I-15 SB Ramps/Gopher Canyon Road (LOS "E" in the AM and PM peak hours) (Direct Impact)	M-TR-9	If not completed by another development, ensure the installation of a new traffic signal. A detailed signal warrant analysis shall be conducted prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I. The signal shall be installed when warrants are met.	Significant and unavoidable
TR-10	I-15 NB Ramps/Gopher Canyon Road (LOS "F" in the PM peak hour) (Direct Impact)	M-TR-10	If not completed by another development, ensure the installation of a new traffic signal. A detailed signal warrant analysis shall be conducted prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I. The signal shall be installed when warrants are met.	Significant and unavoidable
TR-11	Deer Springs Road from Twin Oaks Valley Road to Meadow Park Lane (LOS "F") (Direct Impact)	M-TR-11	Widen existing roadway to San Diego County 4-Lane Major Road standards. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Less than significant.
TR-12	Deer Springs Road from Meadow Park Lane to Merriam Mountains Parkway (LOS "F") (Direct Impact)	M-TR-12	Widen existing roadway to San Diego County 4-Lane Major Road standards. Provide a westbound left-turn lane at the entrance to "Golden Door" located south of Deer Springs Road. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Less than significant.

TABLE S-2 (CONT.)

TR-13	Deer Springs Road from Merriam Mountains Parkway to Mesa Rock Road (LOS "F") (Direct Impact)	M-TR-13	Widen existing roadway to San Diego County 4-Lane Major Road standards with auxiliary lane. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Less than significant.
TR-14	Deer Springs Road from Mesa Rock Road to I-15 SB Ramps (LOS "F") (Direct Impact)	M-TR-14	Widen existing roadway to five lanes, plus auxiliary lanes, consistent with the final determination of the Caltrans PSR requirements. The actual configuration will be finalized in the Caltrans PSR. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Significant and unavoidable
TR-15	Deer Springs Road from I-15 SB Ramps to I-15 NB Ramps (LOS "F") (Direct Impact)	M-TR-15	Widen existing roadway to five lanes, plus auxiliary lanes, consistent with the final determination of the Caltrans PSR requirements. The actual configuration will be finalized in the Caltrans PSR. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Significant and unavoidable
TR-16	Twin Oaks Valley Road from Deer Springs Road to Buena Creek Road (LOS "F") (Direct Impact)	M-TR-16	Construction of intersection mitigation measures M-TR-4 and M-TR-5 will mitigate the segment impact by providing additional capacity at two signalized intersections along this segment in conjunction with payment of a fair share towards the City of San Marcos Twin Oaks Valley Road-widening CIP project. If not completed by another development, ensure the above mitigation is implemented to the satisfaction of the City of San Marcos Department of Public Works. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Significant and unavoidable
TR-17	Twin Oaks Valley Road from Buena Creek Road to Cassou Road (LOS "F") (Direct Impact)	M-TR-17	Construction of intersection mitigation measures M-TR-5 and M-TR-7 will mitigate the segment impact by providing additional capacity at the northern end of this segment in conjunction with payment of a fair share towards the City of San Marcos Twin Oaks Valley Road-widening CIP project. If not completed by another development, ensure the above mitigation is implemented to the satisfaction of the City of San Marcos Department of Public Works. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Significant and unavoidable
TR-18	Twin Oaks Valley Road from Borden Road to Richmar Avenue (LOS "F") (Direct Impact)	M-TR-18	If not completed by others or the City of San Marcos, contribute a fair share towards the City-planned widening of the existing roadway to 4-Lane Major Road Standards. This mitigation measure is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase II.	Significant and unavoidable
TR-19	Buena Creek Road from South Santa Fe Avenue to Monte Vista Drive (LOS "E") (Direct Impact)	M-TR-19	Mitigation measure M-TR-6 will mitigate this segment impact by providing additional capacity at one of the signalized intersections along this segment. If not completed by another development, ensure the above mitigation is implemented to the satisfaction of the County of San Diego Department of Public Works. This mitigation is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase II.	Less than significant.
TR-20	Buena Creek Road from Monte Vista Drive to Deer Springs Road (LOS "E") (Direct Impact)	M-TR-20	Mitigation measures M-TR-5 and M-TR-6 will mitigate this segment impact by providing additional capacity at the signalized intersection along this segment. If not completed by another development, ensure the above mitigation is implemented to the satisfaction of the County of San Diego Department of Public Works. This mitigation is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase I.	Less than significant.
TR-21	Robelini Drive from Sycamore Avenue to South Santa Fe Avenue (LOS "F")	M-TR-21	Extend the NB right-turn lane on Robelini Drive at South Santa Fe Avenue from the current 130 feet in length to 260 feet in length. This doubling of the right-turn lane length will enable 10–12 vehicles	Less than significant.

TABLE S-2 (CONT.)

	(Direct Impact)		to queue before the adjacent left-turn lane is negatively impacted, allowing for twice the current queue length. (See Appendix M for a Conceptual Plan of the improvement.) This mitigation is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase II.	
TR-22	South Santa Fe Avenue from Woodland Drive to Buena Creek Road (LOS "F") (Direct Impact)	M-TR-22	South Santa Fe Avenue from Woodland Drive to Buena Creek Road (San Diego County) – Improve the South Santa Fe Avenue/Buena Creek Road intersection to provide dedicated right- and left-turn lanes on SB Buena Creek Road. This improvement will add capacity along the impacted segment. This mitigation is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase IV.	Less than significant.
TR-23	Twin Oaks Valley Road from Windy Way to Borden Road (LOS "F") (Direct Impact)	M-TR-23	Twin Oaks Valley Road from Windy Way to Borden Road (City of San Marcos) – If not completed by others or the City of San Marcos, contribute a fair share towards the City-planned widening of the existing roadway to 4-Lane Major Road standards. This mitigation is required prior to issuance of a certificate of occupancy for the first dwelling unit in Phase II.	Significant and unavoidable
TR-24	SR 78 between Mar Vista Drive to Sycamore Avenue (LOS F(0) in the westbound direction during the AM peak hour, and LOS F(0) in both directions during the PM peak hour) (Direct Impact)	M-TR-24	Contribute towards adding one HOV lane in each direction on SR 78 between Mar Vista Drive and Sycamore Avenue	Significant and unavoidable
TR-25	SR 78 between Sycamore Avenue to San Marcos Boulevard (LOS "E" in the westbound direction during the AM peak hour and LOS "F(0") in the eastbound direction and LOS "E" in the westbound direction during the PM peak hour) (Direct Impact)	M-TR-25	Contribute towards adding one HOV lane in each direction on SR 78 between Sycamore Avenue and San Marcos Boulevard.	Significant and unavoidable
TR-26	Sycamore Avenue/SR 78 WB on-ramp (Direct Impact)	M-TR-26	Add a third Single Occupancy Vehicle (SOV) lane. The current ramp configuration is two SOV lanes and one HOV lane. It is not Caltrans common practice to allow three SOV lanes and one HOV lane.	Significant and unavoidable
TR-27	Mountain Meadow Road/Champagne Boulevard (LOS "E " during the PM peak hour) (Cumulative Impact)	M-TR-27	Payment of appropriate TIF by participation in TIF program on a per dwelling unit basis upon issuance of building permits.	Less than significant.
TR-28	Twin Oaks Valley Road/Cassou Road (LOS "F" during the AM and PM peak hours) (Cumulative Impact)	M-TR-28	Contribute a fair share to the City of San Marcos towards widening Twin Oaks Valley Road to four lanes through the Cassou Road intersection. This mitigation measure is required by payment of a fair share contribution on a per dwelling unit basis based on issuance of building permits.	Significant and unavoidable
TR-29	Twin Oaks Valley Road/Borden Road (LOS "F" during the AM and PM peak hours) (Cumulative Impact)	M-TR-29	Contribute a fair share to the City of San Marcos towards the planned widening of the SB approach to provide one left-turn lane, two through lanes, and one right-turn lane; and widening the NB lane to provide one left-turn lane, one through lane, and one through/right-turn lane. This mitigation measure is required by payment of a fair share contribution on a per dwelling unit basis based on issuance of building permits.	Significant and unavoidable

TABLE S-2 (CONT.)

TR-30	Twin Oaks Valley Road from La Cienega Road to Windy Way (LOS E) (Cumulative Impact)	M-TR-30	Contribute a fair share to the City of San Marcos towards the CIP widening of Twin Oaks Valley Road to four lanes. Widening to six lanes would be needed to accommodate existing + project + cumulative traffic. Existing right-of-way is not available for this improvement and there are no known plans to acquire such right-of-way. In addition, there is no established program to contribute to improvement of this roadway segment to six lanes.	Significant and unavoidable
TR-31	Twin Oaks Valley Road from Windy Way to Borden Road (LOS E) (Cumulative Impact)	M-TR-31	Contribute a fair share to the City of San Marcos towards the CIP widening of Twin Oaks Valley Road to four lanes. Widening to six lanes would be needed to accommodate existing + project + cumulative traffic. Existing right-of-way is not available for this improvement and there are no known plans to acquire such right-of-way. In addition, there is no established program to contribute to improvement of this roadway segment to six lanes.	Significant and unavoidable
TR-32	Twin Oaks Valley Road from Borden Road to Richmar Avenue (LOS F) (Cumulative Impact)	M-TR-32	Contribute a fair share to the City of San Marcos towards the CIP widening of Twin Oaks Valley Road to four lanes. Widening to six lanes would be needed to accommodate existing + project + cumulative traffic. Existing right-of-way is not available for this improvement and there are no known plans to acquire such right-of-way. In addition, there is no established program to contribute to improvement of this roadway segment to six lanes.	Significant and unavoidable
TR-33	Twin Oaks Valley Road from Richmar Avenue to San Marcos Boulevard (LOS "F") (Cumulative Impact)	M-TR-33	Contribute a fair share to the City of San Marcos towards the CIP widening of Twin Oaks Valley Road to a six-lane Major Arterial. This mitigation measure is required by payment of a fair share contribution on a per dwelling unit basis based on issuance of building permits.	Significant and unavoidable
TR-34	Twin Oaks Valley Road from San Marcos Boulevard to SR 78 WB Ramps (LOS F)	M-TR-34	Mitigation of this cumulative impact would require widening Twin Oaks Valley Road to eight lanes. The roadway is already constructed to its ultimate six-lane circulation element classification and there are no known plans by the City of San Marcos to process a circulation element amendment to change the classification. In addition, there is no established program to contribute towards improvement of this roadway segment to eight lanes.	Significant and unavoidable
TR-35	Buena Creek Road from South Santa Fe Avenue to Monte Vista Drive (LOS "F") (Cumulative Impact)	M-TR-35	Payment of appropriate TIF. This mitigation measure is required by participation in a TIF program on a per dwelling unit basis based on issuance of building permits.	Less than significant.
TR-36	Buena Creek Road from Monte Vista Drive to Deer Springs Road (LOS "F") (Cumulative Impact)	M-TR-36	Payment of appropriate TIF. This mitigation measure is required by participation in a TIF program on a per dwelling unit basis based on issuance of building permits.	Less than significant.
TR-37	Monte Vista Drive from Foothills Drive to Buena Creek Road (LOS "E") (Cumulative Impact)	M-TR-37	Payment of appropriate TIF. This mitigation measure is required by participation in a TIF program on a per dwelling unit basis based on issuance of building permits.	Less than significant.
TR-38	Robelini Drive from Sycamore Avenue to South Santa Fe Avenue (LOS "F") (Cumulative Impact)	M-TR-38	Payment of appropriate TIF. This mitigation measure is required by participation in a TIF program on a per dwelling unit basis based on issuance of building permits.	Less than significant.
TR-39	I-15 from Centre City Parkway to Deer Springs Road (LOS "E" in the northbound direction during the PM	M-TR-39	Contribute a fair share towards the future improvements on I-15 between Centre City Parkway and Deer Springs Road. In addition, the improvements to the I-15/Deer Springs Road interchange will partially mitigate this impact proportional to the relationship between the amount of traffic the project	Significant and unavoidable

TABLE S-2 (CONT.)

	peak hour) (Cumulative Impact)		contributes and non-project-related traffic at the interchange. This mitigation measure is required by payment of a fair share contribution on a per dwelling unit basis based on issuance of building permits.	
TR-40	SR 78 from Mar Vista Drive to Twin Oaks Valley Road (LOS E, F(0), F(1), and F(2)) (Cumulative Impact)	M-TR-40	Contribute a fair share towards the future improvements on SR 78 between Mar Vista Drive and Twin Oaks Valley Road proportional to the relationship between the amount of traffic the project contributes and non-project-related traffic along the freeway segment. This mitigation measure is required by payment of a fair share contribution on a per dwelling unit basis based on issuance of building permits.	Significant and unavoidable
TR-41	Sycamore Avenue/SR 78 WB on-ramp (Cumulative Impact)	M-TR-41	Add a third Single Occupancy Vehicle (SOV) lane. The current ramp configuration is two SOV lanes and one HOV lane. It is not Caltrans common practice to allow three SOV lanes and one HOV lane. Neither the City of Vista, nor Caltrans has plans to add lanes to this ramp and there is no established program to contribute to the improvement of this on-ramp.	Significant and unavoidable
TR-42	Twin Oaks Valley Road/SR 78 WB on-ramp (Cumulative Impact)	M-TR-42	Add a second SOV (Single Occupancy Vehicle) lane. Neither the City of San Marcos, nor Caltrans has plans to add lanes to this ramp and there is no established program to contribute to the improvement of this on-ramp.	Significant and unavoidable
TR-43	In the absence of traffic control plans being prepared to provide safe ingress and egress from the project site during construction.	M-TR-43	Prepare and implement traffic control plans to manage construction traffic. Also ensure that the County of San Diego designated truck routes are utilized by heavy vehicles. Specific measures that will be incorporated into the traffic control plans include: (a) Always keeping one lane open in each direction on Deer Springs Road. Neither direction of travel will be closed at any given time. (b) Ensuring heavy trucks utilize the Deer Springs Road/I-15 interchange (as opposed to Twin Oaks Valley Road) to provide access to the project site. (c) Carrying out construction activity during off-peak hours to the extent possible per the discretion of the County Traffic Engineer. (d) Temporary traffic signals are not expected to be necessary but will be installed, should volumes and safety concerns warrant such an installation, once more specific traffic data is available. (e) Providing easy-to-follow detour routes. (f) Maintaining access to the nearby community. (g) Providing plans showing freeway signage for advance warning of construction. (h) Limiting to the extent possible the use of any pedestrian and bicycle facility in the area. Preparation of Traffic Control Plans is required prior to issuance of the first grading permit.	Less than significant.
Minerals (see Section 2.3)				
MR-1	Loss in the availability of approximately 124 acres of designated mineral resources, which have been classified as PCC-grade aggregate.	The proposed project would result in significant impacts to the availability of mineral resources. In the context of the proposed project, no measures that would mitigate impacts associated with the loss of availability of mineral resources have been found to be feasible (see additional discussion in Section 2.3 and Chapter 8.0).		Significant and unavoidable
MR-2	Cumulative impacts to the loss in availability of mineral resources	See discussion under Impact MR-1 above.		Significant and unavoidable
Noise (see Section 2.4)				
NOI-1	The future traffic noise levels from Interstate-15, Deer Springs Road,	*Neighborhoods 1 and 2*		Less than significant.

TABLE S-2 (CONT.)

	Merriam Mountain Parkway, Deer Springs Road, and Meadow Parkway Lane would exceed the County of San Diego General Plan Noise Element standards at the following locations: Neighborhood 1, located near Merriam Mountains Parkway Neighborhood 1, located near I-15 Neighborhood 2, located near Meadow Park Lane Neighborhood 2, located near Deer Springs Road.	To comply with the County of San Diego's exterior noise guideline, the proposed project would be required to reduce exterior noise levels at the usable open space areas of the residential building pads to a CNEL of 60 dB or less and interior living space noise levels to a CNEL of 45 dB. The construction of an 8-foot berm at the top of the I-15 slope is required to achieve adequate noise attenuation (See Figures 2.4-2 and 2.4-3). The future year 2030 traffic noise at the multi-family lots at Neighborhood 1, Lot 4, adjacent to I-15 can be mitigated to 60 dB CNEL at the first floor level with private and common use area setbacks. The future year 2030 unmitigated 60 dB and 75 dB CNEL noise contours were previously depicted in Figure 2.4-2. At multifamily buildings with exposure to I-15,porches, balconies, or common usable space areas shall not be located on the north, south, or east sides of a multi-family building. If private balconies are proposed, they would most likely have to be located within the interior portion of the site and shielded by the multifamily buildings. Minimum building setback distances to the second- and third-floor levels to the 75 dB CNEL noise contour are shown in Figure 2.4-16. No buildings are to be located closer than these minimum setback distances to I-15 or the edge of the pad. The future year 2030 traffic noise at the variable residential lots at Neighborhood 2, Lots 15 and 17 adjacent to Deer Springs Road can be mitigated to a 60 dB CNEL at the first-floor level by an 8-foot-high noise barrier at the edge of the building pad, along with private and common use area setbacks. The location of a potential noise barrier is depicted in Figure 2.4-15. With an 8-foot-high sound wall, the setback distance would be approximately 40 ft from the edge of the pad at Lot 15 and approximately 70 ft from the edge of the pad at Lot 17. If private balconies are proposed, they would most likely have to be located within the interior portion of the site shielded by the multi-family buildings. The future year 2030 unmitigated 60 dB and 75 dB CNEL noise contours were previously depicted in Figure 2.4-5A. M-NOI-1a The zoning will require that a noise study evaluate traffic noise at the variable residential lots at Neighborhood 1, Lots 4 through 6 and 9 through 12, and at Neighborhood 2, Lots 15 through 25, when site plans are prepared. A "D1" designator for noise will be applied to Neighborhood 1, Planning Areas 1 and 2. Also, noise associated with commercial uses adjacent to residential uses shall be reviewed when site plans are prepared for the commercial uses, or if noise-sensitive uses are proposed for the commercial lots. General mitigation measures have been evaluated and have been determined to be feasible. However, specific measures cannot be determined at this time as more specific project information will be required. However, general mitigation measures will accomplish the following: *Setbacks* - Locating usable open space areas beyond the 60 dB CNEL contour previously depicted in Table 2.4-7 for noise-sensitive uses adjacent to Merriam Mountains Parkway, Meadow Park Lane, I-15, and Deer Springs Road. Along I-15 the 60 dB noise contour at Neighborhood 1, Lot 4, was previously shown in Figure 2.4-2. In addition, no buildings are to be exposed to noise levels greater than 75 dB CNEL. Thus, no buildings are to be located closer than 20 ft (one story), 35 ft (two story), and 60 ft (three story) from the edge of the berm adjacent to I-15 at Neighborhood 1, Lot 4. At Neighborhood 2, no two-story or higher buildings are to be located closer than 100 feet from the	

TABLE S-2 (CONT.)

			center line of Deer Springs Road. *Noise barriers* - Construct berms, noise walls, or a combination berm and noise wall to establish usable areas beyond the 60 dB CNEL contour previously depicted in Table 2.4-5, for noise-sensitive uses adjacent to Merriam Mountains Parkway, Meadow Park Lane, I-15, and Deer Springs Road. An approximate 8- or 9-foot-high noise barrier may be required adjacent to Merriam Mountains Parkway, depending on the proximity of the outdoor noise-sensitive areas to the road. *Site and Architectural Design* - Alternatively, to locate useable areas associated with I-15 at Neighborhood 1, Lot 4, the multi-family buildings could completely enclose three sides of any outdoor usable area from I-15 traffic noise.	
		M-NOI-1b	Prior to approval of the grading and or improvement plans, the following specific note shall be placed on the grading and improvement plans regarding the construction of the 8-foot-high berm: "Prior to rough grading sign off, provide evidence to the satisfaction of the Director of the DPLU that an 8-foot-high berm has been constructed along the eastern pad edge of Lot 5 of Planning Area 2 of Neighborhood 1 of the tentative map, constructed pursuant to an approved grading plan." Evidence of the berm shall consist of the following: a signed, stamped statement from a California Registered Engineer or licensed surveyor and photographic evidence that the sound attenuation berm has been constructed and that the minimum pad elevation of 1065 AMSL is shown on the Tentative Map.	
		M-NOI-1c	Pursuant to the approval of site plans for Lots 4 through 6, 9 through 12, and 15 through 25, inclusive, of Neighborhoods 1 and 2 of Tentative Map 5381RP1, the applicant shall: • Complete, to the satisfaction of the Director of the DPLU, an acoustical analysis performed by a San-Diego-County-approved acoustical engineer, demonstrating that the present and anticipated future noise levels for the interior and exterior of the noise sensitive land uses will not exceed the allowable sound level limit of the Noise Element of the San Diego County General Plan (County of San Diego 2006) (exterior (60 dB CNEL), interior (45 dB CNEL)). Analysis must demonstrate that noise generation does not exceed the property line sound level limits of Section 36.404 of the County of San Diego Noise Ordinance (County Code Section 36.404). Future traffic noise level estimates must utilize a Level of Service "C" traffic flow for Merriam Mountains Parkway as a Boulevard and Deer Springs Road with a Prime Arterial classification (see Chapter 9), which are the designated General Plan Circulation Element buildout roadway classifications.	
NOI-2	The future traffic noise levels would exceed County of San Diego General Plan Noise Element at the following locations: * Single-family lots adjacent to Merriam	M-NOI-2a	Noise impacts shall be mitigated by constructing 6-foot-high barriers at single-family lots adjacent to Merriam Mountains Parkway. In addition, 6-foot-high barriers would be required at Neighborhood 3, Lots 124 through 127 and 129 through 132, to mitigate the traffic noise from I-15. The locations and barrier heights required to mitigate the future CNEL to 60 dB or less are depicted in Figures 2.4-18A and 2.4-18B. A summary of single-family lots requiring noise mitigation and the top-of-barrier	Less than significant.

TABLE S-2 (CONT.)

	Mountains Parkway within Neighborhoods 3 through 5 * Lots 124 through 127 and 129 through 132 in Neighborhood 3, Planning Area 1, would be located adjacent to I-15. * The Estate Lots noise level would exceed 60 dB CNEL at Lots 1175 and 1177 facing I-15.		elevations are provided in Table 2.4-10. The noise barriers may be constructed as a wall, berm, or combination of both. The materials used in the construction of the barrier are required to have a minimum surface density of 3.5 lbs/sq ft. They may consist of masonry material, 5/8-inch-thick plexiglass, 1/4-inch-thick plate glass, or a combination of these materials. The barriers must be designed so there are no openings or cracks.	
		M-NOI-2b	On the Final Map, the applicant shall grant to the County of San Diego a Noise Protection Easement over the entire area of Lots 26 through 49, 112 through 113, 124 through 127, 129 through 132, 209 through 235, 240, 244 through 248, 271 through 273, 281 through 287, 348 through 360, 618 through 629, and 1161 through 1177, inclusive, of Tentative Map 5381RP1 (Neighborhoods 3 through 5 and the Estates of the Merriam Mountain Specific Plan). This easement is for the mitigation of present and anticipated future excess noise levels from Merriam Mountains Parkway and I-15 on noise sensitive land uses. The easement shall require, prior to the issuance of any building permit for any residential use within the noise protection easement, that the applicant: • Complete, to the satisfaction of the Director of the DPLU, an acoustical analysis performed by a San-Diego-County-approved acoustical engineer, demonstrating that the present and anticipated future noise levels for the interior and exterior of the residential dwelling will not exceed the allowable sound level limit of the Noise Element of the San Diego County General Plan (County of San Diego 2006) (exterior (60 dB CNEL), interior (45 dB CNEL)). Future traffic noise level estimates must utilize a LOS "C" traffic flow on Merriam Mountains Parkway as a Rural Light Collector classification, which is the normally designated General Plan Circulation Element buildout roadway classification. • Incorporate, to the satisfaction of the Director of the DPLU, the recommendations or mitigation measures of the acoustical analysis into the project design and building plans.	
		M-NOI-2c	Construct 6- to 10-foot-high barriers at Lots 1175 through 1177 adjacent to I-15. The locations and noise barrier heights required to mitigate the future CNEL required outdoor usable area to 60 dB or less are depicted in Figure 2.4-19.	
		M-NOI-2d	Estate Lots shall be limited to one-story structures per the height restrictions included in the Specific Plan (see Appendix C).	
		M-NOI-2e	An interior acoustical analysis would be required for the lots exposed to a CNEL greater than 60 dB prior to issuance of building permits, to ensure that the interior noise levels would not exceed a CNEL of 45 dB. The interior noise study would likely require that homes/dwelling units have air-conditioning or mechanical ventilation and sound-rated windows.	

TABLE S-2 (CONT.)

			Therefore, an interior noise study shall be prepared for the following lots: • Neighborhood 3, Lots 26 through 49, 112, 113, 124 through 132, 209 through 235, 240, 244 through 248, and 271 through 273 • Neighborhood 4, Lots 281 through 287, 348 through 360, and 618 through 629 • Neighborhood 5, Lots 1161 through 1174.	
NOI-3	Operational noise may exceed the County of San Diego Noise Ordinance Standards at commercial use areas.	M-NOI-3a M-NOI-3b	On each site plan, noise generation shall not exceed the allowable 1-hour average noise levels at the property line, as defined in Section 36.404 of the County of San Diego Noise Ordinance. For the boundary between the residential and commercial areas, the maximum allowable level would be 57.5 dB from 7:00 a.m. to 10:00 p.m. and 52.5 dB from 10:00 p.m. to 7:00 a.m. On each commercial site plan, usable exterior areas shall not be exposed to noise levels greater than a peak 1-hour average sound level of 60 dB. Interior noise levels for noise-sensitive commercial uses, should not exceed a 1-hour average sound level of 50 dB due to outside noise (e.g., schools or libraries).	Less than significant.
NOI-4	Habitable rooms within the proposed fire station are considered noise sensitive and may exceed a 45 dB CNEL.	M-NOI-4	Complete, to the satisfaction of the Director of the DPLU, an acoustical analysis performed by a San-Diego-County-approved acoustical engineer, demonstrating that the present and anticipated future noise levels for the interior of noise-sensitive commercial land uses will comply with M-NOI-3b. The interior noise level, due to outside noise, should not exceed one-hour average sound level 50 dB for rooms that are usually occupied only a part of the day (schools, libraries, or similar). Also, the interior noise level within the habitable rooms of the fire station should not exceed 45 dB CNEL. Future traffic noise levels estimates must utilize a LOS "C" traffic flow for Merriam Mountains Parkway as a Boulevard and Deer Springs Road as a Prime Arterial classification, which are the designated General Plan Circulation Element buildout roadway classifications.	Less than significant.
NOI-5	Project-generated traffic noise would be significant and exceed San Diego County's significance along Deer Springs Road between Sarver Lane and Twin Oaks Valley Road at Sensitive Receptor 18 (see Figure 2.4-14D).	M-NOI-5	M-NOI-8 includes the construction of permanent noise barriers to reduce noise so that the noise level increase does not exceed the existing conditions or the significance threshold standards.	Less than significant.
NOI-6	Construction noise associated with drilling and blasting may exceed San Diego County's 75 dB noise criteria during construction activities.	M-NOI-6a	Mitigation measures include selecting a quieter rock drill, constructing a temporary noise barrier around the drill rig, reducing the number of drilling hours per day, increasing the setback distances between the property lines and drill rigs/blasting areas or a combination of these four methods. • A rock drill with a lower noise level than the noisiest rock drills can be used with a corresponding smaller setback distance. For example, a drill rig that generates a noise level of 89 dB at 50 feet would require a minimum setback distance of 250 feet from the closest existing or project-occupied residence. Alternatively, based on the distances to the closest noise-sensitive receivers, quieter rock drills, such as a rock drill with a sound level of approximately 85 dB at 50 feet in the direction of the noise-sensitive receiver, would mitigate the noise impact at the property line adjacent to the closest noise-sensitive receptor to the	Less than significant.

TABLE S-2 (CONT.)

		drilling and blasting areas without the need for a temporary barrier. • A temporary noise barrier located around the rock drill could also be used. The height of the noise barrier would depend on several factors, including the rock drill noise level and the distance from and elevation of the drill rig relative to the receiver. Depending on various geometric and design factors, a temporary noise barrier could attenuate the drilling noise by approximately 5 to 15 dB. Assuming that a temporary noise barrier is constructed approximately 20 feet from the drill rig, that the property line adjacent to the closest receptor is 50 feet from the drill rig, and that the drill rig and receiver are at the same elevation, then a 14-foot-high noise barrier would mitigate the 1-hour average noise level to 75 dB at the property line. • Where a noise barrier is deemed necessary, a minimum 12-foot-high noise barrier shall be constructed to reduce the noise level to a 1-hour average sound level of 75 dB or less at the property line of an occupied residence. A noise monitoring plan will be required if a noise barrier is located within 70 feet of the property line of an occupied residence. The noise barrier would be temporary for approximately 6 months at any one location. Six months was selected as a conservative time frame because it is unlikely that any construction operation would be occurring for a longer duration in close proximity to a residence given the construction phasing plan. • The temporary barrier could be constructed of minimum 3/4-inch-thick plywood with R-11 fiberglass insulation batts attached to the interior of the panels. Alternatively, temporary portable barriers, made from a variety of materials, are available from various noise control manufacturers (e.g., Empire Acoustical Systems, Industrial Acoustics Company, and Kinetics Noise Control). • In addition, the proposed project would conduct blasting activities consistent with the requirements contained within a blasting permit for the County of San Diego and USBM. These items may include but not be limited to the following: • Pre-blast inspection of all structures within 300 feet of blasting site unless inspection is waved by the owner/occupant. • Identify the site and location of planned blasting and hours of operation (blasting to be conducted between 7:00 a.m. and 5:00 p.m. Monday through Saturday). • Notification of blasting activities to all property owners within 600 feet of the blasting area. This notification shall describe expected period and frequency with which the blasting shall occur and give a contact phone number for any questions or complaints. All complaints shall be responded to in a method deemed satisfactory to the County of San Diego Director of Planning. • Warning system information. • Compliance with local, state, and federal laws. • The blasting contractor shall monitor and record vibration and airblast for major blasts (as defined in Section 35.37701.2 of the County Code of Regulation Ordinances) within 600 feet,	

TABLE S-2 (CONT.)

			or minor blasts within 300 feet of residences and other occupied structures. If permission cannot be obtained to record at said location, recording shall be accomplished at some closer site in line with the structure. Specific locations, and distances where airblast and vibration are measured, shall be documented in detail along with measured airblast and vibration amplitudes. • Blast vibration and airblast are to be within the recommended frequency-dependent limits contained in the USBM regulations as seen on Figure 2.4-9B at the location of any residential dwelling, business, public building, school, church, or community or institutional building outside the permit area. If blasting is found to exceed specified levels, blasting shall cease, and alternative blasting or excavation methods that result in the specified levels not being exceeded shall be employed. • All structures in the vicinity of the blasting area not listed above, such as water towers, pipelines, and other utilities etc., shall be protected from damage by the blaster on a case-by-case basis. • Pre-blast inspection reports shall be retained by the blaster and, upon a complaint of alleged damage, the blaster shall cause a copy of the report to be immediately filed with the Sheriff. A copy shall also be sent to any individual who is directly involved in the complaint, upon their request. • The blaster shall cause an approved inspector to conduct a post-blast inspection of all structures for which written complaints alleging blast damage have been received. A written report of such inspection shall be immediately filed with the Sheriff and delivered or sent to individuals directly involved in any alleged damage within sixty (60) days of receipt of a complaint. • A disclosure statement shall be provided to home buyers within the project site, stating that they will be exposed to noise from construction activities during the remaining phases of development.	
		M-NOI-6b	Prior to approval of the grading and improvement plans for Tentative Map 5381RP1, the following specific conditions shall be placed: Prior to the start or onset of drilling operations, provide a letter report to the satisfaction of the Director of the DPLU that certifies that a San-Diego-County-approved acoustical consultant has tested the rock drills to document that their on-site performance shall not exceed 89 dB at 50 feet or less. The report shall summarize the results of the sound test and method of compliance with the County of San Diego Noise Ordinance criteria (i.e., demonstrate that the rock drilling would be located far enough from the property lines or that a temporary noise barrier around the drill would mitigate the 1-hour average noise level to 75 dB or less at the adjacent property lines). The report shall be approved by the County of San Diego prior to commencement of drilling. Occupancy shall be phased so that the closest occupied residence to a blasting or drilling area is located a minimum of 700 feet away as part of the grading plan permit process.	

TABLE S-2 (CONT.)

		M-NOI-6c	A disclosure statement shall be provided to home buyers within the project site, stating that they will be exposed to noise from construction activities during the remaining phases of development.	
NOI-7	The widening of Deer Springs Road may generate an 8-hour average noise level that would exceed 75 dB during construction activities.	M-NOI-7a	A temporary noise barrier with a minimum height of 12 feet shall be placed adjacent to the mobile home park along the southern perimeter of construction activities within the existing right-of-way, to reduce to a sound level of 75 dB Leq or less (see Table 2.4-11). The barrier shall be constructed with a minimum of 3/4-inch-thick plywood with R-11 fiberglass insulation batts attached to the interior of the panels. Alternatively, temporary portable barriers, made from a variety of materials, are available from various noise control manufacturers (i.e., Empire Acoustical Systems, Industrial Acoustics Company, and Kinetics Noise Control). The noise barrier should be installed just prior to Deer Springs Road grading activities adjacent to the mobile home park. The temporary barrier can be removed as soon as is practical after the grading has been completed, the 6-foot noise barrier (as shown on Figure 2.4-14A and described in M-NOI-8) shall be constructed.	Significant and unavoidable
		M-NOI-7b	Construct 10-foot-high temporary noise barriers adjacent to four residences as depicted on Figures 2.4-20A through 2.4-20C and the Golden Door Property where commercial structures are located (see Table 2.4-12B). The temporary noise barriers shall be constructed with a minimum of 0.75-inch-thick plywood with R-11 fiberglass insulation batts attached to the interior of the panels. Alternatively, temporary portable barriers, made from a variety of materials, are available from various noise control manufacturers (i.e., Empire Acoustical Systems, Industrial Acoustics Company, and Kinetics Noise Control). In addition, as soon as practical after the grading has been completed adjacent to the sensitive receptors, the permanent noise barriers as shown on Figures 2.4-14A through 2.4-14E shall be constructed.	
		M-NOI-7c	Residents and business owners fronting Deer Springs Road and Twin Oaks Valley Road shall be notified at least one week prior to grading operations when it will be within 300 feet of their property.	
		M-NOI-7d.	Contractors shall be required to have and maintain mufflers of original equipment grade or better on all engines. This also applies to subcontractors with haul trucks.	
NOI-8	Project-generated traffic would be cumulatively significant and exceed San Diego County's significance threshold for the following location: *Residences along Buena Creek Road	The proposed project would result in cumulatively significant impacts to existing residences adjacent to Buena Creek Road due to noise levels ranging from 61 to 70 dB CNEL from traffic along this roadway. In the context of the proposed project, no measures that would mitigate impacts associated with these noise levels have been found to be feasible due to unavailable access due to ROW acquisition (see additional discussion in Section 2.4 and Chapter 8.0).		Cumulatively Significant and Unavoidable
NOI-8	Project-generated traffic would be cumulatively significant and exceed San Diego County's significance threshold for the following location: * Residences located within the Deer Springs Mobile Home Park (sensitive	M-NOI-8	Permanent noise barriers approximately 6 to 8 feet in height, at selected locations along Deer Springs Road, will reduce noise that affects identified sensitive receptors so that the noise level increase does not exceed the existing conditions or the significance threshold standards (see Tables 2.4-12A and 2.4-12B). The location of the noise barrier is based on preliminary road improvement design plans and is depicted on Figures 2.4-14A through 2.4-14E. The applicant will construct the required permanent noise barriers as part of the construction improvements along	Less than significant

TABLE S-2 (CONT.)

	receptor 1 through 4) and five single-family homes (Sensitive Receptors 5, 14, 17, 18, and 19 (see Figures 2.4-14A through 2.4-14D)).		Deer Springs Road to reduce project and cumulative noise impacts to off-site receptors.	
Cultural Resources (see Section 2.5)				
CR-1	Direct impacts to 39 percent of site CA-SDI-4558 due to improvements to Deer Springs Road.	M-CR-1a	Prior to approval of grading plans, the project applicant shall contract with a San-Diego-County-certified archaeologist to implement a grading monitoring to the satisfaction of the Director of Planning and Land Use (DPLU). Verification of the contract shall be presented, in letter form, from the Project Archaeologist to the Director of DPLU. This program shall include, but not be limited to, the following: 1. The consulting archaeologist shall contract with a Native American Observer to be involved with the grading-monitoring program. 2. During the original cutting of previously undisturbed deposits, the archaeological monitor(s) (and Native American Observer) shall be on site, depending on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. Monitoring and the need for monitoring will be at the discretion of the qualified principal archaeologist. Monitoring locations may also include designated archeological high-probability areas at watercourse crossings and near known resources. Intermittent monitoring may occur in areas of moderate archeological sensitivity at the discretion of the qualified/principal archaeologist. Multiple monitors may be required, due to the amount of grading being completed at any time, at the discretion of the principal archaeologist. 3. In the event that previously unidentified potentially significant cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground-disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The San Diego County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the San Diego County Archaeologist, then carried out using professional archaeological methods. If any human remains are discovered, the San Diego County Coroner shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains. 4. Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The archaeological monitor(s) and Native American Observer shall determine the amount of material to be recovered for an adequate artifact sample for analysis. 5. In the event that previously unidentified cultural resources are discovered, all cultural material	Significant and unavoidable

TABLE S-2 (CONT.)

			collected during the grading-monitoring program shall be processed and curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate federally recognized curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. 6. In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Director of DPLU prior to the issuance of any building permits. The report will include Department of Parks and Recreation Primary and Archaeological Site forms. 7. In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of DPLU by the consulting archaeologist, confirming that the grading-monitoring activities have been completed.	
		M-CR-1b	All cultural resources except burial-related artifacts and unless otherwise required by law, excavated or removed from prehistoric or historic sites during testing and/or data recovery programs, along with all associated project data, will be permanently curated at a qualified repository as defined by the *State of California Guidelines for the Curation of Archaeological Collections* (California Resources Agency 1993). Curation includes, but is not limited to, field notes, photographs, catalogues, and final reports. Collections from previous excavations at sites CA-SDI-4558 and CA-SDI-9822 shall be combined with the collection recovered as a result of the current study and with any future extended testing and/or data recovery programs. These artifacts and associated documentation are necessary to produce a comprehensive report for sites CA-SDI-4558 and CA-SDI-9822. Additionally, the owner agrees to execute a release of title form and to pay the required curation fees in effect at the time of curation. All curation shall be accomplished within six (6) months of completion of the project.	
		M-CR-1c	Site CA-SDI-4558 – Prior to approval of grading plans, the project applicant shall implement the Data Recovery and Index Sampling plan as detailed in Section 12 of the Cultural Resource Report (Appendix H to the Merriam Mountains Specific Plan Draft EIR, dated August 2007). The implementation of the research design and data recovery program constitutes mitigation for the proposed destruction of a portion of archaeological site CA-SDI-4558. The data recovery program shall include, but not be limited to, the following: The program will include an initial excavation of 35 1-by-1-meter data recovery units, analysis of artifacts and ecofacts, and special studies, including radiocarbon dating, obsidian sourcing, and protein residue analysis. The data recovery program will provide a database to address research questions in a technical report of findings. The research design includes, but is not limited to, the following: (1) The research orientation for the precontact study will focus on chronology, lithic technology, settlement and subsistence strategy, environmental setting, and trade and travel. (2) The research orientation for the historical study will focus on functional pattern recognition, consumerism, economic indexing, consumption pattern analysis, and dietary studies. All artifacts	

TABLE S-2 (CONT.)

			and ecofacts recovered will be cleaned and analyzed and special studies will be completed as needed and may include lithic, shell, bone, radiocarbon dating, obsidian sourcing and dating, precontact ceramics, protein residue analysis and historic artifact analyses. Mitigation measure M-CR-1b shall also be implemented to mitigate this direct impact.	
		M-CR-1d	Sites CA-SDI-4558 and CA-SDI-9822 – Prior to recordation of the map, prior to issuance of grading or any improvement permits, and prior to the implementation of the Data Recovery Program, a Pre-Excavation Agreement shall be in place, signed by the applicant and the San Luis Rey Band of Luiseno Indians. This agreement shall designate the MLD and the protocol to follow in the event that Native American human remains are discovered during data recovery. Proof of Dthe signed Pre-Excavation Agreement must be presented to the County of San Diego and be to the satisfaction of the Director of DPLU before starting the data recovery excavation.	
CR-2	Indirect impacts to site CA-SDI-4558 due to improvements to Deer Springs Road and increased accessibility with the implementation of the proposed project.	M-CR-2a	The portion of site CA-SDI-4558 that will be avoided and placed within an open space easement (i.e., indirectly impacted) shall be temporarily fenced around the areas designated as environmentally sensitive when construction activities occur near the site. Construction equipment shall be directed away from the site, and construction personnel shall be directed to avoid entering the area. Permanent ranch-style fencing shall be installed after road construction to protect that portion of the site not impacted for road construction. Under the direction of the consulting archaeologist and Native American Luiseno monitor, the portion of the site within the open space easement shall be cleared of non-native vegetation; however, native vegetation will remain. Non-native trees will be cut to level with roots left in place. Non-native grasses and brush will be cleared by hand or weed-whacker. The cement foundation shall be carefully removed, and capping using clean fill soil shall be used to fill in the foundation area. Minor capping, where possible, shall consist of 3 to 6 in of clean fill soil and shall include bedrock milling features where feasible (those that are close to ground level). A one-time hydro seeding for shallow-rooted native plants shall provide a protective layer to the site. No underground sprinkler system or water system shall be used to promote vegetation.	Less than significant.
		M-CR-2b	If necessary, during the construction phase, after-hours monitoring of the open space easements by a private security company, per the discretion of the principal archaeologist, will be employed to maintain a high-visibility presence and to watch, through patrols, for signs of trespassing, vandalism, pot-hunting, or other site damage; then, taking action and/or reporting any incidents to their client, employer, and the County of San Diego. Significant sites located within open space easements will be managed according to the RPP. Specific activities prohibited within the open space easements should include (but not be limited to) construction of homes and buildings, surface mining activities, industrial uses, commercial uses, off-road vehicle activity, and dumping. In addition, periodic inspection of the property to verify compliance with the open space easement guidelines is to be conducted by the County of San Diego or by a qualified archaeologist.	
CR-3	Direct impacts to 76 percent of site CA-SDI-9822 due to improvements to Deer	M-CR-3	Site CA-SDI-9882 – Prior to approval of grading plans, the project applicant shall implement the Data Recovery and Index Sampling Plan as detailed in Section 12 of the Gallegos & Associates	Significant and unavoidable

TABLE S-2 (CONT.)

	Springs Road.		Cultural Resource Report (Appendix H to the Merriam Mountains Specific Plan Draft EIR, dated August 2007). The implementation of the research design constitutes mitigation for the proposed destruction of a portion of archaeological site CA-SDI-9822. The data recovery program shall include, but not be limited to, the following: 1. Mitigation measure M-CR-1d. 2. The data recovery program will involve the excavation of 100 1-by-1-meter sample units, artifact analysis, re-analysis of previously collected materials collected by Palomar Community College, special studies, and a report of finding. The data recovery, along with a re-analysis of previously collected materials, will provide a database to address research questions in a technical report of findings. The research design includes, but is not limited to, the following: The research orientation for the precontact study will focus on chronology, lithic technology, settlement and subsistence strategy, environmental settling, and trade and travel. All artifacts and ecofacts recovered will be cleaned and analyzed, and special studies will be completed as needed, which may include lithic, shell, bone, radiocarbon dating, obsidian sourcing, precontact ceramics, protein residue analyses, and historic artifact analyses. Verification of the contract shall be presented in a letter form from the Project Archaeologist to the Director of DPLU. Mitigation measure M-CR-1b and M-CR-2b shall also be implemented to mitigate this impact.	
CR-4	Indirect impacts to site CA-SDI-9822 due to improvements to Deer Springs Road and increased accessibility with the implementation of the proposed project.	M-CR-4	Indirect impacts to site CA-SDI-9822 shall be mitigated through an open space easement (of the portion of the site not directly impacted by road construction), temporary fencing, and minor capping, all under the direction of the consulting archaeologist and the Native American Luiseno monitor. The temporary fencing shall be constructed around the areas designated as environmentally sensitive when construction activities occur near the site. Construction equipment shall be directed away from the site, and construction personnel shall be directed to avoid entering the area. Minor capping of the site within the open space easement area shall consist of 3 to 6 in of clean soil and shall only cover the surface of the site and, where feasible, shall include bedrock milling features (those that are close to ground level); however, the pictograph feature shall not be capped. Seeding for shallow-rooted native plants shall be used within the site boundary to provide a protective layer to the site. Photo documentation and re-analysis of the pictograph feature shall also be conducted by a professional archaeologist. Prior to initiation of any grading within the vicinity of site CA-SDI-9822, the following shall be completed: A framework of Polyvinyl chloride (PVC) shall be constructed to enclose the boulder with the pictograph. The frame shall be no closer than 3 ft to the actual rock. Canvas sheets shall be placed over the frame and the pictograph boulder for the duration of the grading program within the vicinity of site CA-SDI-9822. Grading shall be no closer than 18 feet from the pictograph boulder. Before and after photo documentation shall also be completed to ensure the success of the protection during construction.	Less than significant.
CR-5	Direct impacts to potential buried cultural resources, including privy and dump features that may be present at the 1901 historic structure location.	M-CR-5	For the 1901 historic structure location, a pre-grade and data recovery program shall be completed to locate buried features, analysis of materials recovered shall be performed, and a report of findings shall be completed. The research orientation for the historical study will focus on functional pattern recognition, consumerism, economic indexing, consumption pattern analysis, and dietary studies. This plan, as detailed in the Cultural Resource Report prepared by Gallegos & Associates	Less than significant.

TABLE S-2 (CONT.)

			(Appendix H to the Merriam Mountains Specific Plan Draft EIR, dated August 2007), shall include a controlled backhoe excavation to determine the presence and/or absence of buried historic resources. If subsurface features and artifacts are identified, then a data recovery program shall be conducted that shall include manual excavations of 3-by-3-foot recovery units followed by block excavations and feature excavations if necessary, as well as an analysis of artifacts. Special studies may include, but will not be limited to, glass, ceramic, metal, and faunal analysis, to address the research questions posed. Mitigation measure M-CR-1b shall also be implemented to mitigate this direct impact.	
CR-6	Direct impacts to undiscovered cultural resources during ground disturbing activities.	M-CR-6	In the event that previously unidentified potentially significant cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance operation in the area of discovery to allow evaluation of potentially significant cultural resources. The archaeologist shall contact the County Archaeologist at the time of discovery. The archaeologist, in consulting with County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the County Archaeologist, then carried out using professional archaeological methods. If any human remains are discovered, the County Coroner shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains. Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The archeological monitor(s) and Native American Observer shall determine the amount of material to be recovered for an adequate artifact sample for analysis. In the event that previously unidentified cultural resources are discovered, all cultural material collected during the grading and monitoring program shall be processed and curated according to current professional repository standards. The collections and associated records shall be transferred, including the title, to an appropriate curation facility within San Diego County, to be accompanied by payment of fees necessary for permanent curation.	Less than significant.
CR-7	Cumulative impacts to cultural resources.		Implementation of measures M-CR-1a through M-CR-1d, and M-CR-3 would include a grading-monitoring and data recovery program; however, significant and unavoidable cumulative impacts would remain as a result of roadway improvements.	Significant and unavoidable
Aesthetics (see Section 3.1)				
AE-1	The project would cause encroachment into insignificant steep slopes.	M-AE-1	The RPP includes the following goals and guidelines with respect to treatment of insignificant steep slopes: Grading techniques such as slope rounding and contour grading, benching of slopes and landscape features.	Less than significant.

TABLE S-2 (CONT.)

AE-2	The project would degrade the vividness and intactness/unity of the visual environment for motorists from the following public viewpoints: northbound along I-15 and along Mountain Meadow Road.	M-AE-2a	Mitigation for visual impacts from I-15 and Mountain Meadows Road would be accomplished by the following measures required during the site plan review: Grading *General Grading*. Grading plans shall be designed to retain the natural shapes of the landform and reflect the topographic features of the terrain. Long, continuous straight slopes shall be avoided when they have hard edges and no transition areas at the top and the toe of the slope. *Grading in Open Space Areas.* Grading will be prohibited in natural open space lots, except for trail placement, placement of utilities, or facilities associated with access and maintenance. *Contour-Grading Techniques*. Contour-grading techniques reflecting the character of existing significant natural features shall be utilized. Techniques include the following: • Use of variable slope gradients with smooth, rounded cuts • Round off toe and crest of slopes • Blend graded slope contours with the natural topography • Utilize vegetation to alleviate sharp, angular slopes • Design drainage courses to blend with the natural or manufactured terrain. Contour grading techniques are proposed, including blending of graded slope contours with the natural topography, use of variable slope gradients with smooth, rounded cuts, and rounding off the toe and crest of slopes. The Vesting Tentative Map (VTM) identifies bench areas approximately every 30 feet in vertical height along proposed cut/fill slopes, which is consistent with the County Grading Ordinance. The placement of bench slopes every thirty feet in height would allow a collection of native and drought-tolerant plantings including small, medium and large-scaled shrubs to screen the slopes in an irregular pattern. *Maximum Cut-and-Fill Slopes*. The maximum fill slope ratio allowed shall be 1.5:1, and a maximum 1:1 ratio shall be allowed on cut slopes. Slope ratios are subject to the recommendations of the geotechnical engineer and landscape architect and concurrence from the Department of Public Works. Absent specific recommendations, the maximum fill slope ratio shall be 2:1, and the maximum cut slope ratio shall be 1.5:1 for slopes less than 15 ft in height and 2:1 for slopes greater than 15 ft in height. Landscaping The landscape development for the project shall be designed in order to convey the rural character of the Twin Oaks Valley region and enhance the integration of the community into the existing environment. All plantings will be irrigated fire safe, and from the approved list from the County of San Diego Guidelines. At the discretion of the landscape architect, slope grading will be done to	Less than significant.

TABLE S-2 (CONT.)

			allow development of pockets of soil and growth of native and drought-tolerant plants, including small, medium, and large shrubs to screen the slopes in an irregular pattern. Enhanced landscaping will provide screening to blend with the existing vegetation cover and shall include native and drought-tolerant plants, including small, medium, and large shrubs to screen the slopes in an irregular pattern.	
		M-AE-2b	The project shall incorporate a design review by the County of San Diego prior to issuance of development permits as part of the B Special Area Designators, which is required in the SP area as a result of being located in the I-15 scenic corridor. The design review would ensure that the site plan, parking and circulation, lighting, landscape design, public utilities, and architectural design are in harmony with the surrounding community, natural features, and site topography. In addition, large manufactured slopes would be contour-graded and rounded to blend with the natural topography. Large manufactured slopes would also be landscaped where feasible with appropriate native plant materials in accordance with the fire protection plan, and would be visually consistent with the surrounding natural vegetation.	
AE-3	Impacts to the intactness/unity and visual character for passing motorists on the improved portion of Deer Springs Road/Twin Oaks Valley Road due to the introduction of manufactured cut-and-fill slopes, a soil-nail wall, fencing/netting, and sound walls, removal of vegetation, and the overall increase in the extent of the paved surface of the Deer Springs Road roadbed.	M-AE-3a	Manufactured slopes consisting of cut native rock created by widening Deer Springs Road shall be varied in slope and texture. Techniques will include staining of cut slopes of exposed rock faces to resemble aged rock, in order to shield the manufactured appearance and blend new slopes with existing rocks and slopes in the same area along portions of Deer Springs Road as appropriate and approved as part of the final landscape plans.	Less than significant.
		M-AE-3b	Manufactured slopes created by widening Deer Springs Road shall be subject to landscape plans that include vegetation to blend the manufactured slopes with the existing vegetation cover in the immediate vicinity. Grading Plans shall specify that the cut face shall be serrated to create "pockets" in which shrubs can take hold, to achieve a shrub cover similar to the surrounding area. Enhanced landscaping will provide screening to blend with the existing vegetation cover and shall include native and drought-tolerant plants, including small, medium, and large shrubs to screen the slopes in an irregular pattern. The landscaping located in this area shall be maintained by the Merriam Mountains Homeowners Association (HOA). As seen in Chapter 8 of the Specific Plan (Appendix C to this EIR) the proposed project incorporates a combination of proposed plantings in conjunction with an applied staining treatment to the rock slope face (see M-AE-3a) that will ensure the proposed cut/fill slopes are integrated into the surrounding hillsides. The proposed bench slopes and selected plantings included in the hydroseed mix will further ensure the proposed landscape palette can be established and maintained. The HOA will ensure landscaped slopes are maintained to prevent irrigation systems from becoming visible. Contour grading techniques are proposed including blending of graded slope contours with the natural topography, use of variable slope gradients with smooth, rounded cuts, and rounding off the toe and crest of slopes (see M-AE-2a). The slope treatments recognize the challenges of grading and landscaping in steep and rocky	

TABLE S-2 (CONT.)

			terrain and M-AE-2a requires that slope treatments be reviewed by the geotechnical engineer, landscape architect, and the Department of Public Works (DPW). Recommendations based on these reviews will be implemented with the proposed project. The recommended planting list has been created to allow for plants to be planted along proposed cut/fill slopes based on the soils identified in the geotechnical report. The plants selected for slope plantings include a combination of deep-rooted trees, shrubs and groundcovers, and grasses that are likely to be successful based on vegetation that is present along existing cut/fill slopes. The planting palette has been designed to ensure the proposed cut/fill slopes are integrated into the surrounding hillsides.	
		M-AE-3c	The soil-nail wall located near the intersection of Merriam Mountains Parkway/Deer Springs Road shall be textured and stained to blend with the natural topography. Mature vegetation consisting of trees will be placed between the proposed trail along Deer Springs Road and the face of the wall within the project limits. The planted trees located in this area shall be maintained by the Merriam Mountains HOA.	
		M-AE-3d	Sound walls constructed along Deer Springs Road shall be colored and textured, and shall vary in height (not less than the required height) to create visual interest and reduce visual dominance.	
		M-AE-3e	Netting and/or fencing shall be painted/stained to match the color of the surrounding rock. This is to be maintained by the Merriam Mountains HOA.	
AE-4	The project would cause impacts to the visual character due to the dominance of the commercial area in the southeastern area of the site and the extent of grading and residential development throughout the site.	M-AE-4	Mitigation for impacts to visual character would be accomplished by Mitigation Measures M-AE-1, M-AE-2a, and M-AE-2b.	Less than significant.
Biological Resources (see Section 3.2)				
BIO-1a through M-BIO-1j	Impacts to vegetation communities identified under impacts M-BIO-1a through M-BIO-1j	M-BIO-1	For the proposed Merriam Mountains Biological Open Space area, a perpetual open space easement will be dedicated to the County of San Diego and offered to the Department of Fish and Game as a third-party beneficiary. Within the proposed Merriam Mountains Biological Open Space, revegetation of degraded habitats will be performed. The Wetlands and Uplands Conceptual Revegetation Plans are included as Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007. The plan provides conceptual guidelines for the mitigation and revegetation of various uplands and wetlands habitats associated with the Merriam Mountains project. This conceptual plan serves as a guide to the proposed acreages and locations for various mitigation needs for the project, which would occur both on site at identified locations and off site at locations that have yet to be determined. Plans for off-site revegetation would be further refined at a later date, once locations have been identified.	Less than significant.

TABLE S-2 (CONT.)

		The conceptual guidelines presented in Appendix X of the Merriam Mountains Specific Plan Draft EIR, dated August 2007, would be used as the basis of design for the final Revegetation Plan. The final Revegetation Plan will also be in compliance with the County's Report Format and Content Requirements for Revegetation Plans. Proposed on-site coastal sage scrub revegetation areas total approximately 25 acres within the 1,192 acres of preserved and managed Biological Open Space and consists of small discontiguous areas totaling approximately 2.7 acres of habitat creation and enhancement in the vicinity of the old airstrip; approximately 7.7 acres of revegetation along old disturbed roadways within the Biological Open Space; and approximately 14 acres in a habitat block at the base of two old rock quarry sites within the Biological Open Space. The revegetation areas would include habitat polygons and strips of habitat and native grassland components. The goal would be to create a habitat mosaic within the chaparral by permanently establishing areas of wetlands, scrub, and grassland. While not specifically directed toward occupation by California gnatcatchers, the relatively large acreage of revegetation and proposed distribution in a mosaic with other habitats within the large area of Biological Open Space may result in occupation by the California gnatcatcher over time. The revegetation sites within the Biological Open Space were chosen because they offered the best opportunities for revegetation areas that could ultimately become self-sustaining over time. Soils analyses will be completed to confirm that the revegetation locations will not convert to chaparral. The combination of appropriate selection of revegetation sites and maintenance and monitoring requirements during revegetation implementation will ensure that revegetated areas do not reconvert to chaparral. In addition, following the 5-year period, revegetated habitats will be managed according to the requirements of the RPP. For the proposed Merriam Mountains Biological Open Space, the Project Applicant will ensure that perpetual habitat management occurs in conformance with the RPP and implementation of RMPs in conjunction with project implementation. RMPs will be in conformance with the County's Requirements for Resource Management Plans. A qualified non-profit conservation entity acceptable to the County of San Diego will serve as Habitat Manager and duties will include maintaining fencing/barriers, posting of signs, remediation of unauthorized trails, monitoring and management of the biological resources, and preparing annual reports which will be provided to the County of San Diego, USFWS, and CDFG. RPP features that are specifically related to the significant impact associated with the loss of natural habitat include: Objective B-1: Include large blocks of key biological resource areas within the Biological Open Space. • Include within the Biological Open Space 1,192 acres of natural habitat; representative populations of sensitive plant and animal species observed on site; existing dirt trails and canyon bottoms currently used by wildlife for movement across the site; and the north/south trending tributary to Gopher Canyon along Twin Oaks Valley Road, which provides linkage	

TABLE S-2 (CONT.)

		opportunities to the San Marcos Mountains. Objective B-3: Provide resource management for the off-site mitigation area. • Provide mitigation for impacts to coastal sage scrub and the California Gnatcatcher consistent with the October 2005 Points of Agreement (Appendix V to the Merriam Mountains Specific Plan Draft EIR, dated August 2007), consisting of acquiring the 32-acre Captain's Associates property, which will be incorporated into the County of San Diego NCMSCP preserve system and will be protected and managed consistent with management regimes established by the County of San Diego as part of the draft NCMSCP. Objective B-5: Track changes in the physical and biological conditions in Biological Open Space to determine active management strategies. • The habitat manager will provide regular site inspections, which include recording and mapping changes in the biological and physical environment that may affect the Biological Open Space integrity. Objective B-6: Prevent Habitat Degradation. • The following shall be prohibited in the Biological Open Space: grading, placement of structures, grazing, dumping, and vegetation removal. Provide for various potentially adverse effects of human use within the Biological Open Space through trash removal, preventing squatting, and use of firearms for hunting and poaching/collecting. Objective B-12: Protect Critical Biological Resources during Construction. • Install conspicuous temporary construction fencing where proposed grading or clearing exists within 100 feet of the Biological Open Space, Other open space, or off-site native vegetation. • Employ a construction monitor to perform the following duties: be on site weekly during vegetation clearing, grubbing, and grading when these activities are within 300 feet of Biological Open Space or off-site native vegetation to ensure that all habitat protection measures are in place; inspect fencing and erosion control measures adjacent to preserved areas at least once per week and daily during rain events, and report deficiencies immediately to the Department of Public Works (DPW) Construction Inspector; periodically monitor the work area for excessive dust generation; train contractors, and construction personnel, including the purpose for resource protection, a description of the California gnatcatcher and its habitat, and the conservation measures that should be implemented during project construction; halt work when deficiencies require mediation, and notify DPW Construction Inspector within 24 hours if it is necessary to halt work; produce weekly reports to keep at the project site; produce a final report at the completion of each phase or unit and submit to the Director of the DPLU; confer with the Wildlife Agencies within 24	

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			hours any time protected habitat or endangered species are being affected by construction; determine if nesting migratory birds will be affected by clearing and grading and direct construction activities away from nesting areas; and be responsible for notification and oversee remediation if impacts to preserved habitat should occur. • Restrict all brushing and clearing such that none will be allowed within 100 feet of native or naturalized habitats during the migratory bird breeding season (defined as occurring from February 1 through August 31), unless the Biological Monitor determines that no migratory bird nests will be affected	
BIO-1a	Project-related impacts to 29.1 acres of Diegan Coastal Sage Scrub would be significant.	M-BIO-1a	Diegan Coastal Sage Scrub Mitigation Impacts to 29.1 acres Diegan Coastal Sage Scrub shall be mitigated at a ratio of 2:1 by a combination of: on-site preservation of 5.5 acres of Diegan Coastal Sage Scrub in the Biological Open Space, acquisition of the Captain's Associates parcel (32 acres), and a Coastal Sage Scrub/Grassland mosaic restoration on site in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007). The Hardline Points of Agreement (Appendix V to the Merriam Mountains Specific Plan Draft EIR, dated August 2007), concluded that the wildlife agencies agree to consider the Captain's Associates parcel as adequate NCMCSP mitigation for Diegan Coastal Sage Scrub impacts to contribute to the assembly of the draft NCMSCP preserve.	Less than significant.
.BIO-1b	Project-related impacts to 1,084.5 acres of Southern Mixed Chaparral would be significant.	M-BIO-1b	Southern Mixed Chaparral Mitigation Impacts to 1,084.5 acres of Southern Mixed Chaparral vegetation shall be mitigated at a ratio of 0.5:1. The project design places 1,091.6 acres of Southern Mixed Chaparral vegetation in Biological Open Space, in accordance with the requirements of the Merriam Mountains RPP.	Less than significant.
BIO-1c	Project-related impacts to 3.2 acres of Mafic Chaparral would be significant.	M-BIO-1c	Mafic Chaparral Mitigation Impacts to 3.2 acres of Mafic Chaparral vegetation shall be mitigated at a ratio of 3:1. The project design places 54.9 acres of Mafic Chaparral vegetation in Biological Open Space, which exceeds the 9.6-acre mitigation requirement. The mitigation land will be preserved and managed in accordance with the requirements of the Merriam Mountains RPP.	Less than significant.
BIO-1d	Project-related impacts to 21.5 acres of Non-Native Grassland would be significant.	M-BIO-1d	Non-Native Grassland Mitigation The loss of 21.5 acres of Non-Native Grassland shall be mitigated at a ratio of 0.5:1 by the combination of on-site preservation in Biological Open Space (3.7 acres) and creation/enhancement within the Biological Open Space (Figures 3.2-3A through 3.2-3C) prior to issuance of grading permits, in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	Less than significant.

TABLE S-2 (CONT.)

BIO-1e	Project-related impacts to 1.3 acres of Southern Coast Live Oak Riparian Forest would be significant.	M-BIO-1e	Southern Coast Live Oak Riparian Forest Mitigation Impacts to 1.3 acres of Southern Coast Live Oak Riparian Forest shall be mitigated off site by creation/enhancement at a 3:1 ratio at an off-site location prior to issuance of grading permits, in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	Less than significant.
BIO-1f	Project-related impacts to 0.3 acre of Southern Willow Scrub/Mulefat Scrub would be significant	M-BIO-1f	Southern Willow Scrub/Mulefat Scrub Mitigation Impacts to 0.3 acre of Southern Willow Scrub/Mulefat Scrub shall be mitigated on site by restoration/enhancement at a 3:1 ratio at the abandoned airstrip location (Figures 3.2-3A through 3.2-3C) prior to issuance of grading permits, in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	Less than significant.
BIO-1g	Project-related impacts to 0.2 acre of Mulefat Scrub would be significant.	M-BIO-1g	Mulefat Scrub Mitigation Impacts to 0.2 acre of Mulefat Scrub shall be mitigated on site by restoration/ enhancement at a 3:1 ratio at the abandoned airstrip location (Figures 3.2-3A through 3.2-3C) prior to issuance of grading permits, in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	Less than significant.
BIO-1h	Project-related impacts to 0.4 acre of Southern Willow Scrub would be significant.	M-BIO-1h	Southern Willow Scrub Mitigation Impacts to 0.4 acre of Southern Willow Scrub shall be mitigated on site by restoration/enhancement at a 3:1 ratio at the abandoned airstrip location (Figures 3.2-3A through 3.2-3C) prior to issuance of grading permits, in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	Less than significant.
BIO-1i	Project-related impacts to 2.7 acres of Coast Live Oak Woodland would be significant.	M-BIO-1i	Coast Live Oak Woodland Mitigation Impacts to 2.7 acres of Coast Live Oak Woodland shall be mitigated at a 3:1 ratio by the combination of on-site preservation (1.9 acres) and restoration in Biological Open Space (Figures 3.2-3A through 3.2-3C) and by identifying an off-site location prior to issuance of grading permits, in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	Less than significant.
BIO-1j	Project-related impacts to 0.5 acre of Non-Vegetated Channel and 0.1 acre of Unvegetated Wetlands would be significant.	M-BIO-1j	Non-Vegetated Channel and Unvegetated Wetlands Impacts to 0.5 acre of Non-Vegetated Channel shall be mitigated on site at a 1:1 ratio and impacts to 0.1 acre of Unvegetated Wetlands shall be mitigated at a ratio of 3:1 at the abandoned airstrip	Less than significant.

TABLE S-2 (CONT.)

		location (Figures 3.2-3A through 3.2-3C) prior to issuance of grading permits, in accordance with the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	
BIO-2	Project-related impacts to the natural biological diversity would be significant.	M-BIO-2 The Merriam Mountains RPP shall be implemented in conjunction with project implementation. As indicated in the RPP, the Biological Open Space Area will be visually inspected for changes during regular maintenance and surveying activities. If substantial changes are noted, the area will be evaluated and remediated if feasible. The baseline vegetation and sensitive species maps will also be updated every five years. The type of surveys that will be conducted within the Biological Open Space area to measure habitat changes and identify adaptive management strategies will be evaluated by the Habitat Manager based on professional judgment and standard industry practice in relation to the biological resource being surveyed. RPP features specifically related to the significant impacts associated with the preservation of natural biological diversity on the project site include the following: Objective B-1: Include large blocks of key biological resource areas within the Biological Open Space (see M-BIO-1). Objective B-2: Enhance and restore sensitive resources within the Biological Open Space. • Maintain revegetation/creation areas within the Biological Open Space as shown in the Merriam Mountains Wetlands and Uplands Conceptual Revegetation Plans (Appendix X to the Merriam Mountains Specific Plan Draft EIR, dated August 2007). Maintain County/ACOE/CDFG wetlands within the Biological Open Space. Objective B-4: Effectively manage the Biological open space to protect, maintain, and enhance resources. • The manager shall maintain the integrity of the preserved habitats by monitoring for changes in the baseline conditions, annual reporting, and updating the RPP every 5 years based on data collected during the annual reporting efforts. Objective B-6: Prevent habitat degradation (see M-BIO-1) Objective B-9: Identify and provide for permitted uses within the Biological Open Space consistent with the overall goal of resource protection. • Recreation users shall be limited to trails, overlooks, and trailheads within the Merriam Biological Open Space. The habitat manager will regularly monitor trail use to identify unauthorized trails. Two secondary access roads (Lawrence Welk Court and Camino Mayor) shall be permitted within the Biological Open Space. Two water tanks (North Tank and Coogan Tank) exist on separate parcels bounded by the Biological Open Space. Fuel management activities shall be permitted along the secondary access roads to these tanks located within the Biological Open Space.	Less than significant.

TABLE S-2 (CONT.)

BIO-3	Project-related impacts for short-term or construction-related impacts to native and naturalized habitats would be significant.	M-BIO-3	The Merriam Mountains RPP shall be implemented in conjunction with project implementation. RPP features specifically related to construction impacts to native or naturalized habitat that would be preserved on the site include the following: Objective B-12: Protect critical biological resources from impacts during construction (see M-BIO-1).	Less than significant.
BIO-4	Project-related impacts to 2.1 acres of wetlands on site and 0.2 acre off site along Deer Springs Road and Camino Mayor and 0.1 acre associated with off-site wastewater improvements completed adjacent to Twin Oaks Valley Road would be significant.	M-BIO-4	The RPP contains specific management guidelines to address preservation and enhancement of wetlands, including the following: Objective B-2: Enhance and restore sensitive resources within the Merriam Biological Open Space (see M-BIO-2). Objective B-12: Protect critical biological resources during construction (see M-BIO-1). M-BIO-4a Wetlands and Jurisdictional Area Mitigation. The project tentative maps and grading permits shall be conditioned to obtain the following permits (as appropriate) prior to any clearing, grubbing, ground disturbance or grading of any tentative map area of the site: ACOE 404 permit, RWQCB 401 permit, and/or CDFG Code 1600 Streambed Alteration Permit. M-BIO-1d Southern Coast Live Oak Riparian Forest Mitigation. M-BIO-1e Southern Willow Scrub/Mulefat Scrub Mitigation. M-BIO-1f Mulefat Scrub Mitigation. M-BIO-1g Southern Willow Scrub Mitigation.	Less than significant.
BIO-5	The proposed project would limit wildlife movement within the development footprint by directly removing native and naturalized habitats and redirecting animal movement from existing trails to new connecting trails, which is regarded as a significant impact.	M-BIO-5:	The RPP contains specific management guidelines to address potential wildlife movement impacts, including the following objectives: Objective B-1: Include large blocks of key biological resources areas within the Merriam open space (see M-BIO-1). Objective B-2: Enhance and restore sensitive resources within the Merriam Biological Open Space (see M-BIO-2). Objective B-3: Provide resource management for the off-site mitigation area (see M-BIO-1).	Less than significant.

TABLE S-2 (CONT.)

BIO-6	Direct impacts to sensitive plant and animal species are regarded as significant.	M-BIO-6	RPP Protection Measures for Indirect Impacts.	Less than significant.
BIO-7	Project-related impacts to nesting birds protected under the Migratory Bird Treaty Act, including California gnatcatcher and tree-nesting raptors during construction activities would be significant.	M-BIO-7	The RPP shall be implemented in conjunction with project implementation. Features specifically related to the significant impact associated with impacts to nesting birds or raptors include the following: Objective B-12: Protect critical biological resources during construction (see M-BIO-1). M-BIO-7a Seasonal limitation on clearing, grubbing, and grading. If clearing and grubbing is scheduled to occur during the avian nesting season (January 15 to August 31), a biological survey for nesting bird species must be conducted within the proposed impact area no more than 72 hours prior to clearing activities. A letter documenting the results of the breeding bird survey will be submitted to the Director of DPLU. If clearing activities stop for more than 7 days during this season, supplemental surveys shall be done to establish whether additional nesting areas are present. These surveys are necessary to assure avoidance of impacts to nesting sensitive bird species and/or birds protected by the federal Migratory Bird Treaty Act. If any active nests are detected, the area shall be avoided, including a minimum 25-foot buffer for migratory birds, 300 feet for sensitive songbirds, and 500 feet for tree-nesting raptors, as determined by the project biologist. The area shall be flagged and mapped on the construction plans and will be avoided until the nesting cycle is complete. In order to avoid impacts to nesting California gnatcatcher, brushing, clearing, and/or grading shall be prohibited during the breeding season of the California gnatcatcher (February 15 to August 31) within 300 feet of Coastal Sage Scrub habitat. The Director of DPLU may waive this condition through written concurrence from the U.S. Fish and Wildlife Service and the California Department of Fish and Game, that no California gnatcatcher are present in the vicinity of brushing, clearing, and/or grading.	Less than significant.
BIO-8	Project-related impacts resulting in the removal of Non-Native Grassland and Southern Mixed Chaparral would reduce raptor foraging habitat. This removal of foraging habitat is regarded as significant.	M-BIO-8	The Merriam Mountains RPP shall be implemented in conjunction with project implementation. RPP objectives specifically related to the significant impact associated with the loss of potential raptor foraging habitat identified include the following: Objective B-1: Include large blocks of key biological resource areas within the Merriam Biological Open Space(see M-BIO-1). Objective B-2: Enhance and restore sensitive resources within the Merriam Biological Open Space (see M-BIO-2).	Less than significant.

TABLE S-2 (CONT.)

		Objective B-6: Prevent habitat degradation (see M-BIO-1). M-BIO-1c: Non-Native Grassland Mitigation	
BIO-9	Occupation of residential housing and commercial areas near sensitive resources would result in significant edge effects.	M-BIO-9 The Merriam Mountains RPP shall be implemented in conjunction with project implementation. The RPP includes the following specific objectives related to impacts associated with placing urban development adjacent to the proposed Biological Open Space, resulting in adverse urban-type edge effects: Objective B-1: Include large blocks of key biological resource areas within the Merriam Biological Open Space (M-BIO-1). Objective B-6: Prevent habitat degradation (M-BIO-1). Objective B-7: Control and remove invasive, exotic plant species (see M-BIO-6). Objective B-8: Control and remove invasive, exotic animal species (see M-BIO-6). Objective B-12: Protect critical biological resources during construction (see M-BIO-1). Objective B-13: Establish and maintain public awareness and education programs to foster community support for the RPP. • The habitat manager will attend meetings of the local community to inform them of the status of the habitat management program and to enlist their cooperation and support. Interpretative signage will be installed that will help educate users/neighbors of the Merriam area about the ecology of the area and purpose of the Biological Open Space. M-BIO-9a Secondary effects of grading mitigation. Grading and/or applicable permits for any permitted activities on the site shall require County of San Diego–required BMPs to control fugitive dust, water, runoff, and noise to protect adjacent Biological Open Space areas. Additionally, any sensitive habitat area should be clearly identified with signage and construction fencing to protect such areas during construction activities. M-BIO-7a Seasonal limitation on clearing, grubbing, and grading. M–BIO–6 RPP Protection Measures for Indirect Impacts.	Less than significant.

TABLE S-2 (CONT.)

BIO-10	Inconsistencies with RPO requirements would be a significant impact.	M-BIO-10:	The project includes an RPP that addresses all resources covered by the RPO and is included as the functional equivalent to RPO. The RPP includes the following goals and guidelines with respect to treatment of RPO Wetlands: mitigation at 3:1, management of wetland mitigation sites within the proposed Biological Open Space and preservation of existing wetlands on-site within the Biological Open Space. By consolidating open space and management of RPO resources, the RPP provides for a more comprehensive approach to resource protection and management than would occur under the RPO.	Less than significant.
Hazards and Hazardous Materials (see Section 3.3)				
HZ-1	Exposure of people to a significant risk of loss, injury, or death from wildland fires.	M-HZ-1a	All features of the Merriam Mountains Fire Protection Plan and San Marcos Fire Protection Plans (Appendix K to the Merriam Mountains Specific Plan Draft EIR, dated August 2007) shall be implemented in conjunction with development of individual neighborhoods within the Specific Plan area.	Less than significant.
		M-HZ-1b	The following list highlights important project fire protection features for the Merriam Mountains community. The fire protection features are aimed at mitigating the risk of vegetation fire ignition of structures and, conversely, structural fire ignition of vegetation. Some of these features are requirements by current codes, whereas others are recommendations that are the direct result of the FPP analysis and risk rating process. ▪ Hydrant spacing shall meet DSFPD, SMFPD, County of San Diego, Vallecitos Water District and Rainbow Water District requirements. All water storage and hydrant locations, mains, and water pressures shall comply with the San Diego County Fire Code Fire Flow Requirements and the Fire Flow Requirements of the DSFPD Ordinance 2002-01. ▪ Public water systems shall be consistent with wildland interface area requirements. Water supply must meet a 2-hour fire flow requirement of 2,500 gallons per minute (gpm) with 20-pounds per square inch (psi) residential pressure, which must be over and above the daily maximum water requirements. ▪ Access roads shall meet or exceed requirements of San Diego County. ▪ Firefighters shall have access to backyard areas via designated access ways from streets. ▪ An equestrian trail shall permit firefighter and fuel modification zone (FMZ) maintenance personnel access. ▪ Ongoing road, access components (e.g., gates and signs), and FMZ maintenance shall be performed in perpetuity.	
		M-HZ-1c	Basic and enhanced construction features are required due to the project's WUI location and location in a high fire hazard severity zone. As such, in addition to applicable County of San Diego Building Code requirements, enhanced requirements shall be implemented on this project: ▪ Roofing. Roofs shall have a Class A fire rated concrete or clay tile roof assembly system that meets FAHJ approval. ▪ Exterior walls. Exterior walls shall comply with the provisions of the UBC, Chapter 7a and the California Fire Code (CFC). Such material shall extend from the top of the foundation to the	

TABLE S-2 (CONT.)

			underside of the roof sheathing. Wood shingle and shake wall covering shall be prohibited. No wood shall be allowed on exterior walls except solid core entry doors, door jambs and window frames. Walls shall be designed to resist intrusion of flame and embers. ▪ Architectural. Aesthetic enhancements shall be of ignition-resistant or fire retardant materials, such as non-combustible foam with stucco covering and wrought iron materials. ▪ Eaves Protection. Eaves and soffits shall be boxed in. Eaves and fascias, where required, shall be protected on the exposed underside by ignition-resistant materials, or comply with California State Fire Marshal Standard 12-7-A-3. ▪ Venting. No attic ventilation openings or ventilation louvers shall be permitted in soffits, in eave overhangs, between rafters at eaves, or in other overhanging areas. Design, location, size, and quantity of vents shall be to the approval of the FAHJ. ▪ Glazing. Glass or other transparent, translucent, or opaque glazing shall be dual pane as approved by the FAHJ. ▪ Skylights. Shall be constructed of tempered glass unless FAHJ approves other material (in the presence of an automatic fire sprinkler system). ▪ Insulation. Paper-faced insulation shall be prohibited in attics or ventilated spaces. ▪ Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. Gutters shall be provided with the means to reduce the accumulation of leaf litter and debris that contributes to roof edge ignition. ▪ Appendages and projections. Components attached to any structure shall not increase the risk of fire spread to the structure. Where fences attached to or immediately adjacent to structures face the wildland fuels, the first 5 ft of such fencing, which connects to the structure, shall be constructed of noncombustible, heavy timber or fire retardant pressure treated wood or material. ▪ Spark Arrestors. All chimneys and other vents on heating appliances using solid or liquid fuels shall have spark arrestors of a type approved by the FAHJ and as specified in the CFC. ▪ Exterior doors. Exterior doors shall be approved noncombustible construction, solid core wood not less than 1 3/4 in. thick or have a fire protection rating of not less than 20 min. Garage doors shall be noncombustible or exterior fire retardant wood. Windows within doors and glazed doors shall be in accordance with the California Building Code (CBC). ▪ Detached accessory structures. Detached accessory structures located less than 50 ft from a building containing habitable space shall have exterior walls constructed with ignition-resistant or fire retardant materials. ▪ Restricted access. Where emergency vehicle access is restricted because of secured access roads or driveways or where immediate access is necessary for life-saving or firefighting purposes, the FAHJ is authorized to require a KNOX lock system. ▪ Addressing. All residential buildings shall have a permanently posted address, which shall be legible from the street. If it is not legible from the street, an address shall also be posted at the street entrance to the driveway and shall be visible from both directions of travel. The address on the structure shall be internally illuminated in times of darkness. Letters/numbers shall be 4 in. high with 3/8-in. stroke and placed at 8 ft above grade.	

TABLE S-2 (CONT.)

			▪ Top of slope non-combustible walls. A 6 ft tall noncombustible wall shall be constructed pursuant to the Fire Protection Plan. ▪ Automatic fire sprinkler systems. All structures having a footprint greater than 200 sq ft shall be protected by an automatic fire sprinkler system. Such systems shall be designed and installed in conformance with the standards articulated in NFPA 13, 13D, or 13R, as appropriate. ▪ Fuel Treatment Zones. Zones shall be provided according to the Fire Protection Plan: - Fire-resistant plant palette from the San Diego County recommended plant list in FMZs 1 and 2A - Irrigation in Zones 1 and 2A - Thinning and removal of highly flammable native plants from Zone 2B along with maintenance of retained plants at heights of 18 in., with exceptions for trees and tree-like shrubs - Roadside FMZs ten times the DSFPD standard width; 100 ft on either side of roads.	
HZ-2	Impacts to the environment from lead-contaminated soils.	M-HZ-2	To address contamination related to the area of lead shot and the areas of potential pesticide contamination on the Kim and Smith properties, the applicant shall enter into the County of San Diego Department of Environmental Health (DEH) VAP program for oversight of the site remediation. A Removal Action Plan shall be prepared for the DEH's review and approval to remove lead shot bullets (i.e., vacuum and/or removal of the upper few inches of soil) (see Appendix I to the Merriam Mountains Specific Plan Draft EIR, dated August 2007, for specific location) for off-site disposal at an approved facility. The Removal Action Plan will describe the methods for removal of lead shot bullets, which may include but not be limited to the removal through use of a vacuum and/or removal of the upper few inches of soil. To minimize impacts to special-status species, access to this area shall be provided via existing dirt access roads. The area for removal of the lead shot bullets is also recommended for revegetation (see Figure 3.2-3B), which will not occur prior to the lead shot bullets being removed. This mitigation measure shall be implemented prior to issuance of a grading permit for the portion of Lawrence Welk Court through the contaminated area and prior to commencement of any revegetation activities in the contaminated area.	Less than significant.
HZ-3	Potential accidental release of asbestos into the environment.	M-HZ-3	Prior to issuance of a building or demolition permit, an asbestos survey shall be performed by an asbestos consultant or site surveillance technician as defined in Title 8, CCR, Article 2.6, Section 341.15 for all on-site structures that will be disturbed by demolition/renovation activities in accordance with local, state and federal regulations. Should asbestos-containing materials or other hazardous building materials be encountered in the site structures, a licensed abatement contractor must remove these materials prior to commencement of demolition activities.	Less than significant.
HZ-4	Potential accidental release of lead-based paint into the environment.	M-HZ-4	Prior to issuance of a building or demolition permit, a lead-based paint survey shall be performed by a Certified Lead Inspector/Assessor as defined in Chapter 8, Division 1 of Title 17 of the CCR for all on-site structures that will be disturbed by demolition/renovation activities in accordance with local, state, and federal regulations. Should lead-containing surfaces or other hazardous building materials be encountered in the site structures, a licensed abatement contractor must remove these materials prior to commencement of demolition activities.	Less than significant.

TABLE S-2 (CONT.)

HZ-5	Exposure of people to soils contaminated from pesticides (organochlorines) and accidental release of organochlorine into the environment.	M-HZ-5	Prepare a soil management plan to establish procedures for the notification, monitoring, assessment, sampling, and testing of impacted soil and/or groundwater, and the storage and proper disposal of contaminated materials that may be encountered during the excavation and grading phase of site redevelopment. The Soil Management Plan shall be prepared and implemented as part of the project SWPPP.	Less than significant.
HZ-6	Release of contaminated materials from existing AST and septic systems located on site.	M-HZ-6	Any septic systems and above ground storage tanks located on site shall be removed and/or closed under permit and approval of the DEH prior to issuance of a grading permit.	Less than significant.
HZ-7	The potential to encounter unknown site contamination (e.g., stained soils, buried debris) during site construction.	M-HZ-7	During grading or excavation work for the proposed project, the contractors shall observe the exposed soil for visual evidence of contamination. If visual indicators are observed during construction, the contractor shall stop work until the material is properly characterized and appropriate measures are taken to protect human health and the environment. The contractor shall comply with local, state, and federal requirements for sampling and testing, and subsequent removal, transport and disposal of hazardous materials.	Less than significant.
Hydrology and Water Quality (see Section 3.4)				
WQ-1	Significant increases in runoff to Subbasins 1, 10, 13, 16, 19, 20, 21, 24.1, 24, 26, and 27.	M-WQ-1a M-WQ-1b M-WQ-1c M-WQ-1d M-WQ-1e M-WQ-1f M-WQ-1g M-WQ-1h M-WQ-1i M-WQ-1j M-WQ-1k	Subbasin 1 – A 42-inch restrictor shall be installed on the existing culvert to utilize existing depression storage for peak flow. Subbasin 10 – A 36-inch restrictor shall be installed on the existing culvert to utilize existing depression storage for peak flow. Subbasin 13 – A 33-inch restrictor shall be installed on the existing culvert to utilize existing depression storage for peak flow. Subbasin 16 – A 36-inch restrictor shall be installed on the existing culvert to utilize existing depression storage for peak flow. Subbasin 19 – A 30-inch restrictor shall be installed on the existing culvert to utilize existing depression storage for peak flow. Runoff diverted from Subbasin 20 shall be managed in the same location. Subbasin 20 – A grass swale shall be constructed to divert excess flow to the storage area in Subbasin 19. Subbasin 21 – A detention basin shall be constructed at the outlet of this subbasin as part of the grading for this area. Subbasin 24.1 – An underground storm drain system shall be implemented to route the flow to the existing channel where it would normally be conveyed through surface systems. Subbasin 25 – Two detention basins shall be constructed (Detention 25a and 25b) as part of grading for this area. Subbasin 26 – A detention basin (Detention 26) shall be constructed as part of grading for this area. Subbasin 27 – A detention basin (Detention 27) shall be constructed as part of grading for this area.	Less than significant.
WQ-2	Minor increases in runoff to Subbasins 3, 5, 28, and 35, as well as off-site	M-WQ-2	BMPs shall be implemented to reduce to pre-development levels any necessary minor increases in	Less than

TABLE S-2 (CONT.)

	subbasins 0, 1, and 2.		subbasins 3, 5, 28 and 35 and off-site subbasins 0, 1, and 2.	significant.
WQ-3	Significant increases in runoff to existing culverts under Deer Springs Road that result in runoff impacts to subbasins 21-24.2.	M-WQ-3a	Existing culverts located beneath Deer Springs Road shall be replaced with culverts per the recommendations included in the Preliminary Drainage Study for Deer Springs Road (Fuscoe, February 2009b). As seen in the Preliminary Drainage Study for Deer Springs Road, culverts will be upsized to accommodate runoff within subbasins 21 to 24.2. Preliminary sizing of the culverts vary from 18 to 42 inches, which will likely be constructed of reinforced concrete pipe. Prior to issuance of grading permits for Deer Springs Road, DPW shall approve the final engineering of culvert sizes, location, and alignment. M–WQ–3b Construction of a diversion, flow restrictor, and berm shall occur at Highway I-15, Subbasins 19 and 20.	Less than significant.
Land Use and Planning (see Section 3.5)				
LU-1	In the absence of specific design treatments addressing visibility, landscape treatments, and architectural details, significant land use impacts would result with respect to the consistency of the proposed project with the I-15 Corridor Subregional Plan.	M-LU-1.	Site Plan review shall occur through application of the "B" Special Area Designator, as called for in the Specific Plan and noted below: ▪ The I-15 Corridor Subregional Plan designates a portion of the area within the SPA with the B Special Area Designator. The purpose of the B designator is to require a site plan review for any development permit. The intent of the B designator is to address man-made and natural features that affect the scenic quality of the I-15 corridor area, which extends from the northern Escondido city limits to the Riverside County line. All development applications within the B designator are required to submit a comprehensive Site Plan in accordance with the Scenic Preservation Guidelines of the I-15 Corridor Plan. The Specific Plan identifies Neighborhood 1, portions of Neighborhoods 4 and 5, and the Estate Lots within the viewshed of the I-15 corridor. These areas shall retain the B designator within the S-88, C-36, and RM-22 zoning. ▪	Less than significant.
LU-2	In absence of a detailed resource protection plan and protection of specific resources, significant land use impacts would result with respect to the consistency of the proposed project with the RPO.	M-LU-2.	The project includes an RPP that addresses all resources covered by the RPO and is included as the functional equivalent to RPO. Through consolidating open space and management of RPO resources, the RPP provides for a more comprehensive approach to resource protection and management than would occur under the RPO.	Less than significant.
LU-3	Manufactured slopes would result in significant land use impacts with respect to land use compatibility for future on-site residents and existing and planned surrounding land uses.	M-LU-3.	The following grading guidelines shall be implemented to be sensitive to nearby and adjacent land uses: ▪ General Grading: Grading plans will retain the natural shape of the landform and reflect the topographic features of the terrain. Long, continuous straight slopes that have hard edges and no transition areas at the top and the toe of slope should be avoided. ▪ Grading in Open Space Areas: Grading will be prohibited in natural open space lots, except for trail placement, placement of utilities, or facilities associated with access and maintenance. ▪ Contour Grading Techniques: Contour grading techniques reflecting the character of existing significant natural features will be utilized. Techniques to be used include:	Less than significant.

TABLE S-2 (CONT.)

			- Using variable slope gradients with smooth, rounded cuts - Rounding off toe and crest of slopes - Blending graded slope contours with the natural topography - Utilizing vegetation to alleviate sharp, angular slopes - Designing drainage courses to blend with the natural or manufactured terrain. ▪ Contour grading techniques are proposed, including blending of graded slope contours with the natural topography, use of variable slope gradients with smooth, rounded cuts, and rounding off the toe and crest of slopes. The Vesting Tentative Map (VTM) identifies bench areas approximately every 30 feet in vertical height along proposed cut/fill slopes, which is consistent with the County Grading Ordinance. The placement of bench slopes every thirty feet in height would allow a collection of native and drought-tolerant plantings including small, medium and large-scaled shrubs to screen the slopes in an irregular pattern. ▪ Maximum Cut and Fill Slopes: Subject to the recommendations of the geotechnical engineer and landscape architect and concurrence from the Department of Public Works, the maximum fill slope ratio allowed shall be 1.5:1, and a maximum 1:1 ratio shall be allowed on cut slopes. Absent specific recommendations, the maximum fill slope ratio shall be 2:1, and the maximum cut slope ratio shall be 1.5:1 for slopes less than 15 feet in height and 2:1 for slopes greater than 15 feet in height.	
LU-4	The multi-story, attached residential product types anticipated in Neighborhood 2, Planning Area 3 would differ from the existing character of residential uses in the surrounding area.	M-LU-4	Site Plan review shall occur through application of the "D2" Special Area Designator, as called for in the Specific Plan and noted below: ▪ Neighborhood 2, Planning Area 3 shall meet the following requirements prior to the issuance of building permits: - The maximum height shall be 35 feet, consisting of two-story structures - No more than four units shall be permitted per structure - A 100-foot setback for all structures from property line per the requirements of the Fire Protection Plan.	Less than significant.
Geology and Soils (see Section 3..6))				
GE-1	Undocumented fill, topsoil/colluvium, alluvium, and Quarternary slopewash are porous and/or potentially compressible in their present state.	M-GE-1a	Geotechnical observation and/or laboratory testing during grading shall be performed to identify areas of highly expansive soils and determine the actual expansion potential of finish-grade soils. Compressible soils will require removal and recompaction in areas of proposed development or future fill.	Less than significant.
		M-GE-1b	The proposed project's grading plans shall demonstrate compliance with remediation recommendations in the November 9, 2006, Geotechnical Investigation prepared by Leighton and Associates for the Merriam Mountains Property and the Smith Property (Appendix J to the Merriam Mountains Specific Plan Draft EIR, dated August 2007), including but not limited to: ▪ In order to minimize the effects of potential differential settlement, increased compaction and	

TABLE S-2 (CONT.)

			settlement monitoring is recommended for fills greater than 50 feet in depth. ▪ All fill slopes should have a minimum width of at least one-half the slope height.	
GE-2	Saturated alluvium soils within the project site have the potential to result in liquefaction.	M-GE-2	Alluvium soils shall be removed and replaced with compacted fill in areas of proposed grading/development as recommended in the Geotechnical Investigation (Appendix J to the Merriam Mountains Specific Plan Draft EIR, dated August 2007).	Less than significant.
GE-3	Granitic boulder outcrops in areas upslope from approximately 28 development lots could result in isolated rockfalls during a significant seismic event.	M-GE-3	All boulders located within the proposed development footprint will be removed during grading. Potentially hazardous boulders identified on Plate 1 of Appendix J to this EIR and located within the proposed fuel modification zones would either be removed or broken in place as described in Table 1 of Appendix J of this EIR. The removal of the boulders shall be completed prior to approval of final inspection of site grading for each phase of the affected areas of the proposed project. Evidence shall be provided to the satisfaction of the Director of DPLU demonstrating that hazardous boulders have been removed and/or broken in place as recommended in Appendix J to this EIR. (Alternate methods for addressing the rockfall hazard may be proposed in the future. Any such methods would be subject to review and approval by the County of San Diego and may involve additional environmental review.)	Less than significant.
GE-4	Natural slopes on site are subject to surficial instability, as indicated by the presence of slopewash deposits, source area scars, and perched granitic boulder outcrops.	M-GE-4a M-GE-4b	Surficial stability shall be ensured through buffering areas without structural development, construction of debris walls, catchment basins, or slope buttressing. The need for such mitigation shall be based on review of final grading plans and field observations during grading. Mapping of all cut slopes shall be performed 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 such as stability fill or rock-bolting shall be required.	Less than significant.