

## CHAPTER 4.0 PROJECT ALTERNATIVES

### 4.1 Rationale for Alternative Selection

This chapter replaces, in full, **Chapter 4.0** from the previously circulated Draft Environmental Impact Report (EIR) (March 2015) for the proposed Project.

In accordance with Section 15126.6(a) of the California Environmental Quality Act (CEQA) Guidelines, an EIR must contain “a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project,” as well as an evaluation of the “comparative merits of the alternatives.” In addition, Section 15126.6(b) of the CEQA Guidelines states that “the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.”

The proposed Project would develop the 1,869-acre Project site with 1,938 dwelling units, a resort, parks, an elementary school site, and a public safety site, all within a development footprint, including roads and graded slopes, of approximately 779.6 acres. Approximately 1,089.0 acres would be designated as Preserve land under the proposed Project. The proposed Project would require a Multiple Species Conservation Program (MSCP) County Subarea Plan Preserve boundary adjustment to refine and align Preserve boundaries as between the MSCP and the Otay Ranch Resource Management Plan (RMP)/Preserve in relation to the proposed Project. The Draft EIR (March 2015) concludes that the proposed Project would result in significant impacts to aesthetics, air quality, biological resources, cultural resources including paleontology, geology and soils, hazards and hazardous materials, noise, solid waste, transportation and traffic, and global climate change. Mitigation measures would reduce impacts to less than significant levels for all issue areas except direct and cumulative impacts to aesthetics and air quality, which remain significant and unavoidable even after adopting all recommended feasible mitigation measures. In addition, the proposed Project would contribute to significant unavoidable cumulative impacts on solid waste disposal. No significant impacts to agricultural resources, hydrology and water quality, land use and planning, mineral resources, population and housing, public services (except solid waste disposal), utilities and service systems, or energy use and conservation were identified in the Draft EIR (March 2015).

The Draft EIR (March 2015) previously circulated for public review analyzed a total of seven alternatives (A through G), which includes the No Project Alternative (Alternative A). These alternatives are described in Section 4.1.1 below. An additional alternative, Alternative H, was developed after the release of the Draft EIR (March 2015). [Alternative H was developed in response to input received from the USFWS and CDFW in response to the Draft EIR \(letter dated May 21, 2015\) and the inability to concur with the South County Subarea MSCP proposed Boundary Adjustment \(letter dated March 30, 2017\). The project applicant now seeks County approval of Alternative H.](#) These eight alternatives were selected based on avoiding or reducing impacts of the proposed Project.

Alternative H maintains the same number of dwelling units as the proposed Project and is consistent with the existing MSCP County Subarea Plan Preserve boundary. Specific Project elements and impact analysis for aesthetics, air quality, biological resources, cultural resources including paleontology, geology and soils, hazards and hazardous materials, noise, solid waste, transportation and traffic, and global climate change for Alternative H are addressed in this Chapter 4.0 and in supplemental technical analyses provided in **Appendices D-1, D-3, D-4, D-5, D-6, D-11, D-12, D-20, and D-21**. Appendices were numbered so that they align with their corresponding appendix to the Draft EIR (March 2015). In addition, supplemental technical analyses to support the review of Alternative H have been prepared for drainage and storm water management, mineral resources, sewer and water services, water supply, and service availability, and are included as **Appendices D-13 through D-19** to the EIR.

#### 4.1.1 Alternatives Selected for Analysis

The Project alternatives that are considered and discussed in this section are summarized in Table 4.0-1 ~~below~~. Alternatives B, D, F, and H achieve the same number of dwelling units (1,938) as the proposed Project and increase the total Preserve ~~and Conserved Open Space~~ undeveloped land acreage. Alternatives C, E, and G reduce the number of dwelling units and increase Preserve ~~and Conserved Open Space~~ undeveloped land acreage. The Preserve Conveyance Obligation of each alternative is also included in **Table 4.0-1**. As with the proposed Project, Alternatives B through H would each still include the elementary school and public safety sites, while Alternative G would provide only the public safety site. Alternative A, the “no project” alternative mandated by CEQA, is also included in this section.

The seven site development alternatives are described below:

- Alternative B would develop the Project site as described in the existing Otay Subregional Plan (SRP). This alternative would result in the development of 1,938 dwelling units, which is the same as the proposed Project; however, 1,408 of these dwelling units would be multi-family residential units compared to the 57 proposed by the proposed Project, which reduces the number of single-family homes to 530. This alternative would result in 1,107 acres of Preserve, which is approximately 18 acres more than the proposed Project. Additionally, Alternative B would provide for 134.4 acres of resort use and an approximately 141.5-acre golf course. While not included in the SRP, Alternative B would also include a location for a public safety site.
- Alternative C would develop the Project site within a reduced development footprint of 484 acres, would reduce the total number of dwelling units to 1,241, but increase the number of multi-family homes to 859 as compared to the proposed 57 multi-family homes, and reduce the number of single-family homes to 382. Development would be focused within the western portion of the site, providing 1,107 acres of Preserve Open Space and 278 acres of ~~Conserved~~ Open Space (i.e., open space that would be conveyed to the Otay Ranch Preserve but not as a part of the satisfaction of the Preserve conveyance obligation). Other uses associated with Alternative C include 113.7 acres of resort uses and an 82.9-acre golf course.

- Alternative D would develop the Project site within the same reduced development footprint of 484 acres as Alternative C (on the western portion of the Project site), but would provide the same number of dwelling units (1,938) as the proposed Project by increasing the number of multi-family residential units to 1,544 and reducing the number of single-family homes to 394. As with Alternative C, 1,107 acres of Preserve Open Space and 278 acres of ~~Conserved~~ Open Space would be provided, and 61.3 acres of resort uses would be provided, though no golf course would be included.
- Alternative E would focus development on approximately 550.1 acres in the western portion of the site, but would extend farther to the northwest in comparison to Alternatives C and D. It would reduce the number of dwelling units to 1,391 in comparison to the proposed Project and would consist of 1,319 single-family units and 72 multi-family units. Approximately 1,090 acres of Preserve Open Space and 229 acres of ~~Conserved~~ Open Space and 19.9 acres of resort uses would be provided.
- Alternative F would develop the Project site within the same reduced development footprint of 550.1 acres as Alternative E (on the western portion of the Project site, extending farther to the northwest in comparison to Alternatives C and D), provide the same number of dwelling units (1,938) as the proposed Project, and include 1,268 single-family residential units and 670 multi-family residential units. As with Alternative E, approximately 1,090 acres of Preserve Open Space and 229 acres of ~~Conserved~~ Open Space and 19.9 acres of resort uses would be provided.
- Alternative G would reduce the development footprint to approximately 224 acres located in the eastern portion of the Project site. It would consist of 465 single-family residential units on 149.2 acres, a 2.0-acre public safety site, and a 17.4-acre resort site in the same location as the proposed Project. Approximately 1,090 acres of Preserve Open Space and 555 acres of ~~Conserved~~ Open Space would be provided. This alternative would not include an elementary school site.
- Alternative H would develop 692.5 acres of the 1,869 acre Project site. The Project development boundary would be in accordance with the existing MSCP County Subarea Plan Preserve boundary. A General Plan Amendment Report and a Specific Plan Amendment have been prepared for Alternative H (**Appendices E-1 and E-2**). Alternative H would result in the development of 1,938 dwelling units, composed of 1,881 single-family units and 57 multi-family units. This alternative would result in 1,107 of Otay Ranch RMP Preserve and designate 69.8 acres as Conserved Open Space. A biological open space easement would be placed over the Otay Ranch RMP Preserve and Conserved Open Space on site, a total of 1,176.8 acres. Areas containing San Diego thornmint and a vernal pool area (K-8) located within the MSCP development boundary would be included in the Conserved Open Space under Alternative H. Additionally, Alternative H would include an elementary school, a public safety site, and a resort site, similar to the proposed Project. This alternative would not include the realignment of Otay Lakes Road from its existing location on the western and southern edges of the Project site to the approximate middle of the site. However, the road would undergo improvements, including a widening from two to a four-lane Boulevard with a Raised Median between the western edge of the Project boundary and the second Project driveway. Otay Lakes Road would be improved to include

intermittent turn lanes and an additional drainage within its existing right-of-way from the second Project driveway to the eastern Project boundary.

These alternatives are compared to the impacts of the proposed Project and are assessed relative to their ability to meet the basic objectives of the proposed Project as listed in Section 1.1 of the Draft EIR (2015).

The impacts of each alternative, including the No Project Alternative are analyzed in Sections 4.2 through 4.8. The discussion of alternatives provides (1) a description of the alternative considered; (2) the identification of the impacts of the alternative; and (3) a comparative analysis of the impacts of each alternative to the proposed Project. The focus of this comparative analysis is to determine if the alternative is capable of avoiding or lessening any significant effects of the proposed Project.

#### **4.1.2 Alternatives Considered but Rejected from Further Study**

##### ***4.1.2.1 Alternative Project Location***

In accordance with CEQA Guidelines Section 15126.6(f)(2), an alternative location for a project should be considered if development of another site is feasible and if such development would avoid or substantially lessen the significant impacts of the proposed Project. Factors that may be considered when identifying an alternative site location include the size of the site, its location, the General Plan (or SRP) land use designation, and availability of infrastructure. CEQA Guidelines Section 15126.6(f)(2)(A) states that a key question in looking at an off-site alternative is “whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location.”

As noted in Section 1.0 of the Draft EIR (2015), the Otay SRP was the basis for the proposed land use types, density, and community character within this particular area of the County. Otay Ranch and the proposed Project also were designed with the vision of the Otay SRP in mind. If another parcel in the general vicinity of the proposed Project site were to become available, development would likely result in impacts similar to those identified for the proposed Project, such as potential effects to aesthetics and air quality. Selection of another location may have avoided impacts to biological resources, cultural resources, and geology and soils, which are specific to this location; however, these impacts were found to be less than significant with mitigation. Due to the original vision of the proposed Project (conforming to the Otay SRP) and the likelihood that another site would not substantially reduce significant environmental effects, this alternative was rejected from further consideration.

##### ***4.1.2.2 First Project Submittal Alternative***

The First Project Submittal Alternative would develop 2,120 dwelling units, consisting primarily of higher density single-family detached and attached housing types on 783.9 acres with 1,085.1 acres of Preserve lands. In comparison to the proposed Project, this alternative proposal would have included 182 more dwelling units, an increased development footprint of 4.9 acres, and a decrease in Preserve lands of 4.9 acres. In addition, resort uses would be 55.8 acres, or an increase of 38.4 acres over the proposed Project, which would include lakeside facilities.

This alternative would be inconsistent with the Otay SRP because it included 182 more dwelling units than anticipated in Village 13 by the Otay SRP. This alternative would not meet the objectives of the County MSCP Subarea Plan South County Segment because it included development on a ridgeline with important Quino checkerspot butterfly habitat. This also would not meet the goals of the Otay Ranch RMP because it increased the amount of development in the Otay Ranch Preserve.

Additionally, this alternative would have slightly increased the number of vehicle trips compared to the proposed Project, which would result in increased air quality, noise and traffic impacts. The increased footprint would result in greater impacts to biological and cultural resources compared to the proposed Project.

Because this alternative would not meet the goals, objectives, and policies of the Otay SRP, the Otay Ranch RMP, or the County MSCP Subarea Plan South County Segment, it was rejected from further study.

#### ***4.1.2.3 Spring Valley Sewer Interceptor Alternative***

The major sewer facilities within the Spring Valley area proximate to the Project site are the Central Avenue Trunk Sewer and the Spring Valley Interceptor. The Central Avenue Trunk Sewer is a 15-inch gravity line, which conveys flows westerly from Proctor Valley Road to a connection with the Spring Valley Interceptor at the intersection of Central Avenue and Bonita Road. Connection to the Spring Valley Interceptor sewer facility would not require any changes to on-site sewer infrastructure as proposed. However, significant off-site sewer infrastructure installation would be required, as described below.

From Lift Station 1 (on-site), sewage flows would be conveyed along Otay Lakes Road to an off-site lift station in Salt Creek. At this location, the off-site lift station would pump flow through dual 12-inch force mains to a 15-inch gravity sewer that would convey flow to the Spring Valley Interceptor. The 12-inch force main and a portion of the 15-inch gravity main would be constructed in Otay Lakes Road, Hunte Parkway, and Proctor Valley Road (east of Mount Miguel Road) within the existing right-of-way. Once the 15-inch gravity sewer enters Proctor Valley Road west of Mount Miguel Road it would need to be installed outside of the Right-of-Way within an existing public trail/landscape buffer area easement. The sewer would then re-enter the street right-of-way at Rolling Ridge Road until the San Diego County Water Authority easement is reached. At this location, the sewer main would cross the water main and be placed parallel to a 72-inch and 66-inch water aqueduct within the San Diego County Water Authority easement for approximately 2,000 linear feet. Past this point, the 15-inch sewer main would be installed in a siphon both within the existing road and adjacent to the road. The pipe would then turn onto San Miguel Road and would require installation of a portion of the sewer in a tunnel before tying into the existing gravity sewer. While there may be some available capacity in the Central Avenue Trunk Sewer System, a new sewer line connecting to the Spring Valley Interceptor would be required to serve the entire Project site. Refer to **Appendix C-16** of the Draft EIR (2015) for additional information.

The Otay Ranch Resort Village Project is within the County of San Diego; however, it is not currently within the boundaries of the County Sanitation District. The proposed Project would have to be annexed into the San Diego County Sanitation District before it would be able to receive sewer service from County facilities as an alternative. However, implementation of the Spring Valley Interceptor alignment alternative requires extensive off-site infrastructure installation, operation and maintenance that may result in greater impacts to traffic, aesthetics, biological and cultural resources, public services, air quality, recreation, noise and disturbance to numerous residential neighborhoods. As such, it is not an alternative that would substantially lessen the significant effects of the proposed Project in regards to the installation of sewer infrastructure. Therefore, the Spring Valley Interceptor alignment alternative was rejected from further study.

#### ***4.1.2.4 Two-Lane Otay Lakes Road Alternative***

Otay Lakes Road is currently an undivided two-lane road from Lake Crest Drive within the City of Chula Vista to SR-94 within the unincorporated area including the entire frontage along the Village 13 Project site. Otay Lakes Road is approximately 26 feet wide with unimproved shoulders, turn-outs, and a dirt parking area between the Lower and Upper Otay Reservoirs. Current traffic volumes on Otay Lakes Road east of Wueste Road are approximately 2,927 ADT (Average Daily Trips). The Year 2030 without Project ADT is projected to be approximately 6,400 ADT east of Wueste Road. The 6,400 daily trips could be accommodated on a two-lane road at an acceptable level of service within both the City of Chula Vista and County of San Diego.

Implementation of the proposed Village 13 Project would increase the traffic volumes on Otay Lakes Road, east of Wueste Road, from approximately 6,400 ADT to 25,860 ADT. Per the City of Chula Vista and County of San Diego standards, a two-lane road can accommodate 7,500 ADT and 13,500 ADT, respectively, at an acceptable level of service. The proposed Project would therefore be required to widen Otay Lakes Road from two lanes to four lanes from Lake Crest Drive to Strada Piazza (Project Driveway #2) to mitigate for the proposed Project's traffic impacts.

In response to impacts associated with the widening of Otay Lakes Road from two lanes to four lanes, an alternative to keep Otay Lakes Road as a two-lane improved road was considered. The main impacts to be reduced by the two-lane alternative are impacts to City of San Diego MHPA Cornerstone Lands (Impact BI-2).

While minimizing improvements to Otay Lakes Road would generally reduce impacts to the City of San Diego MHPA Cornerstone Lands and within the City of Chula Vista, additional impacts would be expected to occur that could not be mitigated by implementation of the two-lane alternative. Most notably, Otay Lakes Road between Lake Crest Drive and Strada Piazza would be significantly impacted (LOS F) if Otay Lakes Road remained at two lanes. As noted above, the volumes projected under the Existing Plus Project scenario of 25,860 ADT is almost twice the acceptable traffic volumes under the County of San Diego standard of 13,500 ADT for a two-lane road, and over three times more than the City of Chula Vista standard of 7,500 ADT for a two-lane road.

In addition to traffic impacts, keeping Otay Lakes Road as a two-lane road would result in inconsistencies with both the County of San Diego General Plan Mobility Element as well as the

City of Chula Vista General Plan Circulation Plan East. The County General Plan Mobility Element identified Otay Lakes Road as a four-lane Major Road. While the Project proposes a General Plan Amendment to reduce the roadway classification from a Major Road to a Boulevard, the amendment would (1) maintain Otay Lakes Road as a four-lane road and (2) achieve and acceptable Level of Service. Further, the Chula Vista General Plan calls for Otay Lakes Road to be widened as a six-lane Prime Arterial. While the Project would only widen the road to four lanes, it would not preclude future widening to six lanes.

Lastly, maintaining Otay Lakes Road as a two-lane road could pose a potential risk in the event of an evacuation associated with a wild fire. As discussed in Section 2.6 of the Draft EIR (2015), the greatest wild fire threat is associated with Santa Ana conditions and an east-west burning fire. This fire pattern would trigger evacuations to the west, along Otay Lakes Road. A two-lane road that is at least 50% undersized may result in delays for evacuees or could hinder further rescue efforts of response units coming from the west.

Thus, while keeping Otay Lakes Road as a two-lane road would reduce impacts to City of San Diego MHPA Cornerstone Lands, the impacts associated with the General Plan inconsistencies and to LOS would be much greater and therefore, this alternative was considered but rejected.

## **4.2 Analysis of the No Project Alternative (Alternative A)**

### **4.2.1 No Project Alternative Description and Setting**

The No Project Alternative would leave the Project site in its existing state. As such, the property would continue to be vacant. No development associated with the proposed Project would occur on the property, and no project goals would be achieved. **Table 4.0-2** provides a summary comparison of the impacts of the alternatives to the proposed Project.

### **4.2.2 Comparison of the Effects of the No Project Alternative (Alternative A) to the Proposed Project**

#### **Aesthetics**

As discussed in Section 2.1 of the Draft EIR (2015), Aesthetics, the proposed Project would result in significant and unavoidable impacts to scenic vistas, scenic highways, and the visual character of the area. No feasible mitigation measures exist to avoid this Project impact.

Under Alternative A, no houses, resort uses, commercial uses, school, parks, or public safety site would be constructed. None of the Project site would be graded and the existing landforms on the site would remain. Significant aesthetic impacts resulting from the proposed Project would be avoided as no alterations to scenic vistas, scenic highways, or the visual character of the area would occur. Alternative A would result in ***no impact*** to aesthetics which would be less of an impact when compared to the proposed Project.

## Air Quality

As discussed in Section 2.2 of the Draft EIR (2015), Air Quality, the proposed Project would result in significant and unavoidable impacts to air quality from construction-related air pollutant emissions. The proposed mitigation measures would reduce these impacts, but not to a less than significant level.

No temporary construction emissions or long-term air emissions from Project-related traffic or operations would occur under Alternative A. **No impact** on air quality would occur under Alternative A, which would be less of an impact when compared to the proposed Project.

## Biological Resources

As discussed in Section 2.3 of the Draft EIR (2015), Biological Resources, development of the proposed Project would result in significant impacts to biological resources; however, mitigation measures are proposed that would reduce these impacts to a less than significant level. Since no development would occur under this alternative, the Project site would remain in its current undeveloped state and impacts to sensitive biological resources would not occur. When compared to the proposed Project, Alternative A would avoid impacts to biological resources. The No Project Alternative, however, would not provide for the improvement of wildlife crossings under Otay Lakes Road, the improvement to the overall habitat within the Otay Ranch RMP Preserve for covered species as well as the Quino checkerspot butterfly, or long-term management including funding as included in the proposed Project.

Relative to regional conservation planning, Alternative A would not satisfy the objectives set forth in the Otay Ranch RMP or the County MSCP Subarea Plan of establishing a comprehensive, large-scale managed Preserve system. The proposed Project would provide for the conveyance of approximately 891 acres to the Otay Ranch Preserve. Additionally, without the development of Village 13 pursuant to the Otay SRP, it is foreseeable that the 1,089.0 acres of land designated as Preserve by the proposed Project would not be available for conveyance to the Otay Ranch Preserve by other Otay Ranch property owners. Because Alternative A would result in no development occurring on the Project site, no Preserve land would be conveyed to the regional Preserve under this alternative. This would not meet the proposed Project's objective of implementing the goals, objectives, and policies of the Otay Ranch RMP and County MSCP Subarea Plan South County Segment.

Although Alternative A would hinder the ability of the Otay Ranch RMP and County MSCP Subarea Plan to establish a comprehensive, large-scale managed Preserve system, the No Project Alternative would result in **no impact** to biological resources, which would be less of an impact when compared to the proposed Project.

## Cultural Resources

As discussed in Section 2.4 of the Draft EIR (2015), Cultural Resources, development of the proposed Project would result in significant impacts to prehistoric and historic cultural resources;



however, mitigation measures are proposed that would reduce project-level and cumulative impacts to less than significant levels.

Under Alternative A, no development would occur. Cultural resources identified on the Project site would remain and would not be affected. Additionally, there would be no construction and grading activities, so the potential for impacts to unknown (buried) cultural resources would be avoided. **No impacts** to cultural resources would occur under Alternative A, which would be less of an impact when compared to the proposed Project.

### **Geology and Soils**

As discussed in Section 2.5 of the Draft EIR (2015), Geology and Soils, development of the proposed Project would result in significant impacts to geology and soils; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Alternative A would avoid impacts associated with geology and soils, because no development on the Project site would occur. **No impacts** would occur under Alternative A, which would be less of an impact when compared to the proposed Project.

### **Hazards and Hazardous Materials**

As discussed in Section 2.6 of the Draft EIR (2015), Hazards and Hazardous Materials, development of the proposed Project would result in significant impacts related to hazards and hazardous materials; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Alternative A would result in no development on the Project site. As discussed in Section 2.6 of the Draft EIR (2015), the proposed Project would result in the increased potential to expose people to hazards and hazardous materials. Alternative A would eliminate the potential to expose people to these hazards. As a result, **no impacts** from hazards and hazardous materials would occur under Alternative A, which would be less of an impact when compared to the proposed Project.

### **Noise**

As discussed in Section 2.7 of the Draft EIR (2015), Noise, the proposed Project would result in significant impacts to noise; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Under Alternative A, no development of the Project site would occur. No additional traffic noise would be created by the proposed Project, nor would construction-related activities take place that would lead to significant temporary noise impacts. Under Alternative A, **no impacts** related to noise would occur, which would be less of an impact when compared to the proposed Project.

## Solid Waste

As discussed in Section 2.8 of the Draft EIR (2015), Solid Waste, the proposed Project would contribute to significant cumulative impacts to solid waste disposal.

Under Alternative A, the Project site would remain undeveloped and no solid waste would be generated that would require disposal in a landfill. Under Alternative A, ***no impacts*** to solid waste would occur, which would be less of an impact when compared to the proposed Project.

## Transportation and Traffic

As discussed in Section 2.9 of the Draft EIR (2015), Transportation and Traffic, the proposed Project would result in significant traffic impacts along certain roadway segments in the traffic study area, absent mitigation. However, improvements and mitigation have been identified to reduce these traffic impacts to less than significant levels, at such time that an agreement is met between the County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable.

Under Alternative A, no development would be constructed on-site. Eliminating development on the Project site would also eliminate the Project's traffic contributions to existing and planned roadways. No impacts to intersections or roadway segments would occur. ***No impacts*** would occur to transportation and traffic, which would be less of an impact when compared to the proposed Project.

## Global Climate Change

Section 3.8 of the previously circulated Draft EIR (2015), Global Climate Change, identified greenhouse gas (GHG) emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts due to an increase in GHG emissions, as compared to the existing environmental setting. However, environmental design considerations and mitigation measures have been identified to reduce these impacts to less than significant levels.

Under Alternative A, no development would be constructed on-site. Eliminating development on the Project site would also eliminate the Project's GHG emissions and contribution to global climate change. ***No impacts*** would occur to global climate change, which would be less of an impact when compared to the proposed Project.

## 4.3 Analysis of Existing Otay SRP (Alternative B)

### 4.3.1 Alternative B Description and Setting

Under Alternative B, the 1,869-acre Project site would be developed as defined in the existing Otay SRP. As shown on **Figure 4.0-1**, development of the Project site would consist of 530 single-family homes and 1,408 multi-family homes for a total of 1,938 homes. Resort uses would

encompass most of the southwestern portion of the Project site for a total of 134.4 acres and includes 800 rooms. An additional 141.5 acres are identified for a golf course. Two parks would be included under this alternative for a total of 16.4 acres. While no public safety site was included within Village 13 in the Otay SRP, which located a fire station in Village 15, Alternative B would include a Public Safety Site. This alternative would include the realignment of Otay Lakes Road from its existing location on the southern edge of the Project site to the approximate middle of the site (refer to **Figure 4.0-1**). This alternative includes 1,107 acres of Preserve land. Alternative B would meet all of the Project Objectives except: Create a prestigious destination resort that maximizes unique South County open space, high-terrain, and views of the reservoir within a distinct, predominantly single-family home community, and allow first-time buyers and others to transition to distinct, high-quality homes within Otay Ranch; Establish an executive-level, “specialty” housing enclave within Otay Ranch that attracts business owners and employers within both the Otay Ranch and Otay Mesa planned business parks, urban centers, and university uses, thereby providing this segment of the housing community with opportunities to live and work in South County; and Create increased housing diversity within Otay Ranch by balancing higher densities associated with Otay Ranch’s multi-family development with lower density, predominantly single-family homes to ensure a balance of housing opportunities in South County, consistent with the Otay SRP. **Table 4.0-2** provides a summary comparison of the impacts of Alternative B to the proposed Project.

#### 4.3.2 Comparison of the Effects of the Existing Otay SRP Alternative (Alternative B) to the Proposed Project

##### Aesthetics

As discussed in Section 2.1 of the Draft EIR (2015), Aesthetics, the proposed Project would result in significant and unavoidable impacts to scenic vistas, scenic highways, and the visual character of the area. No feasible mitigation measures exist to avoid or minimize this effect.

Alternative B would develop the Project site with 1,938 homes, resort uses, parks, and a golf course, and result in a development footprint of 761.6 acres, a decrease of 18 acres compared to the proposed Project. Development under Alternative B would result in similar impacts to aesthetics when compared to the proposed Project because Alternative B would provide for generally the same amount of development distributed throughout the site as the proposed Project. Additionally, development under this alternative would consist primarily of multi-family homes and include up to 800 hotel rooms, resulting in development at a greater intensity in terms of height, bulk, and scale when compared to the proposed Project. Development of multi-family homes and a larger resort area requires larger pads. Due to the existing topography of the site, large pads would have a greater visual impact compared to the more terraced single-family neighborhoods proposed by the Project. Therefore, similar to the proposed Project, development under this alternative would result in *significant direct and cumulative impacts*.

## Air Quality

As discussed in Section 2.2 of the Draft EIR (2015), Air Quality, the proposed Project would result in significant and unavoidable impacts to air quality from construction-related pollutant emissions. Mitigation measures proposed would reduce these impacts, but not to a less than significant level.

Alternative B would result in the development of approximately the same number of acres as the proposed Project; therefore, construction emissions are anticipated to be the same under Alternative B as would occur from development of the proposed Project.

Alternative B would result in the development of 1,938 dwelling units and other uses (resort, golf course, parks, and Open Space). These other uses would result in similar stationary source emissions under this alternative when compared to the proposed Project. However, the increased acreage for resort and golf course uses proposed by this alternative would result in 3,728 more ADT. This increase in trips would result in an increase in vehicular emissions (primarily carbon monoxide). Therefore, operational emissions associated with this alternative would be greater than the proposed Project.

The increase of mobile emissions associated with Alternative B would result in greater impacts to air quality when compared to the proposed Project; therefore, direct and cumulative impacts to air quality would ***remain significant and unavoidable***.

## Biological Resources

As discussed in Section 2.3 of the Draft EIR (2015), Biological Resources, development of the proposed Project would result in significant impacts to biological resources; however, proposed mitigation measures would reduce these impacts to a less than significant level.

Alternative B would result in the development of approximately the same number of acres as the proposed Project. However, this alternative would not provide for the same conservation/preservation of high-quality habitat for the Quino checkerspot butterfly or high-quality vernal pools, nor would it provide for wildlife corridors as would the proposed Project. This alternative impacts the K8 vernal pool group, which includes San Diego Fairy Shrimp. Alternative B also would impact 25 Quino checkerspot butterfly sighting areas, which is 13 more than the proposed Project. Additionally, Alternative B includes Otay Lakes Road as a six-lane prime arterial running through the Project site, fragmenting the Otay Ranch RMP Preserve, including the rocky canyon in the eastern portion, which is proposed to be a wildlife crossing under the proposed Project. As such, impacts to biological resources would be greater under this alternative when compared to the proposed Project.

Relative to regional conservation planning, Alternative B would satisfy the objectives set forth in the Otay Ranch RMP and the County MSCP Subarea Plan of establishing a comprehensive, large-scale managed Preserve system by designating 1,107 acres as Preserve land, an increase of 18 acres as compared to the proposed Project.

Under Alternative B, approximately 762 acres would be developed. Of this amount, approximately 67 acres are “common uses” (as defined by the Otay Ranch RMP), including 40.2 acres for

circulation element roads (Otay Lakes Road), 16.4 acres for parks, and 10.0 acres for an elementary school. As a result, the total amount of land conveyed to the Otay Ranch Preserve would be roughly 826.1 acres, which is 61.6 acres less than the proposed Project. [This is a result of the smaller development footprint requiring less Preserve conveyance obligation. Therefore, a smaller amount of land would be conveyed to the Otay Ranch RMP Preserve.](#)

Development under Alternative B would result in greater impacts to biological resources because it would conserve/preserve less habitat for the Quino checkerspot butterfly, not conserve/ preserve high-quality vernal pools, and not provide wildlife corridors as proposed by the Project. Development under Alternative B would result in greater impacts to biological resources when compared to the proposed Project and impacts would ***remain significant*** after mitigation.

### **Cultural Resources**

As discussed in Section 2.4 of the Draft EIR (2015), Cultural Resources, development of the proposed Project would result in significant impacts to cultural resources; however, while mitigation measures would be implemented that would reduce Project impacts and cumulative impacts to a less than significant level.

Development under Alternative B would result in similar impacts to cultural resources when compared to the proposed Project because Alternative B would result in the development of essentially the same number of acres as the proposed Project. Similar to the proposed Project, development under Alternative B would require adherence to the mitigation measures discussed in Section 2.4 of the Draft EIR (2015). Overall, impacts to cultural resources under Alternative B would be similar to the proposed Project, and would be ***less than significant*** with mitigation.

### **Geology and Soils**

As discussed in Section 2.5 of the Draft EIR (2015), Geology and Soils, development of the proposed Project would result in significant impacts to geology and soils; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Development under Alternative B would generally result in the same number of acres developed as the proposed Project. Similar potential for rock fall, soil erosion, seismic ground shaking, and surficial instability would result when compared to the proposed Project. Similar to the proposed Project, development under Alternative B would require adherence to the mitigation measures discussed in Section 2.5 of the Draft EIR (2015). Overall, Alternative B would result in ***less than significant*** impacts with mitigation, similar to the proposed Project.

### **Hazards and Hazardous Materials**

As discussed in Section 2.6 of the Draft EIR (2015), Hazards and Hazardous Materials, development of the proposed Project would result in significant impacts related to wildland fire hazards; however, mitigation measures would be implemented that would reduce this impact to a less than significant level.

Development under Alternative B would result in the same number of dwelling units as the proposed Project and would be subject to a similar level of wildland fire hazards as the proposed Project. Alternative B includes a public safety site and therefore meets the General Plan Safety Element Response Objective of five minutes. Similar to the proposed Project, storm water basins proposed as part of Alternative B~~H~~ may cause an increase in human exposure to health vectors. As with the proposed Project, development under Alternative B would require adherence to the mitigation measures discussed in Section 2.6 of the Draft EIR (2015), which would reduce impacts to a ***less than significant*** level. As a result, impacts from hazards and hazardous materials would be similar to the proposed Project.

## Noise

As discussed in Section 2.7 of the Draft EIR (2015), Noise, the proposed Project would result in significant traffic-generated noise impacts and operational noise impacts associated with mechanical equipment in residential and commercial developments and deliveries to the neighborhood commercial site; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Alternative B would increase vehicular trips by 3,728 ADT, and result in increased operational noise levels when compared to the proposed Project. Noise impacts associated with construction activities would be similar to the proposed Project, as this alternative calls for the development of approximately the same number of acres. Other operational noise emissions are anticipated to be the same under Alternative B and the proposed Project. With implementation of mitigation measures discussed in Section 2.7 of the Draft EIR (2015), which would reduce impacts to a ***less than significant*** level. However, overall, Alternative B would result in greater impacts related to noise when compared to the proposed Project.

## Solid Waste

As discussed in Section 2.8 of the Draft EIR (2015), Solid Waste, the proposed Project would contribute to significant cumulative impacts to solid waste disposal.

Development of 1,938 dwelling units under Alternative B would cause a similar demand for solid waste disposal, and the cumulative impact would ***remain significant and unavoidable*** under this alternative, similar to the proposed Project.

## Transportation and Traffic

As discussed in Section 2.9 of the Draft EIR (2015), Transportation and Traffic, the proposed Project would result in significant traffic impacts in the traffic study area, absent mitigation. Improvements and mitigation have been identified to reduce these impacts to less than significant levels, at such time that an agreement is met between the project applicants, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable.

Based on the trip generation rates presented in Section 2.9 of the Draft EIR (2015), the proposed Project would generate 27,191 ADT. As discussed above, Alternative B would decrease the

number of single-family homes to 530 and increase to 1,408 the number of multi-family homes, which would result in a net decrease of 2,702 residential ADT. However, the proposed 134.4 acres of resort uses, and 141.5 acres of golf course uses would increase traffic from these uses, for a net increase of approximately 3,266 ADT in comparison to the proposed Project. With mitigation identified in Section 2.9 of the Draft EIR (2015) impacts would be reduced to a ***less than significant*** level, at such time that an agreement is met between the project applicants, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable. The increase of ADT under this alternative would result in greater traffic impacts when compared to the proposed Project.

## Global Climate Change

Section 3.8 of the previously circulated Draft EIR (2015), Global Climate Change, identified GHG emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts to global climate change, absent mitigation. Environmental design considerations and mitigation have been identified to reduce these impacts to ***less than significant*** levels.

Compared to the proposed Project, Alternative B would result in the same development of 1,938 dwelling units and other uses (resort, golf course, elementary school, parks, and open space). These other uses would result in similar stationary source emissions under this alternative when compared to the proposed Project. Due to the contiguous development footprint in the center of the site, vehicle miles travelled will be slightly reduced by the elimination of the eastern most planning area. Therefore, operational emissions associated with this alternative would be slightly less than the proposed Project.

Without mitigation, Alternative B would cause an increase in GHG emissions over existing conditions and result in a potentially significant impact. However, within implementation of the ~~six (6)~~ mitigation measures recommended in Section 2.10, Alternative B would not obstruct attainment of the statewide emission reduction mandates established by AB 32, SB 32 and the relevant Executive Orders. This alternative would utilize a suite of environmental design considerations and mitigation measures that would reduce GHG emissions through on-site strategies targeted to the alternative's built environment and transportation sources, as well as a mitigation measure to secure additional, necessary emission reductions through off-site, offset projects. Alternative B also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan, as development on the site has been anticipated for more than twenty years by the County and regional planning agencies, like SANDAG. In sum, Alternative B impacts to global climate change would be ***less than significant*** with mitigation and less than the proposed Project.

### 4.3.3 Summary of Alternative B Analysis

Development of the Project site under Alternative B would result in the same number of housing units and approximately the same amount of acreage would be developed as the proposed Project. However, this alternative would include a larger amount of acreage devoted to multi-family uses,



resort uses, and a golf course, and would result in an increase in traffic volumes by approximately 3,266 ADT as compared to the proposed Project. This alternative would result in similar impacts to aesthetics, cultural resources, geology and soils, hazards and hazardous materials, and solid waste when compared to the proposed Project. Impacts to air quality, biological resources, noise, traffic, and global climate change would be greater under Alternative B when compared to the proposed Project. Additionally, Alternative B would result in less Preserve land conveyed to the Otay Ranch RMP Preserve as a result of the reduced development footprint.

#### 4.4 **Analysis of Alternative C**

##### 4.4.1 **Alternative C Description and Setting**

Under Alternative C, development would occur only within the western portion of the Project site (**Figure 4.0-2**). This alternative would result in the development of fewer homes (1,241), but would provide for a different distribution between single-family homes (382 compared to the proposed 1,881) and multi-family homes (859 homes compared to the proposed 57). Alternative C would designate 113.7 acres of land for resort uses and a golf course would be provided on 82.9 acres. Alternative C would still provide the public safety and school sites. Local parks would be reduced from nine sites and 29.6 acres to one site of 10.6 acres (which meets the PLDO requirement for park demand). Alternative C would meet all of the Project Objectives except: Create a prestigious destination resort that maximizes unique South County open space, high-terrain, and views of the reservoir within a distinct, predominantly single-family home community, and allow first-time buyers and others to transition to distinct, high-quality homes within Otay Ranch; Establish an executive-level, “specialty” housing enclave within Otay Ranch that attracts business owners and employers within both the Otay Ranch and Otay Mesa planned business parks, urban centers, and university uses, thereby providing this segment of the housing community with opportunities to live and work in South County; and Create increased housing diversity within Otay Ranch by balancing higher densities associated with Otay Ranch’s multi-family development with lower density, predominantly single-family homes to ensure a balance of housing opportunities in South County, consistent with the Otay SRP. **Table 4.0-2** provides a summary comparison of Alternative C to the proposed Project.

##### 4.4.2 **Comparison of the Effects of Alternative C to the Proposed Project**

###### **Aesthetics**

Alternative C would concentrate land uses within the western portion of the Project site and reduce the development footprint by roughly 296 acres compared to the proposed Project. Development under Alternative C would generally result in reduced impacts to aesthetics when compared to the proposed Project because of the reduced area of development. Although this alternative proposes fewer homes, development within the western portion of the Project site would be at a greater intensity in terms of height, bulk, and scale when compared to the proposed Project. While development under Alternative C would lead to *significant and unmitigable* direct and cumulative impacts to aesthetics, it would result in less impact than the proposed Project.



## Air Quality

Alternative C would result in the development of 697 fewer dwelling units, have a smaller footprint of development in comparison to the proposed Project, but would provide increased acreage of resort uses and a golf course when compared to the proposed Project. The net result of Alternative C would be a decrease of 3,308 ADT in comparison to the proposed Project. Therefore, construction and operational emissions associated with Alternative C would be less than the proposed Project, although direct and cumulative impacts would still remain *significant and unmitigable*.

## Biological Resources

Under Alternative C, the development footprint of the Project site would be reduced by roughly 296 acres and the eastern portion of the Project site would remain undeveloped. Because the Project site is predominantly composed of coastal sage scrub, Alternative C would reduce the overall acreage of CSS impacts.

Alternative C would not provide for the same conservation/preservation of high-quality habitat for the Quino checkerspot butterfly as it includes development on a central ridgeline with approximately seven Quino sightings. This alternative does not impact the K8 vernal pool group, which includes San Diego Fairy Shrimp.

Relative to regional conservation planning, Alternative C would satisfy the objectives set forth in the Otay Ranch RMP and the County MSCP Subarea Plan of establishing a comprehensive, large-scale managed Preserve system by designating 1,385 acres as Preserve and Conserved Open Space land, an increase of 296 acres as compared to the proposed Project.

Under Alternative C, approximately 484 acres would be developed. Of this amount, approximately 10.6 acres are parks, which are a common use and not subject to Preserve conveyance requirements. As a result, the total amount of land conveyed to the Otay Ranch Preserve would be roughly 562.4 acres, which is 325.3 acres less than the proposed Project. This is a result of the smaller development footprint requiring less Preserve conveyance obligation. Therefore, a smaller amount of land would be conveyed to the Otay Ranch RMP Preserve. ~~Due to the smaller development footprint, while Alternative C would designate a larger Preserve and Conserved Open Space area than the proposed Project, a smaller amount of the Preserve would be conveyed to public ownership.~~

When compared to the proposed Project, Alternative C would result in less overall impacts to biological resources, although the actual resources impacted vary between the proposed Project and this alternative and the overall dedicated Preserve size would be smaller. Impacts to biological resources as a result of Alternative C would be *less than significant* with mitigation.

## Cultural Resources

Development under Alternative C would result in reduced impacts to cultural and paleontological resources when compared to the proposed Project because Alternative C would focus development

within the western portion of the Project site. This avoids development within the eastern portion of the Project site, resulting in the disturbance of 25 fewer significant and limited significance archaeological resources than would the proposed Project. Similar to the proposed Project, development under Alternative C would require adherence to the mitigation measures discussed in Section 2.4 of the Draft EIR (2015). This would reduce impacts to cultural resources to a ***less than significant*** level, and would result in less impact than the proposed Project.

### **Geology and Soils**

Development under Alternative C would focus development within the western portion of the Project site. This would avoid development within the eastern portion of the Project site and would result in less potential for rock fall, soil erosion, and surficial instability when compared to the proposed Project. However, potential impacts from seismic ground shaking would be the same as the proposed Project. Similar to the proposed Project, development under Alternative C would require adherence to the mitigation measures discussed in Section 2.5 of the Draft EIR (2015). This would reduce impacts to a ***less than significant*** level, and Alternative C would result in similar impacts to geology and soils compared to the proposed Project.

### **Hazards and Hazardous Materials**

Development under Alternative C would result in 1,241 dwelling units within the Project site, but would reduce the footprint of development and, therefore, may reduce the potential for wildland fire impacts. Alternative C is within the 5-minute response radius from an existing fire station. Similar to the proposed Project, storm water basins proposed as part of Alternative ~~H~~C may cause an increase in human exposure to health vectors. Development under Alternative C would require adherence to the mitigation measures identified in Section 2.6 of the Draft EIR (2015), which would reduce impacts to a ***less than significant*** level. Overall, Alternative C would result in hazards and hazardous materials impacts similar to the proposed Project.

### **Noise**

Alternative C would reduce vehicular trips by 3,308 ADT and result in decreased operational noise levels when compared to the proposed Project. Noise impacts associated with construction activities would be reduced, as less grading and site preparation (blasting, hauling trips, etc.) would be required with the reduced acreage to be graded under this alternative. The reduction in ADT under this alternative would reduce operational noise emissions after development of the Project site. Application of mitigation measures identified in Section 2.6 of the Draft EIR (2015) would reduce impacts to a ***less than significant*** level. Overall, Alternative C would result in less impact related to noise when compared to the proposed Project.

### **Solid Waste**

Alternative C would provide fewer dwelling units than the proposed Project; therefore, solid waste disposal requirements would be reduced. However, the cumulative impact would still be significant and unavoidable because a reduction of 697 dwelling units in comparison to the proposed Project would not avoid the future need for additional landfill space. However, the

cumulative impacts of solid waste disposal under Alternative C would remain ***significant and unmitigable***, similar to the proposed Project.

### Transportation and Traffic

Based on the trip generation rates presented in Section 2.9 of the Draft EIR (2015), the proposed Project would generate 27,191 ADT. Alternative C would decrease the number of single-family homes to 382 and increase the number of multi-family homes to 859, which would result in a net decrease of 8,574 residential ADT. The proposed 113.7 acres of resort uses and 82.9 acres of golf course uses would increase traffic from these uses, though the net result of Alternative C would be a decrease of approximately 3,308 ADT in comparison to the proposed Project. With mitigation identified in Section 2.9 of the Draft EIR (2015) impacts would be reduced to a ***less than significant*** level, at such time that an agreement is met between the project applicants, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable. The decrease in ADT under this alternative would result in reduced traffic impacts when compared to the proposed Project.

### Global Climate Change

Section 3.8 of the previously circulated Draft EIR (2015), Global Climate Change, identified GHG gas emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts to global climate change, absent mitigation. Environmental design considerations and mitigation have been identified to reduce these impacts to less than significant levels.

Compared to the proposed Project, Alternative C would result in the development of 1,241 dwelling units, which is less than the proposed Project. Other uses for Alternative C include a resort, golf course, elementary school, parks, and ~~Conserved Open Space~~undeveloped land, which would result in similar stationary source emissions under this alternative when compared to the proposed Project. Due to the contiguous development footprint in the center of the site and a smaller development footprint, vehicle miles travelled will be slightly reduced. Therefore, operational emissions associated with this alternative would be slightly less than the proposed Project.

Without mitigation, Alternative C would cause an increase in GHG emissions over existing conditions and result in a potentially significant impact. However, within implementation of the ~~six~~ mitigation measures recommended in Section 2.10, Alternative C would not obstruct attainment of the statewide emission reduction mandates established by AB 32, SB 32 and the relevant Executive Orders. This alternative would utilize a suite of environmental design considerations and mitigation measures that would reduce GHG emissions through on-site strategies targeted to the alternative's built environment and transportation sources, as well as a mitigation measure to secure additional, necessary emission reductions through off-site, offset projects. Alternative C also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan, as development on the site has been anticipated for more than twenty years by the County and regional planning

agencies, like SANDAG. In sum, Alternative C impacts to global climate change would be *less than significant* with mitigation and less than the proposed Project.

#### 4.4.3 Summary of Alternative C Analysis

Development of the Project site under Alternative C would result in reducing the number of housing units from 1,938 to 1,241 and reducing the amount of acreage that would be developed by 296 acres compared to the proposed Project. However, this alternative would include a larger amount of acreage devoted to multi-family uses, resort uses, and a golf course. Overall, Alternative C would decrease traffic volumes by approximately 3,308 ADT as compared to the proposed Project. This alternative would result in similar impacts to geology and soils, hazards and hazardous materials, and solid waste when compared to the proposed Project. Impacts to aesthetics, air quality, biological resources, cultural resources, noise, traffic, and global climate change would be less under Alternative C when compared to the proposed Project. Additionally, Alternative C would result in less Preserve land conveyed to the Otay Ranch RMP Preserve as a result of the reduced development footprint.

#### 4.5 Analysis of Alternative D

##### 4.5.1 Alternative D Description and Setting

Under Alternative D, development of the 1,869-acre site would occur only within the western portion of the Project site as shown on Figure 4.0-3. This alternative would result in the development of 394 single-family homes (compared with the proposed Project's 1,881) and 1,544 multi-family or single-family attached homes (compared with the proposed Project's 57) for the same total of 1,938 dwelling units as the proposed Project. Alternative D would designate 61.3 acres of land for resort uses, compared to 17.4 acres under the proposed Project. No golf course would be included. An elementary school site and public safety site would be reserved under this alternative. Local parks would be reduced from nine sites of 29.6 total acres to two sites of 16.6 total acres. As shown on **Figure 4.0-3**, Alternative D would locate the resort uses adjacent to Otay Lakes Road, overlooking Lower Otay Reservoir. Alternative D would meet all of the project would meet all of the Project Objectives except: Create a prestigious destination resort that maximizes unique South County open space, high-terrain, and views of the reservoir within a distinct, predominantly single-family home community, and allow first-time buyers and others to transition to distinct, high-quality homes within Otay Ranch; Establish an executive-level, "specialty" housing enclave within Otay Ranch that attracts business owners and employers within both the Otay Ranch and Otay Mesa planned business parks, urban centers, and university uses, thereby providing this segment of the housing community with opportunities to live and work in South County; and Create increased housing diversity within Otay Ranch by balancing higher densities associated with Otay Ranch's multi-family development with lower density, predominantly single-family homes to ensure a balance of housing opportunities in South County, consistent with the Otay SRP. **Table 4.0-2** provides a summary comparison of the impacts of the alternatives to the proposed Project.

## 4.5.2 Comparison of the Effects of Alternative D to the Proposed Project

### Aesthetics

Alternative D would concentrate land uses within the western portion of the Project site and reduce the development footprint by roughly 296 acres as compared to the proposed Project. Development under Alternative D would generally result in reduced impacts to aesthetics when compared to the proposed Project because of the reduced area of development. Although this alternative proposes all development within the western portion of the Project site, the resulting development would be at a greater intensity in terms of height, bulk, and scale when compared to the proposed Project. While development under Alternative D would still result in *significant and unmitigable* direct and cumulative impacts to aesthetics, it would result in less impact than the proposed Project.

### Air Quality

Alternative D would result in the development of the same number of dwelling units; however, the resort uses would increase to 61.3 acres and cause a net increase of 1,742 ADT. The reduced development footprint would reduce construction air emissions, but not to a level that would avoid a significant air quality impact. Overall, the air quality direct and cumulative impacts of Alternative D would remain *significant and unmitigable*, and would be similar to the proposed Project.

### Biological Resources

Under Alternative D, the development footprint of the Project site would be reduced by roughly 296 acres and the eastern portion of the Project site would remain undeveloped. Because the Project site is predominantly composed of coastal sage scrub, Alternative D would reduce the overall acreage of CSS impacts.

Alternative D would not provide for the same conservation/preservation of high-quality habitat for the Quino checkerspot butterfly as it includes development on a central ridgeline with approximately seven Quino sightings. This alternative does not impact the K8 vernal pool group, which includes San Diego fairy shrimp.

Relative to regional conservation planning, Alternative D would satisfy the objectives set forth in the Otay Ranch RMP and the County MSCP Subarea Plan of establishing a comprehensive, large-scale managed Preserve system by designating 1,385 acres as Preserve and Conserved Open Space land, an increase of 296 acres as compared to the proposed Project.

Under Alternative D, approximately 484 acres would be developed. Of this amount, approximately 10.6 acres are parks and 10 acres are for an elementary school site, which are common uses and not subject to Preserve conveyance requirements. As a result, the total amount of land conveyed to the Otay Ranch Preserve would be roughly 550.5 acres, which is 344.3 acres less than the proposed Project. This is a result of the smaller development footprint requiring less Preserve conveyance obligation. Due to the smaller development footprint, while Alternative D ~~Therefore, a smaller amount of land would be conveyed to the Otay Ranch RMP Preserve. would designate a~~

~~larger Preserve area than the proposed Project, a smaller amount of designated Preserve land would be conveyed to the Otay Ranch RMP Preserve.~~

When compared to the proposed Project, Alternative D would result in less overall impacts to biological resources, although the actual resources impacted vary between the proposed Project and this alternative and the overall conveyed Preserve would be smaller. Impacts would be *less than significant* with implementation of the mitigation measures identified in Section 2.3 of the Draft EIR (2015).

### Cultural Resources

Development under Alternative D would result in reduced impacts to cultural and paleontological resources when compared to the proposed Project because Alternative D would focus development within the western portion of the Project site. This avoids development within the eastern portion of the Project site, resulting in the disturbance of 20 fewer significant and limited significance archaeological resources than would the proposed Project. Similar to the proposed Project, development under Alternative D would require adherence to the mitigation measures discussed in Section 2.4 of the Draft EIR (2015). This would reduce Project impacts to *a less than significant* level and would result in less impact than the proposed Project.

### Geology and Soils

Development under Alternative D would focus development within the western portion of the Project site. This would avoid development within the eastern portion of the Project site and would result in less potential for rock fall, soil erosion, and surficial instability when compared to the proposed Project. However, potential impacts from seismic ground shaking would be similar to the proposed Project. Development under Alternative D would require the same adherence to the mitigation measures discussed in Section 2.5 of the Draft EIR (2015). Therefore, Alternative D would result in *less than significant* impacts to geology and soils, which is similar to the proposed Project.

### Hazards and Hazardous Materials

Development under Alternative D would result in the same 1,938 dwelling units as the proposed Project, but would reduce the footprint of development, and, therefore, may reduce the potential for wildland fire impacts. Alternative D is within the 5-minute response radius from an existing fire station. Similar to the proposed Project, storm water basins proposed as part of Alternative ~~H~~ D may cause an increase in human exposure to health vectors. Development under Alternative D would require adherence to the mitigation measures identified in Section 2.6 of the Draft EIR (2015), which would reduce impacts to a *less than significant* level. Overall, Alternative D would result in hazards and hazardous materials impacts similar to the proposed Project.

### Noise

Alternative D would result in the same 1,938 dwelling units as the proposed Project, but would decrease the number of single-family homes to 394 and increase to 1,544 the number of multi-



family homes. This would result in a net decrease of 2,974 residential ADT. However, the proposed 61.3 acres of resort uses would increase traffic from these uses for a net Project increase of approximately 1,742 ADT under Alternative D in comparison to the proposed Project. Noise impacts associated with construction activities would be reduced, as less grading and site preparation (blasting, hauling trips, etc.) would be required with the reduced acreage to be graded under this alternative. Operational noise emissions are anticipated to be similar to the proposed Project after development of the Project site. With implementation of the mitigation measures identified in Section 2.7 of the Draft EIR (2015), impacts would be reduced to a ***less than significant*** level. Overall, Alternative D would result in similar impacts related to noise when compared to the proposed Project.

### Solid Waste

Alternative D would provide the same number of dwelling units as the proposed Project and would cause a similar demand for solid waste disposal. Therefore, the cumulative impact of Alternative D would be ***significant and unavoidable***. Overall, Alternative D would result in similar impacts of solid waste disposal when compared to the proposed Project.

### Transportation and Traffic

Based on the trip generation rates presented in Section 2.9 of the Draft EIR (2015), the proposed Project would generate 27,191 ADT. Alternative D would decrease the number of single-family homes to 394 and increase to 1,544 the number of multi-family homes, which would result in a net decrease of 2,974 residential ADT. However, the proposed 61.3 acres of resort uses would increase traffic, for a net increase of approximately 1,742 ADT under Alternative D in comparison to the proposed Project. With mitigation identified in Section 2.9 of the Draft EIR (2015) impacts would be reduced to a ***less than significant*** level, at such time that an agreement is met between the project applicants, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable. The relatively small increase of ADT under this alternative would result in a similar level of traffic impacts when compared to the proposed Project.

### Global Climate Change

Section 3.8 of the previously circulated Draft EIR (2015), Global Climate Change, identified GHG emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts to global climate change, absent mitigation. Environmental design considerations and mitigation have been identified to reduce these impacts to less than significant levels.

Alternative D would result in the development of 1,938 dwelling units, which is the same as the proposed Project. Other uses for Alternative D include a resort, elementary school, parks, and Conserved Open Space, which would result in similar stationary source emissions under this alternative when compared to the proposed Project. Due to the contiguous development footprint in the center of the site and a smaller development footprint, vehicle miles travelled will be slightly

reduced. Therefore, operational emissions associated with this alternative would be slightly less than the proposed Project.

Without mitigation, Alternative D would still cause an increase in GHG emissions over existing conditions and result in a potentially significant impact. However, within implementation of the ~~six~~ mitigation measures recommended in Section 2.10, Alternative D would not obstruct attainment of the statewide emission reduction mandates established by AB 32, SB 32 and the relevant Executive Orders. This alternative would utilize a suite of environmental design considerations and mitigation measures that would reduce GHG emissions through on-site strategies targeted to the alternative's built environment and transportation sources, as well as a mitigation measure to secure additional, necessary emission reductions through off-site, offset projects. Alternative D also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan, as development on the site has been anticipated for more than twenty years by the County and regional planning agencies, like SANDAG. With the implementation of the mitigation measures identified in Section 2.10, impacts to Global Climate Change would be reduced to a *less than significant* level. In sum, Alternative D impacts to global climate change would be less than the proposed Project.

### 4.5.3 Summary of Alternative D Analysis

Development of the Project site under Alternative D would result in the same number of housing units, although in a different mix with more multi-family homes compared to the proposed Project, and would reduce the amount of acreage that would be developed by 296 acres compared to the proposed Project. This alternative would include a larger amount of acreage devoted to multi-family and resort uses. Overall, Alternative D would increase traffic volumes by approximately 1,742 ADT as compared to the proposed Project. This alternative would result in similar impacts to air quality, geology and soils, hazards and hazardous materials, noise, solid waste, and traffic when compared to the proposed Project. Impacts to aesthetics, biological resources, and cultural resources would be less under Alternative D when compared to the proposed Project. Additionally, Alternative D would result in less Preserve land conveyed to the Otay Ranch RMP Preserve as a result of the reduced development footprint.

## 4.6 Analysis of Alternative E

### 4.6.1 Alternative E Description and Setting

Under Alternative E, development would occur only within the western portion of the Project site (**Figure 4.0-4**). This alternative would result in the development of fewer homes (1,391 compared to 1,938 with the proposed Project) and would slightly increase the number of multi-family homes (72 homes compared to the proposed 57). Lands designated for resort uses would be increased slightly to 19.9 acres and the golf course would not be provided. Six local park sites totaling 12 acres would be provided. Under Alternative E, an elementary school site and public safety site would be reserved. Alternative E would meet all of the project would meet all of the Project Objectives except: Decrease the intensity of development at higher elevations away from Lower Otay Reservoir, and thereby enhance unique South County open space, high-terrain, and views of



[the reservoir](#). Table 4.0-2 provides a summary comparison of the impacts of the alternatives to the proposed Project.

#### 4.6.2 Comparison of the Effects of Alternative E to the Proposed Project

##### Aesthetics

Alternative E would concentrate land uses within the western portion of the Project site and reduce the development footprint by roughly 229.5 acres as compared to the proposed Project. Development under Alternative E would generally result in reduced impacts to aesthetics when compared to the proposed Project due to the reduced area of development. Although this alternative proposes fewer homes, development within the western portion of the Project site would be at a greater intensity in terms of height, bulk, and scale when compared to the proposed Project. While development under Alternative E would not fully mitigate all direct and cumulative impacts to aesthetics and result in *significant and unmitigable* impacts, it would result in fewer impacts than the proposed Project.

##### Air Quality

Alternative E would result in the development of 547 fewer dwelling units, have a smaller footprint of development in comparison to the proposed Project, and would result in a net decrease of 5,493 ADT. The reduced development footprint would reduce construction air emissions, but not to a level that would avoid a significant air quality impact. Overall, the direct and cumulative air quality impacts of Alternative E would be less than the proposed Project due to the reduction in vehicle trips. However, impacts would remain *significant and unmitigable*.

##### Biological Resources

Under Alternative E, the development footprint of the Project site would be reduced by roughly 229.5 acres and the eastern portion of the Project site would remain undeveloped. Because the Project site is predominantly composed of coastal sage scrub, Alternative E would reduce the overall acreage of CSS impacts.

Relative to regional conservation planning, Alternative E would satisfy the objectives set forth in the Otay Ranch RMP and the County MSCP Subarea Plan of establishing a comprehensive, large-scale managed Preserve system by designating 1,318.9 acres as Preserve and Conserved Open Space land, an increase of 230 acres as compared to the proposed Project.

Under Alternative E, approximately 550.1 acres would be developed. Of this amount, approximately 12 acres are parks and 10 acres are for an elementary school, which are common uses and not subject to Preserve conveyance requirements. As a result, the total amount of land conveyed to the Otay Ranch Preserve would be roughly 627.4 acres, which is 260.3 acres less than the proposed Project. [This is a result of the smaller development footprint requiring less Preserve conveyance obligation. Therefore, a smaller amount of land would be conveyed to the Otay Ranch RMP Preserve.](#) ~~Due to the smaller development footprint, while Alternative E would designate a~~

~~larger Preserve and Conserved Open Space area than the proposed Project, a smaller amount of the Preserve would be conveyed to public ownership.~~

When compared to the proposed Project, Alternative E would result in less overall impacts to biological resources, although the actual resources impacted vary between the proposed Project and this alternative and the overall dedicated Preserve size would be smaller. Impacts to biological resources under Alternative E would be ***less than significant*** with implementation of the mitigation measures identified in Section 2.3 of the Draft EIR (2015).

### Cultural Resources

Development under Alternative E would result in reduced impacts to cultural and paleontological resources when compared to the proposed Project because Alternative E would focus development within the western portion of the Project site. This avoids development within the eastern portion of the Project site, resulting in the disturbance of 23 fewer significant and limited significance archaeological resources than the proposed Project. Similar to the proposed Project, development under Alternative E would require adherence to the mitigation measures discussed in Section 2.4 of the Draft EIR (2015). This would reduce impacts to a ***less than significant*** level and would result in less impact than the proposed Project.

### Geology and Soils

Development under Alternative E would focus development within the western portion of the Project site. This would avoid development within the eastern portion of the Project site and would result in less potential for rock fall, soil erosion, and surficial instability when compared to the proposed Project. However, potential impacts from seismic ground shaking would be the same as the proposed Project. Development under Alternative E would require adherence to the mitigation measures discussed in Section 2.5 of the Draft EIR (2015). This would reduce impacts to a ***less than significant*** level. Therefore, Alternative E would result in similar impacts to geology and soils when compared to the proposed Project.

### Hazards and Hazardous Materials

Development under Alternative E would result in 1,391 dwelling units within the Project site, but would reduce the footprint of development and, therefore, may reduce the potential for wildland fire impacts. Similar to the proposed Project, storm water basins proposed as part of Alternative ~~H~~ E may cause an increase in human exposure to health vectors. Development under Alternative E would require adherence to the mitigation measures identified in Section 2.6 of the Draft EIR (2015), which would reduce impacts to a ***less than significant*** level. Overall, Alternative E would result in hazards and hazardous materials impacts similar to the proposed Project.

### Noise

Alternative E would reduce vehicular trips by 5,493 ADT and result in decreased operational noise levels when compared to the proposed Project. Noise impacts associated with construction activities would be reduced as less grading and site preparation (blasting, hauling trips, etc.) would

be required with the reduced acreage to be graded under this alternative. The reduction in ADT under this alternative would reduce operational noise emissions after development of the Project site. Implementation of mitigation measures identified in Section 2.7 of the Draft EIR would reduce impacts to a ***less than significant*** level. Overall, Alternative E would result in less impact related to noise when compared to the proposed Project.

### **Solid Waste**

Alternative E would provide 547 fewer dwelling units than the proposed Project; therefore, solid waste disposal requirements would be reduced. However, the cumulative impact would still be significant and unavoidable because the reduction in dwelling units in comparison to the proposed Project would not avoid the need for additional landfill space. Impacts would be ***significant and unmitigable***. Therefore, the cumulative impacts of solid waste disposal under Alternative E would be similar to the proposed Project.

### **Transportation and Traffic**

Based on the trip generation rates presented in Section 2.9 of the Draft EIR (2015), the proposed Project would generate 27,191 ADT. Alternative E would decrease the total number of residences and result in a net decrease of ADT. The resort acreage would be slightly increased in comparison to the proposed Project. The overall decrease of 5,493 ADT under this alternative would result in less traffic impact when compared to the proposed Project. With mitigation identified in Section 2.9 of the Draft EIR (2015) impacts would be reduced to a ***less than significant*** level, at such time that an agreement is met between the project applicants, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable. While the impact to transportation and traffic from development under Alternative E would be significant, it would result in less impact than would the proposed Project.

### **Global Climate Change**

Section 3.8 of the previously circulated Draft EIR (2015), Global Climate Change, identified GHG emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts to global climate change, absent mitigation. Environmental design considerations and mitigation have been identified to reduce these impacts to less than significant levels.

Alternative E would result in the development of 1,391 dwelling units, which is less than the proposed Project. Other uses for Alternative E include a resort, elementary school, parks, and Conserved Open Space, which would result in similar stationary source emissions under this alternative when compared to the proposed Project. Due to the contiguous development footprint and a smaller development footprint, vehicle miles travelled will be slightly reduced. Therefore, operational emissions associated with this alternative would be slightly less than the proposed Project.

Without mitigation, Alternative E would still cause an increase in GHG emissions over existing conditions and result in a potentially significant impact. However, within implementation of the ~~six~~ mitigation measures recommended in Section 2.10, Alternative E would not obstruct attainment of the statewide emission reduction mandates established by AB 32, SB 32 and the relevant Executive Orders. This alternative would utilize a suite of environmental design considerations and mitigation measures that would reduce GHG emissions through on-site strategies targeted to the alternative's built environment and transportation sources, as well as a mitigation measure to secure additional, necessary emission reductions through off-site, offset projects. Alternative E also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan, as development on the site has been anticipated for more than twenty years by the County and regional planning agencies, like SANDAG. With the implementation of the mitigation measures identified in Section 2.10, impacts to Global Climate Change would be reduced to a ***less than significant*** level. In sum, Alternative E impacts to global climate change would be less than the proposed Project.

#### 4.6.3 Summary of Alternative E Analysis

Development of the Project site under Alternative E would result in reducing the number of housing units from 1,938 to 1,391, and reducing the amount of acreage that would be developed by 229.5 acres compared to the proposed Project. This alternative would include a larger amount of acreage devoted to multi-family and resort uses. Overall, Alternative E would decrease traffic volumes by approximately 5,493 ADT as compared to the proposed Project. This alternative would result in similar impacts to geology and soils, hazards and hazardous materials, and solid waste when compared to the proposed Project. Impacts to aesthetics, air quality, biological resources, cultural resources, noise, traffic, and global climate change would be less under Alternative E when compared to the proposed Project. Additionally, Alternative E would result in less Preserve land conveyed to the Otay Ranch Preserve as a result of the reduced development footprint.

### 4.7 Analysis of Alternative F

#### 4.7.1 Alternative F Description and Setting

Under Alternative F, development of the 1,869-acre site would occur only within the western portion of the Project site. As shown on **Figure 4.0-5**, this alternative would result in the development of 1,268 single-family homes (as compared to 1,881 under the proposed Project) and 670 multi-family homes (as compared to 57 under the proposed Project) for the same total of 1,938 dwelling units as the proposed Project. Lands designated for resort uses would increase to 19.9 acres, in comparison to 17.4 acres under the proposed Project. Under Alternative F, an elementary school site and public safety site would be reserved and six park sites totaling 16.6 acres would be provided. Alternative F would meet all of the Project Objectives except: Decrease the intensity of development at higher elevations away from Lower Otay Reservoir, and thereby enhance unique South County open space, high-terrain, and views of the reservoir **Table 4.0-2** provides a summary comparison of the impacts of the alternatives to the proposed Project.

## 4.7.2 Comparison of the Effects of Alternative F to the Proposed Project

### Aesthetics

Alternative F would concentrate land uses within the western portion of the Project site and reduce the development footprint by roughly 229.5 acres as compared to the proposed Project. Development under Alternative F would generally result in reduced impacts to aesthetics when compared to the proposed Project because of the reduced area of development. Although this alternative proposes all development within the western portion of the Project site, the resulting development would be at a greater intensity in terms of height, bulk, and scale when compared to the proposed Project. Thus, the aesthetic benefits of a smaller Project footprint are reduced by the greater intensity of buildings within the development footprint. While development under Alternative F would not fully mitigate all direct and cumulative impacts to aesthetics and impacts would remain *significant and unmitigable*, it would result in less impact than the proposed Project.

### Air Quality

Alternative F would result in the development of the same number of dwelling units, with a minor traffic reduction of 1,196 ADT from the greater reliance on multi-family homes as compared to the proposed Project. The footprint of development would be reduced by 229 acres and, therefore, construction air emissions would be reduced, but not to a level to avoid a significant air quality impact. Overall, the direct and cumulative air quality impacts of Alternative F would be less than the proposed Project due to the reduction in vehicle trips would result in reduced emissions. Impacts to Air Quality would remain *significant and unmitigable*.

### Biological Resources

Under Alternative F, the development footprint of the Project site would be reduced by roughly 229.5 acres and the eastern portion of the Project site would remain undeveloped. Because the Project site is predominantly composed of coastal sage scrub, Alternative F would reduce the overall acreage of CSS impacts.

Relative to regional conservation planning, Alternative F would satisfy the objectives set forth in the Otay Ranch RMP and the County MSCP Subarea Plan of establishing a comprehensive, large-scale managed Preserve system by designating 1,318.9 acres as Preserve and ~~Conserved-Open Space~~undeveloped land, an increase of 230 acres as compared to the proposed Project.

Under Alternative F, approximately 550.1 acres would be developed. Of this amount, approximately 16.6 acres are parks and 10 acres are for an elementary school, which are common uses and not subject to Preserve conveyance requirements. As a result, the total amount of Preserve land conveyed to the Otay Ranch RMP Preserve would be roughly 621.9 acres, which is 265.8 acres less than the proposed Project. This is a result of the smaller development footprint requiring less Preserve conveyance obligation. Therefore, a smaller amount of land would be conveyed to the Otay Ranch RMP Preserve.~~Due to the smaller development footprint, while Alternative F~~

~~would designate a larger Preserve area than the proposed Project, a smaller amount of the Preserve would be conveyed to the Otay Ranch RMP Preserve.~~

When compared to the proposed Project, Alternative F would result in less overall impacts to biological resources and would convey less to the Otay Ranch RMP Preserve. With the implementation of the mitigation measures identified in Section 2.3, impacts to biological resources would be reduced to a *less than significant* level.

## Cultural Resources

Development under Alternative F would result in reduced impacts to cultural resources when compared to the proposed Project because Alternative F would focus development within the western portion of the Project site. This results in the disturbance of 23 fewer significant and limited significance cultural resources in the eastern portion of the Project site than would the proposed Project. Similar to the proposed Project, development under Alternative F would require adherence to the mitigation measures discussed in Section 2.4 of the Draft EIR (2015). This would reduce impacts to a *less than significant* level, and would result in less impact than the proposed Project.

## Geology and Soils

Development under Alternative F would focus development within the western portion of the Project site. Alternative F would avoid development within the eastern portion of the Project site, which would result in less potential for rock fall, soil erosion, and surficial instability when compared to the proposed Project. However, potential impacts from seismic ground shaking would be similar to the proposed Project. Development under Alternative F would require the same adherence to the mitigation measures discussed in Section 2.5 of the Draft EIR (2015), which would reduce impacts to a *less than significant* level. Therefore, Alternative F would result in similar impacts to geology and soils when compared to the proposed Project.

## Hazards and Hazardous Materials

Development under Alternative F would result in the same 1,938 dwelling units as the proposed Project, but would reduce the footprint of development and, therefore, may reduce the potential for wildland fire impacts. Similar to the proposed Project, storm water basins proposed as part of Alternative H may cause an increase in human exposure to health vectors. Development under Alternative F would require adherence to the mitigation measures identified in Section 2.6 of the Draft EIR (2015), which would reduce impacts to a *less than significant* level. Overall, Alternative F would result in hazards and hazardous materials impacts similar to the proposed Project.

## Noise

Alternative F would result in the same 1,938 dwelling units as the proposed Project, but would decrease the number of single-family homes to 1,268 and increase to 670 the number of multi-family homes. This would result in a minor traffic reduction of 1,196 ADT as compared to the proposed Project and, therefore, traffic noise levels would be similar to the proposed Project. Noise



impacts associated with construction activities would be reduced, as less grading and site preparation (blasting, hauling trips, etc.) would be required with the reduced acreage to be graded under this alternative. Other operational noise emissions under Alternative F are anticipated to be similar to the proposed Project. With the implementation of the mitigation measures identified in Section 2.7, impacts would be reduced to a ***less than significant*** level. Overall, Alternative F would result in similar impacts related to noise when compared to the proposed Project.

### **Solid Waste**

Alternative F would provide the same number of dwelling units as the proposed Project and would cause a similar demand for solid waste disposal. Therefore, the cumulative impact of Alternative E would be ***significant and unavoidable***. Overall, Alternative F would result in similar impacts to solid waste disposal when compared to the proposed Project.

### **Transportation and Traffic**

Based on the trip generation rates presented in Section 2.9 of the Draft EIR (2015), the proposed Project would generate 27,191 ADT. Alternative F would decrease the number of single-family homes to 1,268 and increase to 670 the number of multi-family homes, and would result in a net decrease of 1,196 ADT in comparison to the proposed Project. With mitigation identified in Section 2.9 of the Draft EIR (2015) impacts would be reduced to a ***less than significant*** level, at such time that an agreement is met between the project applicants and County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable. Overall, this alternative would result in a similar level of traffic impacts when compared to the proposed Project.

### **Global Climate Change**

Section 3.8 of the previously circulated Draft EIR (2015), Global Climate Change, identified GHG emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts to global climate change, absent mitigation. Environmental design considerations and mitigation have been identified to reduce these impacts to less than significant levels.

Alternative F would result in the development of 1,938 dwelling units, which is the same as the proposed Project. Other uses for Alternative F include a resort, elementary school, parks, and Conserved Open Space, which would result in similar stationary source emissions under this alternative when compared to the proposed Project. Due to the contiguous development footprint and a smaller development footprint, vehicle miles travelled will be slightly reduced. Therefore, operational emissions associated with this alternative would be slightly less than the proposed Project.

Without mitigation, Alternative F would still cause an increase in GHG emissions over existing conditions and result in a potentially significant impact. However, within implementation of the ~~six~~ mitigation measures recommended in Section 2.10, Alternative F would not obstruct attainment

of the statewide emission reduction mandates established by AB 32, SB 32 and the relevant Executive Orders. This alternative would utilize a suite of environmental design considerations and mitigation measures that would reduce GHG emissions through on-site strategies targeted to the alternative's built environment and transportation sources, as well as a mitigation measure to secure additional, necessary emission reductions through off-site, offset projects. Alternative F also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan, as development on the site has been anticipated for more than twenty years by the County and regional planning agencies, like SANDAG. With the implementation of the mitigation measures identified in Section 2.10, impacts to Global Climate Change would be reduced to a ***less than significant*** level. In sum, Alternative F impacts to global climate change would be less than the proposed Project.

### 4.7.3 Summary of Alternative F Analysis

Development of the Project site under Alternative F would result in the same number of housing units, with many more multi-family homes and fewer single-family homes compared to the proposed Project. The amount of acreage that would be developed would be reduced by 229.5 acres compared to the proposed Project. This alternative would include a larger amount of acreage devoted to multi-family and resort uses. Overall, Alternative F would decrease traffic volumes by approximately 1,196 ADT as compared to the proposed Project. This alternative would result in similar impacts to air quality, geology and soils, hazards and hazardous materials, noise, solid waste, traffic, and global climate change when compared to the proposed Project. Impacts to aesthetics, biological resources, and cultural resources would be less under Alternative F when compared to the proposed Project. Additionally, Alternative F would result in less Preserve land conveyed to the Otay Ranch Preserve as a result of the reduced development footprint.

## 4.8 Analysis of Alternative G

### 4.8.1 Alternative G Description and Setting

Under Alternative G, development would occur only within a reduced development footprint of 224 acres in the eastern portion of the Project site (**Figure 4.0-6**). This alternative would result in the development of only 465 single-family detached homes. Lands designated for resort uses would be the same as the proposed Project. Under Alternative G, a public safety site would be reserved, but not the elementary school site. Three park sites totaling 4.3 acres would be provided. Alternative G would meet all of the Project Objectives except: Establish an executive-level, "specialty" housing enclave within Otay Ranch that attracts business owners and employers within both the Otay Ranch and Otay Mesa planned business parks, urban centers, and university uses, thereby providing this segment of the housing community with opportunities to live and work in South County; Create increased housing diversity within Otay Ranch by balancing higher densities associated with Otay Ranch's multi-family development with lower density, predominantly single-family homes to ensure a balance of housing opportunities in South County, consistent with the Otay SRP; Ensure public facilities are provided in a timely manner and financed by the residents and occupants, and thereby ensure no adverse fiscal consequences to other neighboring communities within Otay Ranch; Preserve the major north/south rocky canyon located in the eastern portion of the Project site as a wildlife corridor, and connect to wildlife crossings under



[Otay Lakes Road](#). Table 4.0-2 provides a summary comparison of the impacts of the alternatives to the proposed Project.

## 4.8.2 Comparison of the Effects of the Alternative G to the Proposed Project

### Aesthetics

Alternative G would concentrate land uses within the eastern portion of the Project site and reduce the development footprint by roughly 555.6 acres as compared to the proposed Project. Development under Alternative G would generally result in reduced impacts to aesthetics when compared to the proposed Project because of the reduced area of development and because development would occur farther east of existing development and views would be obstructed by a sloping mesa. While development under Alternative G would not fully mitigate all direct and cumulative impacts to aesthetics and impacts would remain *significant and unavoidable*, it would result in less impact than the proposed Project.

### Air Quality

Alternative G would result in the development of 1,473 fewer dwelling units and have a smaller footprint of development, reduce total net vehicle trips by 15,662 ADT, and increase open space in comparison to the proposed Project. Therefore, construction and operational emissions associated with this alternative would be less than the proposed Project. The reduction of construction emissions and mobile emissions associated with Alternative G would result in less air quality impacts than the proposed Project. However, only long-term operational PM<sub>2.5</sub> emissions at full buildout would be reduced to a less than significant level in comparison to the proposed Project. This alternative would result in less impact than the proposed Project; however, long-term operational air quality impacts to VOC, CO, and PM<sub>10</sub> would still exceed the County's significance level thresholds and would require the same mitigation as provided for the proposed Project. The mitigation would reduce impacts to a *less than significant* level.

### Biological Resources

Under Alternative G, the development footprint of the Project site would be reduced by roughly 555.6 acres and would be located in the eastern portion of the Project site where there are fewer sensitive biological resources. Because the Project site is predominantly composed of coastal sage scrub, Alternative G would reduce the overall acreage of CSS impacts.

Relative to regional conservation planning, Alternative G would satisfy the objectives set forth in the Otay Ranch RMP and the County MSCP Subarea Plan of establishing a comprehensive, large-scale managed Preserve system by designating 1,176.5 acres as Preserve and ~~Conserved-Open Space~~[undeveloped](#) land, an increase of 556 acres as compared to the proposed Project.

Under Alternative G, approximately 224 acres would be developed. Of this amount, approximately 4.3 acres are parks, which are common uses and not subject to Preserve conveyance requirements. As a result, the total amount of land conveyed to the Otay Ranch RMP Preserve would be roughly 261 acres, which is 626.7 acres less than the proposed Project. [This is a result of the smaller](#)

development footprint requiring less Preserve conveyance obligation. Therefore, a smaller amount of land would be conveyed to the Otay Ranch RMP Preserve. ~~Due to the smaller development footprint, while Alternative G would designate a larger Preserve area than the proposed Project, a smaller amount of the Preserve would be conveyed to the Otay Ranch RMP Preserve.~~

While the impact to biological resources from development under Alternative G would be significant, mitigation it would result in much less impact than would the proposed Project.

## Cultural Resources

Development under Alternative G would result in reduced impacts to cultural and paleontological resources when compared to the proposed Project. With the reduced development footprint under Alternative G, there would be 41 fewer significant and limited significance cultural resource sites impacted. Similar to the proposed Project, development under Alternative ~~B-G~~ would require adherence to the mitigation measures discussed in Section 2.4 of the Draft EIR (2015). This would result in *less than significant* impacts and would result in less impact from Alternative G than the proposed Project.

## Geology and Soils

With the reduced development footprint under Alternative G, impacts to geology and soils would be less when compared to the proposed Project; however, because the underlying geology is similar, many of the same design considerations per the mitigation measures discussed in Section 2.5 of the Draft EIR (2015) would be required. These mitigation measures would reduce impacts to a *less than significant* level.

## Hazards and Hazardous Materials

Development under Alternative G would reduce impacts of hazards and hazardous materials, though potential impacts from wildland fire would still occur. Alternative G includes a public safety site and therefore meets the General Plan Safety Element Response Objective of five minutes. Similar to the proposed Project, storm water basins proposed as part of Alternative ~~H-G~~ may cause an increase in human exposure to health vectors. As with the proposed Project, development under Alternative G would require adherence to the mitigation measures discussed in Section 2.6 of the Draft EIR (2015), and impacts would be reduced to a *less than significant level*. Overall, Alternative G would result in less hazards and hazardous materials impacts when compared to the proposed Project.

## Noise

Alternative G would reduce vehicular trips by 15,662 ADT and result in lower operational noise levels when compared to the proposed Project. Noise impacts associated with construction activities would also be reduced, as less grading and site preparation (would be required with the reduced acreage of this alternative. With the implementation of the mitigation measures identified in Section 2.7, impacts would be reduced to a *less than significant* level. Overall, Alternative G would result in less noise impacts when compared to the proposed Project.

## Solid Waste

Alternative G would provide fewer dwelling units than the proposed Project and, therefore, solid waste disposal requirements would be reduced. However, the cumulative impact of 465 dwelling units and a resort would still be **significant and unavoidable**, because a reduction of dwelling units in comparison to the proposed Project would not avoid the need for additional landfill space. However, cumulative impacts of solid waste disposal under Alternative G would be less than the proposed Project.

## Transportation and Traffic

Based on the trip generation rates presented in Section 2.9 of the Draft EIR (2015), Alternative G would generate approximately 11,530 ADT, which would be 15,662 ADT less than the proposed Project. With mitigation identified in Section 2.9 of the Draft EIR (2015) impacts would be reduced to a **less than significant** level, at such time that an agreement is met between the project applicants, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable. Alternative G would result in less transportation and traffic impacts than would the proposed Project.

## Global Climate Change

Section 3.8 of the previously circulated Draft EIR (2015), Global Climate Change, identified GHG emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts to global climate change, absent mitigation. Environmental design considerations and mitigation have been identified to reduce these impacts to less than significant levels.

Alternative G would result in the development of 465 dwelling units, which is much less than the proposed Project. Other uses for Alternative G include a resort, parks, and Conserved Open Space, which would result in fewer stationary source emissions under this alternative when compared to the proposed Project. Due to the smaller development footprint, vehicle miles travelled will be slightly reduced. Therefore, operational emissions associated with this alternative would be slightly less than the proposed Project.

Without mitigation, Alternative G would still cause an increase in GHG emissions over existing conditions and result in a potentially significant impact. However, within implementation of the ~~six~~ mitigation measures recommended in Section 2.10, Alternative G would not obstruct attainment of the statewide emission reduction mandates established by AB 32, SB 32 and the relevant Executive Orders. This alternative would utilize a suite of environmental design considerations and mitigation measures that would reduce GHG emissions through on-site strategies targeted to the alternative's built environment and transportation sources, as well as a mitigation measure to secure additional, necessary emission reductions through off-site, offset projects. Alternative G also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan, as development

on the site has been anticipated for more than twenty years by the County and regional planning agencies, like SANDAG. With the implementation of the mitigation measures identified in Section 2.10, impacts to Global Climate Change would be reduced to a *less than significant* level. In sum, Alternative G impacts to global climate change would be less than the proposed Project.

#### 4.8.3 Summary of Alternative G Analysis

Development of the Project site under Alternative G would result in 1,473 fewer residential units and reduce the amount of acreage that would be developed by 555.6 acres compared to the proposed Project. Overall, Alternative G would decrease traffic volumes by approximately 15,662 ADT as compared to the proposed Project. This alternative would result in fewer impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, noise, solid waste, traffic, and global climate change when compared to the proposed Project. Alternative G would result in less Preserve land conveyed to the Otay Ranch Preserve as a result of the reduced development footprint.

### 4.9 Analysis of Alternative H

#### 4.9.1 Alternative H Description and Setting

Under Alternative H, the 1,869-acre Project site would be developed in accordance with the approved Preserve and development boundaries shown in the MSCP County Subarea Plan. [The Project Applicants are seeking County approval of Alternative H instead of the proposed Project.](#) As shown on **Figure 4.0-7**, development of the Project site would consist of 1,881 single-family homes and 57 multi-family homes for a total of 1,938 homes. Resort uses would encompass 16.6 acres in the southeast portion of the Project site and includes up to 200 rooms and 20,000 square feet of ancillary retail/commercial uses. A total of 25.1 acres of [public and private](#) parkland would be provided, which includes a central park in the village core and five neighborhood parks within convenient walking distance from all homes. A 10.1-acre elementary school is proposed adjacent to the central park. While no public safety site was included within Village 13 in the Otay SRP, which located a fire station in Village 15, as with the proposed Project this alternative would include a 2.3 acre Public Safety Site. This alternative also proposes a 6.1-acre community homeowner facility, located in close proximity to the Village Core, which includes meeting space and a fitness center, recreation courts, a swimming pool, and picnic areas. Otay Lakes Road would remain in its existing location and would undergo improvements including a widening from two to four lanes between the City/County Boundary and Driveway #2. Alternative H would require the conveyance of approximately ~~787.7~~[790.3](#) acres to the Otay Ranch RMP Preserve. In addition, Alternative H proposes to conserve approximately 69.~~38~~[3](#) acres of land designated for development as Conserved Open Space that would be protected by a biological open space easement or transferred to the Otay Ranch RMP Preserve. This biological open space easement would also cover the 1,107 acres of Preserve on-site. Additionally, 76.~~45~~[4](#) acres would be used for manufactured open space, which consists of homeowner association maintained manufactured slopes, water basin lots, and fuel management zones. Other land uses include 32.~~43~~[4](#) acres for internal circulation. **Table 4.0-2** provides a summary comparison of the impacts of Alternative H to the proposed Project. The following discussion and information provided in **Appendices D-1, D-3 through D-6, and D-11 through D-23** includes all subject areas analyzed for Alternative H

to allow this alternative to be considered for selection by the Board of Supervisors in place of the proposed Project. [Alternative H meets all of the Project Objectives of the proposed Project.](#) A complete summary of mitigation measures proposed for Alternative H is included in **Table 4.0-3**.

The 1993 Otay Ranch PEIR and Mitigation Monitoring Program (MMP) identified mitigation measures to reduce the significant impacts of the Otay Ranch GDP/SRP. This EIR conducted an analysis of the proposed Project's specific impacts on air quality, taking into account changes in conditions, both environmental and regulatory, that have occurred since 1993 when the Otay Ranch PEIR was certified. Based on this current, Project-specific analysis, the mitigation measures identified in the Otay Ranch PEIR one of the following: (i) not applicable; (ii) satisfied, or (iii) replaced with Project-specific mitigation measures or regulatory compliance requirements, as determined by the qualified preparers of this EIR. Attached as **Appendix D-24** is a matrix entitled "1993 GDP/SRP PEIR Mitigation Measure Compliance," which provides a determination and explanation for each Otay Ranch PEIR mitigation measure as it pertains to Alternative H.

## 4.9.2 Comparison of the Effects of the Alternative H to the Proposed Project

### Aesthetics

As discussed in Section 2.1 of the Draft EIR (2015), *Aesthetics and Visual Resources*, the proposed Project would result in significant and unavoidable impacts to scenic vistas, scenic highways, and the visual character of the area. No feasible mitigation measures exist to avoid or minimize this effect.

Alternative H would develop the Project site with 1,938 homes, resort uses, parks, an elementary school site, and a public safety site. This alternative would result in a development footprint of roughly 692.5 acres, which is a decrease of 87.5 acres compared to the proposed Project. Development under Alternative H would result in similar impacts to aesthetics when compared to the proposed Project because Alternative H would provide for generally the same type of development distributed throughout the site as the proposed Project, and the roughly 692.5 acres of the site would be changed from undeveloped land to developed. Development under this alternative would be similar to the proposed Project, resulting in development at the same intensity of height, bulk, and scale when compared to the proposed Project. However, Alternative H proposes a contiguous and more compact development footprint at lower elevations and with less edge effect compared to the proposed Project. Alternative H proposes less development upslope to the northwest and the surrounding area and would result in less development on the frontage along Otay Lakes Road.

As with the proposed Project, the cumulative impacts from Alternative H in the area have been reduced since the certification of the Otay Ranch PEIR (1993) due to the acquisition by public agencies of Village 15, portions of Village 14, and Planning Area 16. However, these changes are not of a degree that would change the Otay Ranch PEIR's conclusion of significance and unavoidable cumulative impact to the aesthetic resources in the area.

Development under Alternative H results in [less visual and fewer impacts to](#) aesthetics than the proposed Project, [due to a consolidated development footprint](#); however, based upon an analysis

of the guidelines for determining significance of impacts to aesthetics and visual resources in comparison with the proposed Project, Alternative H would result in similar impacts as those identified for the proposed Project and would require the same mitigation measures identified in Section 2.1 of the Draft EIR (2015) and summarized in **Table 4.0-3**. Although the direct and cumulative impacts are slightly less than the proposed Project, Alternative H impacts to aesthetics and visual impacts would *remain significant and unmitigable*.

## Air Quality

As discussed in Section 2.2 of the Draft EIR (2015), *Air Quality*, the proposed Project would result in significant and unavoidable impacts to air quality from construction-related pollutant emissions. Mitigation measures proposed would reduce these impacts, but not to a less than significant level.

Construction emissions associated with Alternative H would be different than the proposed Project. Less blasting would be required during construction of Alternative H as a result of the condensed footprint and the relocation of the development footprint to the bottom of the hillside and away from rock formations. Emissions of VOC, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> would be lower, while CO and SO<sub>x</sub> emissions would be higher than the proposed Project as shown in **Tables 4.0-4 and 4.0-5** due to changes in the construction schedule (10 years versus 11 years). All construction-related emissions would be of a significant level with the exception of SO<sub>2</sub>. However, overall total emissions over the course of construction of Alternative H would be lower than for the proposed Project (see **Appendix D-1**).

Operational emissions under Alternative H would be similar to the proposed Project. Alternative H would result in the development of 1,938 dwelling units and other uses, including resort, elementary school, parks, and Preserve and Conserved Open Space. However, Alternative H has a more compact footprint than the proposed Project, so it is likely that operational criteria pollutant and GHG emissions would be lower for Alternative H than the proposed Project. Due to the contiguous development footprint in the center of the site, vehicle miles travelled would be slightly reduced.

Based upon an analysis of the guidelines for determining significance of impacts to air quality in comparison with the proposed Project, Alternative H would result in similar or slightly less impacts compared to the proposed Project due to redesign of the development. Alternative H would require the same mitigation measures identified in Section 2.2 of the Draft EIR (2015) and summarized in **Table 4.0-3**. Although mitigation measures are proposed, direct and cumulative construction and operational impacts would *remain significant and unmitigable*.

## Biological Resources

As discussed in Section 2.3 of the Draft EIR (2015), *Biological Resources*, development of the proposed Project would result in significant impacts to biological resources; however, proposed mitigation measures would reduce these impacts to a less than significant level.

Under Alternative H, the 1,869-acre Project site would be developed in accordance with the approved Preserve and development boundaries as shown in the MSCP County Subarea Plan. The Project site includes approximately 762 acres designated for development, of which 692.5 acres



of land are proposed to be developed. The remaining 1,107 acres is designated as MSCP Preserve, which is 104.3 acres more than the proposed Project. No fuel modification zones or privately owned lots are located in the Preserve or on proposed restoration areas that are designated as Otay Ranch RMP Preserve. Alternative H would require the conveyance of ~~786.7~~ 790.3 acres to the Otay Ranch RMP Preserve, which is part of the MSCP Preserve. All required conveyance will be located within the Otay Ranch, although is not required to be within the Village 13 property. A supplemental biological resource technical report was prepared for Alternative H as **Appendix D-3**.

Alternative H would result in roughly 87 acres less of development than the proposed Project as it is consistent with the existing County MSCP Subarea Plan boundary. Therefore, no boundary adjustment would be required under Alternative H. Alternative H proposes to conserve roughly 70 acres of land currently designated for development as Conserved Open Space that would be protected by a biological open space easement or transferred to the Otay Ranch RMP Preserve at a later date. The Conserved Open Space is composed of five areas that were previously designated as development within the Otay Ranch GDP/SRP. These areas include an area within which a large patch of San Diego thornmint is located (13.4 acres), an area with vernal pools located within the K8 mesa (12.23 acres), the realigned Otay Lakes Road (32.5 acres), and a development area (11.16 acres) that currently has no access and is adjacent to the Not a Part parcel.

This alternative would provide additional conservation of high-quality habitat for the Quino checkerspot butterfly in the eastern edge of the property and along the higher elevation ridgelines. A biological open space easement would be placed over the entire Otay Ranch RMP Preserve on-site and the Conserved Open Space (1,176.5 acres) for the protection of the Quino checkerspot butterfly and its habitat. Alternative H also includes the construction of the easternmost wildlife crossing under Otay Lakes Road that was included in the proposed Project. In addition to the conservation of habitat, the *Quino Checkerspot Butterfly Management/Enhancement Plan* (Appendix C of the *Biological Resources Technical Report Supplemental Analysis - Otay Ranch Resort Village - Alternate H* [Appendix D-3]) includes performance measures related to percentage of native cover, survival criteria, and adaptive management triggers which are included in mitigation measure M-BI-9b.

Improvements to Otay Lakes Road east of the Project boundary, which includes two additional drainage features, would result in approximately 59 acres of impacts off-site. This would result in potential direct impacts to least Bell's vireo individuals (one pair observed in 2006), approximately 0.16 acre of occupied least Bell's vireo habitat, and direct impacts to approximately 6.2 acres of least Bell's vireo critical habitat, as discussed further in **Appendix D-3**. Development of Alternative H impacts the K6 vernal pool group on-site, which includes one pool with a San Diego fairy shrimp cyst. However, these vernal pools are considered low quality as they are not documented to become inundated and are mitigated for in M-BI-10.

Based upon this analysis, Alternative H would result in the same or fewer impacts than identified for the proposed Project and thus the mitigation measures required for Alternative H are similar to those required for the proposed Project. **M-BI-1d** (Conveyance to the POM) for Alternative H has been revised from the proposed Project mitigation. Mitigation **M-BI-1g** (management of the

[10.2-acre parcel used for the Preserve boundary adjustment](#)) for the proposed Project is not applicable to Alternative H because there is no boundary adjustment under Alternative H, and therefore was removed from the list of mitigation measures in **Table 4.0-3**. While **M-BI-2** ([Cornerstone mitigation for Otay Lakes Road](#)) stays the same, the acreage requiring mitigation may change with final design for Alternative H. A new mitigation measure has been added, **M-BI-8** ([Resource Salvage and Restoration Plan](#)), to include salvage of species as required by RMP Phase 2 (RMP2) and to include restoration of coastal sage scrub dominated by Munz's sage and San Diego viguiera for Alternative H. For **M-BI-4** ([permitting for jurisdictional waters and wetlands on-site](#)), **5** ([permitting for jurisdictional waters and wetlands on Cornerstone Lands](#)), and **6** ([permitting for jurisdictional waters and wetlands on County of San Diego lands](#)) the mitigation measure requirements stay the same; however, the conceptual wetland mitigation plan is no longer required because the mitigation will include coordination with the Otay River Restoration Project. For **M-BI-9a** ([QCB take authorization](#)), the take authorization mitigation measure for the species has not changed, but the mitigation language has been clarified for Alternative H. **M-BI-12** ([wildlife culverts](#)) was revised to reflect that only one wildlife crossing would be constructed for Alternative H. **M-BI-16** and **17** are new mitigation measures for Alternative H that address burrowing owl preconstruction surveys and the implementation of a biological open space easement for the Conserved Open Space. **M-BI-18** is included as a new mitigation measure for Alternative H to address impacts to least Bell's vireo within off-site areas for Otay Lakes Road improvements. Revised (with the exception of **M-BI-2, 4, 5, and 6**) and new mitigation measures for Alternative H read as follows:

**M-BI-1d Upland Restoration.** Restoration areas include those areas within the Preserve that will be impacted as allowable uses for infrastructure. These areas include the temporary graded slopes for the road to the water tank, for slopes along Otay Lakes Road, and for the natural drainage bypass facility areas. These restoration areas may incorporate salvaged materials, such as seed collection and translocation of plant materials as determined 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 for approval to the Director of Planning & Development Services and the Director of Parks and Recreation. Prior to grading the Project, a Conceptual Upland Restoration Plan will be submitted to and receive approval from the Director of Planning & Development Services (or her/his designee), the Director of Parks and Recreation, and the Preserve Owner Manager (POM) (see Appendix D of the Biological Resources Technical Report Supplemental Analysis, **Appendix D-3**).

The plan shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. 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.



**M-BI-8** Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable California adolphia and plant species identified as requiring salvage in the RMP2 (San Diego thornmint, San Diego goldenstar, variegated dudleya, San Diego barrel cactus, and San Diego marsh-elder), the Project applicant shall prepare a Resource Salvage and Restoration Plan to address the requirements of the RMP2. Impacted individuals of these species shall be translocated per the RMP2 requirements. The Resource Salvage and Restoration Plan shall be prepared by a County-approved biologist to the satisfaction of the Director of Planning & Development Services (or her/his designee) and in conjunction with the POM.

The Resource Salvage and Restoration Plan will also include compliance with the mitigation standards set forth in the RMP2, including those related to restoration and translocation for San Diego thornmint, San Diego goldenstar, variegated dudleya, San Diego barrel cactus, and San Diego marsh-elder in drainages.

The Resource Salvage and Restoration Plan shall, at a minimum, evaluate options for seed collection and plant salvage and relocation, including individual plant salvage, native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Otay Ranch Resource Management Plan Preserve. The Resource Salvage and Restoration Plan shall include incorporation of relocation and restoration efforts for San Diego goldenstar, San Diego thornmint, variegated dudleya and San Diego barrel cactus, and include San Diego marsh-elder (within this plan or as part of the wetland mitigation), and California adolphia. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site, and shall be based on the most reliable methods of successful relocation. The plan shall also include a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The plan shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, success criteria, and any relevant contingency measures to ensure that no-net-loss is achieved. The plan shall also be subject to the oversight of the Director of Planning & Development Services (or her/his designee).

As required per RMP Policy 3.2, the Project ~~applicant~~ Applicants will coordinate with the POM to meet the RMP2's restoration requirements for habitat restoration, including Munz's sage and San Diego viguiera-dominated coastal sage scrub and native grassland. This restoration will be incorporated into the Biological Resource Salvage and Restoration Plan.

**M-BI-9a** Take Authorization: On or before the recordation of the first Final Map that affects Quino checkerspot butterfly or its habitat, the Project applicant shall demonstrate to the satisfaction of the Director of Planning & Development Services (or her/his designee) that it has secured the necessary take authorization for Quino checkerspot butterfly through one of the following: (a) Section 7 Consultation, (b) Section 10 incidental take permit, or (c) the County's MSCP Subarea Plan Quino checkerspot

~~Butterfly~~butterfly Addition (~~Quino checkerspot butterfly~~ Addition), if and when approved. If the Project receives take authorization through the County's Quino checkerspot butterfly Addition, the Project will thereby satisfy any and all Quino checkerspot butterfly mitigation requirements of the County. If the Project receives take authorization through the federal Endangered Species Act (FESA) Section 7 or Section 10 processes, the Project ~~applicant~~Applicants will comply with any and all conditions, including preconstruction surveys that the USFWS may require for take of Quino checkerspot butterfly pursuant to FESA. The Project shall conserve through a biological open space easement a total of 1,176.5 acres (69.3 acres of open space and 1107.2 acres of preserve land) ~~the amount of suitable or occupied for the~~ Quino checkerspot butterfly habitat required by the USFWS in the relevant Biological Opinion (Section 7) Habitat Conservation Plan (Section 10).

This biological open space easement shall be for the protection of biological resources, and all of the following shall be prohibited on any portion of the land subject to said easement: grading; excavating; placing soil, sand, rock, gravel, or other material; clearing vegetation; constructing, erecting, or placing any building or structure; vehicular activities; dumping trash; or using the area for any purpose other than as open space. The only exceptions to this prohibition are for activities conducted pursuant to a revegetation or habitat management plan approved by the Director of Planning & Development Services. This biological open space easement shall authorize the County and its agents to periodically access the land to perform management and monitoring activities for species and habitat conservation.

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

**M-BI-12** One wildlife culvert shall be constructed to provide and improve habitat linkages and movement corridors (Figure 2.3-14). In general, the design of the wildlife culvert 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 sight from one end to the other. Because there is natural light within the culverts, low-level illumination is not included. The detail of the wildlife culvert or crossing that shall be provided is presented below.

- **Otay Lakes Road Wildlife Crossing (Identified as No. 1) (58 feet long × 20.75 feet wide × 12.08 feet tall = openness ratio of 1.12)**

This structure shall be located 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 6-foot-wide wildlife path with a soft surface along this crossing to allow for wildlife movement.

**M-BI-16 Burrowing Owl Preconstruction Survey for Alternative H.** Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the Project applicant or its designee shall retain a County of San Diego-approved biologist to conduct focused preconstruction surveys for burrowing owl during breeding or non-breeding season. The surveys shall be performed no earlier than 7 days prior to the commencement of any clearing, grubbing, or grading activities and will be repeated if there is a lapse of construction activity longer than 7 days. If occupied burrows are detected, the County-approved biologist shall prepare a plan that is consistent with the County of San Diego *Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County*. This strategy states that burrowing owls must be relocated out of the impact area using passive or active methodologies subject to review and approval by the wildlife agencies (i.e., California Department of Fish and Wildlife and U.S. Fish and Wildlife Service) and the County. The plan includes burrowing owl relocation plans to avoid impacts from construction-related activities and may include construction of artificial burrows.

**M-BI-17 Biological Open Space Easement for Conserved Open Space.** On or before the recordation of the first Final Map that affects the lots listed below, the Project applicant will protect the Conserved Open Space areas: Lots E, F, G, H, and I. Specifically, these five lots shall be preserved on-site and shall be (a) added to the Otay Ranch RMP Preserve, and conveyed to the Otay Ranch RMP POM, or (b) managed under a County of San Diego ~~(County)~~-approved site-specific [Resource Management Plan \(RMP\)](#) through a County biological open space easement ([see Appendix E of the Biological Resources Technical Report Supplemental Analysis, Appendix D-3](#)). If the Project applicant pursues option (b) and secures a biological open space easement, the Conserved Open Space may be transferred to the Otay Ranch RMP at a later date in accordance with requirements of the County. This biological open space easement shall be for the protection of biological resources, and all of the following shall be prohibited on any portion of the land subject to said biological open space easement: grading; excavating; placing soil, sand, rock, gravel, or other material; clearing vegetation; constructing, erecting, or placing any building or structure; vehicular activities; dumping trash; or using the area for any purpose other than as open space. The only exceptions to this prohibition are for activities conducted pursuant to a revegetation or habitat management plan approved by the Director of Planning & Development Services. This biological open space easement shall authorize the County and its agents to periodically access the land to perform management and monitoring activities for species and habitat conservation.

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

If areas of Conserved Open Space are managed through the biological open space easement, the Project Applicants shall prepare and implement a site-specific RMP prior to the approval of the first Final Map. The site-specific RMP shall be submitted to the County and agencies for approval as required.

In addition, the County-approved site-specific RMP funding costs shall be identified and fully funded to ensure that the funding source remains adequate in perpetuity. One site-specific RMP should be developed to cumulatively manage all Conserved Open Space lands managed under this condition. If more than one biological open space easement is recorded, the site-specific RMPs may be phased to incorporate lands as they are dedicated to the County. This condition may be waived with written approval by the Director of Planning & Development Services to the extent that any of the areas of Conserved Open Space (69.83 acres) described are added to the Otay Ranch RMP Preserve for active monitoring and management by the POM.

**M-BI-18** No clearing, grading, or grubbing activities may occur within occupied least Bell's vireo habitat during the breeding season (March 15 to September 15, annually). If construction is proposed to occur during the breeding season, a nesting survey for least Bell's vireo shall be conducted prior to the onset of construction. The nesting bird surveys, if required due to construction timing, shall be conducted by a qualified biologist for the Director of Planning and Development Services to identify active nest locations. Construction may occur if active nests can be avoided and construction can be modified by methods such as construction of berms or walls to provide an adequate buffer, or to maintain noise levels below 60 dBA  $L_{eq}$ , or other Wildlife Agency approved restrictions at the nest site.

Lighting of preserve lands including areas occupied by least Bell's vireo shall be avoided or directed away from the preserve, wherever feasible and consistent with public safety. Where necessary, construction activities shall provide adequate shielding with native plants, berming, and/or other methods to protect the preserve and sensitive species from night lighting.

Grading and/or improvement plans shall include the requirement that protective fencing be placed along the open space boundaries and construction areas to prevent human access to occupied habitat. For areas temporarily impacted for construction of Otay Lakes Road, landscaping shall be limited to native vegetation and use of invasive plant species within the preserve area shall be prohibited. Temporary impacts shall be restored to suitable habitat for least Bell's vireo and/or suitable native successional habitat.

With the implementation of the mitigation measures in Section 2.3 of the Draft EIR (2015), in addition to the revisions and new mitigation measures listed above, impacts would be reduced to a *less than significant* level. All mitigation measures for Alternative H are summarized in **Table 4.0-3**. Due to the more compact footprint and resulting decreased edge effects, as well as the overall fewer direct impacts to various habitats, Alternative H would result in slightly less impacts than the proposed Project.

## Cultural Resources

As discussed in Section 2.4 of the Draft EIR (2015), *Cultural Resources*, development of the proposed Project would result in significant impacts to cultural resources; however, while mitigation measures would be implemented that would reduce Project impacts to a less than significant level, cumulative impacts would remain significant and unavoidable.

Development under Alternative H would result in fewer impacts to cultural resources when compared to the proposed Project because Alternative H would result in the development of 735.5 acres compared to the proposed Project, which would develop roughly 780 acres. Consequently, the smaller development footprint for Alternative H would impact fewer cultural resources than the proposed Project. The proposed Project would impact 53 cultural resources, nine of which are significant, while Alternative H would impact 37 cultural resources, five of which are significant. Based upon an analysis of the guidelines for determining significance of impacts to cultural resources in comparison with the proposed Project, Alternative H impacts would be less than those identified for the proposed Project. Mitigation measures identified in Section 2.4 of the Draft EIR (2015) would still apply, and none of the significant cultural resources have been identified as Resource Protection Ordinance -significant (see **Appendix D-4**). Therefore, with implementation of the mitigation measures in Section 2.4 of the Draft EIR (2015), impacts would be reduced to a ***less than significant*** level. **M-CR-1** would only apply to the five sites that would be potentially impacted by Alternative H. All cultural resource mitigation measures required for Alternative H are summarized in **Table 4.0-3**.

## Geology and Soils

As discussed in Section 2.5 of the Draft EIR (2015), *Geology and Soils*, development of the proposed Project would result in significant impacts to geology and soils; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Development under Alternative H would result in ~~17.8~~<sup>87.1</sup> fewer acres of development than the proposed Project. Similar potential for rock fall, soil erosion, seismic ground shaking, and surficial instability would result when compared to the proposed Project (see **Appendix D-6**). Based upon an analysis of the guidelines for determining significance of impacts to geology and soils in comparison with the proposed Project, Alternative H would result in similar geology and soils impacts identified for the proposed Project. Similar to the proposed Project, development under Alternative H would require adherence to the mitigation measures discussed in Section 2.5 of the Draft EIR (2015) and summarized in **Table 4.0-3**. Therefore, with implementation of these mitigation measures, impacts would be reduced to a ***less than significant*** level.

## Hazards and Hazardous Materials

As discussed in Section 2.6 of the Draft EIR (2015), *Hazards and Hazardous Materials*, development of the proposed Project would result in significant impacts related to wildland fire hazards; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Development under Alternative H would result in the same number of dwelling units as the proposed Project and would be subject to a similar level of wildland fire hazards as the proposed Project. Based upon a reduction in the edge effects of the Project due to a contiguous development footprint, the potential exposure to homes adjacent to the open space is less than the proposed Project. Alternative H includes a public safety site and therefore meets the General Plan Safety Element Response Objective of 5 minutes (see **Appendix D-21**). The travel time standard of 5 minutes is also achieved from the Chula Vista Woods Fire Station #8 due to the elimination of development in the eastern portion of the site (see **Figure 4.0-7**) should an interim fire service agreement be reached with the City of Chula Vista. A sheriff's storefront is proposed to be located on the public safety site. The storefront will be 500 square feet to allow for suspect processing and short-term holding for detainees per the request of the Sheriff's Management Services Bureau (letter from Deena Raver, Project Manager dated June 16, 2017).

Similar to the proposed Project, storm water basins would be proposed as part of Alternative H. Although inspection and maintenance of the basins would maintain their structural and storm water storage and discharge design standards, the presence of these basins may cause an increase in human exposure to health vectors.

Regarding the private air strip adjacent to the Project site, residential development proposed under Alternative H complies with the Caltrans *California Airport Land Use Planning Handbook* safety guidance. Only seven parcels fall within a safety zone that places restrictions on residential densities, and Alternative H would comply with this density limit. The proposed location for the resort under Alternative H would fall within safety zones with limits on occupancy intensities. To remain compliant with Caltrans guidance, the resort should either be designed to have conference rooms or meeting locations with reduced occupancy maximums or have these rooms constructed outside of the safety zone (see **Appendix D-20**).

Based upon an analysis of the guidelines for determining significance of impacts to hazards and hazardous materials in comparison with the proposed Project, Alternative H would result in similar impacts identified for the proposed Project and require the same mitigation measures identified in Section 2.6 of the Draft EIR (2015) and summarized in **Table 4.0-3**. With implementation of these mitigation measures, impacts would be reduced to a *less than significant* level.

## Noise

As discussed in Section 2.7 of the Draft EIR (2015), *Noise*, the proposed Project would result in significant traffic-generated noise impacts and operational noise impacts associated with mechanical equipment in residential and commercial developments and deliveries to the neighborhood commercial site; however, mitigation measures would be implemented that would reduce these impacts to a less than significant level.

Alternative H would result in a similar or less number of ADTs due to the same mix of land uses but a smaller development footprint, and would result in similar or less operational noise levels when compared to the proposed Project. Noise impacts associated with construction activities would be similar to or less than the proposed Project, as this alternative calls for the development



of less acreage and a reduction in the number of days of blasting. Other operational noise emissions such as from vehicle traffic under Alternative H are anticipated to be less than the proposed Project. Based upon an analysis of the guidelines for determining significance of impacts to noise in comparison with the proposed Project, Alternative H would result in the same or fewer impacts than identified for the proposed Project and require mitigation measures **M-N-2** through **M-N-6** identified in Section 2.7 of the Draft EIR (2015). In addition, the supplemental noise analysis for Alternative H (**Appendix D-11**) included revisions to M-N-1. Minor revisions, such as changes to referenced impacted receptor tables and barrier requirements, were necessitated by changes in the design and noise prediction methodologies described in **Appendix D-11**. The revised mitigation measure for Alternative H reads as follows:

- M-N-1a** The Project ~~applicant~~ Applicants shall prepare a noise protection easement for lots encircled on **Figures 2-1** and **2-2** of the noise study addendum (**Appendix D-11**). 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, will 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 ~~a~~ Applicants shall dedicate to the County a noise protection easement on each of the lots encircled on **Figures 2-1** and **2-2** of the noise study addendum (**Appendix D-11**). 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 all lots encircled on **Figures 2-1** and **2-2** of the noise study addendum (**Appendix D-11**), the noise protection easement shall require that, prior to approval of the building permit or other development approval, an acoustical study is 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 ~~applicant~~ Applicants shall construct a noise barrier at the top of slopes and at the back of yards for any Noise Sensitive Land Use that would be exposed to a CNEL greater than 60 dBA as listed in **Table 2** of the noise study addendum. The barrier shall be constructed to the height specified in **Table 2** and generally follow applicable alignments shown on **Figures 2-1** and **2-2** the noise study addendum (**Appendix D-11**). Barriers may be constructed of masonry, wood, and 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** of the noise study addendum, ~~(Appendix D-11)~~) and where two-story homes are planned to be constructed within 300 feet of the Otay Lakes Road edge of pavement, the noise protection easement required by mitigation measure **M-N-1** shall specify that the

Project ~~applicant~~-Applicants must 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.

Overall, Alternative H would result in fewer impacts related to noise when compared to the proposed Project. Implementation of mitigation measures **M-N-2** through **M-N-6** listed in Section 2.7 of the Draft EIR (2015) and implementation of revised **M-N-1** stated above would reduce Alternative H noise impacts to a *less than significant* level. All mitigation measures required for Alternative H are summarized in **Table 4.0-3**.

### Solid Waste

As discussed in Section 2.8 of the Draft EIR (2015), *Solid Waste*, the proposed Project would contribute to significant cumulative impacts to solid waste disposal.

Development of 1,938 dwelling units and associated retail and commercial uses under Alternative H would cause a similar demand for solid waste disposal. The proposed Project would comply with all relevant mandates and regulations related to solid waste at the time of Project construction. However, from a regional standpoint, no known mitigation measures would be able to avoid significant cumulative impacts related to the projected future solid waste disposal needs of the San Diego County region; therefore, the cumulative impact would *remain significant and unmitigable* under this alternative.

### Transportation and Traffic

As discussed in Section 2.9 of the Draft EIR (2015), *Transportation and Traffic*, the proposed Project would result in significant traffic impacts in the traffic study area, absent mitigation. Improvements and mitigation have been identified to reduce these impacts to less than significant levels, at such time that an agreement is met between the project applicant, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable.

Based on the trip generation rates presented in Section 2.9 of the Draft EIR (2015), the proposed Project would generate 27,191 ADT. As discussed above, Alternative H would develop roughly the same residential density and commercial square footage as the proposed Project. The internal circulation of the site has been modified, however, and a supplemental analysis of the internal street and intersection level of service demonstrates compliance with the Otay Ranch SRP (see **Appendix D-12**). Based upon an analysis of the guidelines for determining significance of impacts to transportation and traffic in comparison with the proposed Project, Alternative H would result in similar impacts to those identified for the proposed Project and require the same mitigation measures identified in Section 2.9 of the Draft EIR (2015). In addition, the following mitigation measure was developed specifically to address cumulative-level impacts between the City of Chula Vista/County boundary and Driveway #2 for Alternative H. Implementation of Alternative H

would cause a LOS F rating for this road segment. In addition to **M-TR-11** and **M-TR-12**, Alternative H would require **M-TR-13** as follows:

**M-TR-13** 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 Driveway #2. Due to phasing of construction, the Project applicant shall prepare a supplemental traffic study prior to recordation of the first final map to determine the existing traffic plus EDU timing threshold, satisfactory to the County Engineer, such that the improvements are operational prior to the determination of the supplemental traffic study or construction of the 896<sup>th</sup> EDU, whichever is sooner.

With implementation of the mitigation measures identified in Section 2.9 of the Draft EIR (2015) and the additional measure M-TR-13 specified here, traffic impacts would be reduced to a *less than significant* level, at such time that an agreement is met between the project applicant, County of San Diego, City of Chula Vista, and/or Caltrans. Until then, impacts are considered to be significant and unavoidable. All mitigation measures required for Alternative H are summarized in **Table 4.0-3**.

### Global Climate Change

Section 3.8 of the previously circulated Draft EIR (2015), *Global Climate Change*, identified GHG emission impacts of the proposed Project to be less than significant. Section 3.8 of the Draft EIR (2015) is replaced in full by Section 2.10, *Global Climate Change*. The updated analysis in Section 2.10 determined that the proposed Project would result in significant impacts to global climate change, absent mitigation. Environmental design considerations and mitigation measures have been identified to reduce these impacts to less than significant levels.

Construction of Alternative H would occur over a period of 10 years, whereas construction of the proposed Project would occur over eleven years. As shown in the Air Quality and Global Climate Change Supplemental Analysis (**Appendix D-1**), construction of this alternative would emit about 31,904 MT CO<sub>2e</sub> per year, after accounting for the quantifiable effects of regulatory compliance measures and environmental design considerations (but not mitigation measures). In comparison, the unmitigated construction of the proposed Project would increase the existing emissions level by approximately ~~37,695~~38,476 MT CO<sub>2e</sub> per year (see **Table 4.0-6**).

Operational GHG emissions under Alternative H would be similar to the proposed Project. Alternative H would result in the same development of 1,938 dwelling units and other uses (resort, elementary school, parks, and Conserved Open Space). Due to the contiguous development footprint in the center of the Project site, vehicle miles travelled will be slightly reduced by the elimination of the easternmost planning area. Therefore, operational emissions associated with this alternative would be slightly less than the proposed Project (see **Appendix D-1**).

Without mitigation, Alternative H would cause an increase in GHG emissions and result in a potentially significant impact. However, with implementation of mitigation measures **M-GCC-1**

through **M-GCC-86** identified in Section 2.10, Alternative H would not obstruct attainment of the statewide emission reduction mandates established by AB 32, SB 32, and the relevant Executive Orders. Alternative H would utilize a suite of environmental design considerations and mitigation measures that reduce GHG emissions to net zero through on-site strategies targeted to the alternative's built environment and transportation sources, and secure additional, necessary emission reductions through off-site, offset projects. Alternative H also would be consistent with applicable goals and policies of the County's General Plan and would not conflict with SANDAG's *San Diego Forward* plan, as development on the site has been anticipated for more than twenty years by the County and regional planning agencies, like SANDAG. Based upon an analysis of the CEQA Appendix G Guidelines for determining significance of impacts to global climate change in comparison with the proposed Project, Alternative H would result in less impacts compared to those identified for the proposed Project but would still require the same mitigation measures identified in Section 2.10 and summarized in **Table 4.0-3**. In sum, Alternative H impacts would be *less than significant* with implementation of mitigation measures.

### 4.9.3 Summary of Alternative H Analysis

Development of the Project site under Alternative H would result in the same number of housing units and approximately the same amount of acreage would be developed as the proposed Project. Additionally, Alternative H achieves ~~the majority of all of the~~ Project objectives stated in **Chapter 1.0** of the Draft EIR (2015) for the proposed Project. ~~However~~In addition, Alternative H would be located on a geographically contiguous footprint, resulting in less grading and blasting. This would also reduce edge effects to the Preserve. This alternative would result in similar impacts to aesthetics, cultural resources, geology and soils, hazards and hazardous materials, and solid waste when compared to the proposed Project. Impacts to air quality, biological resources, noise, and traffic would be the same or slightly less under Alternative H when compared to the proposed Project. Mitigation measures implemented for Alternative H would be largely the same as the proposed Project, with the exceptions noted above. **Table 4.0-3** provides a summary of all mitigation measures for Alternative H. While Alternative H would result in less Preserve land conveyed to the Otay Ranch RMP Preserve as conveyance obligation, more land would be designated as Conserved Open Space, resulting in an overall net increase in Preserve and Conserved Open Space as a result of the reduced development footprint.

### 4.10 Environmentally Superior Alternative

**Table 4.0-2** summarizes the potential environmental impacts associated with the different alternatives and provides a comparison with the potential impacts of the proposed Project. CEQA requires an EIR to identify the environmentally superior alternative among all of the alternatives considered, including the proposed Project. If the "no project" alternative is selected as the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6[c][2]).

The environmental analysis of alternatives indicates, through a comparison of potential impacts from each of the proposed alternatives and the proposed Project, that Alternative A, the "no project" alternative, would be considered environmentally superior because all potential environmental impacts would be reduced under this alternative. However, as required by CEQA,

when the “no project” alternative is selected as environmentally superior, an environmentally superior alternative must be selected among the other alternatives remaining. Based on the environmental analysis of the Project alternatives provided above, Alternative G would be considered the environmentally superior alternative among the remaining alternatives. This alternative would reduce or avoid impacts associated with aesthetics, air quality, biological resources, cultural resources, noise, and transportation and traffic when compared to the proposed Project.

**Table 4.0-1  
Comparison of Preserve Conveyance Obligation by Alternative**

Alternative	DU	<u>DU</u> Change	Developed Acreage	Preserve Conveyance Obligation*	Change in Preserve Obligation Acreage	<del>Preserve +</del> <del>OS</del> <u>Conserved</u> <u>Undeveloped</u> <u>Land</u>	<del>Change</del> <del>Preserve</del> <del>+Conserved</del> <del>OS</del>
<b>Proposed Project</b>	<b>1,938 DU</b>	--	779.6 ac.	887.7 ac	--	<del>1,089.0 ac</del>	--
<b>A</b>	0 DU	-1,938 DU	0.0 ac	0.0 ac	-887.7 ac	<del>1,868.8</del> <u>761.8</u> ac	<del>+779.6 ac</del>
<b>B</b>	1,938 DU	0	762 ac.	±826.1 ac	-61.6 ac	<del>±1,107.0</del> ac	<del>+18 ac</del>
<b>C</b>	1,241 DU	-697 DU	484 ac.	±562.4 ac	-325.3 ac	<del>±1,385</del> <u>277.8</u> ac	<del>+296 ac</del>
<b>D</b>	1,938 DU	0	484 ac.	±550.5 ac	-337.18 ac	<del>±1,385</del> <u>277.8</u> ac	<del>+296 ac</del>
<b>E</b>	1,391 DU	-547 DU	550.1 ac.	±627.4 ac	-260.3 ac	<del>±1,318.9</del> <u>211.7</u> ac	<del>+230 ac</del>
<b>F</b>	1,938 DU	0	550.1 ac.	±621.9 ac	-265.8 ac	<del>±1,318.9</del> <u>211.7</u> ac	<del>+230 ac</del>
<b>G</b>	465 DU	-1,473 DU	224 ac.	±261 ac	-626.7 ac	<del>±1,645</del> <u>537.8</u> ac	<del>+556 ac</del>
<b>H</b>	1,938 DU	0	692.5 ac.	± <del>786.7</del> <u>790.3</u> ac	-101.0 ac.	<del>±1,176.5</del> <u>569.3</u> ac**	<del>+87.5 ac</del>

\*Conveyance Obligation is based on 1.188 acre per proposed developed acreage, minus “common uses” such as parks, schools, and arterial roadways, and conserved open space.

\*\*Under Alternative H, Undeveloped Land would be placed under a conservation easement for the protection of Quino Checkerspot butterfly habitat and is therefore referred to as Conserved Open Space elsewhere in this chapter.

DU = dwelling units; ac = acres; OS = open space

Undeveloped Land = Developable land outside of Otay Ranch RMP Preserve not proposed for development under each alternative

The proposed Project includes an MSCP Boundary Adjustment to reduce onsite existing MSCP Preserve of 1,107 acres by 17.8 acres to 1,089.4 acres. Alternatives A through H would maintain a Preserve area of 1,107 acres for each alternative. ~~Conserved Open Space = Open Space that is not conveyed to the Otay Ranch Preserve/Owner Manager in satisfaction of Preserve Conveyance Obligation~~

**Table 4.0-2**  
**Comparison of Alternatives to Proposed Project**

<b>Environmental Impacts</b>	<b>Proposed Project</b>	<b>Alternative A No Project</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E</b>	<b>Alternative F</b>	<b>Alternative G</b>	<b>Alternative H</b>
Aesthetics	Unmitigable Significant Project- level and Cumulative Impacts	Less than proposed Project; No Impact	Similar to proposed Project; remains significant	Less than proposed Project; remains significant	Less than proposed Project; remains significant	Less than proposed Project; remains significant	Less than proposed Project; remains significant	Less than proposed Project; remains significant	Less than proposed Project; remains significant
Air Quality	Unmitigable Significant Project- level and Cumulative Impacts	Less than proposed Project; No Impact	Greater than proposed Project; remains significant and unmitigable	Less than proposed Project; remains significant and unmitigable	Similar to proposed Project; remains significant and unmitigable	Less than proposed Project; remains significant and unmitigable	Similar to proposed Project; remains significant and unmitigable	Less than proposed Project; remains significant and unmitigable	Less than proposed Project; remains significant and unmitigable
Biological Resources	Less than Significant with Mitigation	Less than proposed Project; No Impact	Greater than proposed Project; remains significant	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation
Cultural Resources	Less than Significant with Mitigation	Less than proposed Project; No Impact	Similar to proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation
Geology and Soils	Less than Significant with Mitigation	Less than proposed Project; No Impact	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation
Hazards and Hazardous Materials	Less than Significant with Mitigation	Less than proposed Project; No Impact	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation
Noise	Less than Significant with Mitigation	Less than proposed Project; No Impact	Greater than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Similar to proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation
Solid Waste	Unmitigable Significant Cumulative Impacts	Less than proposed Project; No Impact	Similar to proposed Project; remains significant and unmitigable	Similar to proposed Project; remains significant and unmitigable	Similar to proposed Project; remains significant and unmitigable	Similar to proposed Project; remains significant and unmitigable	Similar to proposed Project; remains significant and unmitigable	Less than proposed Project; remains significant and unmitigable	Similar to proposed Project; remains significant and unmitigable



Environmental Impacts	Proposed Project	Alternative A No Project	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Alternative H
Transportation and Traffic	<del>Less than Significant with Mitigation</del> <u>Unmitigable Significant Project-level and Cumulative Impacts</u>	Less than proposed Project; No Impact	Greater than proposed Project; <u>remains significant and unmitigable</u> <del>less than significant with mitigation</del>	Less than proposed Project; <u>remains significant and unmitigable</u> <del>less than significant with mitigation</del>	Similar to proposed Project; <u>remains significant and unmitigable</u> <del>less than significant with mitigation</del>	Less than proposed Project; <u>remains significant and unmitigable</u> <del>less than significant with mitigation</del>	Similar to proposed Project; <u>remains significant and unmitigable</u> <del>less than significant with mitigation</del>	Less than proposed Project; <u>remains significant and unmitigable</u> <del>less than significant with mitigation</del>	Similar to proposed Project; <u>remains significant and unmitigable</u> <del>less than significant with mitigation</del>
Global Climate Change	Less than Significant with Mitigation	Less than proposed Project; No Impact	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation	Less than proposed Project; less than significant with mitigation

**Table 4.0-3**  
**Summary of Significant Effects and Mitigation Measures for Alternative H**

<b>SIGNIFICANT AND UNMITIGABLE IMPACTS</b>		
<b>Impact No. and Description of Impact</b>	<b>Mitigation</b>	<b>Conclusion and Mitigation Effectiveness</b>
<b>PROJECT-LEVEL IMPACTS</b>		
<b>2.1 Aesthetics and Visual Resources</b>		
<b>2.1.2.2 Damage to Visual Resources</b>		
<b>AE-1</b> 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.	<p><b>M-AE-1</b> All final 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. Final grading plans will be created based on the preliminary grading plans and submitted by a certified engineer.</p> <p><b>M-AE-2</b> 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.</p>	Significant and unmitigable
<b>2.1.2.3 Scenic Vistas</b>		
<b>AE-2</b> Permanent alteration to views of scenic resources caused by graded hills, buildings, and landscaping.	<b>M-AE-1 and M-AE-2</b> See Above.	Significant and unmitigable
<b>AE-3</b> Permanent alteration to views of the Project site from Otay Lakes Road—a designated scenic route.	<b>M-AE-1 and M-AE-2</b> See Above.	Significant and unmitigable
<b>2.2 Air Quality</b>		
<b>2.2.2.1 Project Conformity with the San Diego Regional Air Quality Strategy</b>		
<b>AQ-1</b> VOC, NO <sub>x</sub> , CO, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions during Project construction	<p><b>Construction Emissions</b></p> <p><b>M-AQ-1a</b> The Project Applicants shall implement all of the following measures during construction of the proposed Project:</p> <ul style="list-style-type: none"> <li>Water actively disturbed surfaces at least three times daily;</li> <li>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</li> </ul>	Significant and unmitigable

SIGNIFICANT AND UNMITIGABLE IMPACTS		
Impact No. and Description of Impact	Mitigation	Conclusion and Mitigation Effectiveness
	<p>incorporated according to manufacturers' specifications to all inactive construction areas;</p> <ul style="list-style-type: none"> <li>• Water sprayers shall be installed on the rock crushing equipment to control particulate emissions during crushing operations;</li> <li>• <u>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;</u></li> <li>• <u>Stabilize the surface soil in areas subject to sub-surface blasting immediately before each blast;</u></li> <li>• <u>All construction roads with more than 150 daily trips shall be paved;</u></li> <li>• <u>All construction access roads from Otay Lakes Road onto the Project site shall be paved for a minimum of 100 feet onto the site;</u></li> <li>• <u>Approved chemical soil stabilizers shall be applied according to the manufactures' specifications to all active construction areas, both pre- and post-blasting activity.</u></li> <li>• <u>At a minimum, all off-road, diesel-powered construction equipment greater than 50 horsepower shall meet the Tier 3 emission standards for nonroad diesel engines promulgated by the U.S. Environmental Protection Agency, if such equipment is available in the San Diego region. Construction equipment that meets the Tier 4 emission standards will be integrated into the construction fleet during the later stages of the Project's construction period (post 2020), if such equipment becomes available in the San Diego region.</u></li> <li>• Paved streets shall be swept frequently (<del>water sweeper with reclaimed water recommended; wet broom permitted</del>) if soil material has been carried onto adjacent paved, public thoroughfares from the Project site;</li> <li>• 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;</li> <li>• The primary contractor shall be responsible for ensuring that all construction equipment is</li> </ul>	

SIGNIFICANT AND UNMITIGABLE IMPACTS		
Impact No. and Description of Impact	Mitigation	Conclusion and Mitigation Effectiveness
	<p>properly tuned and maintained before and for the duration of on-site operation;</p> <ul style="list-style-type: none"> <li>Termination of grading <u>and/or surface-level blasting activities</u> shall occur if winds exceed 25 mph;</li> <li>Hydroseeding of graded pads <u>and surface-level blasting areas</u> shall occur if development will not occur within 90 days;</li> <li>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;</li> <li>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;</li> <li>All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications;</li> <li>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;</li> <li>The use of electrical construction equipment shall be employed where feasible;</li> <li>The use of catalytic reduction for gasoline-powered equipment shall be employed where feasible;</li> <li>The use of injection timing retard for diesel-powered equipment shall be employed where feasible; and</li> <li>Construction diesel fuel shall be comprised of at least 25 percent biodiesel.</li> </ul> <p><u><b>M-AQ-1b</b> The applicants or subsequent designee(s) shall prepare a Dust Control Plan, subject to review and approval by the County of San Diego Department of Planning &amp; Development Services, to be implemented during the Project's construction period. The Dust Control Plan, at a minimum, shall provide the following information:</u></p> <ul style="list-style-type: none"> <li><u>Project name and location;</u></li> </ul>	

SIGNIFICANT AND UNMITIGABLE IMPACTS		
Impact No. and Description of Impact	Mitigation	Conclusion and Mitigation Effectiveness
	<ul style="list-style-type: none"> <li>• <u>Contact information for the property owner(s) and construction contractor(s);</u></li> <li>• <u>Primary project contact responsible for implementation of the plan;</u></li> <li>• <u>Primary agency contact responsible for oversight of the plan;</u></li> <li>• <u>Description of construction activities;</u></li> <li>• <u>Plot plan;</u></li> <li>• <u>Information on the amount of area to be disturbed;</u></li> <li>• <u>Phasing schedule for dust generating activities;</u></li> <li>• <u>List of dust generating activities;</u></li> <li>• <u>Fugitive dust control measures to be implemented, including measures to prevent trackout/carryout;</u></li> <li>• <u>Adaptive management provisions that authorize modifications to dust control measures (e.g., increased watering applications) in response to on-site, real-time conditions;</u></li> <li>• <u>Requirement to post publicly visible signs with the contact information for the primary project and agency contacts in the event of dust control complaints;</u></li> <li>• <u>Requirement to take any necessary corrective action in response to dust control complaints within 24 hours;</u></li> <li>• <u>Recordkeeping requirements to log daily dust control activities; and</u></li> <li>• <u>Certification by primary agency contact of compliance at quarterly intervals.</u></li> </ul> <p><u>A sample Dust Control Plan template is provided as an attachment to this mitigation measure.</u></p> <p><u>The Fugitive Dust Control Plan will also include a requirement to post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.</u></p> <p><u><b>M-AQ-1c</b> Prior to the issuance of grading permits, the applicants or subsequent designee(s) shall develop a construction truck traffic plan for implementation during the Project's construction</u></p>	

SIGNIFICANT AND UNMITIGABLE IMPACTS		
Impact No. and Description of Impact	Mitigation	Conclusion and Mitigation Effectiveness
	<p><u>period. The plan shall identify the preferred truck routing from freeways and/or major roadways, as applicable, to the Project site; those routes shall avoid areas with substantial numbers of sensitive receptors, such as residential developments and/or schools, while minimizing the travel distance. The plan shall be submitted to the County of San Diego Department of Planning &amp; Development Services for review and approval.</u></p> <p><u>M-AQ-1d Prior to the issuance of grading and building permits, the applicants or subsequent designee(s) shall submit verification to the County of San Diego Department of Planning &amp; Development Services that a ridesharing program for the construction crew has been encouraged by the contractor(s). Evidence shall include copies of rideshare materials provided to employees and any incentives offered.</u></p> <p><u>M-AQ-1e The Project's architectural coatings shall comply with Rule 1113 of the South Coast Air Quality Management District, as amended in 2013.</u></p>	
AQ-2 Operational emissions of VOC, CO and PM <sub>10</sub>	<p><b>M-AQ-2a</b> Project permittees shall implement the following mitigation measures to reduce the air pollutant emissions associated mobile sources and on-site gas combustion (CAPCOA 2010):</p> <ul style="list-style-type: none"> <li>• Plant low-maintenance, drought-resistant plant species that reduce gas-powered landscape maintenance equipment usage and water consumption.</li> <li>• Equip residential structures with electric outlets in the front and rear of the structure to facilitate use of electrical lawn and garden equipment.</li> <li>• All single-family residences shall be constructed with connections for solar water heaters and solar and/or wind renewable energy systems.</li> <li>• Use regulated low-VOC coatings for all architectural coating activities.</li> <li>• Incorporate pedestrian trails, paths and sidewalks, and bicycle trails to encourage reduction in vehicle usage and trips.</li> </ul> <p><u>M-AQ-2b The Project's HOA shall require that all open space areas under its control be landscaped and maintained with electrical equipment, to the extent feasible.</u></p>	Significant and unmitigable



SIGNIFICANT AND UNMITIGABLE IMPACTS		
Impact No. and Description of Impact	Mitigation	Conclusion and Mitigation Effectiveness
<b>2.9 Transportation and Traffic</b>		
<b>2.9.3.2 Existing Plus Project Phase I</b>		
<b>TR-1</b> Otay Lakes Road, between Wueste Rd and the City of Chula Vista/County boundary (unacceptable LOS, City of CV) – Proposed Phase I project trips would comprise more than 5 percent of the total segment volume, and would also add more than 800 ADT to this roadway segment.	<b>M-TR-1</b> Prior to recordation of the first final map, the Project <a href="#">Applicants</a> 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 construction of the 728 <sup>th</sup> EDU.	Significant and unmitigable
<b>2.9.3.3 Existing Plus Project Buildout</b>		
<b>TR-4</b> The unsignalized Otay Lakes Road/Wueste Road intersection (unacceptable LOS, City of CV) - With the addition of Project traffic, this intersection (#20) would operate at an unacceptable LOS during the PM peak hour and the buildout Project traffic would comprise more than 5 percent of the total entering volumes.	<b>M-TR-4</b> Prior to recordation of the first final map, the Project <a href="#">Applicants</a> 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 construction of the 1,500 <sup>th</sup> EDU.	Significant and unmitigable
<b>TR-5</b> Otay Lakes Road, between Lake Crest Dr and Wueste Rd (unacceptable LOS, City of CV) – Proposed buildout project trips would comprise more than 5 percent of the total segment volume, and would also add more than 800 ADT to this roadway segment. Additionally, the intersection of Otay Lakes Road / Wueste Road is projected to operate at an unacceptable LOS during the PM peak hour.	<b>M-TR-5</b> Prior to recordation of the first final map, the Project <a href="#">Applicants</a> 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 construction of the 910 <sup>th</sup> EDU.	Significant and unmitigable
<b>TR-6</b> Otay Lakes Road, between Wueste Rd and the City of Chula Vista/County boundary (unacceptable LOS, City of CV) – Proposed project trips would comprise more than 5 percent of the total segment volume, and would also add more than 800 ADT to this roadway segment. Additionally, the intersection of Otay Lakes Road / Wueste Road is projected to operate at an unacceptable LOS during the PM peak hour.	<b>M-TR-6</b> Prior to recordation of the first final map, the Project <a href="#">Applicants</a> 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 construction of the 728 <sup>th</sup> EDU.	Significant and unmitigable

SIGNIFICANT AND UNMITIGABLE IMPACTS		
Impact No. and Description of Impact	Mitigation	Conclusion and Mitigation Effectiveness
<b>CUMULATIVE-LEVEL IMPACTS</b>		
<b>2.1 Aesthetics and Visual Resources</b>		
<b>2.1.2.3 Scenic Vistas</b>		
<b>AE-4</b> 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.	<b>M-AE-1 and M-AE-2</b> See Above.	Significant and unmitigable
<b>2.2 Air Quality</b>		
<b>2.2.2.1 Project Conformity with the San Diego Regional Air Quality Strategy</b>		
<b>AQ-3</b> VOC, NOx, CO, PM <sub>10</sub> , and PM <sub>2.5</sub> emissions during Project construction	<b>M-AQ-1</b> <a href="#">a through e</a> See Above.	Significant and unmitigable
<b>AQ-4</b> Cumulative operational emissions of PM <sub>10</sub> , CO, and VOC	<b>M-AQ-2</b> <a href="#">a and b</a> See Above.	Significant and unmitigable
<b>2.8 Solid Waste</b>		
<b>2.8.3 Cumulative Impact Analysis</b>		
<b>SW-1</b> Contribute to regional need for increased landfill capacity which may require construction of new landfills in the County.	No known mitigation measures would avoid significant impacts	Significant and unmitigable
<b>2.9 Transportation and Traffic</b>		
<b>2.9.3.4 Cumulative Year (2025)</b>		
<b>TR-7</b> Otay Lakes Road / Wueste Road (City of CV) - This intersection (#20) would operate at an unacceptable LOS 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.	<b>M-TR-7</b> Prior to recordation of the first final map, the Project <a href="#">aApplicants</a> 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 construction of the 1,234 <sup>th</sup> EDU.	Significant and unmitigable
<b>TR-8</b> Otay Lakes Road / SR-94 (County) - This intersection (#21) would operate at an unacceptable LOS during the AM and PM peak hours, respectively.	<b>M-TR-8</b> Prior to recordation of the first final map, the Project <a href="#">aApplicants</a> 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
<b>TR-9</b> Otay Lakes Road, between Lake Crest Dr and Wueste Rd (unacceptable LOS, City of CV) – Proposed buildout project trips would comprise more than 5 percent of the total segment volume, and would add more than 800 ADT. Additionally, the intersection Otay Lake Road / Wueste Road is projected to operate at an unacceptable LOS during the peak hours.	<b>M-TR-9</b> Prior to recordation of the first final map, the Project <a href="#">aApplicants</a> 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 construction of the 384 <sup>th</sup> EDU.	Significant and unmitigable

SIGNIFICANT AND UNMITIGABLE IMPACTS		
Impact No. and Description of Impact	Mitigation	Conclusion and Mitigation Effectiveness
<b>TR-10</b> Otay Lakes Road, between Wueste Road and the City of Chula Vista/County boundary (unacceptable LOS, City of CV) – Proposed buildout project trips would comprise more than 5 percent of the total segment volume, and would add more than 800 ADT. Additionally, the intersection of Otay Lake Road/Wueste Road is projected to operate at an unacceptable LOS during the peak hours.	<b>M-TR-10</b> Prior to recordation of the first final map, the Project Applicants 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 construction of the 384 <sup>th</sup> EDU.	Significant and unmitigable

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PROJECT-LEVEL IMPACTS		
2.3 Biological Resources		
<b>BI-1a-1f</b> Potential permanent and temporary impacts to sensitive vegetation communities on-site.	<p><b>M-BI-1a Conveyance</b> On or before the recordation 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 fund the on-going management and maintenance of the Otay Ranch RMP Preserve. Prior to the recordation of each Final Map within each Tentative Map, the Project applicant shall convey land within the Otay Ranch RMP Preserve to the Otay Ranch RMP POM or its designee at a ratio of 1.188 acre for each “Developable Acre” impacted per the Final Map as defined by the Otay Ranch RMP. Based on analysis in this document, the total required conveyance for this project is approximately <del>786.7</del><u>790.3</u> acres with the final acreage determined based on the Final Map for the project. The conveyance may be, but is not required to be, located within Village 13 per the Otay Ranch RMP.</p> <p><b>M-BI-1b Biological Monitoring</b> 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 will 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</p>	Less than significant

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	<p>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.</p> <p>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.</p> <p><b>M-BI-1c Temporary Fencing</b> Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, the Project applicant shall install prominently colored fencing and signage wherever the limits of grading are adjacent to sensitive vegetation communities or other biological resources, as identified by the qualified monitoring biologist. Fencing shall remain in place during all construction activities. All temporary fencing shall be shown on grading plans for areas adjacent to the Preserve and for all off-site facilities constructed within the Preserve. Prior to release of grading and/or improvement bonds, a qualified biologist shall provide evidence to the satisfaction of the Director of Planning &amp; Development Services (or her/his designee) and the Director of Parks and Recreation, that work was conducted as authorized under the approved land development permit and associated plans.</p> <p><b>M-BI-1d Upland Restoration.</b> Restoration areas include those areas within the Preserve that will be impacted as allowable uses for infrastructure. These areas include the temporary graded slopes for the road to the water tank, for slopes along Otay Lakes Road, and for the natural drainage bypass facility areas. These restoration areas may incorporate salvaged materials, such as seed collection and translocation of plant materials as determined 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</p>	

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	<p>that will be prepared and submitted for approval to the Director of Planning &amp; Development Services and the Director of Parks and Recreation. Prior to grading the project, a Conceptual Upland Restoration Plan will be submitted to and receive approval from the Director of Planning &amp; Development Services (or her/his designee), the Director of Parks and Recreation, and the POM (see Appendix D of the Biological Resources Technical Report Supplemental Analysis, <b>Appendix D-3</b>).</p> <p>The plan shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated completion time, and any relevant contingency measures. 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 of San Diego-approved biologist and a state of California-licensed landscape architect.</p> <p><b>M-BI-1e Limited Building Zone (LBZ) Easement.</b> To protect sensitive biological resources in the adjacent Preserve and Conserved Open Space, a Limited Building Zone (LBZ) easement will be granted to the County on HOA manufactured open space along the perimeter of the development footprint, as well as the Conserved Open Space, to be confirmed at the time of the Final 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.</p>	

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	<p><b>M-BI-1f Fencing and Signage.</b> 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 <a href="#">Alternative H</a> Preserve Edge Plan, 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 the Director of Planning &amp; Development Services and the Director of Parks and Recreation. 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 <a href="#">Alternative H</a> Preserve Edge Plan. The signs must be corrosion resistant, a minimum of 6 inches by 9 inches in size, on posts not less than 3 feet in height from the ground surface, and state the following (or similar if approved by the Otay Ranch RMP POM/DPR):</p> <p style="text-align: center;"><b>Sensitive Environmental Resources Area Restricted by Easement</b></p> <p>Entry without express written permission from the County of San Diego is prohibited. To report a violation or for more information about easement restrictions and exceptions contact the County of San Diego, Planning &amp; Development Services Reference: (ER-04-19-005)</p>	
<b>BI-2</b> Potential permanent impacts to sensitive vegetation communities on City of San Diego Cornerstone Lands.	<p><b>M-BI-2</b> Prior to widening Otay Lakes Road, the Project applicant shall mitigate for the impact to Cornerstone Lands and complete an MHPA Boundary Adjustment to the satisfaction of the City of San Diego Director of Planning &amp; Development Services (or her/his designee). Replacement of MHPA lands within Cornerstone Lands is proposed at a <del>4</del><sup>1</sup>: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 <del>1</del><sup>4</sup>: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 RMP Preserve on property surrounding the existing Cornerstone Lands, north of</p>	Less than significant



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	Otay Lakes Road, or may be off-site at a location determined acceptable by the City of San Diego.	
<b>BI-3</b> Potential permanent impacts to sensitive vegetation communities on City of Chula Vista lands.	<p><b>M-BI-3</b> 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 Habitat Loss and Incidental Take (HLIT) Permit pursuant to Section 17.35 of the Chula Vista Municipal Code for impacts to Chula Vista MSCP Tier I, II, and III vegetation communities 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 HLIT Ordinance.</p> <p>Prior to issuance of any land development permits, the Project applicant 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 Project <del>a</del>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 by MSCP.</p> <p>The Project applicant shall be required to provide verification of purchase to the City prior to issuance of any land development permits.</p> <p>In the event that a Project <del>a</del>Applicant is unable to secure mitigation through an established mitigation bank approved by the City and wildlife agencies, the Project <del>a</del>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.</p> <p>Prior to issuance of any land development permit for the widening of Otay Lakes Road, and to the satisfaction and oversight of the City's <del>Development Services</del> Director <del>of Planning &amp; Development Services</del> (or her/his designee), the Project <del>a</del>Applicant shall secure the parcel(s) that will be permanently preserved for in-kind habitat impact mitigation. If a mitigation bank purchase is unavailable, the Project <del>A</del>applicant shall prepare a long-term management and monitoring plan for the mitigation area, secure an appropriate management entity to ensure that long-</p>	Less than significant

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	<p>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 monitoring of the mitigation area in perpetuity.</p> <p>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 biological open space easement or other mechanism approved by the wildlife agencies as being sufficient to ensure that the lands are protected in perpetuity. The biological open space easement or other mechanism approved by the wildlife agencies shall be recorded prior to issuance of any land development permits.</p>	
<b>BI-4</b> Potential permanent and temporary impacts to jurisdictional waters and wetlands on-site.	<p><b>M-BI-4</b> Prior to impacts occurring to waters and wetlands under the jurisdiction of ACOE, CDFW, and RWQCB, the Project <a href="#">Applicants</a> 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 minimum 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 determined by the permitting agencies varying from 2:1 to 5:1 overall. Mitigation for impacts to wetlands and non-wetland waters could occur offsite within the Otay River Valley as a part of or adjacent to the Otay River Restoration Project or other appropriate mitigation site as approved by the County and <a href="#">Wildlife Agencies</a>. Mitigation would be provided to meet the mitigation ratios outlined in the wetland permit applications. 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 as defined by the wetland permitting agencies.</p>	Less than significant
<b>BI-5</b> Potential permanent impacts to jurisdictional vernal pools on-site.	<p><b>M-BI-7</b> This mitigation measure identifies two options for addressing the proposed Project's potential impacts on vernal pools.</p> <p><b>Option No. 1:</b> Under this option, the Project <a href="#">Applicants</a> shall restore and reconfigure the K8</p>	Less than significant

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	<p>vernal pool group, and provide a 100-foot minimum buffer around the pools and their watershed. No activities, including fuel modification, would be permitted within the buffer. The required restoration and reconfiguration shall involve 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 B of the Biological Resources Technical Report Supplemental Analysis, <b>Appendix D-3</b>). The plan will be submitted to, and be to the satisfaction of, the Director of Planning &amp; Development Services, Director of Parks and Recreation, and USFWS. <u>The plan will include performance measures that may include but are not limited to target functions and values that are guidelines to assess the success of the restored vernal pool and mima mound habitat. The mitigation program intends to restore habitat with appropriate topography and vernal pool hydrology to support the intended vernal pool target species including San Diego fairy shrimp.</u> 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. A total of 0.26 acre is 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.</p> <p>Based on the inundation records, fairy shrimp surveys, and floral inventory, the following potential vernal pools meet the previously applied ACOE jurisdictional criteria:</p> <p>Assuming all of K6 (approximately 0.11 acre of vernal pool basin) is impacted and the mitigation requirement is a combination of 2:1 (pools not occupied by San Diego fairy shrimp – 0.107 acre) and 5:1 (for one pool occupied by San Diego fairy shrimp – 0.005-acre), 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. <b>Table 2.3-14<sup>2</sup></b> of the</p>	

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	<p>Draft EIR (2015) summarizes the existing conditions of the pools within the K8 mesa.</p> <p>The Conceptual Vernal Pool Mitigation Plan provides for the short-term management and monitoring of the restoration area. Long-term management will be provided by the POM or included with the requirements of the Conserved Open Space (see M-BI-17).</p> <p><b>Option No. 2:</b> Under this option, the Project applicant would mitigate the Project's vernal pool impacts by purchasing vernal pool mitigation bank credits for a total of 0.239 acre at a combined 2:1 (for pools <b>not</b> occupied by San Diego fairy shrimp) and 5:1 mitigation ratio (for pools that are occupied by San Diego fairy shrimp).</p>	
<b>BI-6</b> Potential indirect impacts to jurisdictional waters and vernal pools.	<p><b>M-BI-13</b> Prior to issuance of grading permits for development areas adjacent to the Preserve, the Project applicant 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 (<b>Appendix D-23</b>) shall be implemented to avoid the release of toxic substances associated with urban runoff:</p> <ul style="list-style-type: none"> <li>• Sediment shall be retained on-site by a system of sediment basins, traps, or other appropriate measures.</li> <li>• 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.</li> <li>• 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.</li> <li>• Permanent energy dissipaters shall be included for drainage outlets.</li> <li>• 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.</li> </ul>	Less than significant

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<b>BI-7</b> Potential permanent impacts to jurisdictional waters and wetlands on Cornerstone Lands.	<p><b>M-BI-5</b> 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 <del>a</del> 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 in order to account for no net loss of wetlands. 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 with 1:1 of creation (establishment) and 2:1 proposed to be enhancement. Mitigation for impacts to wetlands and non-wetland waters would occur within the Otay River Valley as a part of or adjacent to the Otay River Restoration Project. The Project applicant is currently discussing the exact location of the mitigation parcel; however, mitigation would be provided to meet the mitigation ratios outlined in the wetland permit applications. 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.</p> <p>The temporary impacts to ephemeral and intermittent waters shall be mitigated by restoring them to original conditions immediately upon completion of the Project, and shall be subject to all of the success criteria and monitoring as the permanent impacted wetlands.</p>	Less than significant
<b>BI-8</b> Potential permanent impacts to jurisdictional waters and wetlands on County of San Diego lands.	<p><b>M-BI-6</b> Prior to any project-related impact to waters within the City of Chula Vista under the jurisdiction of ACOE, CDFW, and RWQCB, the Project <del>a</del> Applicants shall obtain the following permits: ACOE 404 permit, RWQCB 401 Water Quality Certification, and a CDFW Code 1600 Streambed Alteration Agreement. Such 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. Mitigation for impacts to wetlands and non-wetland waters would occur within the Otay River Valley as a part of or adjacent to the Otay River Restoration Project. The Project <del>a</del> Applicants <del>is</del>are currently discussing the exact location of the mitigation parcel; however, mitigation would be provided to meet the mitigation ratios outlined in the wetland permit</p>	Less than significant

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	<p>applications. The ratio of wetlands mitigation shall be 3:1 overall with 1:1 to be creation (establishment) and 2:1 to be enhancement. 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.</p> <p>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. The mitigation will include planting of San Diego marsh-elder at a 2:1 ratio within areas that are temporarily impacted and will include additional planting of this species to comply with the 2:1 ratio required by the RMP2.</p>	
<b>BI-9</b> Potential indirect impacts to vegetation communities.	<p><b>M-BI-14</b> 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	Less than significant



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	<p>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.</p> <p>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.</p> <p>A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasive species shall be used for slope stabilization in transitional areas.</p> <p>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.</p>	
<b>BI-10</b> Potential permanent impacts to San Diego fairy shrimp.	<p><b>M-BI-10</b> Prior to the issuance of the first grading permit that impacts the K6 vernal pool complex, the Project applicant shall demonstrate to the satisfaction of the Director of Planning &amp; Development Services (or her/his 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 <del>Quino Checkerspot Butterfly Addition</del> to achieve the best results toward the survival and recovery of the species. <u>If the project receives take authorization through the federal Endangered Species Act (FESA) Section 7 or Section 10 processes, the Project Applicants will comply with any and all conditions, including preconstruction surveys that the USFWS may require for take of Fairy shrimp pursuant to FESA.</u></p>	Less than significant
<b>BI-11</b> Potential permanent impacts to Quino checkerspot butterfly.	<p><b>M-BI-9a</b> Take Authorization: On or before the recordation of the first Final Map that affects Quino checkerspot butterfly or its habitat, the Project applicant shall demonstrate to the satisfaction of the Director of Planning &amp; Development Services (or her/his designee) that it has secured the necessary take authorization for Quino checkerspot butterfly through one of the following: (a) Section 7 Consultation, (b) Section 10 incidental take permit,</p>	Less than significant

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	<p>or (c) the County's MSCP Subarea Plan Quino checkerspot butterfly Addition, if and when approved. If the project receives take authorization through the County's Quino checkerspot butterfly Addition, the project will thereby satisfy any and all Quino checkerspot butterfly mitigation requirements of the County. If the project receives take authorization through the federal Endangered Species Act (FESA) Section 7 or Section 10 processes, the Project <del>a</del>Applicants will comply with any and all conditions, including preconstruction surveys that the USFWS may require for take of Quino checkerspot butterfly pursuant to FESA. The Project shall conserve through a biological open space easement <u>a total of 1,176.5 acres (69.3 acres of open space and 1,107.2 acres of preserve land) for the</u> <del>the amount of suitable or occupied</del> Quino checkerspot butterfly habitat required by the USFWS in the relevant Biological Opinion (Section 7) Habitat Conservation Plan (Section 10).</p> <p>This biological open space easement shall be for the protection of biological resources, and all of the following shall be prohibited on any portion of the land subject to said easement: grading; excavating; placing soil, sand, rock, gravel, or other material; clearing vegetation; constructing, erecting, or placing any building or structure; vehicular activities; dumping trash; or using the area for any purpose other than as open space. The only exceptions to this prohibition are for activities conducted pursuant to a revegetation or habitat management plan approved by the Director of Planning &amp; Development Services. This biological open space easement shall authorize the County and its agents to periodically access the land to perform management and monitoring activities for species and habitat conservation.</p> <p>The Project <del>a</del>Applicants shall show the on-site biological open space easement on the Final Map and biological open space easement exhibit with the appropriate granting language on the title sheet concurrent with Final Map Review. The Project <del>a</del>Applicants then shall submit these documents for preparation and recordation with the Department of General Services, and pay all applicable fees associated with preparation of the documents.</p> <p><b>M-BI-9b</b> Quino Management/Enhancement Plan: Prior to the issuance of the first grading permit that impacts Quino checkerspot butterfly, the Project applicant shall prepare a long-term Quino</p>	

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	<p>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 (see <a href="#">Appendix C – Quino Checkerspot Butterfly Management/Enhancement Plan</a> of <a href="#">Appendix D-3 – the Biological Resources Technical Report Supplemental Analysis – Alternative H, Appendix D-3</a>). This plan will be submitted to, and be to the satisfaction of, the Director of Planning &amp; Development Services, Director of Parks and the POM. The Quino Checkerspot Butterfly Management/Enhancement Plan may be superseded or unnecessary upon completion and adoption of the County of San Diego Quino Checkerspot Butterfly MSCP Addition. <u>The plan will include performance measures that may include but are not limited to: annual restoration and enhancement of 15 acres per year with quantitative and qualitative requirements that outline the percent native cover, percent survival, and percent nonnative cover as well as reviewing the health and vigor of the host plants; quantifiable adaptive management triggers that rely on yearly as needed population monitoring and statistical changes in the population size to then require restoration as noted above; or reintroduction of the species and continued restoration of unoccupied areas when population declines are not noted; establishment of a permanent funding mechanism to work in concert with the funding requirements of Preserve lands conveyed to the POM.</u> The project will comply with all mitigation requirements associated with the Quino Checkerspot Butterfly MSCP Addition. Adaptive management 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.</p> <p><b>M-BI-17 Biological Open Space Easement for Conserved Open Space.</b> On or before the recordation of the first Final Map that affects the lots listed below, the Project applicant will protect the Conserved Open Space areas: Lots E, F, G, H, and I. Specifically, these five lots shall be preserved on-site and shall be (a) added to the Otay Ranch RMP Preserve, and conveyed to the Otay Ranch RMP POM, or (b) managed under a County of San Diego</p>	

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	<p>(County) approved site-specific Resource Management Plan (RMP) through a County biological open space easement (see Appendix E of the Biological Resources Technical Report Supplemental Analysis, <b>Appendix D-3</b>). If the Project applicant pursues option (b) and secures a biological open space easement, the Conserved Open Space may be transferred to the Otay Ranch RMP at a later date in accordance with requirements of the County. This biological open space easement shall be for the protection of biological resources, and all of the following shall be prohibited on any portion of the land subject to said biological open space easement: grading; excavating; placing soil, sand, rock, gravel, or other material; clearing vegetation; constructing, erecting, or placing any building or structure; vehicular activities; dumping trash; or using the area for any purpose other than as open space. The only exceptions to this prohibition are for activities conducted pursuant to a revegetation or habitat management plan approved by the Director of Planning &amp; Development Services. This biological open space easement shall authorize the County and its agents to periodically access the land to perform management and monitoring activities for species and habitat conservation.</p> <p>The Project <a href="#">Applicants</a> shall show the on-site biological open space easement on the Final Map and biological open space easement exhibit with the appropriate granting language on the title sheet concurrent with Final Map Review. The Project <a href="#">Applicants</a> then shall submit these documents for preparation and recordation with the Department of General Services, and pay all applicable fees associated with preparation of the documents.</p> <p>If areas of Conserved Open Space are managed through the biological open space easement, the Project <a href="#">Applicants</a> shall prepare and implement a site-specific RMP prior to the approval of the first Final Map. The site-specific RMP shall be submitted to the County and agencies for approval as required.</p> <p>In addition, the County-approved site-specific RMP funding costs shall be identified and fully funded to ensure that the funding source remains adequate in perpetuity. One site-specific RMP should be developed to cumulatively manage all Conserved Open Space lands managed under this condition. If more than one biological open space easement is recorded, the site-specific RMPs may be phased to incorporate lands as they are dedicated to the County.</p>	

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	This condition may be waived with written approval by the Director of Planning & Development Services to the extent that any of the areas of Conserved Open Space (69.38 acres) described are added to the Otay Ranch RMP Preserve for active monitoring and management by the POM.	
<b>BI-12</b> Potential permanent impacts to California adolphia.	<p><b>M-BI-8</b> Prior to the issuance of land development permits, including clearing or grubbing and grading permits, for areas with salvageable California adolphia and plant species identified as requiring salvage in the RMP2 (San Diego thornmint, San Diego goldenstar, variegated dudleya, San Diego barrel cactus, and San Diego marsh-elder), the Project Applicants shall prepare a Resource Salvage and Restoration Plan to address the requirements of the RMP2. Impacted individuals of these species shall be translocated per the RMP2 requirements. The Resource Salvage and Restoration Plan shall be prepared by a County-approved biologist to the satisfaction of the Director of Planning &amp; Development Services (or her/his designee) and in conjunction with the POM.</p> <p>The Resource Salvage and Restoration Plan will also include compliance with the mitigation standards set forth in the RMP2, including those related to restoration and translocation for San Diego thornmint, San Diego goldenstar, variegated dudleya, San Diego barrel cactus, and San Diego marsh-elder in drainages.</p> <p>The Resource Salvage and Restoration Plan shall, at a minimum, evaluate options for seed collection and plant salvage and relocation, including individual plant salvage, native plant mulching, selective soil salvaging, application of plant materials on manufactured slopes, and application/relocation of resources within the Otay Ranch Resource Management Plan Preserve. The Resource Salvage and Restoration Plan shall include incorporation of relocation and restoration efforts for San Diego goldenstar, San Diego thornmint, variegated dudleya, and San Diego barrel cactus, and include San Diego marsh-elder (within this plan or as part of the wetland mitigation) and California adolphia. Relocation efforts may include seed collection and/or transplantation to a suitable receptor site and shall be based on the most reliable methods of successful relocation. The plan shall also include a recommendation for method of salvage and relocation/application based on feasibility of implementation and likelihood of success. The plan shall include, at a minimum, an implementation plan, maintenance and monitoring program, estimated</p>	Less than significant

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	<p>completion time, success criteria, and any relevant contingency measures to ensure that no-net-loss is achieved. The plan shall also be subject to the oversight of the Director of Planning &amp; Development Services (or her/his designee).</p> <p>As required per RMP Policy 3.2, the Project Applicants will coordinate with the POM to meet the RMP2's restoration requirements for habitat restoration including Munz's sage and San Diego viguiera-dominated coastal sage scrub and native grassland. This restoration will be incorporated into the Biological Resource Salvage and Restoration Plan.</p>	
<b>BI-13</b> Potential indirect impacts to sensitive plant species	<p><b>M-BI-14</b> 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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>	Less than significant



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	<p>approved by the San Diego County Department of Planning and Development Services prior to construction.</p> <p>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.</p> <p>A hydroseed mix that incorporates native species, is appropriate to the area, and is without invasive species shall be used for slope stabilization in transitional areas.</p> <p>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.</p>	
<b>BI-14</b> Potential indirect impacts to sensitive wildlife species	<p><b>M-BI-15</b> No clearing, grading, or grubbing activities may occur within occupied gnatcatcher habitat during the breeding season for coastal California gnatcatcher (February 15 through 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 <math>L_{eq}</math> at the nest site.</p> <p>When clearing, grading, or grubbing activities occur during the breeding season for raptors (January 15 through 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 <math>L_{eq}</math>, or other <del>w</del>Wildlife <del>a</del>Agency-approved restrictions, in the vicinity of the active nest site.</p> <p><del>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. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction</del></p>	Less than significant

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	<p><del>measures or be curtailed during the breeding season of sensitive bird species.</del></p> <p>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.</p> <p><u>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. 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.</u></p> <p>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.</p>	
<b>BI-15</b> Potential direct and indirect impacts to nesting migratory birds	<p><b>M-BI-11</b> 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 (January 15 through August 15, annually). If removal of habitat on the proposed area of disturbance must occur during the breeding season, the Project <del>a</del>Applicants shall retain biologist approved by the County of San Diego to conduct a pre-construction survey to determine the presence or absence of nesting birds including burrowing owl on the proposed area of disturbance. The pre-construction survey shall be conducted within 3 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 is avoided. The report or mitigation plan shall be submitted to the</p>	Less than significant

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	<p>County of San Diego for review and approval, and implemented to the satisfaction of the Director of Planning &amp; Development Services (or her/his 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.</p> <p><b>M-BI-16 Burrowing Owl Preconstruction Survey for Alternative H.</b> Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the Project applicant or its designee shall retain a County of San Diego-approved biologist to conduct focused preconstruction surveys for burrowing owl during breeding or non-breeding season. The surveys shall be performed no earlier than 7 days prior to the commencement of any clearing, grubbing, or grading activities and will be repeated if there is a lapse of construction activity longer than 7 days. If occupied burrows are detected, the County-approved biologist shall prepare a plan that is consistent with the County of San Diego <i>Strategy for Mitigating Impacts to Burrowing Owls in the Unincorporated County</i>. This strategy states that burrowing owls must be relocated out of the impact area using passive or active methodologies subject to review and approval by the wildlife agencies (i.e., California Department of Fish and Wildlife and U.S. Fish and Wildlife Service) and the County. The plan includes burrowing owl relocation plans to avoid impacts from construction-related activities and may include construction of artificial burrows.</p>	
<b>BI-16</b> Potential direct and indirect impacts to wildlife	<p><b>M-BI-12</b> One wildlife culvert shall be constructed to provide and improve habitat linkages and movement corridors. In general, the design of the wildlife culvert 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 sight from one end to the other. Because there is natural light within the culverts, low-level illumination is not included. The detail of the wildlife culvert or crossing that shall be provided is presented below.</p> <ul style="list-style-type: none"> <li>Otay Lakes Road Wildlife Crossing (Identified as No. 1) (58 feet long × 20.75 feet wide × 12.08 feet tall = openness ratio of 1.12)</li> </ul>	Less than significant

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	This structure shall be located 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 6-foot wildlife path with a soft surface along this crossing to allow for wildlife movement.	
<b>BI-17</b> Potential impacts to least Bell's Vireo habitat off-site	<p><b>M-BI-18</b> No clearing, grading, or grubbing activities may occur within occupied least Bell's vireo habitat during the breeding season (March 15 to September 15, annually). If construction is proposed to occur during the breeding season, a nesting survey for least Bell's vireo shall be conducted prior to the onset of construction. The nesting bird surveys, if required due to construction timing, shall be conducted by a qualified biologist for the Director of Planning and Development Services to identify active nest locations. Construction may occur if active nests can be avoided and construction can be modified by methods such as construction of berms or walls to provide an adequate buffer, or to maintain noise levels below 60 dBA <math>L_{eq}</math>, or other Wildlife Agency approved restrictions at the nest site.</p> <p>Lighting of preserve lands including areas occupied by least Bell's vireo shall be avoided or directed away from the preserve, wherever feasible and consistent with public safety. Where necessary, construction activities shall provide adequate shielding with native plants, berming, and/or other methods to protect the preserve and sensitive species from night lighting.</p> <p>Grading and/or improvement plans shall include the requirement that protective fencing be placed along the open space boundaries and construction areas to prevent human access to occupied habitat. For areas temporarily impacted for construction of Otay Lakes Road, landscaping shall be limited to native vegetation and use of invasive plant species within the preserve area shall be prohibited. Temporary impacts shall be restored to suitable habitat for least Bell's vireo and/or suitable native successional habitat.</p>	Less than Significant
<b>2.4 Cultural Resources</b>		
<b>2.4.2.2 Prehistoric Resources</b>		
<b>CR-1</b> Potential impacts to archaeological resources (five prehistoric sites) within the proposed grading and brushing envelope.	<b>M-CR-1</b> 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 five sites located within the proposed grading and brushing envelope:	Less than significant

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	SDI-11,406      SDI-11,409      SDI-12,371 SDI-16,332      SDI-16,309  <b>Data Recovery Program</b>  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.  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	

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	<p>methods to be used is provided in Section 10.5 of the Archaeological/Historical Study provided in this EIR, <b>Appendix D-4</b>.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><u>Data Recovery Program Phase 1</u></p> <p>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 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</p>	



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	<p>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.</p> <p><u>Data Recovery Program Phase 2</u></p> <p>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.</p> <p><u>Data Recovery Program Phase 3</u></p> <p>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.</p> <p>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.</p>	

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	<p>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.</p> <p><b>Backhoe Trenching</b></p> <p>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 the significant site (SDI 16,332) that lies partially within the development envelope and partially within the Preserve (open space), the data recovery mitigation program would include portions of <del>thisese sites</del> 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.</p> <p><b>Data Recovery Procedures</b></p> <p>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.</p> <p>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).</p> <p><u>Field Methods</u></p> <p>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</p>	

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	<p>beyond this depth, the excavation shall continue until one sterile level is exposed. The units shall be excavated in controlled, 10-centimeter levels. All removed soils shall be sifted through 1/8-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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>• All trenches must be excavated under the supervision of the Project archaeologist.</li> <li>• All trenches must be mapped, measured, photographed, and sketched.</li> <li>• Periodic screening of the excavated material from the trenches shall be conducted.</li> <li>• Provenience data for all screened soil shall be recorded.</li> </ul> <p>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.</p> <p>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.</p> <p>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</p>	

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	<p>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 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.</p> <p>Throughout the field operations, standard archaeological procedures shall be implemented. All test units and features shall be mapped using the established datums.</p> <p><u>Laboratory Analysis</u></p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Other specialized studies that shall be conducted if the appropriate materials are encountered during the data recovery program include marine shell species</p>	

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	<p>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.</p> <p>Shell Analysis</p> <p>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.</p> <p>Faunal Analysis</p> <p>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.</p> <p>Radiocarbon Dating</p> <p>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.</p> <p>Blood Residue Studies</p> <p>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</p>	

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	<p>washing of artifacts so that the residue samples will not be lost.</p> <p>Isotopic Profiles</p> <p>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 this type of analysis is not likely due to the paucity of shell at the site.</p> <p>Obsidian Hydration and Sourcing</p> <p>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.</p> <p><u>Monitoring</u></p> <p>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.</p> <p><u>Cultural Material Curation</u></p> <p>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</p>	



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	<p>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.</p> <p><u>Site-Specific Data Recovery Programs</u></p> <p>As part of the data recovery program and other actions described above under mitigation measure M-CR-1, the Project <a href="#">Applicants</a> 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.</p> <p><b>M-CR-1a</b> Prior to the issuance of a grading permit, the Project <a href="#">Applicants</a> 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.</p> <p><b>M-CR-1b</b> Prior to the issuance of a grading permit, the Project <a href="#">Applicants</a> 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.</p> <p><b>M-CR-1d</b> Prior to the issuance of a grading permit, the Project <a href="#">Applicants</a> 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-square-meter deposit. This represents a sample of 20</p>	

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	<p>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.</p> <p><b>M-CR-1f</b> Prior to the issuance of a grading permit, the Project Applicants 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.</p> <p><b>M-CR-1i</b> Prior to the issuance of a grading permit, the Project Applicants 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.</p> <p><b>M-CR-1j</b> All cultural materials recovered from the Project, either during the mitigation program or during the past archaeological testing programs, 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 Project</p>	

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	applicant. Copies of field notes, reports, maps and catalog data shall be included with the curated collection.	
<b>CR-2</b> 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.	<p><b>M-CR-2a</b> 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 POM to maintain the easements for the archaeological sites.</p> <p><b>M-CR-2b</b> 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 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</p>	Less than significant

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	analysis, including Native American monitoring, shall be applied during all subsequent surveys if new cultural resources are identified.	
<b>2.4.2.3 Human Remains</b>		
<b>CR-3</b> Potential impacts to buried human remains	<b>M-CR-3</b> 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
<b>2.4.2.4 Paleontological Resources</b>		
<b>CR-4</b> Potential impacts to paleontological resources within the upper sandstone/mudstone, middle gritstone, and lower fanglomerate members of the Otay Formation.	<p><b>M-CR-4</b> 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:</p> <p>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 Project Applicants shall authorize the Qualified Paleontologist and/or Paleontological Monitor to direct, divert, or halt any grading activity, and to</p>	Less than significant

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	<p>perform all other acts required by the provisions listed below.</p> <p>B. The Qualified Paleontologist and/or Paleontological Monitor shall monitor all grading and excavation activities of undisturbed formations of sedimentary rock;</p> <p>C. If paleontological resources are unearthed, the Qualified Paleontologist or Paleontological Monitor shall do the following:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol> <p>D. The Qualified Paleontologist shall prepare a final Paleontological Resources Mitigation Report summarizing the field and laboratory methods used,</p>	

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	<p>the stratigraphic units inspected, the types of fossils recovered, and the significance of the curated collection.</p> <p>E. Submit two hard copies of the final Paleontological Resources Mitigation Report to the Director of Planning &amp; Development Services for final approval of the mitigation, and submit an electronic copy of the report according to the County Department of Planning &amp; Development's Electronic Submittal Format Guidelines.</p>	
<b>2.5 Geology and Soils</b>		
<b>2.5.5.1 Unstable Slopes</b>		
<b>GE-1</b> Potential for unstable slopes.	<p><b>M-GE-1a</b> Otay Lakes Road, Widening (<b>Appendix C-8</b> of the Draft EIR [2015]): 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. These stabilization measures shall be implemented if determined necessary by the engineering geologist.</p> <p><b>M-GE-1b</b> Area A and B, Tentative Map (<b>Appendices C-6 and 7</b> of the Draft EIR [2015]): 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 <del>should</del> <u>shall</u> 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 on Figure 10 (<b>Appendices C-6 and 7</b>) 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</p>	Less than Significant

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	<p>flattened as determined by the engineering geologist during grading operations.</p> <p><b>M-GE-1c</b> Area A and B Tentative Map (<b>Appendix C-6 and C-7</b> of the Draft EIR [2015]): Because of the potential presence of adverse geologic structures, the geologic structure of permanent cut slopes composed of Metavolcanic Rock should be analyzed in detail by an engineering geologist during the grading operations. The use of drained stability fills and rock slope stabilization measures such as rock bolting, or rockfall protection systems shall be implemented if adverse geologic structure is encountered.</p>	
<b>2.5.5.2 Rock Fall Hazards</b>		
<b>GE-2</b> Potential for rock fall hazards on cut and natural slopes.	<p><b>M-GE-2a</b> Otay Lakes Road, Widening (<b>Appendix C-8</b> Draft EIR [2015]): 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 <b>Figures 2.5-2A and B</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.</p> <p><b>M-GE-2b</b> Area A and Area B, Tentative Map (<b>Appendices C-6 and 7</b> Draft EIR [2015]): 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 <b>Figure 2.5-2A</b> and Area B on <b>Figure 2.5-2B</b>. Area A consists of the northern-most section of proposed residential development, east of Upper Otay Reservoir and the northern section of Lower Otay Reservoir. 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.</p> <p><b>M-GE-2c</b> Area A and Area B, Tentative Map (<b>Appendices C-6 and 7</b> Draft EIR [2015]): 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</p>	Less than significant



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	<p>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.</p> <p><b>M-GE-2d</b> At the time of final design the geotechnical engineer shall certify that all mitigation measures provided reduce the level of significance of rock fall hazards have been implemented.</p>	
<b>2.6 Hazards and Hazardous Materials</b>		
<b>2.6.2.6 Exposure to Vectors</b>		
<b>HZ-1</b> Proposed storm water retention basins may cause an increased human exposure to health vectors such as mosquitoes.	<p><b>M-HZ-1a</b> 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.</p> <p><b>M-HZ-1b</b> 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.</p> <p><b>M-HZ-1c</b> 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.</p>	Less than significant

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<b>2.7 Noise</b>		
<b>2.7.2.2 Project-Generated Airborne Noise</b>		
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.	<p><b>M-N-1a</b> The Project <del>proponent</del> Applicants shall prepare a noise protection easement encircled on Figures 2-1 and 2-2 of the noise study addendum (<b>Appendix D-11</b>). 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, will 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.</p> <p><b>M-N-1b</b> Concurrent with approval of the Final Map, the Project <del>proponent</del> Applicants shall dedicate to the County a noise protection easement on each of the lots encircled on <b>Figures 2-1</b> and <b>2-2</b> of the noise study addendum (<b>Appendix D-11</b>). 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).</p> <p><b>M-N-1c</b> For all lots encircled on <b>Figures 2-1</b> and <b>2-2</b> of the noise study addendum (<b>Appendix D-11</b>), 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.</p> <p><b>M-N-1d</b> The Project <del>proponent</del> Applicants shall construct a noise barrier at the top of the slope and at the back of yards for any <del>NSLU</del> Noise Sensitive Land Use that is exposed to a CNEL greater than 60 dBA as listed in <b>Table 2</b> of the noise study addendum. The barrier shall be constructed to the height specified in <b>Table 2</b> and generally follow applicable alignments shown on <b>Figures 2-1</b> and <b>2-2</b> in the noise study addendum (<b>Appendix D-11</b>). 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.</p> <p><b>M-N-1e</b> Noise barriers, as described in <b>M-N-1d</b>, 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</p>	Less than significant

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	<p><b>Table 2</b> of the noise study addendum) and where two-story homes are planned to be constructed within 300 feet of the Otay Lakes Road edge of pavement, the noise protection easement required by mitigation measure <b>M-N-1</b> shall specify that the Project <del>a</del>Applicants must 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.</p>	
<b>N-2</b> Noise generated by on-site HVAC and emergency generators.	<p><b>M-N-2</b> Prior to Site Plan approval of proposed land uses within the mixed-use, resort, public safety, or single-family residential sites, the Project <del>a</del>Applicants or designee(s) shall prepare acoustical studies of 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.</p>	Less than significant
<b>N-3</b> 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.	<p><b>M-N-3</b> Prior to the issuance of a building permit for commercial land uses containing loading docks, delivery areas, and parking lots, the Project 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.</p>	Less than significant
<b>2.7.2.3 Construction Activities</b>		
<b>N-4</b> 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.	<p><b>M-N-4</b> 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:</p>	Less than significant

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	<ul style="list-style-type: none"> <li>● All blasting shall be performed by a blast contractor and blasting personnel licensed to operate in San Diego County.               <ul style="list-style-type: none"> <li>○ 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.</li> <li>○ 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.</li> </ul> </li> <li>● 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.</li> <li>● 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.               <ul style="list-style-type: none"> <li>○ 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.</li> <li>○ 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</li> </ul> </li> </ul>	

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	County limits at the reduced distances as determined by the noise study.	
<b>2.7.2.5 Groundborne Vibration</b>		
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.	<p><b>M-N-5</b> To reduce impulse noise impacts associated with air blast over-pressure and rock drilling and crushing noise generated by Project-related grading activities, Project Applicants of all phases of Project development shall conform to the following requirements, which shall be prominently noted on grading plans:</p> <ul style="list-style-type: none"> <li>• All blasting shall be performed by a blast contractor and blasting personnel licensed to operate in San Diego County. <ul style="list-style-type: none"> <li>○ 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.</li> <li>○ 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.</li> </ul> </li> <li>• 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.</li> <li>• 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. <ul style="list-style-type: none"> <li>○ 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.</li> <li>○ All rock crushing activities shall be located a minimum distance of 350 feet from the</li> </ul> </li> </ul>	Less than significant

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	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.	
<b>N-6</b> 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.	<p><b>M-N-6</b> To reduce impacts associated with groundborne vibration generated by Project-related construction activities, the Project <del>a</del>Applicants of all Project phases shall conform to the following requirements, which shall be prominently noted on grading plans:</p> <ul style="list-style-type: none"> <li>Heavy construction equipment shall not be operated within 200 feet of any residential structure.</li> <li>Rock blasting shall not be performed within 1,000 feet of a residential structure.</li> <li>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.</li> <li>A vibration analysis assessing the proposed 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.</li> </ul>	Less than significant
<b>2.9 Transportation and Traffic</b>		
<b>2.9.3.2 Existing Plus Project Phase I</b>		
<b>TR-2</b> Otay Lakes Road, between the City of Chula Vista/County boundary and Project Driveway #1 (unacceptable LOS, County) – Proposed project would add more than 200 ADT to this failing 2-lane roadway segment.	<b>M-TR-2</b> Prior to recordation of the first final map, the Project <del>a</del> Applicants 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/Intersection #42 from two lanes to four lanes (4.2A Boulevard with Raised Median). Due to phasing of construction, the Project <del>a</del> Applicants shall prepare a supplemental traffic study prior to recordation of the first final map to determine the existing traffic plus EDU timing threshold, satisfactory to the County Engineer, such that the improvements are operational prior to the determination of the supplemental traffic study or construction of the 896 <sup>th</sup> EDU, whichever is sooner.	Less than significant

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	<p><u>M-TR 13 Prior to recordation of the first final map, the Project <del>a</del>Applicants 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 Driveway #2. Due to phasing of construction, the Project applicant shall prepare a supplemental traffic study prior to recordation of the first final map to determine the existing traffic plus EDU timing threshold, satisfactory to the County Engineer, such that the improvements are operational prior to the determination of the supplemental traffic study or construction of the 896<sup>th</sup> EDU, whichever is sooner.</u></p>	
<p><b>TR-3</b> Otay Lakes Road, between Project Driveway #1 and Driveway #2 (unacceptable LOS, County) – Proposed project would add more than 200 ADT to this failing 2-lane roadway segment.</p>	<p><b>M-TR-3</b> Prior to recordation of the first final map, the Project <del>a</del>Applicants 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/Intersection #42 and Driveway #2 from two lanes to four lanes (4.2A Boulevard with Raised Median). Due to phasing of construction, the Project <del>a</del>Applicants shall prepare a supplemental traffic study prior to recordation of the first final map to determine the existing traffic plus EDU timing threshold, satisfactory to the County Engineer, such that the improvements are operational prior to the determination of the supplemental traffic study or construction of the 896<sup>th</sup> EDU, whichever is sooner.</p> <p><u>M-TR-13 Prior to recordation of the first final map, the Project <del>a</del>Applicants 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 Driveway #2. Due to phasing of construction, the Project applicant shall prepare a supplemental traffic study prior to recordation of the first final map to determine the existing traffic plus EDU timing threshold, satisfactory to the County Engineer, such that the improvements are operational prior to the determination of the supplemental traffic study or construction of the 896<sup>th</sup> EDU, whichever is sooner.</u></p>	Less than significant
<b>2.10 Global Climate Change</b>		
<p><b>GCC-1</b> Prior to the application of recommended mitigation measures, the Project's GHG emissions would be potentially significant and potentially conflict with plans and policies designed to reduce GHG emissions due to the increase in GHG emissions as compared to the existing environmental setting.</p>	<p><b>M-GCC-1</b> Prior to the issuance of any grading permits, the Project applicant (or its designee) shall, to the satisfaction of County of San Diego Planning &amp; Development Services Department, demonstrate that the Project shall: (i) provide a comprehensive trails network designed to provide safe bicycle and pedestrian access between the various development areas within the site and various recreational trails and multi-modal facilities accessing the site;</p>	Less than significant



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	<p>(ii) provide bicycle racks along main travel corridors, adjacent to commercial development areas, and at public parks and open spaces; and, (iii) implement traffic calming features throughout the roadway network on the Project site to reduce motor vehicle speed and encourage walking and biking.</p> <p>Prior to the issuance of any residential building permits, the Project <del>a</del>Applicants (or <del>their</del><sup>its</sup> designee) shall, to the satisfaction of San Diego County Planning &amp; Development Services Department, demonstrate that the Project shall: (i) provide to residents information for residents regarding transit options on a quarterly basis in HOA newsletters, and as part of a “new resident” information packet; (ii) provide and promote information regarding SANDAG’s iCommute program for residents; and (iii) encourage formal/informal networks among residents that arrange carpools for ongoing or occasional trips for commute or non-commute purposes.</p> <p>Prior to the issuance of any residential building permits, the Project <del>a</del>Applicants (or <del>its</del><sup>their</sup> designee) shall demonstrate, to the satisfaction of San Diego County Planning &amp; Development Services Department, that the Project shall establish a School Pool match program to help parents transport students to off-site public or private schools, and shall implement a walking school bus program for elementary school students traveling to the on-site elementary school.</p> <p>Prior to the issuance of any residential and non-residential building permits, the Project applicant (or its designee) shall demonstrate, to the satisfaction of San Diego County Planning &amp; Development Services Department, that the Project shall provide and promote information regarding SANDAG’s iCommute program for commuters and on-site businesses.</p> <p><u>Prior to issuance of any resort-related building permits, the Project applicant (or its designee) shall demonstrate, to the satisfaction of the San Diego County Planning &amp; Development Services Department, that the Project’s resort operator shall implement a bike-sharing program for resort guests.</u></p> <p><b>M-GCC-2</b> Prior to the issuance of building permits for multi-family residences and non-residential buildings, the Project <del>a</del>Applicants (or <del>their</del><sup>its</sup></p>	

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	<p>designee) shall submit pertinent building plans and related application materials that demonstrate, to the satisfaction of San Diego County Planning &amp; Development Services Department, that the Project shall utilize high-efficiency <u>(light emitting diode [LED] or equivalent)</u> interior lighting in the multi-family residences and non-residential buildings <u>that utilizes 15 percent less energy than otherwise permitted by the 2016 Building Energy Efficiency Standards.</u></p> <p><b>M-GCC-3</b> Prior to the issuance of building permits for multi-family residences and non-residential buildings, the Project <del>a</del>Applicants (or <del>its</del> <u>their</u> designee) shall submit pertinent building plans and related application materials that demonstrate, to the satisfaction of San Diego County Planning &amp; Development Services Department, that the Project shall install EnergyStar appliances in the multi-family residences and non-residential buildings. The required EnergyStar appliances include clothes washers, dishwashers, fans, and refrigerators.</p> <p><b>M-GCC-4</b> Prior to the issuance of building permits for single-family residences, the Project <del>a</del>Applicants (or <del>its</del> <u>their</u> designee) shall submit a Zero Net Energy Confirmation Report (ZNE Report) prepared by a qualified building energy efficiency and design consultant to San Diego County Planning &amp; Development Services Department for review and approval. The ZNE Report shall demonstrate that the single-family residential development within the Project site subject to application of Title 24, Part 6, of the California Code of Regulations has been designed and shall be constructed to achieve ZNE, as defined by the California Energy Commission, or otherwise achieve an equivalent level of energy efficiency, renewable energy generation, or greenhouse gas emissions savings.</p> <p>A ZNE Report may, but is not required to:</p> <ul style="list-style-type: none"> <li>• Evaluate multiple single-family residences.</li> <li>• Rely upon aggregated or community-based strategies to support its determination that the subject buildings are designed to achieve ZNE. For example, shortfalls in renewable energy generation for one or more buildings may be offset with excess renewable generation from one or more other buildings, or off-site renewable energy generation. As such, a ZNE Report could</li> </ul>	

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	<p>determine a building is designed to achieve ZNE based on aggregated or community-based strategies even if the building on its own may not be designed to achieve ZNE.</p> <ul style="list-style-type: none"> <li>Make reasonable assumptions about the estimated electricity and natural gas loads and energy efficiencies of the subject buildings.</li> </ul> <p><b>M-GCC-5</b> Prior to the issuance of building permits for multi-family residences and non-residential buildings, the Project <del>a</del>Applicants (or <del>its</del>their designee) shall submit pertinent building plans and related application materials that demonstrate, to the satisfaction of San Diego County Planning &amp; Development Services Department, that the Project's multi-family residences and non-residential buildings are designed to improve building energy efficiency by 10 percent over the 2016 Building Energy Efficiency Standards. <u>As part of this demonstration, the building plans and related application materials shall confirm that attached multi-family residences will be designed and constructed without wood-burning or natural gas-burning fireplaces.</u></p> <p><b>M-GCC-6</b> Prior to the issuance of residential building permits, the Project <del>a</del>Applicants (or <del>its</del>their designee) shall submit pertinent building plans and related application materials that demonstrate, to the satisfaction of San Diego County Planning &amp; Development Services Department, the installation of: (a) dedicated 208/240 branch circuits in each garage of every residential unit, and (b) one Level 2 electric vehicle (EV) charging station in the garage in half of all residential units.</p> <p>Prior to the issuance of non-residential building permits, the Project <del>a</del>Applicants (or <del>its</del>their designee) shall submit pertinent building plans and related application materials that demonstrate, to the satisfaction of San Diego County Planning &amp; Development Services Department, the installation of an additional ten (10) Level 2 EV charging stations within the non-residential parking areas located on the Project site, <u>as well as an additional ten (10) Level 2 EV charging stations for vehicles utilizing public street parking spaces on street blocks located adjacent to non-residential development areas.</u></p> <p><b>M-GCC-7</b> As to construction emissions, the Project <del>a</del>Applicants (or <del>its</del>their designee) shall</p>	

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	<p><del>provide</del><del>purchase and retire</del> carbon offsets in a quantity sufficient to offset 100 percent of the Project's construction emissions (including sequestration loss from vegetation removal) consistent with the performance standards and requirements set forth below.</p> <p>First, "carbon offset" shall mean an instrument, <u>credit or other certification</u>, verifying the reduction of GHG emissions issued by any of the following: (i) the Climate Action Reserve, the American Carbon Registry, and Verra (previously, the Verified Carbon Standard); or, (ii) any registry approved by the California Air Resources Board to act as a registry under the State's cap-and-trade program.</p> <p>Second, any carbon offset utilized to reduce the Project's GHG emissions shall be a carbon offset that represents the past or forecasted reduction or sequestration of 1 MT <del>Co<sub>2</sub>e</del> <u>CO<sub>2</sub>e</u> that is "not otherwise required" (CEQA Guidelines §15126.4(c)(3)). <u>By requiring that the offset is "not otherwise required," the offset shall represent GHG reduction or sequestration additional to any GHG emission reduction otherwise required by law or regulation, and any other GHG emission reduction that otherwise would occur (Health &amp; Saf. Code, §38562(d)(2)).</u></p> <p>Third, as to construction and vegetation removal GHG emissions, prior to the County's issuance of the Project's first grading permit, the Project <del>a</del><u>Applicants</u> (or <del>its</del> <u>their</u> designee) shall provide evidence to the satisfaction of the Director of Planning &amp; Development Services that the Project applicant (or its designee) has <del>purchased and</del> retired carbon offsets in a quantity sufficient to offset 100 percent of the construction and vegetation removal GHG emissions (an estimated total of <del>37,973</del><u>38,476</u> MT CO<sub>2</sub>e) generated by the Project, as identified in the Project's certified EIR. In making such a determination, the Director of Planning &amp; Development Services shall require the Project <del>a</del><u>Applicants</u> (or <del>its</del> <u>their</u> designee) to provide an attestation or similar documentation from the selected registry(ies) that a sufficient quantity of carbon offsets meeting the standards set forth in this measure have been purchased and retired, thereby demonstrating that the necessary emission reductions are realized. <u>The documentation shall identify the registry-assigned serial number</u></p>	

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	<p><u>associated with each retired carbon offset; the referenced serial numbers are used by registries to ensure that each metric ton of reduction meets the requirements identified in the applicable protocol and is counted and retired only once. The documentation also shall identify the locational attributes of the carbon offsets in order to allow San Diego County Planning &amp; Development Services Department to track and monitor the implementation of the geographic priority provision set forth below.</u></p> <p>Fourth, the <del>purchased</del> carbon offsets used to reduce construction and vegetation removal GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (Health &amp; Saf. Code, §38562(d)(1)).</p> <p>Fifth, all carbon offsets required to reduce the Project's construction and vegetation removal emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes: (1) off-site, unincorporated areas of the County of San Diego; (2) off-site, incorporated areas of the County of San Diego; (3) off-site areas within the State of California; (4) off-site areas within the United States; and, (5) off-site, international areas. As listed, geographic priorities would focus first on local reduction options (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits to other environmental resource areas.</p> <p>The Director of Planning &amp; Development Services shall issue a written determination that offsets <del>are unavailable and/or</del> fail to meet the feasibility factors <u>definition and factors set forth</u> <del>defined</del> in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project applicant or its designee to use offsets from the next lower priority category. In making such a determination, the Director of Planning &amp; Development Services shall consider information available at the time each Project-related grading permit request is submitted, including but not limited to:</p> <ul style="list-style-type: none"> <li>The availability of <u>in-County and</u> in-State emission reduction opportunities, including funding and partnership opportunities with the</li> </ul>	

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	<p>County, other public agencies, or environmental initiatives with demonstrated integrity, <u>where such reduction opportunities use methodologies and protocols approved by a specified registry (see “First” paragraph above for the definition of such registries);</u></p> <ul style="list-style-type: none"> <li>• The geographic attributes of carbon offsets that are listed for purchase and retirement;</li> <li>• The temporal attributes of carbon offsets that are listed for purchase and retirement;</li> <li>• The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or,</li> <li>• Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets.</li> </ul> <p>Sixth, over the course of the construction period, the Project applicant (or its designee) shall submit annual reports to the San Diego County Planning &amp; Development Services Department that identify the quantity of emission reductions required by this mitigation measure, as well as the carbon offsets retired to achieve compliance with this measure. The annual reports shall identify the locational attributes of the carbon offsets in order to allow the San Diego County Planning &amp; Development Services Department to track and monitor the implementation of the geographic priority provision. Such tabulation and tracking shall be to the satisfaction of the Director of Planning &amp; Development Services.</p> <p><b>M-GCC-8</b> As to operational emissions, the Project applicant (or its designee) shall <del>provide</del><u>purchase and retire</u> carbon offsets sufficient to offset, for a 30-year period, the operational GHG emissions from that incremental amount of development to net zero, consistent with the performance standards and requirements set forth below.</p> <p>First, “carbon offset” shall have the same meaning as set forth in M-GCC-7.</p> <p>Second, any carbon offset utilized to reduce the Project’s GHG emissions shall be a carbon offset that represents the past or forecasted reduction or sequestration of 1 MT CO<sub>2</sub>e equivalent that is “not otherwise required” (CEQA Guidelines §15126.4(c)(3)). <u>By requiring that the offset is “not otherwise required,” the offset shall represent GHG reduction or sequestration additional to any GHG</u></p>	

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	<p><u>emission reduction otherwise required by law or regulation, and any other GHG emission reduction that otherwise would occur (Health &amp; Saf. Code, §38562(d)(2)).</u></p> <p>Third, because the Project will be built in phases over approximately eleven years, which influences both the quantity of operational GHG emissions and the level of reduction required to achieve net zero GHG emissions, the Project applicant (or its designee) shall utilize one of the two following compliance options to secure the necessary carbon offsets, as allowed in CEQA Guidelines Section 15126.4(c)(3):</p> <p>(1) Prior to the issuance of the first building permit, the Project applicant (or its designee) shall provide evidence to the San Diego County Planning &amp; Development Services Department that <del>is-it</del> has obtained carbon offsets in the amount of 28,625 MT CO<sub>2</sub>e per year multiplied by 30 years.</p> <p>(2) Prior to the issuance of each increment of building permits for the phased development of the Project, the Project <del>a</del>Applicants (or <del>its-their</del> designee) shall provide evidence to San Diego County Planning &amp; Development Services Department that it has obtained the amount of carbon offsets required for the increment of development being permitted for a 30-year period. The amount of carbon offsets required shall be based on and include operational GHG emissions as identified in the certified EIR. The application(s) for permit issuance shall include, as attachments, emissions calculation worksheets that identify the emissions reduction obligation of the increment of development being permitted and tracking tables that identify any previous carbon offsets <del>purchased</del>retired, as well as the amount of carbon offsets anticipated to be associated with the unbuilt, unpermitted portion(s) of the Project. Such application materials shall be to the satisfaction of the Director of Planning &amp; Development Services.</p> <p><u>The Director of Planning &amp; Development Services shall require the Project applicant (or its designee) to provide documentation from the selected registry(ies) that a sufficient quantity of carbon offsets under option (1) or (2) meeting the standards set forth in this measure have been retired, thereby</u></p>	



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	<p><u>demonstrating that the necessary emission reductions are realized</u><del>Evidence of compliance with option (1) or (2) shall consist of documentation from the selected registry(ies) illustrating the retirement of carbon offsets meeting the standards set forth in this measure in a quantity equal to the GHG emission reductions that need to be realized.</del> The documentation shall identify the registry-assigned serial number associated with each retired carbon offset; the referenced serial numbers are used by registries to ensure that each metric ton of reduction meets the requirements identified in the applicable protocol and is counted and retired only once. The documentation shall also identify the locational attributes of the carbon offsets in order to allow San Diego County Planning &amp; Development Services Department to track and monitor the implementation of the geographic priority provision set forth below.</p> <p>Fourth, the <del>purchased</del> carbon offsets used to reduce operational GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions (Health &amp; Saf. Code, §38562(d)(1)).</p> <p>Fifth, as new federal, state and local regulations are adopted or technological advancements occur, the quantity of emission reductions needed to demonstrate achievement of the net zero emissions level may decrease. Therefore, the amount of carbon offsets needed may be reduced if the Project <del>a</del>Applicants (or <del>its</del> <u>their</u> designee) can demonstrate, with substantial evidence, that changes in regulation or law, or other increased technological efficiencies have reduced the total MT CO<sub>2</sub>e emitted by the Project. As described further in the following paragraph, any modification to the emissions reduction value stated herein shall require approval from the County's Board of Supervisors, as considered pursuant to a noticed public hearing process that accords with applicable legal requirements, including those set forth in CEQA for the post-approval modification of mitigation implementation parameters.</p> <p>Specifically, if the Project <del>a</del>Applicants elect to process a "true-up" exercise subsequent to the County's certification of the Final EIR and approval of the Project, the Project <del>a</del>Applicants shall provide an operational GHG emissions inventory of the proposed Project's operational emissions for the "true up" operational conditions, including emissions from</p>	

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	<p>mobile sources, energy, area sources, water consumption, and solid waste. Subject to the satisfaction of the Board of Supervisors, these calculations shall be conducted using a County-approved model and/or methodology and must validate the continuing adequacy of modeling inputs used in the EIR that are not proposed to be altered as part of the “true-up” exercise. The inclusion of the validation requirement ensures that any updated operational GHG emissions inventories for the Project fully account for then-existing information that is relevant to the emissions modeling.</p> <p>The “true up” operational GHG emissions inventory, if conducted, will be provided in the form of a Project-specific Updated Emissions Inventory and Offset Report to the County’s Board of Supervisors <del>(or its designee)</del> prior to the issuance of building permits for the next build-out phase. The subject technical documentation shall be prepared by a County-approved, qualified air quality and greenhouse gas technical specialist.</p> <p>In all instances, substantial evidence must confirm that any reduction to the total carbon offsets value as identified in the certified Final EIR for the Project is consistent with the Project commitment to achieve and maintain carbon neutrality (i.e., net zero emissions) for the 30-year life of the Project.</p> <p>Sixth, all carbon offsets required to reduce the Project’s operational emissions shall be associated with reduction activities that are geographically prioritized according to the following locational attributes: (1) off-site, unincorporated areas of the County of San Diego; (2) off-site, incorporated areas of the County of San Diego; (3) off-site areas within the State of California; (4) off-site areas within the United States; and, (5) off-site, international areas. As listed, geographic priorities would focus first on local reduction options (including projects and programs that would reduce GHG emissions) to ensure that reduction efforts achieved locally would provide cross-over, co-benefits to other environmental resource areas.</p> <p>The Director of Planning &amp; Development Services shall issue a written determination that offsets <del>are unavailable and/or</del> fail to meet the feasibility <u>definition and</u> factors <u>set forth</u> <del>defined</del> in CEQA Guidelines Section 15364 in a higher priority geographic category before allowing the Project</p>	

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	<p><del>a</del>Applicants or <del>its</del>their designee to use offsets from the next lower priority category. In making such a determination, the Director of Planning &amp; Development Services shall consider information available at the time each Project-related <del>building</del>grading permit request is submitted, including but not limited to:</p> <ul style="list-style-type: none"> <li>The availability of <u>in-County and</u> in-State emission reduction opportunities, including funding and partnership opportunities with the County, other public agencies, or environmental initiatives with demonstrated integrity, <u>where such reduction opportunities use methodologies and protocols approved by a specified registry (see “First” paragraph above for the definition of such registries)</u>;</li> <li>The geographic attributes of carbon offsets that are listed for purchase and retirement;</li> <li>The temporal attributes of carbon offsets that are listed for purchase and retirement;</li> <li>The pricing attributes of carbon offsets that are listed for purchase and retirement; and/or,</li> <li>Any other information deemed relevant to the evaluation, such as periodicals and reports addressing the availability of carbon offsets.</li> </ul>	
CUMULATIVE-LEVEL IMPACTS		
2.4 Cultural Resources		
2.4.3.1 Cumulative Prehistoric and Historic Impacts		
<b>CR-5</b> Contribution to cumulative archaeological resources (prehistoric sites) impacts within the Project vicinity.	<b>M-CR-1 and M-CR-2</b> See Above.	Less than significant
2.4.3.2 Cumulative Paleontological Resources Impacts		
<b>CR-6</b> Contribution to paleontological resources impacts within the Project vicinity.	<b>M-CR-4</b> See Above.	Less than significant
2.9 Transportation and Traffic		
2.9.3.4 Cumulative Year (2025)		
<b>TR-11</b> Otay Lakes Road, between City of Chula Vista/County boundary and Project Driveway #1 (unacceptable LOS, County) – Proposed buildout project would add more than 200 ADT to this failing 2-lane roadway segment.	<b>M-TR-11</b> Otay Lakes Road, between City/County Boundary and Project Driveway #1/Intersection #42 (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 <del>a</del> Applicants proposes to change this roadway segment classification to a Boulevard (4.2A). Accordingly, the Project <del>a</del> Applicants would be responsible for participating in an update to the TIF Program to reflect the change in classification.	Less than significant

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	Subsequently, the Project Applicant would be responsible for complying with the updated TIF Program to mitigate for cumulative impacts.	
<b>TR-12</b> Otay Lakes Road, between Project Driveway #1 and Driveway #2 (unacceptable LOS, County) – Proposed buildout project would add more than 200 ADT to this failing 2-lane roadway segment.	<b>M-TR-12</b> Otay Lakes Road, between Project Driveway #1/Intersection #42 and Project Driveway #2/Project Driveway #43 (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
<b>TR-13</b> Otay Lakes Road, between the City of Chula Vista/County boundary and Driveway #2 (unacceptable LOS, County) – Proposed project would add almost 20,000 ADT to this failing 2-lane roadway segment.	<b>M-TR-13</b> 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 Driveway #2. Due to phasing of construction, the Project applicant shall prepare a supplemental traffic study prior to recordation of the first final map to determine the existing traffic plus EDU timing threshold, satisfactory to the County Engineer, such that the improvements are operational prior to the determination of the supplemental traffic study or construction of the 896 <sup>th</sup> EDU, whichever is sooner.	Less than Significant

**Table 4.0-4**  
**Maximum Daily Construction Emissions, with Dust Controls<sup>1</sup>**

<b>Construction Year</b>	<b>VOC (lbs/day)</b>	<b>NO<sub>x</sub> (lbs/day)</b>	<b>CO (lbs/day)</b>	<b>SO<sub>2</sub> (lbs/day)</b>	<b>PM<sub>10</sub> (lbs/day)</b>	<b>PM<sub>2.5</sub> (lbs/day)</b>
Blasting Emissions <sup>2</sup>	-	408.00	1608.00	-	2208.00	244.80
Rock Crushing Emissions <sup>2</sup>	1.45	19.16	5.78	0.03	14.21	4.65
2019	30.59	310.89	185.46	0.41	19.10	13.49
2020	38.29	330.10	184.28	0.46	18.09	12.48
2021	37.78	336.22	177.71	0.48	16.46	11.19
2022	36.85	310.42	175.86	0.50	16.68	10.44
2023	36.39	277.94	174.40	0.51	16.09	9.82
2024	57.99	311.99	189.52	0.61	20.70	10.71
2025	36.39	245.76	162.62	0.49	14.71	8.41
2026	50.76	276.84	168.47	0.54	15.82	8.68
2027	34.06	240.92	162.88	0.48	14.29	8.39
2028	18.29	168.55	147.30	0.35	11.75	7.65
2029	21.89	70.88	102.53	0.20	6.82	3.81
<b>Maximum Daily Emissions – Proposed Project</b>	<b>59.44</b>	<b>763.38</b>	<b>1803.30</b>	<b>0.64</b>	<b>2,243.91</b>	<b>262.94</b>
Blasting Emissions <sup>2</sup>	-	408.00	1608.00	-	2208.00	244.80
Rock Crushing Emissions <sup>2</sup>	1.45	19.16	5.78	0.03	14.21	4.65
2020	55.80	420.25	194.77	0.56	18.05	12.51
2021	40.49	302.39	175.27	0.44	16.77	11.28
2022	31.63	243.92	162.55	0.39	14.38	9.81
2023	23.92	185.92	156.39	0.35	13.08	9.03
2024	64.13	375.85	190.54	0.67	18.21	9.99
2025	18.10	248.44	157.77	0.47	12.45	7.78
2026	31.97	187.36	150.82	0.39	12.56	7.83
2027	31.64	255.67	162.80	0.49	13.38	8.13
2028	29.21	188.37	150.87	0.39	12.31	7.79
2029	21.44	67.13	99.01	0.18	5.19	3.37
<b>Maximum Daily Emissions – Alternative H</b>	<b>65.58</b>	<b>847.41</b>	<b>1,808.55</b>	<b>0.70</b>	<b>2,240.42</b>	<b>261.96</b>
<b>Screening Level Thresholds (SLT)</b>	75	250	550	250	100	55
<i>Significant Impact?</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>	No	<i>Yes</i>	<i>Yes</i>

Notes:

<sup>1</sup> Maximum daily emissions calculated using the CalEEMod Model. CalEEMod identifies the maximum daily emissions for each pollutant regardless of whether the maximum for each pollutant occurs at the same time. Maximum ROG emissions occur with the overlap of architectural coatings application, building construction, and paving for all construction years. Maximum daily emissions of all other pollutants occur with the overlap of grading, trenching, and building construction.

<sup>2</sup> Based on updated information. Maximum daily emissions conservatively assume that rock crushing, blasting, and other construction occur simultaneously.

All emissions have been modeled assuming compliance with the County's Grading, Clearing and Watercourses Ordinance and SDAPCD Rule 67.

VOC = volatile organic compounds; NO<sub>x</sub> = oxides of nitrogen; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide;

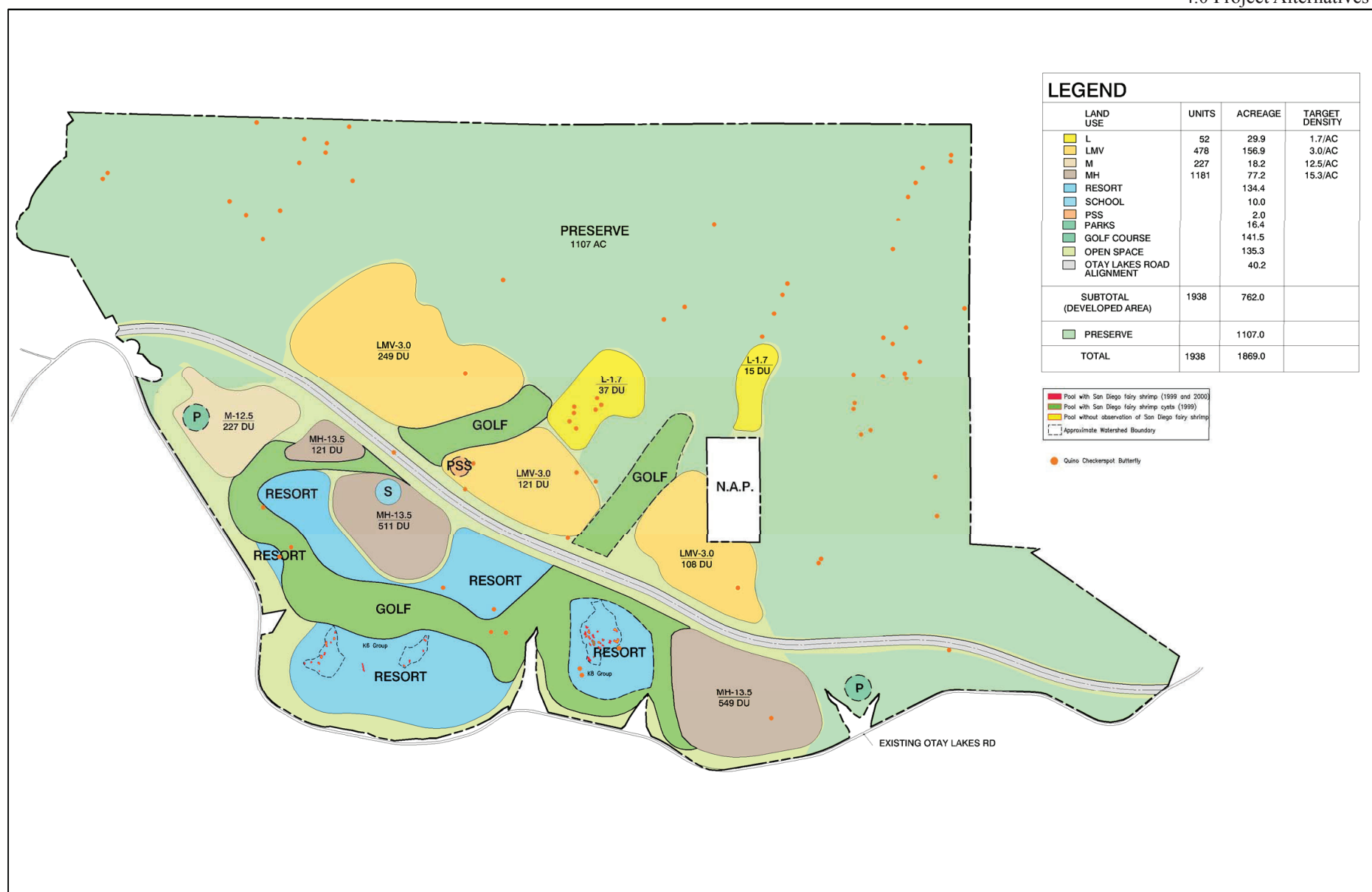
PM<sub>10</sub> = suspended particulate matter; PM<sub>2.5</sub> = fine particulate matter

**Table 4.0-5  
Comparison of Total Criteria Pollutants, with Dust Controls**

<b>Alternative</b>	<b>VOC (total tons)</b>	<b>NO<sub>x</sub> (total tons)</b>	<b>CO (total tons)</b>	<b>SO<sub>2</sub> (total tons)</b>	<b>PM<sub>10</sub> (total tons)</b>	<b>PM<sub>2.5</sub> (total tons)</b>
Alternative H	31.65	210.91	221.21	0.35	116.47	19.05
Proposed Project	36.42	249.45	266.42	0.41	152.81	24.28

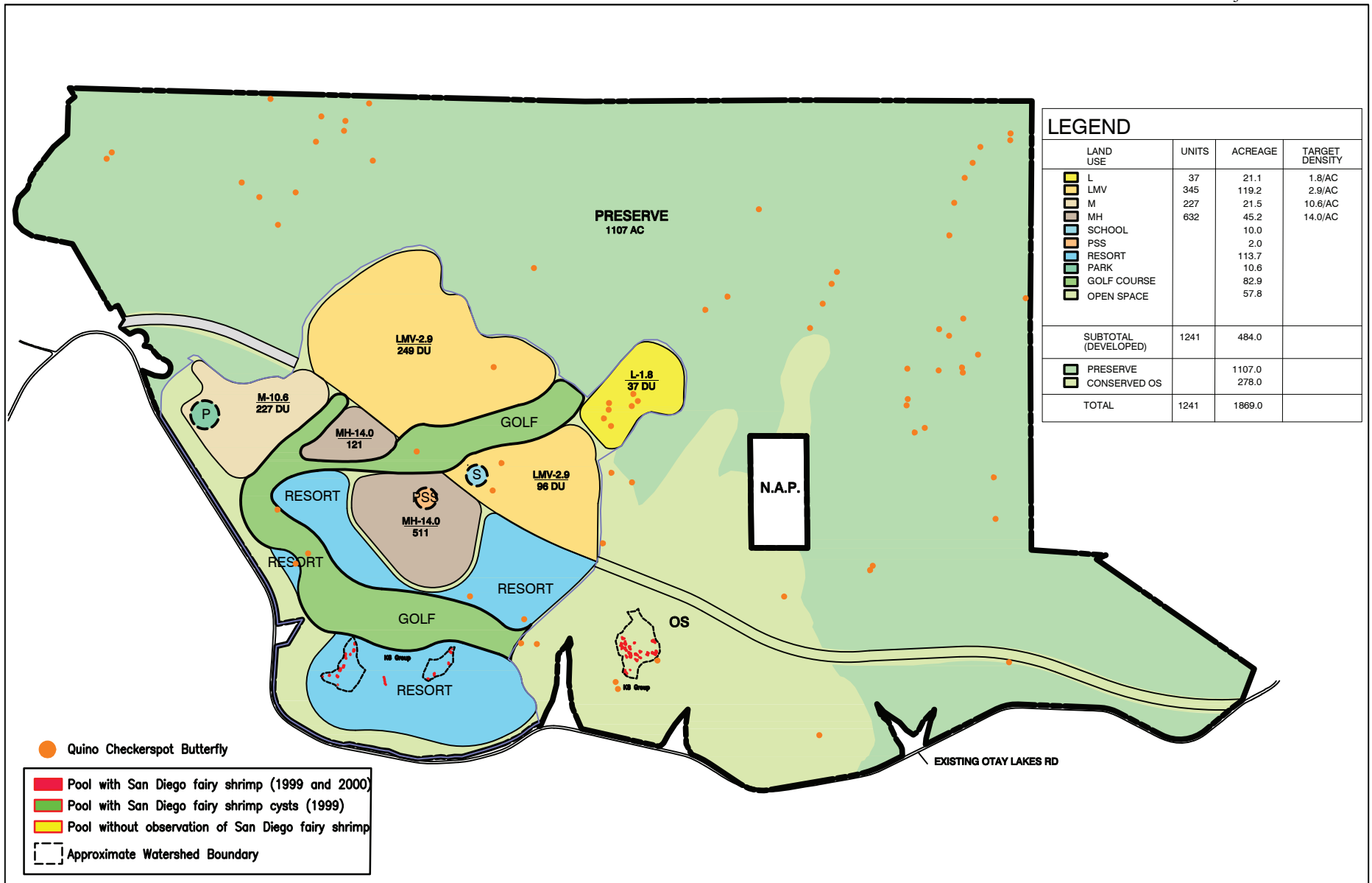
**Table 4.0-6  
Comparison of Alternative H and Proposed Project Estimated  
Construction Greenhouse Gas Emissions**

<b>Emission Source</b>	<b>Annual CO<sub>2</sub>e Emissions (Metric tons/year)</b>
Alternative H	31,904
Proposed Project	<del>37,695</del> 38,476



**Figure 4.0-1**  
**Alternative B Land Use Plan**



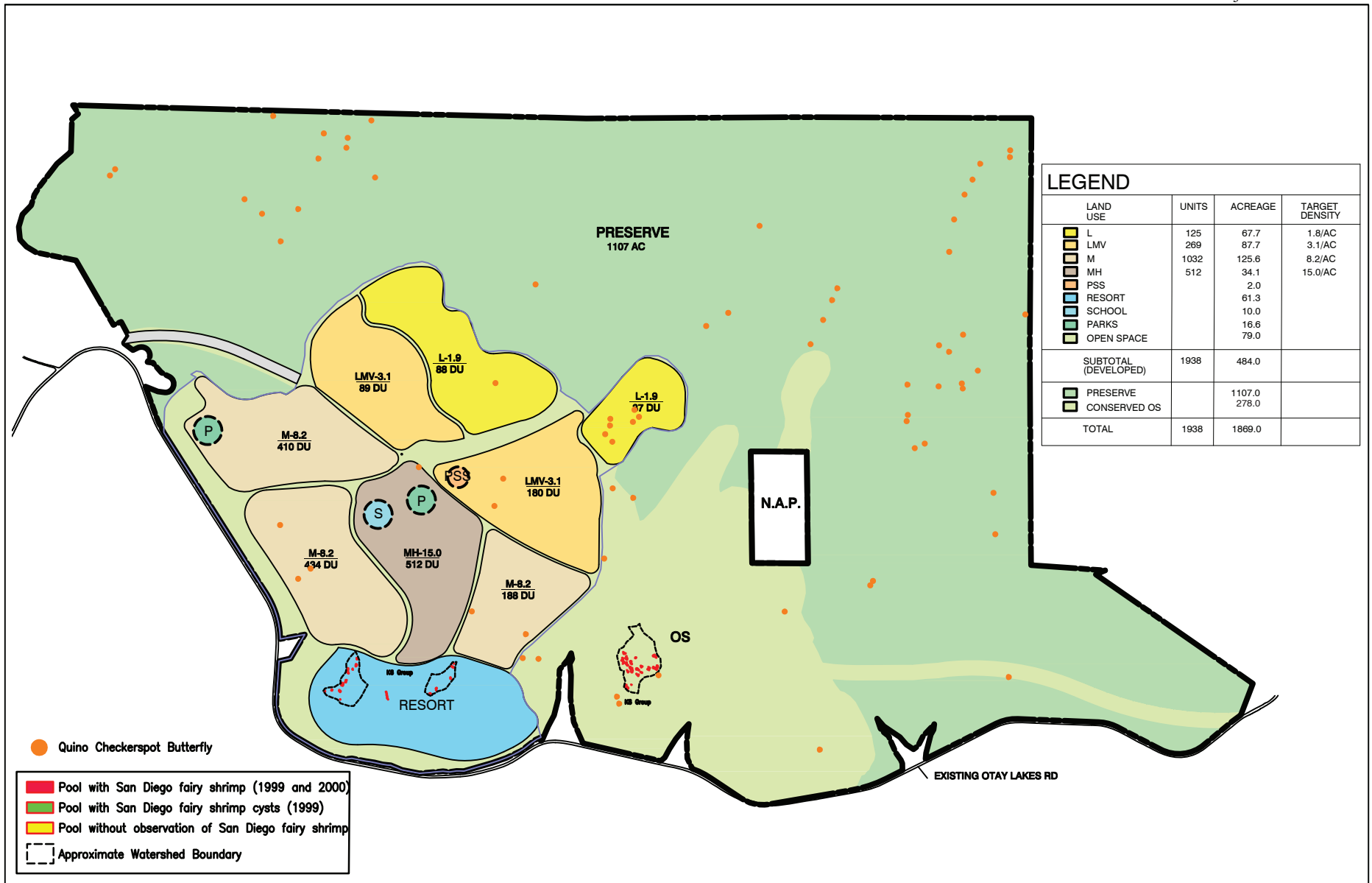


SOURCE: Hunsaker &amp; Associates 2009



No Scale

**Figure 4.0-2**  
**Alternative C Land Use Plan**

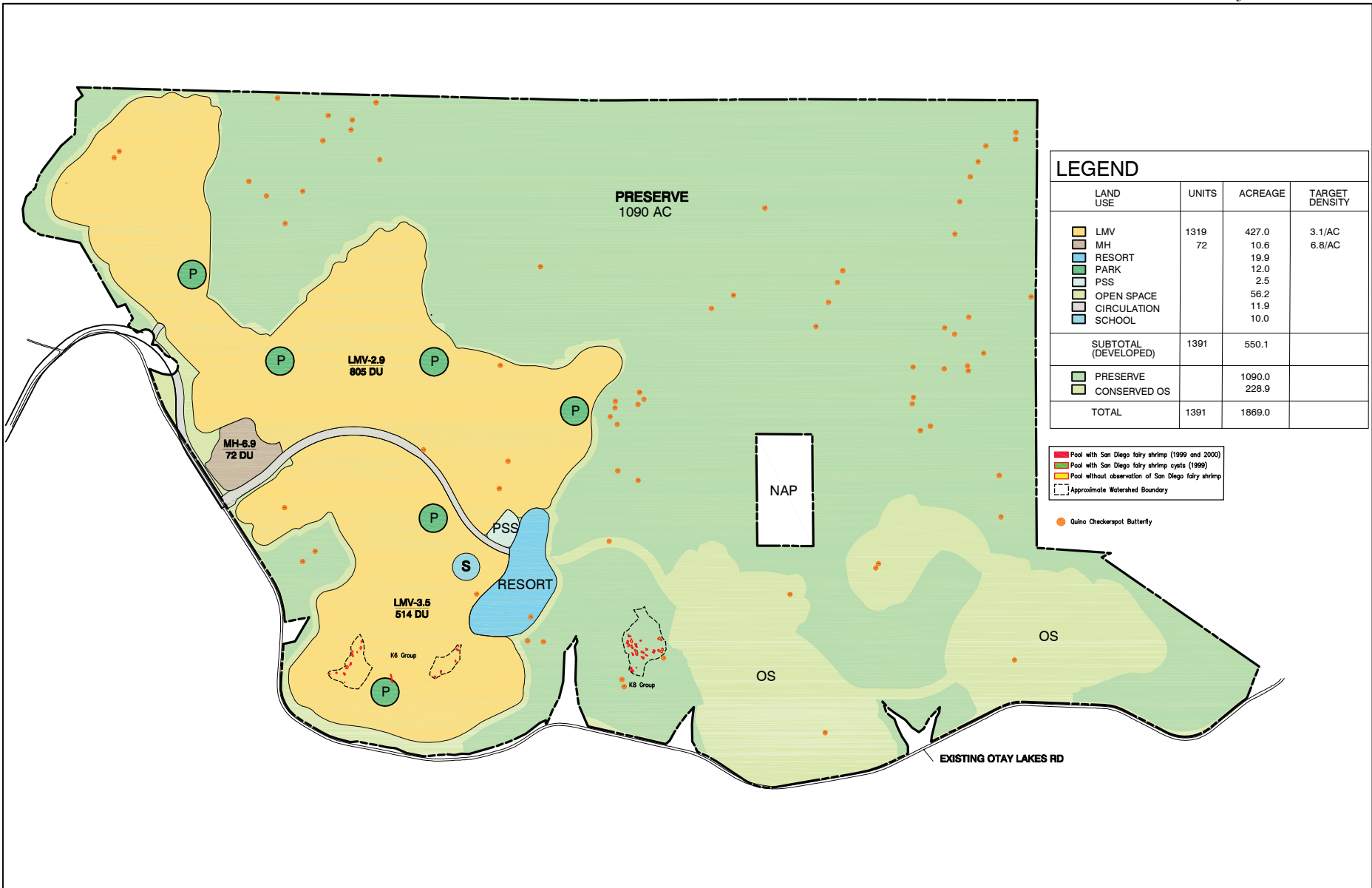


SOURCE: Hunsaker &amp; Associates 2014



No Scale

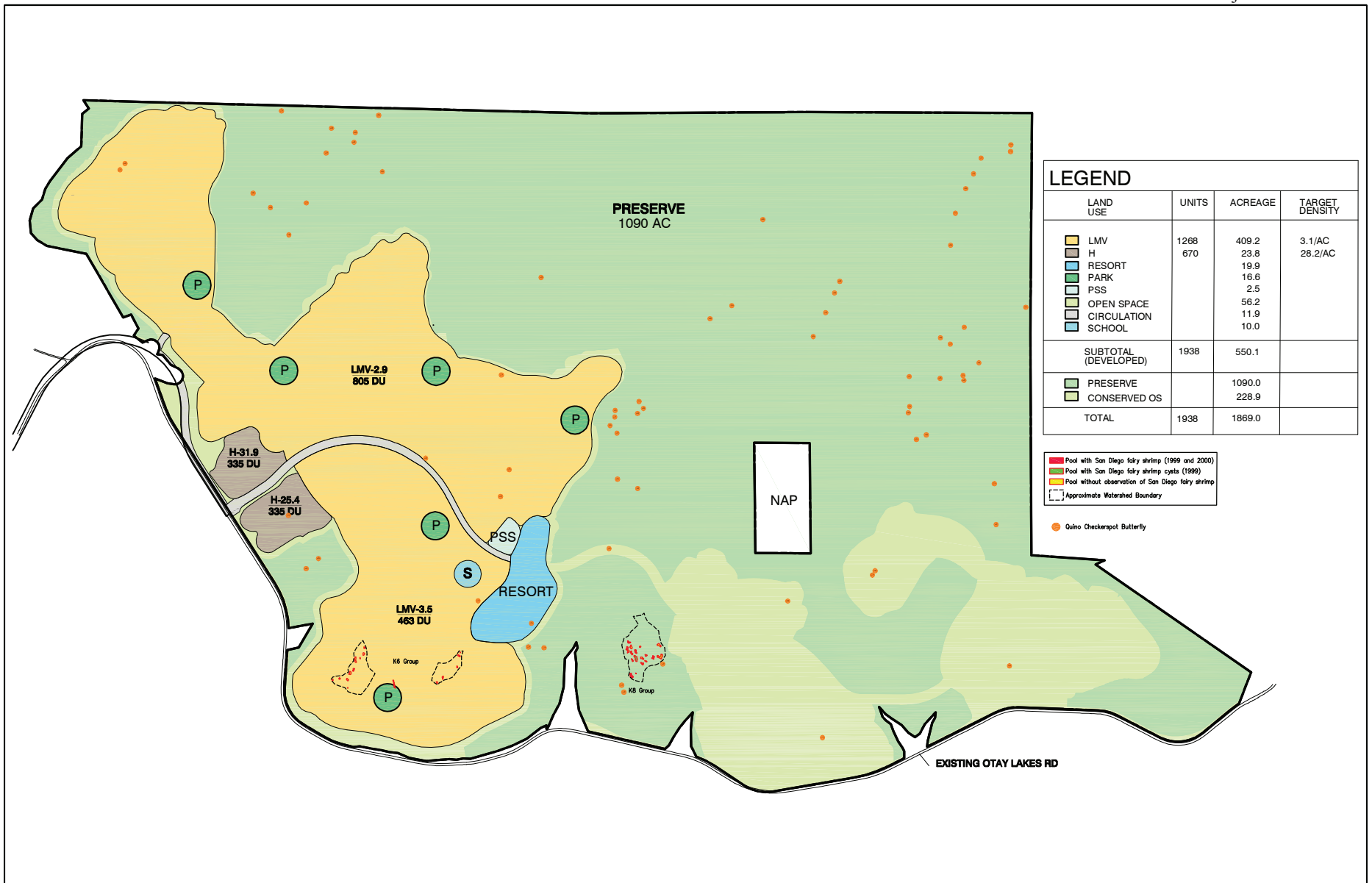
**Figure 4.0-3**  
**Alternative D Land Use Plan**



SOURCE: Hunsaker & Associates 2009



**Figure 4.0-4**  
**Alternative E Land Use Plan**

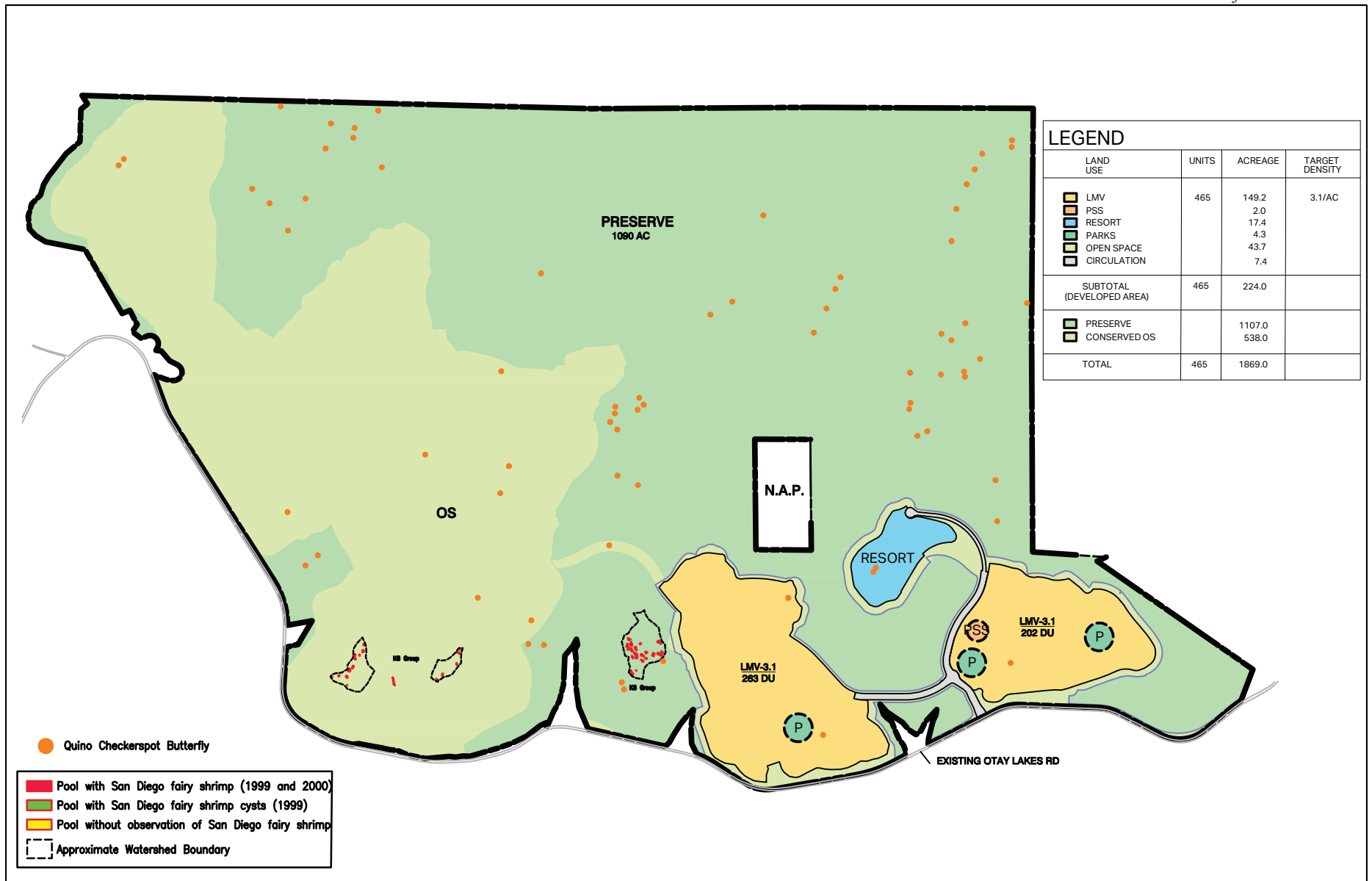


SOURCE: Hunsaker &amp; Associates 2014



No Scale

**Figure 4.0-5**  
**Alternative F Land Use Plan**

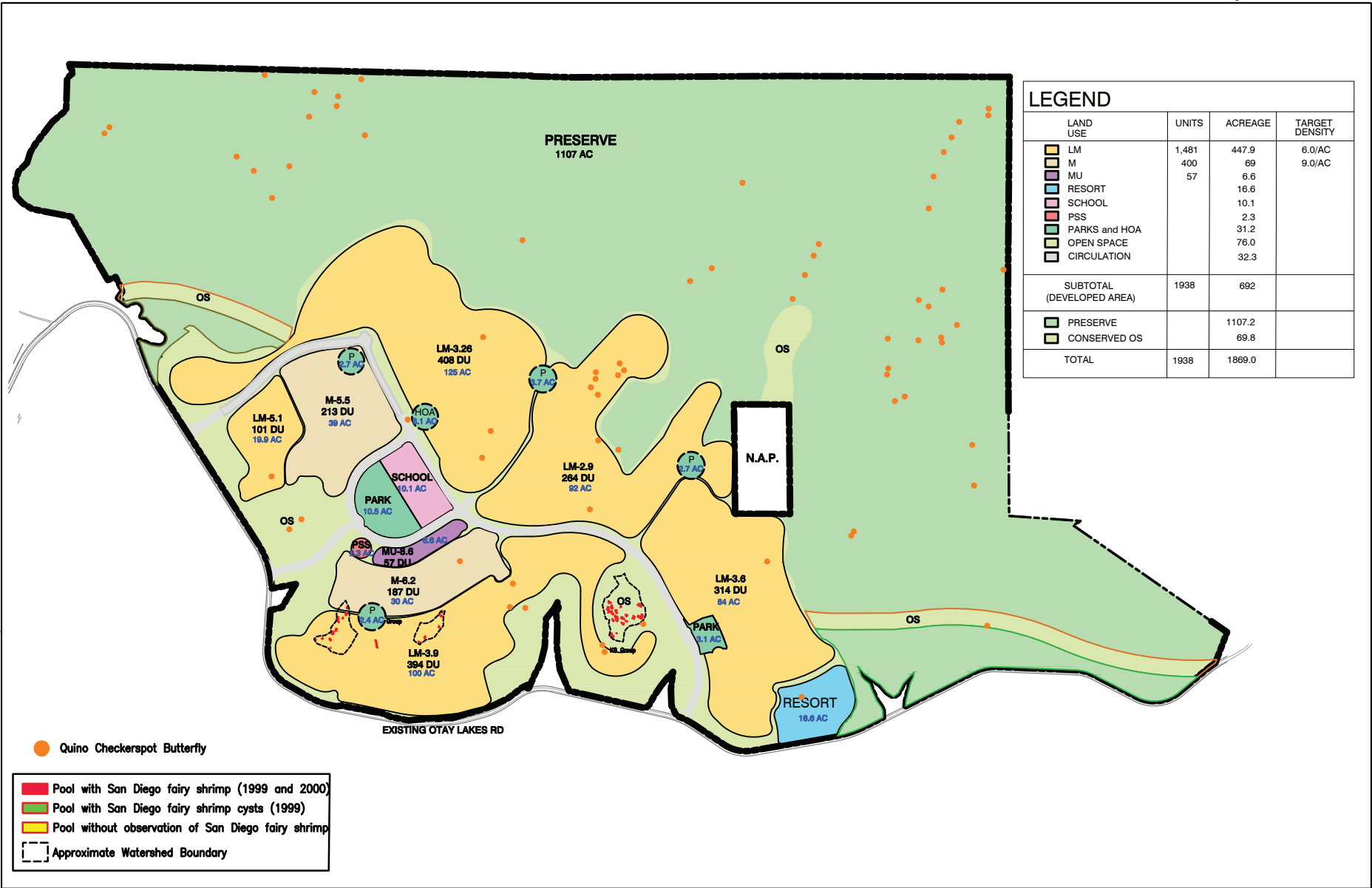


SOURCE: Hunsaker &amp; Associates 2015



No Scale

**Figure 4.0-6**  
**Alternative G Land Use Plan**



SOURCE: Hunsaker & Associates 2015



**Figure 4.0-7**  
**Alternative H Land Use Plan**