SUMMARY

S.1 Project Synopsis

Project Description

Baldwin & Sons, LLC, and JPB Development, LLC (Project applicants), have submitted to the San Diego County Department of Planning and Development Services (PDS) applications for general plan amendments (GPA), specific plan, rezone, and tentative maps (TM) for the proposed Otay Ranch Resort Village (Project). The Project includes the proposed development of 1,881 single-family dwelling units, a mixed-use area with 57 multi-family residences and up to 20,000 square feet of neighborhood commercial uses, and a 17.4-acre resort hotel that would consist of up to 200 guest rooms and up to 20,000 square feet of ancillary commercial/office uses, including meeting rooms, a conference center, offices, shops, and restaurants. The Project also includes an elementary school site, nine park sites, a public safety site that could house a fire station and law enforcement storefront, approximately 1,089 acres of Preserve open space, and approximately 144 acres of other open space. Preserve open space is generally undisturbed land or restored habitats set aside for dedication to the public while the non-preserve open space designation generally includes the fuel modification zone and exterior manufactured slopes within the Project development footprint and excludes internal residential manufactured slopes. Internal circulation makes up approximately 39.1 acres.

Project Location and Environmental Setting

The proposed Project site consists of approximately 1,869 acres located on Otay Lakes Road in southwestern San Diego County (County), east of Chula Vista. The Project is a portion of Otay Ranch, which covers approximately 23,000 acres within the jurisdictions of the County and the City of Chula Vista and for which a Program Environmental Impact Report (PEIR; SCH No. 89010154) was certified by the County and Chula Vista in 1993.

Access to the Project site is provided by Otay Lakes Road, east of Wueste Road, via three proposed entrance roads. The topography of the Project site is characterized by a broad mesa sloping to the south, broken by several steep canyons draining from north to south. The Project site elevations range from approximately 500 feet above mean sea level (AMSL) to approximately 900 feet AMSL in the proposed neighborhood development areas; and also include elevations up to approximately 1,600 feet AMSL in the open space areas. The Project site lies within the watershed of the Otay River, which drains an area of approximately 145 square miles. The EastLake Vistas residential community and the U.S. Olympic Training Center are located approximately one-quarter mile to the west of the Project site; Lower Otay Lake is to the south; Upper Otay Lake is to the northwest; and lands preserved as open space are located to the north and east. The Project site is currently vacant with vegetation consisting of native coastal sage scrub and disturbed grassland habitats. Riparian vegetation occurs in drainages located within the Project site.

The Project site would be constructed in multiple phases as shown in **Table 1.0-5**, to ensure construction of necessary infrastructure and amenities for each phase. **Figure 1.0-10** depicts the

Conceptual Phasing Plan, which reflects anticipated absorption for the proposed land uses. The Conceptual Phasing Plan is non-sequential to allow for adjustments in response to market changes, economic conditions, or regulatory constraints. Project development is divided into multiple phases, as shown with different colors in **Figure 1.0-10**. The PFFP imposes specific facilities requirements on each development phase to ensure the Otay SRP facility thresholds are met for each phase of development.

Project Features

Single-Family Residential Uses

As shown in **Figure 1.0-1** and as depicted in **Table 1.0-3**, 525.1 acres (28.1 percent) of the total Project site would be designated as single-family residential, which would accommodate 1,881 homes. This designation would allow for five single-family residential neighborhoods, with an average density ranging from 3.2 to 4.4 dwelling units per acre (du/acre). Site Plans would be required to refine the design, architecture, and landscape architecture for the proposed single family neighborhoods.

Multiple-Use

The Project site would include a 14.1-acre multiple-use (MU) area located adjacent to Otay Lakes Road, north of the Strada Piazza entrance to the community. As shown in **Table 1.0-3**, the MU designation would allow for 57 attached homes and up to 20,000 square feet of neighborhood commercial, retail, and office uses. A Site Plan would be required to refine the development program, facilities, site design, architecture, and landscape architecture for the proposed mixed-use area.

Resort Uses

The proposed Resort site would be located on a 17.4-acre promontory in the southeastern portion of the Project site. The resort land use designation would allow a hotel with up to 200 guest rooms and up to 20,000 square feet of ancillary commercial/office uses, including meeting rooms, a conference center, offices, shops, and restaurants. A Site Plan would be required to refine the development program, facilities, site design, architecture, and landscape architecture for the proposed resort uses.

Parks and Recreation Uses

The Project site would include 28.6 acres of parks on nine park sites. As illustrated in **Figure 1.0-1** and as shown in **Table 1.0-3**, the P-5 neighborhood park is 10.3 acres and would be located in the Village Core, adjacent to the elementary school site and the public safety site. The P-5 park and five additional public parks (P-1, P-2, P-3, P-4, and P-8) located within residential neighborhoods, would be maintained by an assessment district/mechanism. Three parks (P-6, P-7, and P-9) are planned as private parks, to be maintained by an HOA.

Public Uses

The 1993 Otay Ranch Facility Implementation Plan located a fire station within Village 15. Village 15 has been acquired for conservation purposes. To ensure that a site for future fire services is available, the Project reserves a 2.1-acre public safety site, which could house a fire station and a law enforcement storefront. As depicted in **Figure 1.0-1**, the public safety site would be located in the Village Core, across from the elementary school site.

The 1993 Otay SRP located an elementary school within Village 15. However, Village 15 has been acquired for conservation purposes. To ensure that a site for future school services is available, the Project proposes to locate the Village 15 elementary school to the Project site, with the designation of a 10-acre elementary school site located in the Village Core, adjacent to the neighborhood park (P-5).

Open Space

Approximately 144.0 acres of the Project site are designated as Open Space. This designation generally includes the fuel modification zone and exterior manufactured slopes within the Project development footprint and excludes internal residential manufactured slopes. Open space areas are planned to be maintained by either an HOA or an assessment district/mechanism, consistent with the requirements of the Resort Village Specific Plan.

Otay Ranch Preserve

The Land Use Plan designates approximately 1,089.0 acres of the 1,869-acre Project site (approximately 58.3 percent of the site) as Preserve land, which will be offered for dedication to the Otay Ranch Preserve system. Preserve land is generally undisturbed land or restored habitats set aside for dedication to the public. The Preserve land would be maintained by the Otay Ranch POM, the funding of which would be through an assessment district/mechanism.

The Specific Plan design calls for development on terraces integrated into the natural landform to minimize grading, optimize views, and promote passive solar heating and cooling opportunities. The goal of the proposed Land Use Plan is to concentrate development on the flatter areas (e.g., mesas and hilltops) that would result in undulating slopes of variable horizontal and vertical gradients and integrate Project development into the natural landform. Approximately 14.2 million cubic yards of cut and 14.2 million cubic yards of fill are proposed in a balanced grading operation.

The Specific Plan includes a Landscape Concept Plan, depicted in **Figure 1.0-3**. This style includes flowing, informal, timeless forms, pedestrian scaled building masses, indoor/outdoor spaces, and use of warm, natural materials and colors. Maintenance of the various components of the Landscape Concept Plan is detailed in the Specific Plan's Landscape Maintenance Plan. A "California friendly" landscape palette corresponds with the different landscape zones identified in **Figure 1.0-3** and is proposed to reduce water use and wildfire risk. This plant palette can be found in the Resort Village Design Plan, Resort Village Fire Protection Plan, Resort Village Preserve Edge Plan, and Resort Village Water Conservation Plan.

The Project would be served by Otay Water District for potable water and by the San Diego County Sanitation District and the City of Chula Vista for wastewater disposal. All connections to existing water and sewer lines would be provided via Otay Lakes Road, which would be widened from two lanes to four lanes from Wueste Road to the second Project entrance road. A 5-million-gallon water reservoir would be installed on-site. A fire station for the County Rural Fire Protection District would be constructed on-site; and a County Sheriff's storefront station would be provided on-site. Chula Vista Elementary School District and Sweetwater Union High School District would serve the Project.

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

Table S.1 provides a brief summary of each potential environmental effect found to be significant with implementation of the proposed Project, the mitigation measures that would reduce or avoid that effect, and the conclusion as to whether the effect is reduced to below a level of significance by applying the mitigation measures. The table also includes the subchapters of this Environmental Impact Report (EIR) where each topic is analyzed in detail.

S.3 Areas of Controversy

The Notice of Preparation (NOP) for the EIR was distributed on October 14, 2004, for a 30-day public review and comment period. Public comments were received on the NOP reflect concern and/or controversy over several environmental issues. The NOP and NOP comment letters are in **Appendix A** of this EIR. Major environmental issues and potential areas of controversy were raised in nine letters commenting on the NOP, as listed below:

- Native American cultural resources
- Traffic congestion
- School impacts
- Parks and recreation
- Biological resources
- Provision of public services and utilities (fire, police, water, sewer, energy)
- On-site hazardous materials impacts
- Growth-inducing impacts
- Visual impacts/aesthetics
- Long-term governmental jurisdiction

In addition, a public scoping meeting was held on November 3, 2004, at the Chula Vista Civic Center, located at 276 Fourth Avenue, Chula Vista, California. No comments were received during the public scoping meeting. Issues raised in the NOP comment letters are evaluated in the EIR, in Chapters 2.0 through 4.0.

In addition to potentially controversial issues identified during the NOP process, air quality and noise impacts and greenhouse gas emissions would result from the increase in traffic from an estimated 27,177 new average daily trips. Traffic, air quality, and noise impacts would also result from the need for on-site blasting during Project grading. The Project would also extend road

improvements and water and sewer service that would have a potential growth-inducing impact on undeveloped lands to the east of the site.

The following Major Project Issues were raised by County staff during review of the proposed Project:

Hydromodification Report: The project was required to comply with the (IHC) Interim Hydromodification Criteria (IHC). The project is directly upstream from a waterbody (Otay Lakes Reservoir) that may be exempt, but the project discharges upstream of the waterbody in more than one basin.

DPW Modification Requests: The Project proposed street sections different from the County of San Diego's adopted public street sections.

Site Plans: The proposed rezone should require a Site Plan approval for the resort, single-family areas, commercial area, multi-family area and the public services areas by adding a Special Area Designator "D" in the proposed zone box.

Fire Response Time: Discussions on fire service state that the development is required to meet the 5-minute response time pursuant to the Public Facilities Element of the County's General Plan.

Preserve Design/MSCP Hardline/ Agency Concurrence - Revegetated manufactured slopes do not have sufficient biological value to warrant mitigation credit. A MSCP major amendment may be required for the current proposal if the Agencies do not accept the like or equivalent findings.

Recycled Water – The proposed project does not propose to use recycled water due to the proximity to Lower Otay Lake, a drinking water source owned and operated by the City of San Diego. The City of San Diego expressed concerns regarding the use of recycled water up-stream of the reservoir. As a result, the project requested, and OWD prepared, a revised Water Supply and Assessment Verification Report which evaluated the project's using only potable water.

City of San Diego Concurrence: The City of San Diego has reviewed the project drainage and water quality studies; however, the City must still review the proposed impacts and mitigation for widening Otay Lakes Road through their MSCP Cornerstone Lands.

Chula Vista Sewer Agreement: The option for Chula Vista to provide sewer service to this development should be accompanied by a Sewer Agreement ensuring treatment capacity.

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

The County Board of Supervisors would be required to make decisions concerning the significant impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, transportation and traffic, and solid waste that can be avoided and/or reduced to less than significant with mitigation measures, and significant impacts to aesthetics, air quality, and solid waste that cannot be avoided and/or reduced to less

than significant with mitigation measures. Findings are required to be adopted for each significant impact that shows the Project has been changed (including adoption of mitigation measures) to avoid or substantially reduce the magnitude of the impact. The Board of Supervisors must also determine that adopted mitigation measures are feasible and would be implemented during the design and construction phases of the Project.

S.5 Project Alternatives

Alternatives are required to be identified and evaluated to determine if they would lessen or avoid the significant impacts identified in Chapter 2.0. These alternatives are described and evaluated in Chapter 4.0. The No Project Alternative would result in no development of the Project site. Six site development alternatives have been selected based on either achieving the same 1,938 dwelling units as the proposed Project while increasing the total acreage of proposed preserve and open space (Alternatives B, D, and F), or reducing the number of dwelling units and increasing the total acreage of preserve and open space (Alternatives C, E, and G). Alternative C would reduce the Project to 1,241 dwelling units, Alternative E would reduce the Project to 1,391 dwelling units, and Alternative G would reduce the Project to 465 dwelling units.

The development alternatives that would reduce significant impacts in comparison to the proposed Project are listed below. The issues for which each alternative would have a lesser impact than the proposed Project are shown in parenthesis. The following list begins with the most superior alternatives followed by the inferior alternatives:

- Alternative G (aesthetics, air quality, biological resources, cultural resources, noise, and transportation and traffic);
- Alternative C (aesthetics, air quality, biological resources, cultural resources, and solid waste);
- Alternative E (aesthetics, air quality, cultural resources, noise, and transportation and traffic);
- Alternative D (aesthetics and cultural resources); and
- Alternative F (air quality and cultural resources).

Alternative B is not listed above because it would not reduce significant impacts in comparison to the proposed Project.
Chapter 4.0 of the EIR concludes that Alternative G would be considered the environmentally superior alternative.

Table S.1
Summary of Significant Effects and Mitigation Measures

SIGNIFICANT AND UNAVOIDABLE IMPACTS		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
PROJECT-LEVEL IMPACTS		
2.1 Aesthetics and Visual Resources		
2.1.2.2 Damage to Visual Resources		
AE-1 Substantial adverse change in the visual character and visual quality of the Project site caused by building an urban development in an undeveloped natural setting.	**M-AE-1** All grading plans, landscape plans, and improvement plans for the proposed Project shall be evaluated for Project compliance with the aesthetic design mitigation measures of this EIR, the Resort Village Specific Plan (Development Regulations), the Resort Village Design Plan, and the Resort Village Preserve Edge Plan. **M-AE-2** Pursuant to Chapter IV, Implementation, of the Otay Ranch Resort Village Specific Plan, Site Plans ("D" Designator) shall be evaluated for Project compliance with the Resort Village Design Plan, the Resort Village Preserve Edge Plan, and the provisions of the Specific Plan related to colors, materials, and other architectural characteristics of adjacent buildings, building massing, siting of buildings and structures including setbacks from tops of slopes, architectural colors adjacent to open space, height, use of non-reflective/non-glare surfaces, and other aesthetic design measures of this EIR.	Significant and unmitigable
2.1.2.3 Scenic Vistas		
AE-2 Permanent alteration to views of scenic resources caused by graded hills, buildings, and landscaping.	**M-AE-1 and M-AE-2** See Above.	Significant and unmitigable
AE-3 Permanent alteration to views of the Project site from Otay Lakes Road—a designated scenic route.	**M-AE-1 and M-AE-2** See Above.	Significant and unmitigable
2.9 Transportation and Traffic		
TR-1 Otay Lakes Rd, between Wueste Rd and the City of Chula Vista/County boundary (LOS F, City of CV) – Proposed Phase I project trips would comprise 73.8% (more than 5%) of the total segment volume, and would also add 8,230 ADT (more than 800 ADT) to this roadway segment.	**M-TR-1** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the City of Chula Vista to secure and construct, or cause to be constructed, the widening of Otay Lakes Road between Wueste Road and the City/County Boundary from two lanes to four lanes (4-Lane Major with Raised Median), such that the improvements are operational prior to issuance of the 728th building permit.	Significant and unmitigable
TR-4 The unsignalized Otay Lakes Road/Wueste Road intersection (LOS E, City of Chula Vista) - With the addition of Project traffic, this intersection (#20) would operate at unacceptable LOS E during the PM peak hour and the buildout Project traffic would comprise	**M-TR-4** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the City of Chula Vista to secure and construct, or cause to be constructed, a traffic signal at the intersection of Otay Lakes Road and Wueste Road such that the improvements are operational prior to the 1,500th building permit.	Significant and unmitigable

SIGNIFICANT AND UNAVOIDABLE IMPACTS		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
more than 5 percent of the total entering volumes.		
TR-5 Otay Lakes Rd, between Lake Crest Dr and Wueste Rd (LOS F, City of CV) – Proposed buildout project trips would comprise 86.0% (more than 5%) of the total segment volume, and would also add 16,310 ADT (more than 800 ADT) to this roadway segment. Additionally, the intersection of Otay Lakes Road / Wueste Road is projected to operate at unacceptable LOS E during the PM peak hour.	**M-TR-5** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the City of Chula Vista to secure and construct, or cause to be constructed, the widening of Otay Lakes Road between Lake Crest Drive and Wueste Road from two lanes to four lanes (4-Lane Major with Raised Median) such that the improvements are operational prior to issuance of the 910th building permit.	Significant and unmitigable
TR-6 Otay Lakes Rd, between Wueste Rd and the City of Chula Vista/County boundary (LOS F, City of CV) – Proposed project trips would comprise 87.0% (more than 5%) of the total segment volume, and would also add 19,540 ADT (more than 800 ADT) to this roadway segment. Additionally, the intersection of Otay Lakes Road / Wueste Road is projected to operate at unacceptable LOS E during the PM peak hour.	**M-TR-6** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the City of Chula Vista to secure and construct, or cause to be constructed, the widening of Otay Lakes Road between Wueste Road and the City/County Boundary from two lanes to four lanes (4-Lane Major with Raised Median) such that the improvements are operational prior to issuance of the 728th building permit.	Significant and unmitigable
TR-7 Otay Lakes Road / Wueste Road (City of CV) - This intersection (#20) would operate at unacceptable LOS F during both the AM and PM peak hours with the addition of the project traffic because the Project traffic would comprise more than 5 percent of the total entering volumes.	**M-TR-7** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the City of Chula Vista to secure and construct, or cause to be constructed, a traffic signal at the intersection of Otay Lakes Road and Wueste Road such that the improvements are operational prior to the 1,500th building permit.	Significant and unmitigable
TR-8 Otay Lakes Road / SR-94 (County) - This intersection (#21) would operate at unacceptable LOS E and F during the AM and PM peak hours, respectively.	**M-TR-8** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with Caltrans to install, cause to be installed, or make a fair-share payment towards an approved plan or program for the signalization of the intersection of Otay Lakes Road and SR-94 such that the traffic signal is operational consistent with Caltrans requirements.	Significant and unmitigable
TR-9 Otay Lakes Rd, between Lake Crest Dr and Wueste Rd (LOS F, City of CV) – Proposed buildout project trips would comprise 74.7% (more than 5%) of the total segment volume, and would add 15,810 ADT (more than 800 ADT). Additionally, the intersection Otay Lake Road / Wueste Road is projected to operate at unacceptable LOS F during the peak hours.	**M-TR-9** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the City of Chula Vista to secure and construct, or cause to be constructed, the widening of Otay Lakes Road between Lake Crest Drive and Wueste Road and the City/County Boundary from two lanes to four lanes (4-Lane Major with Raised Median), such that the improvements are operational prior to issuance of the 910th building permit.	Significant and unmitigable

SIGNIFICANT AND UNAVOIDABLE IMPACTS		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
TR-10 Otay Lakes Rd, between Wueste Road and the City of Chula Vista/County boundary (LOS F, City of CV) – Proposed buildout project trips would comprise 76.5% (more than 5%) of the total segment volume, and would add 19,540 ADT (more than 800 ADT). Additionally, the intersection of Otay Lake Road / Wueste Road is projected to operate at unacceptable LOS F during the peak hours.	**M-TR-10** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the City of Chula Vista to secure and construct, or cause to be constructed, the widening of Otay Lakes Road between Lake Crest Drive and Wueste Road and the City/County Boundary from two lanes to four lanes (4-Lane Major with Raised Median), such that the improvements are operational prior to issuance of the 910th building permit.	Significant and unmitigable
CUMULATIVE-LEVEL IMPACTS		
2.1 Aesthetics and Visual Resources		
2.1.2.3 Scenic Vistas		
AE-4 Contribution to aesthetic resources impacts within Otay Ranch and southeastern San Diego County, including impacts to views from scenic vistas and scenic highways and impacts to the visual character of the area.	**M-AE-1 and M-AE-2** See Above.	Significant and unmitigable
2.2 Air Quality		
2.2.2.1 Project Conformity with the San Diego Regional Air Quality Strategy		
AQ-1 VOC, NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions during Project construction	**Construction Emissions** **M-AQ-1** The applicants shall implement all of the following measures during construction of the proposed Project: • Water actively disturbed surfaces at least three times daily; • On-site dirt piles or other stockpiled particulate matter shall be covered, wind breaks installed, and water and/or soil stabilizers employed to reduce wind-blown dust emissions. The use of approved nontoxic soil stabilizers shall be incorporated according to manufacturers' specifications to all inactive construction areas; • Water sprayers shall be installed on the rock crushing equipment to control particulate emissions during crushing operations; • Approved chemical soil stabilizers shall be applied according to the manufacturers' specifications to all inactive construction areas (previously graded areas that remain inactive for 96 hours), including unpaved roads and employee/equipment parking areas; • Paved streets shall be swept frequently (water sweeper with reclaimed water recommended; wet broom permitted) if soil material has been carried onto adjacent paved, public thoroughfares from the Project site;	Significant and unmitigable

SIGNIFICANT AND UNAVOIDABLE IMPACTS		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	• Traffic speeds on all unpaved surfaces shall be reduced to 15 mph or less, and unnecessary vehicle traffic shall be reduced by restricting access. Appropriate training to truck and equipment drivers, on-site enforcement, and signage shall be provided; • The primary contractor shall be responsible for ensuring that all construction equipment is properly tuned and maintained before and for the duration of on-site operation; • Termination of grading shall occur if winds exceed 25 mph; • Hydroseeding of graded pads shall occur if development will not occur within 90 days; • Minimize simultaneous operation of multiple construction equipment units. During construction vehicles in loading and unloading queues shall turn their engines off when not in use to reduce vehicle emissions; • All construction equipment shall be outfitted with best available control technology (BACT) devices certified by CARB. A copy of each unit's BACT documentation shall be provided at the time of mobilization of each applicable unit of equipment; • All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications; • All diesel-fueled on-road construction vehicles shall meet the emission standards applicable to the most current year to the greatest extent possible. To achieve this standard, new vehicles shall be used, or older vehicles shall use post-combustion controls that reduce pollutant emissions to the greatest extent feasible; • The use of electrical construction equipment shall be employed where feasible; • The use of catalytic reduction for gasoline-powered equipment shall be employed where feasible; • The use of injection timing retard for diesel-powered equipment shall be employed where feasible; and • Construction diesel fuel shall be comprised of at least 25 percent biodiesel;	
AQ-2 Operational emissions of VOC, CO and PM_{10}	**M-AQ-2** Project permittees shall implement the following mitigation measures to reduce the air pollutant emissions associated mobile sources and on-site gas combustion (CAPCOA 2010):	Significant and unmitigable

SIGNIFICANT AND UNAVOIDABLE IMPACTS		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	• Plant low-maintenance, drought-resistant plant species that reduce gas-powered landscape maintenance equipment usage and water consumption. • Equip residential structures with electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment. • All single-family residences shall be constructed with connections for solar water heaters and solar and/or wind renewable energy systems. • Use regulated low-VOC coatings for all architectural coating activities. • Incorporate pedestrian trails, paths and sidewalks, and bicycle trails to encourage reduction in vehicle usage and trips.	
AQ-3 VOC, NOx, CO, PM_{10}, and $PM_{2.5}$ emissions during Project construction	**M-AQ-1** See Above.	Significant and unmitigable
AQ-4 Cumulative operational emissions of PM_{10}, CO, and VOC	**M-AQ-2** See Above.	Significant and unmitigable
2.9 Transportation and Traffic		
TR-11 Otay Lakes Rd, between City of Chula Vista/County boundary and Project Driveway #1 (LOS F, County) – Proposed buildout project would add more than 200 ADT to this failing 2-lane roadway segment.	**M-TR-11** Otay Lakes Road, between City/County Boundary and Project Driveway #1 (County) - this roadway segment is included in the list of facilities included in the County's TIF Program and is classified as a Major Road (4.1B) in the County of San Diego General Plan Mobility Element. The project applicant proposes to change this roadway segment classification to a Boulevard (4.2A). Accordingly, the project applicant would be responsible for participating in an update to the TIF Program to reflect the change in classification. Subsequently, the project applicant would be responsible for complying with the updated TIF Program to mitigate for cumulative impacts.	Less than significant
TR-12 Otay Lakes Rd, between Project Driveway #1 and Driveway #2 (LOS F, County) – Proposed buildout project would add more than 200 ADT to this failing 2-lane roadway segment.	**M-TR-12** Otay Lakes Road, between Project Driveway #1 and Project Driveway #2 (County) - this roadway segment is included in the list of facilities included in the County's TIF Program and is classified as a Major Road (4.1B) in the County of San Diego General Plan Mobility Element. The project applicant proposes to change this roadway segment classification to a Boulevard (4.2A). Accordingly, the project applicant would be responsible for participating in an update to the TIF Program to reflect the change in classification. Subsequently, the project applicant would be responsible for complying with the updated TIF Program to mitigate for cumulative impacts.	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
PROJECT-LEVEL IMPACTS		
2.3 Biological Resources		
2.3.2.1 Special Status Species		
BI-1a-1k Potential permanent and temporary impacts to sensitive vegetation communities on-site.	**M-BI-1a Conveyance** Prior to the approval of the first Final Map for the project, the Project Applicant shall coordinate with the County of San Diego to establish and annex the project area into a County-administered Community Facilities District to pay for the on-going management and maintenance of the Otay Ranch Preserve. Prior to the recordation of the first Final Map within each Tentative Map, the project applicants shall convey land within the Otay Ranch Preserve to the Otay Ranch Preserve Owner/Manager or its designee at a 1.188 acre for each "Developable Acre" impacted at Final Map as define by the Otay Ranch RMP. The total required conveyance for this project is 887.7 acres. **M-BI-1b Biological Monitoring** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits for any areas adjacent to the preserve and the off-site facilities located within the preserve, the Project Applicant shall provide written confirmation that a County-approved biological monitor has been retained and shall be on site during clearing, grubbing, and/or grading activities. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas and protective fencing. The biological monitor shall also be responsible for implementing the monitoring as required and specified in the restoration plans. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the County's MSCP Subarea Plan and/or permits issued by any other agencies having jurisdictional authority over the project. Before construction activities occur in areas adjacent to preserve areas containing sensitive biological resources, all workers shall be educated by a County-approved biologist to recognize and avoid those areas that have been marked as sensitive biological resources. **M-BI-1c Temporary Fencing** Prior to issuance of land development permits, including clearing, grubbing, grading and/or construction permits, the Project Applicant shall install prominently colored,	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	fencing and signage wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the preserve and for all off-site facilities constructed within the preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of Planning and Development Services (of their designee) and the Director of Parks and Recreation, that work was conducted as authorized under the approved land development permit and associated plans. **M-BI-1d Upland Restoration** Restoration areas may incorporate salvaged materials, such as seed collection, and translocation of plant materials as determined to be appropriate. The project biologist shall review the plant materials prior to grading and will determine if salvage is warranted. If salvage is not appropriate due to site conditions, plant conditions, or reproductive stage of the plants, a letter indicating that will be prepared and submitted to the Director of the Department of Planning and Development Services and the Director of Parks and Recreation. Prior to grading the project, a Conceptual Upland Restoration Plan (Appendix H of the Otay Ranch Resort Village Biological Resources Technical Report in **Appendix C-3** to this EIR) will be submitted to and receive approval from the Director of Planning and Development Services (of their designee) and the Director of Parks and Recreation. The Conceptual Upland Restoration Plan shall include, but not be limited to, the following to ensure the establishment of the restoration objectives: a 24-by 36-inch map showing the restoration areas, site preparation information, type of planting materials (species ratios, source, size of container, etc.), planting program, 80% success criteria, 5-year monitoring plan, and detailed cost estimate. The cost estimate shall include planting, plant materials, irrigation, maintenance, monitoring, and report preparation. The report shall be prepared by a County approved biologist and a state of California licensed landscape architect. The habitat created pursuant to the Conceptual Upland Restoration Plan must be placed within an open space easement dedicated to the County prior to or immediately following the approval of the Conceptual Upland	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	Restoration Plan. **M-BI-1e Limited Building Zone (LBZ) Easement**. In order to protect sensitive biological resources in the adjacent preserve, a Limited Building zone (LBZ) easement will be granted to the County, as shown on the Tentative Map. The purpose of this easement is to limit the need to clear or modify vegetation for fire protection purposes within the preserve, restrict unauthorized access, prohibit landscaping with exotic pest plants that may invade the preserve, and prohibit artificial lighting and focal use areas that would alter wildlife behavior in the preserve. This easement requires the landowner to maintain permanent fencing and signage. The easement precludes 1) placement, installation, or construction of habitable structures, including garages or accessory structures designed or intended for occupancy by humans or animals; 2) landscaping with exotic pest plants; 3) artificial lighting except low-pressure sodium fixtures shielded and directed away from the preserve; and 4) focal use areas including arenas, pools, and patios. **M-BI-1f Fencing and Signage**. In order to protect the preserve from entry upon completion of construction, an open space fence or wall will be installed along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the Otay Ranch Resort Village Preserve Edge Plan and Proposed Fencing, Preserve signage, and Fuel Modification Zones (see map pocket). The barrier must be a minimum construction of vertical metal fencing, but may be other suitable construction material, as approved by Department of Planning and Development Services and the Director of Parks and Recreation. In order to protect the preserve from entry, informational signs will be installed, where appropriate, along all open space edges where open space is adjacent to residential uses, along internal streets, and as indicated in the Otay Ranch Resort Village Preserve Edge Plan. The signs must be corrosion resistant, a minimum of 6 inches by 9 inches in size, on posts not less than three (3) feet in height from the ground surface, and state "Sensitive Environmental Resources Protected by Easement. Entry without express written permission from the County of San Diego is prohibited." **M-BI-1g Habitat Manager for the Offsite 10.2-acre Parcel**. In order to provide for the long-term management of the proposed 10.2-acre parcel that will	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	be added to the MSCP Preserve, a habitat manager shall be designated either privately selected, a non-profit organization, or a government agency. If a private or non-profit organization is selected as the habitat manager, a Resource Management Plan (RMP) will be prepared and implemented. The final RMP will be completed to the satisfaction of the Director of Department of Planning and Development Services, as follows: 1) the plan will be prepared and approved pursuant to the most current version of the County of San Diego Biological Report Format and Content Requirements; 2) the habitat land to be managed will be owned by a land conservancy or equivalent; 3) open space easements will be dedicated in perpetuity; 4) a resource manager will be selected and approved, with evidence provided demonstrating acceptance of this responsibility; 5) the RMP funding mechanism will be identified and adequate to fund annual costs for implementation; and 6) a contract between the applicant and County will be executed for the implementation of the RMP, and funding will be established with the County as the third party beneficiary. In lieu of providing a private habitat manager as noted above, the applicant may contract with a federal, state, or local government agency with the primary mission of resource management to take fee title and manage the 10.2-acre parcel of land. Evidence of satisfaction must include a copy of the contract with the agency, and a written statement from the agency that (1) the land contains the specified acreage and the specified habitat, or like functioning habitat; and (2) the land will be managed by the agency for conservation of natural resources in perpetuity.	
BI-2 Potential permanent impacts to sensitive vegetation communities on City of San Diego Cornerstone Lands.	**M-BI-2** Prior to widening Otay Lakes Road, the project applicants mitigate for the replace 11.09 acres of impact to Cornerstone Lands and complete and MHPA Boundary Adjustment to the satisfaction of the City of San Diego Development Services Director (or their designee). Replacement of MHPA lands within Cornerstone Lands is proposed to be at a 1:1 ratio for lands replaced inside the MSCP Preserve. For replacement lands that are located outside of the MSCP Preserve, the mitigation is at a 4:1 ratio. Mitigation for impacts to the various vegetation communities shall be based on the tier of the impacted lands in accordance with the mitigation ratios provided by the MSCP. The mitigation and MHPA Boundary Adjustment may be implemented within the Otay Ranch Preserve on property surrounding the existing Cornerstone Lands, north of Otay Lakes Road, or may be off-site at a location	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	determined to be acceptable by the City of San Diego.	
BI-3 Potential permanent impacts to sensitive vegetation communities on City of Chula Vista lands.	**M-BI-3** Prior to issuance of any land development permits, including clearing or grubbing and grading and/or construction permits, the project will be required to obtain a HILT Permit pursuant to Section 17.35 of the Chula Vista Municipal Code for impacts to Chula Vista MSCP Tier I, II, and II vegetation communities as shown in **Table 2.3-11** and in accordance with Table 5-3 of the Chula Vista MSCP Subarea Plan. Mitigation for off-site impacts outside of Otay Ranch will be in accordance with the Chula Vista MSCP Subarea Plan and the Chula Vista Habitat Loss and Incidental Take (HLIT) Ordinance. Prior to issuance of any land development permits, the Project applicants shall mitigate for direct impacts pursuant to Section 5.2.2 of the City of Chula Vista MSCP Subarea Plan. In compliance with the Subarea Plan, the applicant shall secure mitigation credits within a City- and wildlife agency-approved Conservation Bank or other approved location offering mitigation credits consistent with the ratios specified in **Table 2.3-11** herein. The applicants shall be required to provide verification of purchase to the City prior to issuance of any land development permits. In the event that a Project Applicant is unable to secure mitigation through an established mitigation bank approved by the City and wildlife agencies, the Project Applicant shall secure the required mitigation through the conservation of an area containing in-kind habitat within the City's MSCP Subarea Plan or MSCP Planning Area in accordance with the mitigation ratios contained in Table 5-3 of the City of Chula Vista MSCP Subarea Plan and subject to wildlife agency concurrence. Prior to issuance of any land development permit for the widening or Otay Lakes Road, and to the satisfaction and oversight of the City's Development Services Director (or their designee), the Applicant shall secure the parcel(s) that will be permanently preserved for in-kind habitat impact mitigation, if a mitigation bank purchase is unavailable, prepare a long-term management and monitoring plan for the mitigation area, secure an appropriate management entity to ensure that long-term biological resource management and monitoring of the mitigation area is implemented in perpetuity, and establish a long-term funding mechanism for the management and	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	monitoring of the mitigation area in perpetuity. The long-term management and monitoring plan shall provide management measures to be implemented to sustain the viability of the preserved habitat and identify timing for implementing the measures prescribed in the management and monitoring plan. The mitigation parcel shall be restricted from future development and permanently preserved through the recordation of a conservation easement or other mechanism approved by the wildlife agencies as being sufficient to insure that the lands are protected in perpetuity. The conservation easement or other mechanism approved by the wildlife agencies shall be recorded prior to issuance of any land development permits.	
BI-4 Potential permanent and temporary impacts to jurisdictional waters and wetlands on-site.	**M-BI-4** Prior to impacts occurring to waters and wetlands under the jurisdiction of ACOE, CDFW and RWQCB, the Applicant shall obtain the following permits: ACOE 404 permit, RWQCB 401 Water Quality Certification, and a CDFW Code 1600 Streambed Alteration Agreement. Impacts shall be mitigated at a 1:1 ratio by creation or purchase of credits for the creation of jurisdictional habitat of similar functions and values. A suitable mitigation site shall be selected and approved by the resource agencies during the permitting process. The ratio of wetland mitigation should be 3:1 overall. A total of 2.15 acres of wetlands will be created (1:1 creation to impact ratio). An additional 4.30 acres of wetlands will be enhanced (2:1 enhancement to impact ratio). Creation/enhancement will occur within the Dulzura Creek/Otay River watershed in accordance with a Conceptual Wetlands Mitigation and Monitoring Plan (Appendix I of the Otay Ranch Resort Village Biological Resources Technical Report in **Appendix C-3** to this EIR) approved by the County and appropriate resource agencies. The wetland creation should include at least a 1:1 ratio of each of the wetland vegetation communities impacted. The remainder of the creation/enhancement obligation may be fulfilled with any wetlands type. Prior to issuance of land development permits, including clearing, grubbing, and grading permits that impact jurisdictional waters, the Project Applicant shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the Director of Planning and Development Services (of their designee), the Director of Parks and Recreation, ACOE, RWQCB, and CDFW. The Conceptual Wetlands Mitigation and Monitoring Plan shall at a	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	minimum prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation. The temporary impacts to ephemeral and intermittent waters will be mitigated by restoring to original condition immediately upon completion of the project but will be subject to all of the success criteria and monitoring as the permanent impacted wetlands.	
BI-5 Potential permanent impacts to jurisdictional vernal pools on-site.	**M-BI-7 Option No. 1:** This option consists of mitigation in the form of restoration of vernal pools within the Resort Village Project site. This option shall involve restoration and reconfiguration of the K8 vernal pool group. These vernal pools are proposed to be preserved, and a 100-foot minimum buffer is provided for protection of the pools and their watershed. Mitigation shall involve reconfiguration and reconstruction of the mima mounds and basins, removal of weedy vegetation, revegetation of the mounds with upland sage scrub species, and inoculation of the pools with vernal pool species. A Conceptual Vernal Pool Mitigation Plan shall be prepared that outlines the location and activities of the restoration (Appendix J of the Otay Ranch Resort Village Biological Resources Technical Report in **Appendix C-3** to this EIR). The plan will be submitted to and be to the satisfaction of, both the Directors of the Department of Planning & Development Services and of Parks and Recreation. A ratio of at least 1:1 restoration shall include the establishment of new vernal pool basins within the K8 vernal pool group. The balance of the mitigation ratio shall include enhancement of the existing pools. There is a total of 0.26 acre available for enhancement within the existing pools. The additional restoration mitigation requirement (a total of 0.112 acre) shall be directed toward establishing new basins within the K8 vernal pool group to the greatest extent feasible. An additional area of potential vernal pool restoration is located within the K9 mesa, if needed. This area is also composed of suitable soils for vernal pools. These soils are present on the K6 and K8 mesas. This additional area is composed of nonnative grass species, is of relatively flat topography, and exhibits some mounding characteristics similar to mima mounds. Based on the inundation records, fairy shrimp surveys, and floral inventory, the following potential vernal pools meet the previously applied ACOE	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	jurisdictional criteria: • K6 – Vernal Pools 1, 3, 5, 6, 7, 8, 9, 10, 12, and 13 (0.11 acre – total basin area) • K8 – Vernal Pools 1, 2, 4, 5, 6, 7, 8, 10, 11, 13, 14, 15, 16, A1, and A4 (0.26 acre – total basin area) Assuming all of K6 is impacted and the mitigation requirement is a combination of 2:1 and 5:1, as outlined above, a total mitigation of 0.239 acre shall be required. This is typically satisfied by providing at least 1:1 as restoration and the balance as enhancement. Enhancement within the K8 pools will likely be restricted by the resource agencies to those pools not containing fairy shrimp. **Table 2.3-12** summarizes the existing conditions of the pools within the K8 mesa. **Option No. 2:** This option consists of mitigation in the form of purchase of vernal pool mitigation bank credits for a total of 0.239 acre at a combined 2:1 and 5:1 mitigation ratio.	
BI-6 Potential indirect impacts to jurisdictional waters and vernal pools.	**M-BI-13** Prior to issuance of grading permits for development areas adjacent to the Preserve, the Project applicants shall develop a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall be developed, approved, and implemented during construction to control storm water runoff such that erosion, sedimentation, pollution, and other adverse effects are minimized. The following performance measures contained in the Project's Preserve Edge Plan (**Appendix C-23**) shall be implemented to avoid the release of toxic substances associated with urban runoff: • Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures. • Where deemed necessary, storm drains shall be equipped with silt and oil traps to remove oils, debris, and other pollutants. Storm drain inlets shall be labeled "No Dumping–Drains to Ocean." Storm drains shall be regularly maintained to ensure their effectiveness. • Parking lots shall be designed to allow storm water runoff to be directed to vegetative filter strips and/or oil-water separators to control sediment, oil, and other contaminants.	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	• Permanent energy dissipaters shall be included for drainage outlets. • The BMPs contained in the SWPPP shall include silt fences, fiber rolls, gravel bags, and soil stabilization measures such as erosion control mats and hydro-seeding.	
BI-7 Potential permanent impacts to jurisdictional waters and wetlands on Cornerstone Lands.	**M-BI-5** Prior to impacts occurring to waters and wetlands within the City of San Diego Cornerstone Lands, under the jurisdiction of ACOE, CDFW, and RWQCB, the Project applicants shall obtain the following permits: ACOE 404 permit, RWQCB 401 Water Quality Certification, and a CDFW Code 1600 Streambed Alteration Agreement. Impacts shall be mitigated at a 1:1 ratio by creation or purchase of credits for the creation of jurisdictional habitat of similar functions and values. A suitable mitigation site shall be selected and approved by the resource agencies during the permitting process. The ratio of wetland mitigation shall be 3:1 overall. A total of 2.15 acres of wetlands shall be created (1:1 creation-to-impact ratio). An additional 4.30 acres of wetlands shall be enhanced (2:1 enhancement to impact ratio). Creation/enhancement shall occur within the Dulzura Creek/Otay River watershed in accordance with a Conceptual Wetlands Mitigation and Monitoring Plan (Appendix I of the Otay Ranch Resort Village Biological Resources Technical Report in **Appendix C-3** to this EIR) that is approved by the County of San Diego and the appropriate resource agencies. The wetland creation shall include at least a 1:1 ratio of each of the wetland vegetation communities impacted. The remainder of the creation/enhancement obligation may be fulfilled with any wetlands type. Prior to issuance of land development permits, including clearing, grubbing, and grading permits that impact jurisdictional waters, the Project applicants shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the Director of Planning and Development Services (or his/her designee), ACOE, and CDFW. The Conceptual Wetlands Mitigation and Monitoring Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation. The temporary impacts to ephemeral and intermittent waters shall be mitigated by restoring them to original conditions immediately upon completion of the Project, and	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	shall be subject to all of the success criteria and monitoring as the permanent impacted wetlands**.**	
BI-8 Potential permanent impacts to jurisdictional waters and wetlands on County of San Diego lands.	**M-BI-6** Prior to impacts occurring to waters within the County of San Diego under the jurisdiction of ACOE, CDFW, and RWQCB, the Project applicants shall obtain the following permits: ACOE 404 permit, RWQCB 401 Water Quality Certification, and a CDFW Code 1600 Streambed Alteration Agreement. Impacts shall be mitigated at a 1:1 ratio by creation or purchase of credits for the creation of jurisdictional habitat of similar functions and values. A suitable mitigation site shall be selected and approved by the resource agencies during the permitting process. The ratio of wetland mitigation shall be 3:1 overall. A total of 0.01 acre of waters of the U.S. shall be created (1:1 creation-to-impact ratio). An additional 0.02 acre of waters of the U.S. shall be enhanced (2:1 enhancement-to-impact ratio). Creation/enhancement shall occur within the Dulzura Creek/Otay River watershed in accordance with a Conceptual Wetlands Mitigation and Monitoring Plan (Appendix I of the Otay Ranch Resort Village Biological Resources Technical Report in **Appendix C-3** to this EIR) that is approved by the County of San Diego and the appropriate resource agencies. The wetland creation shall include at least a 1:1 ratio of each of the wetland vegetation communities impacted. The remainder of the creation/enhancement obligation may be fulfilled with any wetlands type. Prior to issuance of land development permits, including clearing, grubbing, and grading permits that impact jurisdictional waters, the Project applicants shall prepare a Wetlands Mitigation and Monitoring Plan to the satisfaction of the Director of Planning and Development Services (or his/her designee), ACOE, and CDFW. The Conceptual Wetlands Mitigation and Monitoring Plan shall, at a minimum, prescribe site preparation, planting, irrigation, and a 5-year maintenance and monitoring program with qualitative and quantitative evaluation of the revegetation effort and specific criteria to determine successful revegetation. The temporary impacts to ephemeral and intermittent waters shall be mitigated by restoring them to their original conditions immediately upon completion of the Project, and shall be subject to all of the success criteria and monitoring as the permanently impacted wetlands.	Less than significant
BI-9 Potential indirect impacts to	**M-BI-14** During construction, material stockpiles	Less than

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
vegetation communities	shall be covered when not in use. This will prevent fly-off that could damage nearby sensitive plant communities. During grading and construction, graded areas shall be periodically watered to minimize dust affecting adjacent vegetation. During Project operation, all recreational areas that use chemicals or animal by-products, such as manure, that are potentially toxic or impactive to sensitive habitats or plants shall incorporate methods on-site to reduce impacts caused by the application and/or drainage of such materials into Preserve areas. No invasive nonnative plant species shall be introduced into areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species that reflect the adjacent native habitat. During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect sensitive vegetation from being inundated with sediment-laden runoff. Dewatering shall be conducted in accordance with standard regulations of RWQCB. A National Pollutant Discharge Elimination System (NPDES) permit, issued by RWQCB to discharge water from dewatering activities, shall be required prior to start of construction. This will minimize erosion, siltation, and pollution within sensitive communities. Design of drainage facilities shall incorporate long-term control of pollutants and storm water flow to minimize pollution and hydrologic changes. An Urban Runoff Plan and operational BMPs shall be approved by the San Diego County Department of Planning and Development Services prior to construction. Grading and/or improvement plans shall include the requirement that a fencing and signage plan be prepared and that permanent fences or walls be placed along the open space boundaries. Placement of permanent fencing or walls is required at the conclusion of the grading activity and prior to Record Plan approval. A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasive shall be used for slope stabilization in transitional areas. Peruvian pepper trees and other invasive vegetation would not be planted in streetscapes, or within 50 feet of the Preserve, where they could impact native	significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	habitat.	
BI-10 Potential permanent impacts to San Diego fairy shrimp	**M-BI-10** Prior to the issuance of the first grading permit that impacts the K6 vernal pool complex, the Project applicants shall demonstrate to the satisfaction of the Director of Planning and Development Services (or his/her designee) that the Project has secured take authorization of San Diego fairy shrimp through Section 7 Consultation, a Section 10 incidental take permit, or as may be incorporated into the provisions of the MSCP Subarea Plan Quino Checkerspot Butterfly Amendment to achieve the best results toward the survival and recovery of the species.	Less than significant
BI-11 Potential permanent impacts to Quino checkerspot butterfly.	**M-BI-9a**. Take Authorization: Prior to the issuance of the first grading permit that impacts Quino checkerspot butterfly, the Project applicants shall demonstrate to the satisfaction of the Director of Planning and Development Services (or his/her designee) it has secured the necessary take authorization for Quino checkerspot butterfly through either the Section 7 Consultation, Section 10 incidental take permit requirements, or the MSCP Subarea Plan Quino Checkerspot Butterfly Amendment, if/when approved. The Project shall provide preservation of 962 acres of the required mitigation of 966 acres (2 x 483 acres). The Project is required to provide an additional 4 acres of occupied habitat. This mitigation is proposed to be accomplished by restoration of unsuitable habitat within the Preserve to suitable coastal sage scrub. **Figure 2.3-18** illustrates the location of these potential restoration areas. A total of 6.3 acres is designated as potential restoration of which 4 acres will be needed. **M-BI-9b** Quino Management/Enhancement Plan: Prior to the issuance of the first grading permit that impacts Quino checkerspot butterfly, the Project applicants shall prepare a long-term Quino Checkerspot Butterfly Management/Enhancement Plan that shall, at a minimum, include a survey methodology for on-site preserve areas pre- and post-construction to monitor effects on Quino checkerspot butterfly population health. This plan will be submitted to, and be to the satisfaction of, both the Directors of the Departments of Planning &Development Services and of Parks and Recreation. The Quino Checkerspot Butterfly Management/ Enhancement Plan shall be superseded or unnecessary upon completion and adoption of the County of San Diego Quino Checkerspot Butterfly MSCP Amendment. Adaptive management	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	techniques shall be developed within the plan with contingency methods for changed circumstances. These measures shall ensure that the potential loss of individuals and the loss of habitat for the species related to the proposed development are adequately offset by measures that will enhance the existing preserved population, and shall provide data that will help the species recover throughout its range.	
BI-12 Potential permanent impacts to California adolphia	**M-BI-8** Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable California adolphia, the Project applicants may prepare a Resource Salvage Plan if seed collection is considered to be warranted. As described above in **M-BI-1d**, the project biologist shall review the California adolphia (approximately 20 plants) proposed to be impacted prior to grading and will determine if salvage is warranted. If salvage is not appropriate due to site conditions, plant conditions, or reproductive stage of the plants, a letter indicating that will be prepared and submitted to the Director of the Department of Planning and Development Services and the Director of Parks and Recreation. If determined that salvage is appropriate, a Resource Salvage Plan shall be prepared by a county-approved biologist to the satisfaction of the Director of Planning and Development Services (or his/her designee) and the Director of Parks and Recreation. The Resource Salvage Plan shall, at a minimum, evaluate options for seed collection within the Preserve or from the plants proposed to be impacted. The Resource Salvage Plan shall include collection methods and timing. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site within the slope restoration areas and will be based on the most reliable methods of successful restoration. The plan shall also contain a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success; identification of receptor locations; discussion of the goals of the plan; maintenance activities during the monitoring period; monitoring plan; and inclusion of performance standards, reporting schedules, and long-term management. As an alternative, the California adolphia may be included within planting palettes for the slope revegetation areas that shall receive monitoring and shall be required to meet restoration goals and success criteria. Prior to grading the project, a Conceptual Upland Restoration Plan (Appendix H of the Otay Ranch Resort Village	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	Biological Resources Technical Report in **Appendix C-3** to this EIR), as noted in **M-BI-1d**, will be submitted to and receive approval from the Director of the Department of Planning and Development Services (or their designee) and the Director of Parks and Recreation. The program shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. The program shall also be subject to the oversight of the Director of Planning and Development Services (or his/her designee) and the Director of Parks and Recreation.	
BI-13 Potential indirect impacts to sensitive plant species	**M-BI-14** During construction, material stockpiles shall be covered when not in use. This will prevent fly-off that could damage nearby sensitive plant communities. During grading and construction, graded areas shall be periodically watered to minimize dust affecting adjacent vegetation. During Project operation, all recreational areas that use chemicals or animal by-products, such as manure, that are potentially toxic or impactive to sensitive habitats or plants shall incorporate methods on-site to reduce impacts caused by the application and/or drainage of such materials into Preserve areas. No invasive nonnative plant species shall be introduced into areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve shall be planted with native species that reflect the adjacent native habitat. During construction, material stockpiles shall be placed such that they cause minimal interference with on-site drainage patterns. This will protect sensitive vegetation from being inundated with sediment-laden runoff. Dewatering shall be conducted in accordance with standard regulations of RWQCB. A National Pollutant Discharge Elimination System (NPDES) permit, issued by RWQCB to discharge water from dewatering activities, shall be required prior to start of construction. This will minimize erosion, siltation, and pollution within sensitive communities. Design of drainage facilities shall incorporate long-term control of pollutants and storm water flow to minimize pollution and hydrologic changes. An Urban Runoff Plan and operational BMPs shall be approved by the San Diego County Department of Planning and Development Services prior to construction. Grading and/or improvement plans shall include the	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	requirement that a fencing and signage plan be prepared and that permanent fences or walls be placed along the open space boundaries. Placement of permanent fencing or walls is required at the conclusion of the grading activity and prior to Record Plan approval. A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasives shall be used for slope stabilization in transitional areas. Peruvian pepper trees and other invasive vegetation would not be planted in streetscapes, or within 50 feet of the Preserve, where they could impact native habitat.	
BI-14 Potential indirect impacts to sensitive wildlife species	**M-BI-15** No clearing, grading, or grubbing activities may occur within occupied gnatcatcher habitat during the breeding season for coastal California gnatcatcher (February 15 to August 15, annually). If construction occurs during the breeding season, a nesting survey for California gnatcatcher shall be conducted prior to the onset of construction and construction may occur if active nests can be avoided and provided an adequate buffer or noise levels are documented to be below 60 dBA L_{eq} at the nest site. When clearing, grading, or grubbing activities occur during the breeding season for raptors (January 15 to July 31, annually), nesting bird surveys shall be conducted by a qualified biologist for the San Diego County Department of Planning and Development Services to identify active nest locations. Construction activities shall be restricted or modified such that noise levels related to those activities are below 60 dBA L_{eq}, or other Wildlife Agency approved restrictions, in the vicinity of the active nest site. Lighting of all developed areas adjacent to the preserve shall be directed away from the preserve, wherever feasible and consistent with public safety. Where necessary, development shall provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the preserve and sensitive species from night lighting. Consideration shall be given to the use of low-pressure sodium lighting. Uses in or adjacent to the preserve shall be designed to minimize noise impacts. Berms or walls shall be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the preserve.	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	Excessively noisy uses or activities adjacent to breeding areas must incorporate noise-reduction measures or be curtailed during the breeding season of sensitive bird species. Grading and/or improvement plans shall include the requirement that a fencing and signage plan be prepared and that permanent fences or walls be placed along the open space boundaries. Placement of permanent fencing or walls is required at the conclusion of the grading activity and prior to Record Plan approval**.**	
BI-15 Potential direct and indirect impacts to nesting migratory birds	**M-BI-11** To avoid any direct impacts to raptors and/or any migratory birds protected under the MBTA, removal of habitat that supports active nests on the proposed area of disturbance shall occur outside of the breeding season for these species. If removal of habitat on the proposed area of disturbance must occur during the breeding season, the Project applicants shall retain a County-of-San-Diego-approved biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction, and the results shall be submitted to the County of San Diego for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the County of San Diego, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are avoided. The report or mitigation plan shall be submitted to the County of San Diego for review and approval, and implemented to the satisfaction of the Director of Planning and Development Services (or his/her designee). The County of San Diego's mitigation monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.	Less than significant
BI-16 Potential direct and indirect impacts to wildlife	**M-BI-12** Four wildlife culverts shall be constructed to provide and improve habitat linkages and movement corridors (**Figure 2.3-14**). In general, the design of the wildlife culverts has been developed to be consistent with the MSCP Subarea Plan, where feasible. The wildlife culverts shall have fencing to funnel wildlife movement, shall have a natural bottom with native vegetation at either end, and shall be of size and height of opening so there is direct line of site from one end to the other. Because there is natural light within the culverts, low level	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	illumination is not included. Traffic is generally of low volume on the internal crossings hence the sound insulation is of little benefit. The details of each wildlife culvert or crossing that shall be provided are presented below. **Internal Wildlife Crossing No. 1 (214 feet long × 28.83 feet wide × 13.17 feet tall = openness ratio of 0.44)** This arch culvert structure shall be situated internal to the project site along Strada Piazza, which connects the central portion of the open space to the lake. The 150-foot length is augmented by wing walls on either side of the crossing structure. This is beneficial as it effectively visually decreases the length of the culvert. **Otay Lakes Road Wildlife Crossing No. 1 (95 feet long × 20.75 feet wide × 12.08 feet tall = openness ratio of 0.68)** This structure shall be located south of Internal Wildlife Crossing no. 1 along Otay Lakes Road. The culvert is sized appropriately and should function as intended. It is well below the grade of Otay Lakes Road to prevent wildlife movement up to the surface of the roadway. There is also a six foot wildlife path with a soft surface along this crossing to allow for wildlife movement. **Internal Wildlife Crossing No. 2 (248 feet long × 43.00 feet wide × 16.18 feet tall = openness ratio of 0.63)** This structure shall be situated along Strada Piazza, which is a single non-split roadway at this location. The culvert slopes 12% to the south. This culvert conveys wildlife to a location just east of Lower Otay Lake to quality riparian habitat and lands to the east. Wing walls occur at both ends of the culvert. There is also a six foot wildlife path with a soft surface along this crossing to allow for wildlife movement. **Otay Lakes Road Wildlife Crossing No. 2 (58 feet long × 20.75 feet wide × 12.08 feet tall = openness ratio of 1.12)** This structure shall be located south of Internal Wildlife Crossing no. 2 under Otay Lakes Road. This crossing is also located below the grade of Otay Lakes Road to prevent wildlife from gaining access to the surface of the roadway. There is also a six foot wildlife path with a soft surface along this crossing to allow for wildlife movement.	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
2.4 Cultural Resources		
CR-1 Potential impacts to archaeological resources (nine prehistoric sites) within the proposed grading and brushing envelope.	**M-CR-1** Prior to the issuance of grading permits, the Project applicant shall implement or cause the implementation of a data recovery program, as described below, for the following nine sites located within the proposed grading and brushing envelope: SDI-11,406 SDI-11,409 SDI-12,368 SDI-12,371 SDI-16,303 SDI-16,309 SDI-16,312 SDI-16,326 SDI-16,332 **Data Recovery Program** The data recovery program is contingent upon extracting a sample that will exhaust the data potential of each site. The County has not adopted a policy that identifies the specific level of excavation required to achieve mitigation of impacts by data recovery. In most cases, the level of sampling is dictated by the information potential of the site. Data recovery is commonly discussed in terms of sampling percentages, referring to the percent of the area of the significant subsurface deposit to be excavated. The general approach for achieving the mitigation of impacts through data recovery would begin with an indexing of the site. The site index shall include a sufficient sample of the subsurface deposit, ranging from 2.5 to 4.0 percent of each deposit, to effectively stratify the deposits into areas of differing artifact content, densities, and activity areas. The small percentage value proposed for site indexing is reflective of the basic characterization of each of the significant sites as quarry locations with minimal evidence of occupation activities. The indexing process shall use a static grid to cover each site, with a sample unit placed in each grid cell. Using a grid will produce a very structured, nonrandom, and uniform index of the content of each cultural deposit. Within the portion(s) of each site that retains the greatest research potential, an additional 2 percent of that area shall be excavated. For most sites in the data recovery program, the area excavated shall be between 2.5 and 3 percent of the significant subsurface deposit (area of greater research potential). This volume of recovery would be sufficient to successfully pursue the research objectives of the research design and to provide other researchers with a large information resource. At the sites considered to retain the greatest research potential, a third level of stratified sampling may be implemented to focus block excavations on areas that demonstrate intense artifact recovery, features, or multi-cultural depositional patterns.	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	The excavation of the subsurface deposits shall be accomplished with standard 1-meter-square test units excavated by hand in 10-centimeter levels. All units shall be screened, mapped, measured, and photographed through standard stratigraphic control measures. A more detailed description of the field methods to be used is provided in Section 10.5 of the Archaeological/Historical Study provided in this EIR, **Appendix C-4**. For the phases of work at each site, the first phase shall be the site indexing and the second phase shall be the focused investigation. A third phase, if warranted, would be extremely focused on high-potential elements of any significant site. Each phase has specific goals: the site index is a nonrandom representative sample of the entire site, while the second and third phases are focused, biased, and intuitive studies of the area within the deposit that has the greatest potential. The grid for each site shall be determined by the number of sample units needed to accomplish the sample level of 2.5 percent. For most sites, the grid shall be set at 15-meter or 25-meter intervals. To calculate the grid size, the number of test units that represent the Phase 1 sample was divided into the calculated area of the deposit. The resulting quotient represents the area within each grid cell, and the square root of this value provides the dimension of the grid cell. For example, assuming a site contained 2,000 square meters of a cultural deposit, a 2.5 percent sample would be 50 square meters. The grid size would be determined by dividing the deposit size (2,000 square meters) by the number of units (50), which equals 40 square meters. The square root of 40 square meters is 6.3 meters; thus, the intersection of each grid line is spaced at 6.3 meters. Within each 6.3-meter by 6.3-meter grid cell, one test unit would be excavated to complete the site index. For consistency, all of the sites shall be treated similarly, with an index phase followed by a focused, intuitive phase in the area of greatest importance. The phases of the sampling procedure to be used at the sites included in the data recovery program are as follows. <u>Data Recovery Program Phase 1</u> The first phase of excavation at any particular site shall typically involve a 2.5 percent sample used to index the site content and document intra-site variation. Test units shall be uniformly distributed	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	within each site using a grid system. For most sites, the presence of multiple rock outcroppings would constitute voids in the sample grid. These areas would be deleted from the calculations of site deposits when the data recovery programs are initiated; however, the areas represented by the outcrops cannot be calculated at this time. Data Recovery Program Phase 2 The second phase of excavation shall consist of a 2 to 4 percent sample of each site area identified as representing the greatest research potential. The stratification of the site following the Phase 1 work would typically identify an area of approximately 10 percent of the sample area identified as retaining additional research potential. For this sampling phase, the test units must not be randomly placed but shall be intuitively located at the discretion of the archaeologist. Data Recovery Program Phase 3 The last phase of excavation shall be conducted at any sites that are found to contain particularly important deposits worthy of extended excavation. The sample size of any such area is dependent on the nature of the deposit and research potential. The procedures noted above shall be applied to each of the sites listed below in addition to any site-specific mitigation measures. The actual number of square meters to be excavated in any particular site would depend on the site size, importance, and research potential. The projected size of the sample for each of the sites listed below is a minimum of 2.5 percent, but the actual size of the sample needed to satisfy the data needs of the research objectives will ultimately be determined by the assessment of the recovery from the sample. The possibility exists that previously unidentified subsurface deposits would be identified during data recovery, increasing the research potential of a significant site. In this case, the sample size of the Phase 1 or Phase 2 excavation may be readjusted. If the recovery from any site is evaluated as redundant even before the minimum Phase 1 sample level of 2.5 percent is achieved, the consulting archaeologist shall request a variance from the County of San Diego to reduce the sample size to reflect the redundancy of the sample. This request would need to be supported by data and analysis from the excavations in progress at the site(s) in question. At each site, a backhoe may be employed following the completed sampling program to search for any anomalies within the site.	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	Trenches would be used to expose portions of the sites; however, the number of trenches used in this type of investigation would be discussed and approved by the County before initiation. Backhoe Trenching All sites that are subject to data recovery and test unit excavations shall be subject to backhoe trenching following the test unit excavations to search for any unusual features or anomalies that would need to be examined further. The number and locations of the trenches to be excavated at each site shall be determined by the archaeologist on the basis of the size of the site and the recovery from the test units. If the trenches reveal the presence of deposits or features within a site that were not previously detected, then additional test units shall be excavated to expose the features and permit further investigation and recordation. For those four significant sites (SDI-12,368; SDI-16,312; SDI-16,326; and 16,332) that lie partially within the development envelope and partially within the Preserve (open space), the data recovery mitigation program would include portions of these sites within the development envelope as well as an area 10-feet-wide extending into the open space portion of the site. This extension of the data recovery program into the open space portions of the sites is intended to provide mitigation for indirect impacts in the buffer area of the open space that directly affects the development envelope. Data Recovery Procedures For all sites that are subject to data recovery, the program to carry out the necessary data recovery procedures, including the applicable field methodologies, laboratory analyses, and special studies for these sites, shall be provided as described below. The data recovery program must be consistent with the policies and guidelines of the County and with the California Office of Historic Preservation (OHP) publication, Guidelines for Archaeological Research Design Preservation Planning Bulletin No. 5 (1991). <u>Field Methods</u> The data recovery program shall focus on the excavation of test units measuring 1-meter-square to a minimum depth of 30 centimeters or until bedrock is encountered. If cultural materials are present beyond this depth, the excavation shall continue until one sterile level is exposed. The units shall be	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	excavated in controlled, 10-centimeter levels. All removed soils shall be sifted through l/8-inch mesh hardware cloth. All artifacts recovered during the screening process shall be properly labeled with provenience information in the field and subsequently subjected to standard laboratory procedures of washing (if appropriate) and cataloging. The excavation of the units shall be documented with field notes, illustrations, and photographs. At the conclusion of the test unit excavations, backhoe trenches may be excavated to investigate the site(s) further and search for any unusual features or artifact concentrations. When a backhoe is used, the methodology to be followed is outlined below: • All trenches must be excavated under the supervision of the Project archaeologist. • All trenches must be mapped, measured, photographed, and sketched. • Periodic screening of the excavated material from the trenches shall be conducted. • Provenience data for all screened soil shall be recorded. Based on data from the backhoe trenches, the data recovery program could be expanded to focus on features or unique deposits that differ from the materials already studied. Any features discovered during the archaeological excavations shall be exposed through careful hand excavation. Additional test units may be needed to fully expose the features, which shall then be recorded by sketching and photography. Any datable materials found in association with discovered features shall be collected for radiocarbon dating. If obvious datable samples cannot be found at the sites in the data recovery program, then several bulk soil samples may be collected and processed in an attempt to date the deposits. At each site, column samples shall be taken to permit microanalysis of midden contents. The columns shall measure 10 centimeters square and shall conform to the walls of selected completed test units to the bottom of the deposit. All of the soil from the column shall be collected and not screened in the field. The samples shall be returned to the laboratory for analysis. In addition, during hand excavation, special attention shall be given to the identification of lithic tools found in situ and their potential for	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	residue analysis. When possible, such tools shall be bagged separately, thereby excluding them from the wet-screening process. A sample of the surrounding soil shall be collected to serve as a control sample, should the artifact be chosen for pollen, phytolith, or blood residue analyses. Throughout the field operations, standard archaeological procedures shall be implemented. All test units and features shall be mapped using the established datums. <u>Laboratory Analysis</u> All of the materials recovered from the field excavations shall be subjected to standard laboratory analysis. Artifacts may be washed, if necessary, to permit proper identification. The artifacts shall be sorted and cataloged, including counts, materials, condition, weight, provenience, and unique artifact identification numbers. The lithic artifacts recovered from the Project site shall be subjected to analysis, which shall include recordation of critical measurements and weight, and inspection for evidence of use/wear, retouch, patination, or stains. The recovered flakes (or a representative sample) shall be subject to an analysis of attributes such as size, condition, type, termination, and material. The attribute analysis shall include the flake collections recovered during the testing program. Nonlithic materials, such as ecofacts (shell and bone), shall be subject to specialized analyses. The shell shall be cataloged by species and weight of recovery per level. The bone material shall be weighed and subsequently submitted for specialized faunal analysis. The laboratory analysis of the column samples may include flotation procedures to remove seeds and other microfaunal remains from the soil, followed by the screening of the remainder through a 1/16-inch mesh sieve, if the potential for nonlithic materials is noted in the deposit. Other specialized studies that shall be conducted if the appropriate materials are encountered during the data recovery program include marine shell species identification, faunal analysis, otolith analysis (for seasonality), oxygen isotopic analysis (also for seasonality), radiocarbon dating, obsidian sourcing and hydration, and blood residue and phytolith studies. These specialized studies are briefly described below.	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	Shell Analysis Analysis of any shell recovery would include the speciation of all shell fragments collected. The shell shall be recorded by weight and shall include a count of hinges to determine the minimum number of individuals represented by the recovery. Faunal Analysis Any bone material recovered during the data recovery program shall be analyzed by a faunal expert to identify species, types, age, and evidence of burning or butchering. The prehistoric bone recovery shall provide information concerning diet, activity areas within the sites, the habitats exploited, and methods of processing. Radiocarbon Dating This dating technique shall be attempted whenever possible. The investigations conducted thus far have not recovered any dateable material, although bulk soil dating was not attempted to determine if the deposits contained sufficient carbon for dating. The radiocarbon dating would be useful in conjunction with the stratigraphic recovery of cultural materials to establish the chronology of the sites. Therefore, the collection of samples for dating should be based on the presence of diagnostic artifacts, features, or geological strata delineations. In conjunction with the research topics, any possible opportunities to delineate parts of sites into Late Prehistoric and Archaic periods shall be advanced through the use of dating methods. Blood Residue Studies Organic residue on lithic artifacts may be useful in the determination of the species of animals represented by the residue. However, the use of blood residue studies is necessarily dependent upon the identification of such residues on artifacts. The detection of blood residue shall be made prior to any washing of artifacts so that the residue samples will not be lost. Isotopic Profiles The analysis of Oxygen-18 isotopic profiles from shells may be used to determine the season during which the shells were collected. This process measures the ratio of isotopes of oxygen, which is determined by water temperature. A minimum of five shells shall be used in this analysis, particularly if no other means of determining seasonality can be used. Use of his type of analysis is not likely due to	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	the paucity of shell at the site. Obsidian Hydration and Sourcing Any recovered obsidian artifacts shall be submitted to a specialist to determine the source of the lithic material. The obsidian shall also be analyzed to produce hydration readings, which may then be used to provide relative dates for the use of the artifacts. <u>Monitoring</u> All brushing and grading activities within the Project site shall be monitored on a full-time basis by one or more archaeologists, as dictated by the size of the grading operation. All utility excavations, road grading, or brush removal must be coordinated with the archaeological monitor. Any known resources that are graded must be intensively monitored during grading to ensure that any important features, isolates, or deposits are either recorded and collected, or excavated. Should any resources be encountered during the monitoring of the brushing and grading that were not previously recorded, the action shall be temporarily halted or redirected to another area while the nature of the discovery is evaluated. Any resources that may be encountered shall require testing to determine their significance. If the testing demonstrates that a resource is significant, then a data recovery program shall be implemented consistent with these mitigation measures. <u>Cultural Material Curation</u> Cultural materials recovered from the Project site shall be permanently curated at a facility that meets federal standards per 36 Code of Federal Regulations (CFR) Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. No other collections from previous studies could be located at the time of this study. Should any additional collections be discovered from previous studies, these will be curated with the collections generated from the site evaluations. <u>Site-Specific Data Recovery Programs</u> As part of the data recovery program and other actions described above under mitigation measure M-CR-1, the Project applicant shall also cause a Data Recovery program to be implemented for each of the nine CEQA significant prehistoric sites that would be impacted by implementation of the proposed Project as described below.	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	M-CR-1a Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-11,406, which shall focus on a uniform indexing of the subsurface deposit. This first level of index sampling shall consist of a 2.5 percent sample of the 858-square-meter deposit. This represents a sample of 21 square meters for the Phase 1 index. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 10 percent of the 858 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1b** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-11,409, which shall focus on a uniform indexing of the subsurface deposit. This first level of index sampling shall consist of a 2.5 percent sample of the 10,637-square-meter subsurface deposit. This represents a sample of 266 square meters for the Phase 1 index. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 5 percent of the 10,637 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1c** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-12,368, which shall focus on a uniform indexing of the focused subsurface deposit. This first level of index sampling shall consist of a 2.5 percent sample of the 1,735-square-meter deposit. This represents a sample of 43 square meters for the Phase 1 index. The County of San Diego has also required that a 10-foot-wide buffer within the open space portion of SDI-12,368 be subjected to data recovery. This will add five test units to the sample. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 10 percent of the 1,735 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1d** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-12,371, which shall focus on a uniform indexing of the subsurface deposit. This first level of index sampling shall consist of a 2.5 percent sample of the 781-	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	square-meter deposit. This represents a sample of 20 square meters for the Phase 1 index. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 10 percent of the 781 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1e** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-16,303, which shall focus on a uniform indexing of the subsurface deposit. This first level of index sampling shall consist of a 2.5 percent sample of the 67-square-meter deposit. This represents a sample of 2 square meters for the Phase 1 index. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 10 percent of the 67 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1f** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-16,309, which shall focus on a uniform indexing of the subsurface deposit. This first level of index sampling shall consist of a 2.5 percent sample of the 5,496-square-meter deposit. This represents a sample of 137 square meters for the Phase 1 index. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 10 percent of the 5,496 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1g** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-16,312, which shall focus on a uniform indexing of the subsurface deposit. Approximately 24 percent of this site will be impacted, including 1,618 square meters of the 4,967-square-meter deposit identified. This first level of index sampling shall consist of a 2.5 percent sample of the 1,618-square-meter deposit. This represents a sample of 41 square meters for the Phase 1 index. The County of San Diego has also required that a 10-foot-wide buffer within the open space portion of SDI-16,312 be subjected to data recovery. This will add eight test units to the sample. The proposed Phase 2 excavations are projected based on an area of increased research potential	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	estimated to be approximately 10 percent of the 1,618 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations, but it is estimated to be a sample of three additional test units. **M-CR-1h** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-16,326, which shall focus on a uniform indexing of the subsurface deposit. The site contains three separate deposits, of which only the western deposit will be impacted. The western subsurface component encompasses an area of 860 square meters. This first level of index sampling shall consist of a 2.5 percent sample of the 860-square-meter deposit. This represents a sample of 22 square meters for the Phase 1 index. The County of San Diego has also required that a 10-foot-wide buffer strip within the open space portion of SDI-16,326 be subjected to data recovery. This will add eight test units to the sample. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 10 percent of the 860 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1i** Prior to the issuance of a grading permit, the Project applicant shall cause a Data Recovery program to be implemented for Site SDI-16,332, which shall focus on a uniform indexing of the subsurface deposit. The total area of the subsurface deposits is approximately 1,731 square meters. The development will impact approximately one-third of SDI-16,332, including 924 square meters of the significant subsurface deposits. This first level of index sampling shall consist of a 2.5 percent sample of the 924-square-meter deposit. This represents a sample of 23 square meters for the Phase 1 index. The County of San Diego has also required that a 10-foot-wide buffer strip within the open space portion of SDI-16,332 be subjected to data recovery. This will add seven test units to the sample. The proposed Phase 2 excavations are projected based on an area of increased research potential estimated to be approximately 10 percent of the 924 square meters; the exact number of Phase 2 excavations shall depend on the results of the Phase 1 excavations. **M-CR-1j** All cultural materials recovered from the Project, either during the mitigation program or during the past archaeological testing programs,	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	shall be professionally prepared for permanent curation at a local facility meeting the criteria for such curation centers as listed in 36CFR79. The cost to curate collections shall be the responsibility of the applicant. Copies of field notes, reports, maps and catalog data shall be included with the curated collection.	
CR-2 Potential indirect impacts to archaeological resources (10 prehistoric sites) within the designated open space area, including potential impacts associated with the future use of the Preserve for public hiking and riding trails.	**M-CR-2a** All sites, regardless of significance status, that are located outside of the development area shall be placed in open space easements. The sites may be included in general Project-wide open space preserves, in which case, site-specific easements would not be necessary. For sites that would be preserved within the development envelope, easements shall be dedicated for individual sites unless incorporated within larger biological or other open space designation. The open space designation shall include language that prohibits any type of surface modification to the sites or intrusions into the site by grading, trenching, or other development-related improvements. For any sites located within open space, a park area, or the Preserve, specific requirements for individual sites are necessary to ensure that the sites are not impacted by maintenance or landscaping. Open space areas shall be transferred to County Department of Parks and Recreation (County Parks) and maintained as part of the Preserve. County Parks shall assume responsibility for the protection of the sites in the open space areas as part of the management of the Preserve. Aside from temporary fencing during grading and construction to ensure preservation during this period, no individual site preservation measures are deemed necessary during development activities. Subsequently, the long-term protection of the sites will be achieved through management of the Preserve by County Parks. During grading or brushing, the monitoring archaeologist shall determine the need for temporary fences and direct their installation to provide a physical barrier between the grading machinery and adjacent significant cultural resources that are designated for preservation or eventual data recovery. Once the open space areas are transferred to the Preserve, it will become the responsibility of the Preserve owner/manager to maintain the easements for the archaeological sites. **M-CR-2b** Prior to any improvements to existing trails or development of new trails, improvement plans shall be reviewed by the Project archaeologist under the direction of the County to determine the	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	potential for impacts to cultural resources, and the need for additional field research, testing, mitigation for potential impacts during construction and use, and monitoring of construction. The requirements of mitigation measure M-CR-1 for data recovery and analysis, including Native American monitoring, shall be applied during all subsequent surveys if new cultural resources are identified.	
CR-3 Potential impacts to buried human remains	**M-CR-3** In the event that human burials are encountered, standard procedures for such discoveries shall be implemented, including notification of the County Coroner's Office, the County, the Native American Heritage Commission and local Native American representatives. Fieldwork shall cease in the area of any such discovery. The Native American representative and the County shall be consulted to determine a preferred course of action, and the burial shall be treated according to the requirements of Public Resources Code §5097.98.	Less than significant
CR-4 Potential impacts to paleontological resources within the upper sandstone/mudstone, middle gritstone, and lower fanglomerate members of the Otay Formation.	**M-CR-4** Paleontological monitoring shall be conducted during all mass grading and excavation activities in surface exposures of the Otay Formation to mitigate any adverse impacts (i.e., loss or destruction) to potential nonrenewable paleontological resources. A mitigation monitoring and reporting program consistent with County and CEQA guidelines and requirements shall be developed and implemented prior to any mass grading and/or excavation-related activities, including utility trenching, within the Otay Formation. The mitigation monitoring and reporting program shall be conducted in accordance with the following procedures: A. A Qualified Paleontologist or Paleontological Resources Monitor (under the supervision of the Qualified Paleontologist) shall be on-site during all excavation operations within geologic formations that may contain paleontological resources (i.e., the Otay Formation). The Qualified Project Paleontologist is a person with a Ph.D. or master's degree in paleontology or related field, and who has knowledge of San Diego County paleontology, and documented experience in professional paleontological procedures and techniques. A Paleontological Monitor is defined as an individual with at least 1 year of experience in field identification and collection of fossil materials. The Paleontological Monitor shall work under the direct supervision of the Qualified Paleontologist. The applicant shall authorize the Qualified Paleontologist	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	and/or Paleontological Monitor to direct, divert, or halt any grading activity, and to perform all other acts required by the provisions listed below. B. The Qualified Paleontologist and/or Paleontological Monitor shall monitor all grading and excavation activities of undisturbed formations of sedimentary rock; C. If paleontological resources are unearthed, the Qualified Paleontologist or Paleontological Monitor shall do the following: 1. Direct, divert, or halt any grading or excavation activity until such time that the sensitivity of the resource can be determined and the appropriate recovery implemented. 2. Salvage unearthed fossil remains, including simple excavation of exposed specimens or, if necessary, plaster-jacketing of large and/or fragile specimens or more elaborate quarry excavations of richly fossiliferous deposits. 3. Record stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including a detailed description of all paleontological localities within the Project site, as well as the lithology of fossil-bearing strata within the measured stratigraphic section, if feasible, and photographic documentation of the geologic setting. 4. Prepare collected fossil remains for curation to include cleaning the fossils by removing the enclosing rock material; stabilizing fragile specimens using glues and other hardeners, if necessary; and repairing broken specimens. 5. Curate, catalog, and identify all fossil remains to the lowest taxon possible; inventory specimens; assign catalog numbers; and enter the appropriate specimen and locality data into a collection database. 6. Transfer the cataloged fossil remains to an accredited institution (museum or university) in California that maintains paleontological collections for archival storage and/or display. The transfer shall include copies of relevant field notes, maps, stratigraphic sections, and photographs. D. The Qualified Paleontologist shall prepare a final Paleontological Resources Mitigation Report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils	

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	recovered, and the significance of the curated collection. E. Submit two hard copies of the final Paleontological Resources Mitigation Report to the Director of DPLU for final approval of the mitigation, and submit an electronic copy of the report according to the County DPLU's Electronic Submittal Format Guidelines.	
CR-5 Contribution to cumulative archaeological resources (prehistoric sites) impacts within the Project vicinity	**M-CR-1 and M-CR-2** See Above.	Less than significant
CR-6 Contribution to paleontological resources impacts within the Project vicinity.	**M-CR-4** See Above.	Less than significant
2.5 Geology and Soils		
GE-1 Potential for unstable slopes.	**M-GE-1a** Otay Lakes Road, Widening & Realignment (Appendix **C-8**): Excavations of cut slopes shall be observed during grading by an engineering geologist to evaluate whether the soil and geologic conditions differ significantly from those expected. Cut slopes that expose shared claystone bedding may require slope stabilization consisting of stability fills. **M-GE-1b** Area A and B, Tentative Map (Appendices **C-6** and **7**): Because of the potential presence of adverse geologic structures, the geologic structure of permanent cut slopes composed of Otay Formation, Fanglomerate materials, or metavolcanic rock should be analyzed in detail by an engineering geologist during grading operations. Grading of cut and fill slopes and intermediate terrace benching shall be designed in accordance with the requirements of the local building codes and the 2010 California Building Code (CBC). Additional recommendations for slope stabilization may be necessary if adverse geologic structure is encountered. Mitigation of unstable cut slopes can be achieved by the use of drained stability fills. In addition, cut slopes exposing cohesionless surficial deposits or rock slopes with unfavorable geologic structure may require stability fills. In general, the Typical Stability Fill Detail presented in Figure 10 (Appendices **C-6** and **7**) should be used for design and construction of stability fills, where required. The backcut for stability fills should commence at least 10 feet from the top of the proposed finished-graded slope and should extend at least 3 feet into formational materials. For slopes that exceed 30 feet in height, the inclination of the backcut may be flattened as determined by the engineering geologist	Less than Significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	during grading operations.	
GE-2 Potential for rock fall hazards on cut and natural slopes.	**M-GE-2a** Otay Lakes Road, Widening & Realignment (Appendix **C-8**): Mitigation measures will be required along the eastern portion of the roadway due to the steepness of the natural slopes and boulder outcrops above the proposed cut slope. The areas of proposed rock fall mitigation are shown on **Figures 2.5-2A and B**. The mitigation shall consist of the construction of a rock fall debris fence or other acceptable catchment device at the toe of the proposed cut slope. The hard rock slopes should be evaluated by an engineering geologist during site development and final locations of the debris fence or alternative method shall be provided at that time. **M-GE-2b** Area A and Area B, Tentative Map (**Appendices C-6** and **7**): Mitigation shall consist of the construction of rock fall debris fences or other acceptable catchment devices at the toe of proposed slopes or at the edge of daylight cut or fill areas. The area of proposed rock fall mitigation for Area A is shown on **Figure 2.5-2A** and Area B on **Figure 2.5-2B**. Area A consists of the northern-most section of proposed residential development, east of Upper Otay Lake and the northern section of Lower Otay Lake. Area B encompasses the eastern-most section of proposed residential development and resort. The hard rock slopes shall be evaluated by an engineering geologist during site development and final locations of the debris fences or alternative method shall be provided at that time. **M-GE-2c** Area A and Area B, Tentative Map (Appendices **C-6** and **7**): Hard rock slopes shall be analyzed in detail by an engineering geologist during the grading operations. In areas where loose or potentially hazardous rock is encountered during grading, the loose material shall be scaled off the slope face to mitigate the hazard. If adverse geologic structures are encountered during grading, rock slope stabilization measures such as rock bolting, or rockfall protection systems may be necessary. **M-GE-2d** When all measures to mitigate rock fall hazards have been provided, a professional opinion from an engineering geologist shall be provided that indicates that the potential risk for rockfall hazards to impact the proposed development would be less than significant with the mitigation measures that were implemented. It should also be stated that with mitigation measures incorporated, the proposed development is considered safe for human	Less than significant

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	occupancy.	
2.6 Hazards and Hazardous Materials		
HZ-1 Proposed storm water retention basins may cause an increased human exposure to health vectors such as mosquitoes.	**M-HZ-1a** Project grading and improvements plans shall be reviewed by the Director of Public Works to determine that water quality basins are designed to drain within 72 hours and include a mechanism to open a flap gate or similar manual device if the drain time becomes too long. Manual drainage shall be conducted if water is held beyond 72 hours. Routine and semi-annual inspections shall include modification of orifice drain holes, if needed, to provide for optimum performance and suitable drain time. **M-HZ-1b** The Director of Public Works shall determine the design of the water quality basins include rip-rap fields at inlet scour-protection points to be self-draining concurrent with the processing of grading and improvement plans. **M-HZ-1c** Routine and semi-annual water quality basin inspections to the satisfaction of the Director of Public Works shall include removal of accumulated trash and debris that may capture and hold rainwater or runoff, or that accumulates around the outlet riser pipe or discharge orifice; repair of erosion or low-lying areas where ponding of water develops; identification and elimination of possible vector harborage or burrowing rodent activity; inspection for sufficient vegetation coverage for basin side slopes and floor; reduction of vegetation height to minimize insect harborage, with the height of ground cover grasses reduced to a maximum height of 6 inches; investigation and elimination or minimization of upstream dry season flow sources if dry season flows are persistent and lead to constant ponding; and notification of San Diego County Vector Control if sources are from off-site properties.	Less than significant
2.7 Noise		
N-1 Traffic noise resulting in exposure of sensitive receptors within the Project site to exterior noise levels in excess of 60 dB CNEL, and interior noise levels in excess of 45 dBA CNEL.	**M-N-1a** The Project proponent shall prepare a noise protection easement for those lots identified in **Table 2.7-7** of the project EIR. The noise protection easement language shall contain a restriction stating that the structure and the outdoor activity area will be placed such that a noise barrier will complement the residence's architecture, reduce noise levels at outdoor activity areas to within acceptable standards, and will not incorporate a solid (opaque) wall in excess of 10 feet in height. **M-N-1b** Concurrent with approval of the Final Map, the Project proponent shall dedicate to the County a	Less than significant

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	noise protection easement on each of the lots identified in **Table 2.7-6** for the receptor locations shown in **Figures 2.7-3, 2.7-4, and 2.7-5** of the Project EIR. These easements are for the protection of noise-sensitive locations from excessive traffic noise. The noise protection easements shall be shown on the Final Map(s). **M-N-1c** For any lot shown to be exposed to noise levels exceeding 60 dBA CNEL, the noise protection easement shall require that, prior to approval of the building permit or other development approval, an acoustical study be prepared based on proposed noise barrier placement and housing construction to demonstrate and ensure that interior noise levels are below 45 dBA CNEL. **M-N-1d** The Project proponent shall construct a noise barrier at the top of the slope and at the back of yards for any NSLU that is exposed to a CNEL greater than 60 dBA, as shown in **Figures 2.7-3, 2.7-4, and 2.7-5** of the Project EIR. The barrier shall be the height specified in **Table 2.7-7**. Barriers may be constructed of masonry, wood, and/or transparent materials, such as glass or Lucite. Earthen berms or a combination of berms and walls could also be used to provide noise attenuation. **M-N-1e** Noise barriers, as described in M-N-1d, would not reduce noise levels to second-story elevations due to their lesser barrier heights relative to two-story structures. Where two-story homes are to be located where traffic noise levels would meet or exceed 60 dBA CNEL without abatement (see **Table 2.7-6** of the Project EIR), the noise protection easement required by mitigation measure M-N-1 shall specify that the applicant for a building permit or other development approval must have to demonstrate that interior noise levels due to exterior noise sources would not exceed 45 dBA CNEL prior to approval of the building permit or other development approval. In these cases, it is anticipated that the typical method of compliance would be to provide the homes with air conditioning or equivalent forced air circulation to allow occupancy with closed windows, which, for most residential construction, would provide sufficient exterior-to-interior noise reduction.	
N-2 Noise generated by on-site HVAC and emergency generators.	**M-N-2** Prior to Site Plan approval of proposed land uses within the mixed-use, resort, public safety, or single family residential sites, the applicant or designee(s) shall prepare acoustical studies of	Less than significant

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	proposed mechanical equipment, which shall identify all noise-generating equipment (including emergency generators and generators associated with the proposed sewer pump stations), predict property line noise levels from all identified equipment, and recommend mitigation to be implemented (e.g., enclosures, barriers, site orientation) as necessary to comply with the County Noise Ordinance, Section 36.404.	
N-3 Noise generated by other on-site land use activities (e.g., other stationary sources) associated with the proposed Project could exceed the Sound Level Limits of Section 36.404 of the County Noise Ordinance.	**M-N-3** Prior to the issuance of a building permit for commercial land uses containing loading docks, delivery areas, and parking lots, the applicant, or its designee, will prepare an acoustical study(s) of proposed commercial land use site plans, which will identify all noise-generating areas and associated equipment, predict noise levels at property lines from all identified areas, and recommend mitigation to be implemented (e.g., enclosures, barriers, site orientation, reduction of parking stalls), as necessary, to comply with the County Noise Ordinance Section 36.404.	Less than significant
N-4 Noise generated by construction activities associated with the proposed Project, including rock crushing and drilling could exceed the construction hours of Section 36.408 and the construction Sound Level Limits of Section 36.409 of the County Noise Ordinance.	**M-N-4** To reduce impacts associated with air blast over-pressure and rock drilling and crushing generated by Project-related grading activities, Project applicant(s) of all phases of Project development shall conform to the following requirements, which shall be prominently noted on grading plans: • All blasting shall be performed by a blast contractor and blasting personnel licensed to operate in San Diego County. o Each blast shall be monitored and recorded with an air blast over-pressure monitor and groundborne vibration accelerometer approved by the County that is located outside the closest residence to the blast. o A blasting plan, including estimates of the air blast over-pressure level and groundborne vibration at the residence closest to the blast, shall be submitted to the County for review prior to the first blast. Blasting shall not commence until the County has approved the blast plan. • Blasting shall not exceed 0.1 in/sec peak particle velocity (PPV) at the nearest occupied residence in accordance with the County's Noise Guidelines. • Blasting shall not be conducted within 1,000	Less than significant

SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT		
Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	feet of on- or off-site sensitive receptors unless the blasting study concludes that a distance less than 1,000 feet is within an acceptable noise level. o All rock drilling and crushing activities shall be located a minimum distance of 800 feet from the nearest property line where an occupied structure is located and shall comply with County noise standards pursuant to County Code Noise Ordinance Section 36.404. The 800-foot setback distance may be reduced if a noise study is conducted for rock processing activities and noise levels of such activities would be within acceptable County limits at the reduced distances as determined by the noise study. o All rock crushing activities shall be located a minimum distance of 350 feet from the nearest property line where an occupied structure is located and shall comply with County noise standards pursuant to County Code Noise Ordinance Section 36.404. The 350-foot setback distance may be reduced if a noise study is conducted for rock processing activities and noise levels of such activities would be within acceptable County limits at the reduced distances as determined by the noise study.	
N-5 Impulsive noise from explosives blasting or on-site rock-crushing and drilling activities resulting in exposure of a noise-sensitive land use to noise impacts in excess of County standards.	**M-N-5** To reduce impulse noise impacts associated with air blast over-pressure and rock drilling and crushing noise generated by Project-related grading activities, Project applicant(s) of all phases of Project development shall conform to the following requirements, which shall be prominently noted on grading plans: • All blasting shall be performed by a blast contractor and blasting personnel licensed to operate in San Diego County. • Each blast shall be monitored and recorded with an air blast over-pressure monitor and groundborne vibration accelerometer approved by the County that is located outside the closest residence to the blast. • A blasting plan, including estimates of the air blast over-pressure level and groundborne vibration at the residence closest to the blast, shall be submitted to the County for review	Less than significant

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Impact No. and Description of Impact	**Mitigation**	**Conclusion and Mitigation Effectiveness**
	prior to the first blast. Blasting shall not commence until the County has approved the blast plan. • Blasting shall not exceed 0.1 in/sec peak particle velocity (PPV) at the nearest occupied residence in accordance with the County's Noise Guidelines. • Blasting shall not be conducted within 1,000 feet of on- or off-site sensitive receptors unless the blasting study concludes that a distance less than 1,000 feet is within an acceptable noise level. • All rock drilling activities shall be located a minimum distance of 800 feet from the nearest property line where an occupied structure is located and shall comply with County noise standards pursuant to County Code Noise Ordinance Section 36.404. The 800-foot setback distance may be reduced if a noise study is conducted for rock processing activities and noise levels of such activities would be within acceptable County limits at the reduced distances as determined by the noise study. • All rock crushing activities shall be located a minimum distance of 800 feet from the nearest property line where an occupied structure is located and shall comply with County noise standards pursuant to County Code Noise Ordinance Section 36.404. The 800-foot setback distance may be reduced if a noise study is conducted for rock processing activities and noise levels of such activities would be within acceptable County limits at the reduced distances as determined by the noise study.	
N-6 Groundborne vibration on-site from construction equipment activities (site grading and truck transport), rock blasting, or rock-breaking activities could resulting in exposure of noise-sensitive land uses to significant vibrations or groundborne noise impacts in excess of the County guidelines.	**M-N-6** To reduce impacts associated with groundborne vibration generated by Project-related construction activities, the applicant(s) of all Project phases shall conform to the following requirements, which shall be prominently noted on grading plans: • Heavy construction equipment shall not be operated within 200 feet of any residential structure. • Rock blasting shall not be performed within 1, 000 feet of a residential structure. • A vibration analysis assessing the proposed	Less than significant

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	blasting and materials handling associated with proposed project shall be submitted to the County for review prior to the first blast. Blasting shall not commence until the County has approved the plan.	
2.9 Transportation and Traffic		
TR-2 Otay Lakes Rd, between the City of Chula Vista/County boundary and Project Driveway #1 (LOS E, County) – Proposed project would add more than 200 ADT to this failing 2-lane roadway segment.	**M-TR-2** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the County of San Diego to secure and construct, or cause to be constructed, the widening of Otay Lakes Road between the City/County Boundary and Project Driveway #1 from two lanes to four lanes (4.2A Boulevard with Raised Median) such that the improvements are operational prior to issuance of the 896th building permit.	Less than significant
TR-3 Otay Lakes Rd, between Project Driveway #1 and Driveway #2 (LOS E, County) – Proposed project would add more than 200 ADT to this failing 2-lane roadway segment.	**M-TR-3** Prior to recordation of the first final map, the Project applicant shall enter into an agreement with the County of San Diego to secure and construct, or cause to be constructed, the widening of Otay Lakes Road between Project Driveway #1 and Driveway #2 from two lanes to four lanes (4.2A Boulevard with Raised Median) such that the improvements are operational prior to issuance of the 896th building permit.	Less than significant