

4. Responses to Comments

A. Topical Responses

Topical Response 1 – Fire Hazard

This response is provided to address topical issues that were identified several times within the comment letters on the DEIR. Reference to this Topical Response is noted in response individual comment letters on this topic.

Seven fires have burned within one mile of the Project site over the historic fire data record as shown on Exhibit 5-65 - Fire History Map on page 5-284 of the DEIR. The average interval between wildfires in the area was calculated to be 5.5 years with intervals ranging between 0 years (multiple fires in the same year) and 12 years. As shown below, the interval between fires on the Project site has been much greater with a 28-year interval between the Owl Fire and the Freeway Complex Fire.

Historical records show that three wildfires have burned within the Project site since the beginning of the historical fire data record:

- Santa Ana Canyon Fire in 1943
- Owl Fire in 1980
- Freeway Complex Fire in 2008

The Fire Protection and Emergency Evacuation Plan (FPEP) prepared by Dudek (June 2013) was used to assess the existing condition and the historical fire data, and to provide recommendations for minimizing the risks associated with potential future fire events. The FPEP is included in the DEIR as Appendix J and is analyzed in DEIR Section 5.7 (Hazards and Hazardous Materials). The preparers of the FPEP reviewed numerous information sources during the analysis phase of the document's preparation. Sources included official OCFA After-Action Reports, official weather data from the nearest Remote Automated Weather Station, fire modeling reports, evacuation planning reports, fire behavior analyses, and videos, among others. These data sources detailed fire spread information and other fire characteristics, including the weather during the 2008 Freeway Complex Fire, which informed the modeling, fire risk analysis, and fire protection measures required for the Project.

Dudek has also reviewed the Metropolitan Water District's video footage from the 2008 Freeway Complex Fire, which was submitted as an attachment to a comment letter on the DEIR. The video indicates that it took roughly four hours for the fire to burn to the Project area from the ignition point and to the perimeter of the Project area, and another 40 minutes for the fire to burn through the Project area. The time frame of this fire spread corresponds very closely to what was calculated in the fire modeling used as the baseline for the FPEP. The FPEP states that the modeled fire would take over three hours to reach the Project area, so the modeling used for the DEIR assessment was based upon a faster-moving, more aggressive fire than actually occurred in the 2008 Freeway Complex Fire.

The referenced video is available for review on the County's website at https://cms.ocgov.com/gov/pw/cd/planning/land/projects/esperanza_hills.asp.

The video does not change the analysis in the DEIR, because the Project model assumed a more rapid burn rate and provides recommendations based on a more aggressive fire scenario.

The Project area's proximity to off-site wildland areas that are prone to fire, such as Chino Hills State Park, heightens the risk of wildfire. Left in their natural state, the burned areas recover over time and produce both native and non-native vegetation resulting in new fuel sources for subsequent fires, if they occur. This condition exists off-site regardless of implementation of the Proposed Project. The FPEP provides a standard risks evaluation based on readily available fire history information and provides context for the fact that fires do occur in the area on a recurring basis, can be uncontrollable during Red Flag Warning weather periods, and require special consideration in the design of fire protection features. As stated in the DEIR (page 5-287), the undeveloped Project site is considered more vulnerable to wildfire starting in, burning onto, or spotting onto the site than the developed Project site will be because of the features included in the Project design as listed below.

Based on evaluation conducted in the FPEP and the identified fire risk, a redundant layering of fire protection features has been included in the Project. Some of these measures are required by the Fire Code and/or the Building Code and will result in ignition-resistant ("hardened") structures.

The Project will not increase the risk of wildfires off-site and would greatly reduce the risk of any wildfires originating on site due to the construction of hardened homes, installation of fuel modification zones, and reduction of non-native vegetation and wildland fuel. The Proposed Project will reduce risks to life and property on the Project site and in the adjoining neighborhoods by:

- Construction and ongoing maintenance of fuel modification zones
- Construction and ongoing maintenance of strategic fuel breaks within Blue Mud Canyon
- Construction of hardened homes with fire sprinklers (as required by Code) and also with additional attic sprinklers included as a Project feature
- Installation of two on-site water storage tanks providing gravity flow supply to fire hydrants for wildland and other firefighting purposes
- Installation of two emergency firefighting staging areas
- Installation of paved access roads for emergency purposes
- Provision of two firefighting access points into the community, including primary and emergency access to fight wildfires
- Adoption by the Homeowners' Association (HOA) of the Ready Set Go Program
- Annual inspections of the fuel modification zones funded by the HOA
- HOA-coordinated and maintained community evacuation plan
- HOA-maintained emergency alert system coordinated with Alert OC

The Project's construction would not add to the existing vegetation, which is an ignition source, but would replace existing ignition sources with vegetation approved by OCFA. The Project will consist of fire-resistant designed homes and a fuel modification buffer-inclusive development that would be anticipated to provide more of a buffer than existing conditions and reduce accidental fire starts that escape into the adjacent areas.

The measures proposed have been successfully used in other similar communities that have been built at the wildland urban interface. These communities, including Stevenson's Ranch in Los Angeles County, 4S Ranch in San Diego County, and Foothill Ranch and Portola Hills in Orange County, among others throughout Southern California, have proven to withstand wildfire to the point that fire

agencies do not have to commit as many resources to these communities for structure protection as they do older, less fire-planned, more vulnerable structures and communities.

Fuel Modification Zones

As described on page 5-295 of the DEIR, a fuel modification zone is a strip of land where combustible vegetation has been removed and/or modified and partially or totally replaced with more adequately spaced, drought-tolerant, fire-resistant plants. The Orange County Fire Authority (OCFA) requires a minimum width of 170 feet of fuel modification area for development adjacent to open space. The fuel modification area works in tandem with the other components of the fire protection system including ignition-resistant construction, interior automatic fire sprinklers (with attic heads in each structure), water supply and fire-fighting infrastructure, among others, to provide enhanced ignition resistance and protection for the site's structures. Regular inspections of the Esperanza Hills community fuel modification areas will be performed by the OCFA or an approved third party and will be funded by the Homeowners' Association.

Two strategic fuel breaks, one 300 feet wide and one 150 feet wide, will be included within Blue Mud Canyon. The fuel breaks are depicted in the DEIR on the Conceptual Fuel Modification Plans (Exhibit 5-7 and Exhibit 5-8). The fuel breaks are designed to significantly affect fire behavior by reducing fuel, slowing the spread rate, and reducing the flame length and intensity, which should provide substantial benefit to residences south and west of the Project in the City of Yorba Linda. Reducing the spread rate of a fire provides additional time for residents to safely evacuate an area in the fire's path, if evacuation is required. The urban wildland interface will be shifted to the east, reducing direct wildfire exposure to existing neighbors. As stated in its "After Action Report," the OCFA indicated that during the Freeway Complex Fire, they were able to focus resources on older, more vulnerable neighborhoods rather than in newer communities because of the fuel modification and construction features that necessitated less time/effort.

Conceptual Fuel Modification Plans are included in the DEIR as Exhibit 5-70 (page 5-301), Exhibit 5-71 (page 5-302), and Exhibit 6-4 (page 6-25).

Water Supply/Capacity

No water distribution system currently exists on the Project site. As noted in the OCFA's December 2008 "Freeway Complex Fire Preliminary Report," during the 2008 Freeway Complex Fire, firefighters experienced low or no water pressure from existing hydrants in the neighborhoods adjacent to the Project site because of the lack of gravity flow water storage and a single source of water supply, in addition to the failure of the pump system during the fire. The Yorba Linda Water District (YLWD) addressed these issues by constructing the Hidden Hills Reservoir and providing water supply improvements throughout its system. In addition, the YLWD completed the Northeast Area Planning Study (NEAPS) in 2013 detailing the water supply and storage requirements for the Project and the surrounding area. The total required volume of storage in a water system consists of water for operational storage, emergency storage and fire flow storage. OCFA and YLWD recommend a gravity storage supply system for the Project and the surrounding future development. YLWD has confirmed that a hydro-pneumatic/pump system does not meet YLWD standards and will not be allowed in lieu of a gravity storage system. Therefore, the Project provides a gravity flow system consistent with YLWD standards.

For firefighting, the Proposed Project is designed consistent with OCFA and YLWD standards for fire hydrant locations and spacing. Two underground water reservoirs will provide required water

capacity through a gravity-fed system as recommended by OCFA and YLWD for the Project. These features, in conjunction with the measures referenced above, will enhance life safety and fire-fighting capability that did not exist at the time of the 2008 Freeway Complex Fire. The water supply system for the Proposed Project is further detailed in Topical Response 4 – Water (beginning on page 36 herein).

The hazards related to fire (Section 5.7 - Hazards and Hazardous Materials) are fully addressed in the DEIR, and Project Design Features and Mitigation Measures are provided where impacts have been identified. Based on the whole record, the analysis and conclusions contained in the DEIR remain adequate. No new environmental impacts have been identified, and potentially significant environmental impacts that may result from the Project related to fire hazard are mitigated to less than significant.

Topical Response 2 – Evacuation Plan

This response is provided to address topical issues that were identified several times within the comment letters on the DEIR. Reference to this Topical Response is noted in appropriate individual comment letters on this topic.

Community Evacuation Planning

As noted on pages 5-288 and 5-289 of the DEIR, law enforcement agencies do not have the legal authority to force residents to evacuate. However, they may impose restrictions on people entering evacuation areas. It is incumbent upon the residents in the area to adhere to evacuation plans and advance warning systems at the earliest possible time, not only in the Esperanza Hills community but in the existing residential neighborhoods, to avoid harm. Following the Freeway Complex Fire in 2008, several steps have been taken with respect to emergency evacuation planning, including the following:

- The Orange County Sheriff's Department and the City of Yorba Linda have prepared a Community Evacuation Plan as described on page 5-289 of the DEIR. The OCSD evacuation plan focuses on moving vehicles off Yorba Linda Boulevard and through local neighborhoods in order to reduce the volume of traffic on Yorba Linda Boulevard and lessen the severe congestion experienced in 2008 when an evacuation plan was not in place.
- OCFA has adopted the "Ready, Set, Go!" program, which provides information and education for residents related to preparation and early evacuation (as described on page 5-289 in the DEIR in Section 5.7 (Hazards and Hazardous Materials).
- Alert OC is now in place to alert residents of emergency evacuation events.

The Esperanza Hills HOA will have its own notification system and will conduct annual evacuation meetings with its residents, as described on pages 5-318 and 5-500 of the DEIR. The key to all of the plans and programs is participation by area residents.

In addition to evaluating the 2008 Freeway Complex Fire, local agencies have evaluated other fire response and evacuation plans enacted for wildfires throughout southern California. As a result, more coordinated efforts have been developed between agencies to effectuate faster responses and move people out of harm's way using plans designed through inter-agency cooperation. The most recent San Diego fire in May 2014 has shown that such efforts are not only effective, but provide a model for other communities. The coordinated efforts between OCFA, OCSD and the City of Yorba Linda have resulted in plans that will evacuate areas much more quickly and efficiently. The addition of the measures proposed for Esperanza Hills will support and enhance the evacuation plans through resident information and preparedness training.

Emergency Access Roads for Emergency Vehicles

Emergency access for emergency vehicles is provided under all four access options analyzed in the DEIR as follows:

- Option 1 (Stonehaven Drive) - Emergency access is proposed via Esperanza Hills Parkway as well as an emergency only access roadway provided off Via del Agua approximately 130 feet northeast of Via de la Roca.
- Option 2 (Aspen Way) - Emergency access is proposed via the extension of Aspen Way and the existing emergency access roadway located off Stonehaven Drive, which will connect to the southernmost internal roadway.
- Option 2A - Access to the site will be provided via a main access roadway connected to San Antonio Road approximately 1,850 feet south of Aspen Way. Emergency access (Exhibit 6-5) will be provided off Stonehaven Drive and will connect to the southernmost internal street system within the project site via an existing emergency access roadway.
- Option 2B - Access to the site will be provided via San Antonio Road approximately 1,850 feet south of Aspen Way and Stonehaven Drive. The emergency access to Stonehaven Drive provided under Option 2A would be converted to a secondary access point. The access road from Stonehaven Drive would be expanded to accommodate daily ingress/egress and emergency ingress/egress.

The Project will enhance options for vehicular movement south and east in an evacuation which is an improved condition over the existing single exit to Yorba Linda Boulevard.

In conjunction with the Evacuation Plan designed by OCSD and the City for the immediate surrounding area, and the County's Evacuation Plan adopted by the Orange County Office of Emergency Services, a Community Evacuation Plan has been designed specifically for the Project (DEIR page 5-317). As stated on page 5-318 of the DEIR, the recommended triggers for Project site evacuation plan are:

- Red Flag Warning Period – During a Red Flag Warning Period, if there is an active wildfire burning west of the SR-71 Freeway and north of the SR-91 Freeway and south of Highway 142 (Carbon Canyon Road) the community will conduct an evacuation out of the area or a partial on-site relocation if directed by fire/law officials.
- Non-Red Flag Warning days – When there is an active wildfire burning within a 2.5-mile sphere of the community, an evacuation out of the area or a partial relocation will occur if directed by fire/law officials.

However, the recommended triggers will ultimately be determined by fire and law officials.

Fire Evacuation Analysis

In response to several comments received from agencies and the general public during the DEIR review period, Linscott, Law & Greenspan, Engineers (LLG) prepared a Fire Evacuation Analysis (Analysis) addressing the theoretical duration it would take to evacuate the entire Esperanza Hills development for each of the four access options described above. The analysis includes existing residential developments in the vicinity of the Project site during the same incident. Analysis also includes the proposed 112 single-family residential Cielo Vista project and 11 approved but unbuilt homes in Casino Ridge. Evacuation routes are consistent with the emergency access plans contained in the Traffic Impact Analysis (TIA) prepared by LLG (March 18, 2013) and included in the DEIR as Appendix O (Figures 11-2: Option 1 and Figure 17-2: Option 2).

An updated LLG Fire Evacuation Analysis (Analysis) dated May 9, 2014 is included as Appendix F herein. The analysis was based on existing, proposed, and reasonably foreseeable homes in the Study Area as follows:

Location	Residential Units
Existing Residential Developments	771
Casino Ridge (Approved/Unbuilt)	11
Esperanza Hills (Proposed)	340
Cielo Vista (Proposed)	112
Bridal Hills (Potential/Reasonably Foreseeable)	38
Total	1,272

Figure 1 in the Analysis presents the existing evacuation routes and the number of existing homes in the vicinity of the Project site. Figure 2 in the Analysis presents the existing/proposed evacuation routes and the number of existing homes in the vicinity of the Project site combined with the Option 1 development scenario. Figure 3 in the Analysis presents the existing/proposed evacuation routes and the number of existing homes in the vicinity of the Project site combined with the Option 2 development scenario. Figure 4 in the Analysis presents the existing/proposed evacuation routes and the number of existing homes in the vicinity of the Project site combined with the Option 2A and 2B development scenarios.

The following general assumptions were used in the evacuation analysis.

General Assumptions

- Existing development in the Project vicinity considered in the Analysis consists of 771 homes.
- Based on the average daily traffic (ADT) on Via del Agua, San Antonio Road, and Stonehaven Drive, the following evacuation pattern is assumed for existing residential units:
 - approximately 87 existing homes will evacuate via Via del Agua
 - 410 existing homes via San Antonio Road
 - 56 existing homes will evacuate via Dorinda Road
 - 218 existing homes via Stonehaven Drive (not including the proposed Project)
- As part of the proposed Cielo Vista project, 112 single-family homes would evacuate as follows:
 - 95 homes directed to Stonehaven Drive
 - 17 homes directed to San Antonio Road via Aspen Way
- 11 potential future single-family homes (approved but unbuilt) in Casino Ridge are assumed in the analysis and are directed to San Antonio Road.
- Each home will evacuate with two vehicles, which assumes every home is occupied at the time of evacuation notice.
- Each resident is directed to depart their home (evacuate) at the same time .

- Lane capacity of 1,600 vehicles per hour per lane (vphpl) with 75% green time at the intersections with Yorba Linda Boulevard (effective capacity of 1,200 vphpl, which is based on 1,600 vphpl x 0.75 (green light 75% of the time)).
- Manned traffic control at the intersections of Via del Agua, San Antonio Road, Dorinda Road, and Stonehaven Drive with Yorba Linda Boulevard (police personnel directing traffic per the Orange County Sheriff's Department/City traffic control evacuation plan).

In addition to the general assumptions above, the following assumptions related to Option 1:

- Option 1 - the evacuation path would be via the main Project access to Stonehaven Drive and via the secondary emergency access to Via del Agua approximately 130 feet northeast of Via de la Roca (Figure 2 in the updated Analysis and Figure 11-2 in the Traffic Impact Analysis)
- Of the 378 proposed or reasonably foreseeable homes (the proposed Project and Bridal Hills) 246 (65%) will evacuate via Via del Agua and 132 (35%) via Stonehaven Drive (Option 1)

In addition to the general assumptions above, the following assumptions are related to Option 2, 2A and 2B:

- Option 2 - the evacuation path would be via the main Project access to Aspen Way/San Antonio Road and via the secondary emergency access to Stonehaven Drive (Figure 3 and Figure 4 in the updated Analysis and Figure 17-2 in the Traffic Impact Analysis)
- Of the 378 proposed or reasonably foreseeable homes, 246 (65%) will evacuate via San Antonio Road, 91 (24%) will evacuate via Via del Agua, and 41 (11%) will evacuate via Stonehaven Drive (Option 2, Option 2A, and Option 2B)

Figure 5 in the Analysis presents the fire evacuation traffic volumes and the estimated evacuation time to clear every vehicle to Yorba Linda Boulevard for existing conditions. As presented in Figure 5, based on an effective roadway capacity of 1,200 vphpl on Via Del Agua, San Antonio Road, Dorinda Road, and Stonehaven Drive, all of the approximately 771 homes in the study area could optimally evacuate to Yorba Linda Boulevard within 45 minutes. However, assuming that all residents depart their homes within the first 30 minutes, which results in a peak hour factor of 0.50, full evacuation of the study area may practically take up to 90 minutes.

Figure 6 in the Analysis presents the fire evacuation traffic volumes and the estimated evacuation time to clear every vehicle to Yorba Linda Boulevard for the proposed Option 1 development access scenario, which directs Project traffic to Via del Agua and Stonehaven Drive only. Based on an effective roadway capacity of 1,200 vphpl on Via del Agua, San Antonio Road, Dorinda Road, and Stonehaven Drive, all of the approximately 1,272 homes in the study area could optimally evacuate to Yorba Linda Boulevard within 45 minutes. However, assuming that all residents depart their home within the first 30 minutes, full evacuation of the study area may take up to 90 minutes.

Figure 7 in the Analysis presents the fire evacuation traffic volumes and the estimated evacuation time to clear every vehicle to Yorba Linda Boulevard for the proposed Option 2, Option 2A, and Option 2B scenarios, which directs Project traffic to San Antonio Road, Via del Agua, and Stonehaven Drive. Based on an effective roadway capacity of 1,200 vphpl on Via del Agua, San Antonio Road, Dorinda Road, and Stonehaven Drive, all of the approximately 1,272 homes in the study area could optimally evacuate to Yorba Linda Boulevard within 75 minutes. However, assuming that all residents

depart their homes within the first 30 minutes, full evacuation of the study area may practically take up to 2.5 hours via San Antonio Road and up to 60 minutes via Stonehaven Drive.

The Analysis concludes that depending on the development access approved, it should optimally take no longer than 1 hour, and practically no longer than 2.5 hours, to fully evacuate the approximately 1,272 existing and proposed homes (including Cielo Vista) in the vicinity of the Project site once the alert is given.

Evacuation Plan Conclusion

Topical Response 1 (page 23) provides information regarding the redundant layer of fire protection features that have been incorporated into the Project, which will, at a minimum, slow the progression of a wildfire, and, at a maximum, halt the progression of the fire, allowing more time for evacuation. These measures were not in place during the 2008 Freeway Complex Fire event. In addition, the Orange County Sheriff's Department and the City of Yorba Linda have prepared a community evacuation plan to more safely and effectively evacuate traffic and direct vehicles off Yorba Linda Boulevard using emergency service personnel. Therefore, the model provided by LLG regarding evacuation patterns and the times for the 1,272 homes in the study area can be effectively implemented.

Evacuation Notification

Notification of residents will be via the HOA, Alert OC, radio, and television news sources, or through direct notification by OCSD on-site through site patrols. Once aware of a fire, the community's pre-planned and practiced emergency response would be initiated. The Project emergency plan is described on page 5-317 of the DEIR. If it is determined by fire and law personnel that on-site relocation is safer than off-site evacuation, the contingency on-site relocation plan will be initiated. Residents cannot be mandated to follow on-site relocation directions, but resident education and training information will be provided and reinforced to raise awareness of the potential danger and the potential options during a wildfire emergency (DEIR page 5-325).

The Proposed Project includes mitigation measures, design features, and recommendations based on OCFA and OCSD emergency plans that will ensure all feasible steps will be taken to provide a safety factor to area residents, which does not currently exist. A fuel modification zone along the open space/residential boundary, plus construction methods that reduce possible ember-related fires, will provide a buffer to existing residences. A traffic control evacuation plan approved by OCSD and the City is designed to assist in traffic flow and relieve congestion for evacuees. Fire-fighting staging areas will allow emergency personnel better ability to fight wildfires. Resident adherence to evacuation plans will provide the greatest measure of safety to ensure safe and orderly egress from the proposed Esperanza Hills and the adjacent neighborhoods. The measures proposed in the DEIR have been provided in consultation with OCFA, YLWD, the City, and OCSD to ensure compliance with all codes and requirements.

Topical Response 3 – Traffic Ingress/Egress

This response is provided to address topical issues that were identified several times within the comment letters on the DEIR. Reference to this Topical Response is noted in responses to individual comment letters on this topic.

Several commenters expressed concern about the addition of traffic to the existing residential streets adjacent to the proposed Esperanza Hills development. The amount of traffic on each street will vary depending upon the option for access that is ultimately approved. As analyzed in the DEIR, Option 1 and Option 2 are included as part of the Proposed Project, with Options 2A and 2B presented as Alternatives in Chapter 6 - Alternatives Analysis. Access under each option is proposed as follows:

- Option 1 - Primary access to the site will be provided via a main roadway connected to Stonehaven Drive approximately 325 feet east of Devonport Circle. Emergency access is proposed via Esperanza Hills Parkway as well as an emergency only access roadway provided off Via del Agua approximately 130 feet northeast of Via de la Roca.
- Option 2 - Primary access to the site will be provided via an extension of the existing terminus of Aspen Way, which will traverse through the southerly edge of a future potential residential development located immediately west of the Project site. Emergency access is proposed via the extension of Aspen Way and the existing emergency access roadway located off Stonehaven Drive, which will connect to the southernmost internal roadway.
- Option 2A - Primary access to the site will be provided via a main access roadway connected to San Antonio Road approximately 1,850 feet south of Aspen Way. Emergency access will be provided off Stonehaven Drive and will connect to the southernmost internal street system within the project site via an existing emergency access roadway.
- Option 2B - Primary access to the site will be provided via San Antonio Road approximately 1,850 feet south of Aspen Way (Option 2A) and secondary access would be provided to Stonehaven Drive (Option 1).

The Traffic Impact Analysis (TIA) prepared by Linscott, Law & Greenspan Engineers and dated March 2013 included 15 key intersections, as identified in consultation with the City of Yorba Linda staff. The intersections are noted on page 5-554 of the DEIR. The TIA is included in its entirety as Appendix O in the Technical Appendices of the DEIR, including an Addendum to the TIA dated October 14, 2013, addressing the inclusion of Option 2B as an alternative. The appendix includes daily and peak period traffic count data as well as level of service (LOS) calculation worksheets.

Via del Agua and Stonehaven Drive are designated as Local Roadways in the City of Yorba Linda Circulation Element, and no capacities are identified for Local Roadways. However, based on the City's General Plan EIR, Local Roadways function similar to Commuter Roadways, which have a capacity of 12,500 vehicles per day (vpd). While Via del Agua and Stonehaven Drive have the characteristics of a 12,500-vpd Commuter Roadway such as providing access to adjacent land uses in rural and residential areas, the operation and alignment of these two roadways suggest a more conservative capacity of 6,250 vpd. Therefore, the traffic analysis utilized a 6,250 vpd capacity because the streets do not function based on the Commuter Roadway designation. Using the adjusted or "modified" capacity provides a more accurate and more conservative depiction of the actual

existing and proposed traffic conditions with the addition of the Project. Via del Agua is expected to carry a maximum of 5,451 average daily traffic (ADT, 2035), and Stonehaven Drive is expected to carry 4,903 ADT (2035) with 3,451 ADT (2035) near the Project access. The table below depicts impacts to Stonehaven Drive and Via del Agua using the modified capacity of 6,250 vpd to more accurately reflect actual conditions.

With regard to San Antonio Road, which functions very similarly to a Commuter Roadway based on its characteristics, Table 1 shows that the capacity remains at 12,500 vpd rather than the modified capacity for Via del Agua and Stonehaven.

Table 1 - Street Capacity/Vehicles Per Day

Street	Capacity (vpd)	Modified Capacity (vpd)	Existing (vpd)	Project Only ¹	Projected 2020 ²	Level of Service (LOS) (current)	Level of Service (LOS) (2020)
Via del Agua (Option 1)	12,500	6,250	1,112	2,351	4,452	A	C
Stonehaven (Option 2)	12,500	6,250	1,966	1,266	3,389	A	A
San Antonio (Option 2)	12,500	12,500	3,530	3,617	7,629	A	B
San Antonio (Option 2B) 65% of traffic	12,500	12,500	3,530	2,351	6,363	A	A
Stonehaven (Option 2B) 11% of traffic	12,500	6,250	1,966	398	2,521	A	A
Via del Agua (Option 2B) 24% of traffic	12,500	6,250	1,112	868	2,969	A	A

¹ Esperanza Hills + Bridal Hills

² Esperanza Hills + Cielo Vista + Bridal Hills

vpd = vehicles per day

As shown in Table 1, the projected volume of traffic is less than the street capacity for each of the identified street segments. The roadway segments included in Table 1, and their corresponding vpd, are depicted in the DEIR as Exhibits 5-138 (Option 1), Exhibit 5-154 (Option 2) and Exhibit 6-31 (Option 2B).

Table 5-14-4 on page 5-554 of the DEIR shows the existing intersection peak hour levels of service (LOS). The intersection of Yorba Linda Boulevard and Via del Agua is currently operating at an unacceptable level of service (LOS) – i.e., LOS F. This intersection is within the City of Yorba Linda and is forecast to continue to operate at LOS F absent mitigation to improve the condition. Therefore, the Proposed Project includes a mitigation measure (T-1) requiring a fair share payment contribution towards the installation of a three-phase traffic signal to replace the one-way stop at that intersection. However, as noted in the DEIR, the City must concur in order to implement this improvement. Without implementation of the proposed mitigation, the intersection condition will remain impacted with or without the proposed development(s). With installation of a traffic signal, operations will return to an acceptable level of service (LOS B during the AM peak hour and LOS A during the PM peak hour).

Cumulative traffic conditions at horizon year 2035 show that the intersection of Yorba Linda Boulevard at Savi Ranch Parkway will operate at an unacceptable LOS. The horizon year conditions reflect existing conditions, plus the Proposed Project and projected future development within the Project area. The DEIR includes mitigation (Mitigation Measure T-2, page 5-620 of the DEIR) for the contribution of fair share fees to widen and re-stripe the westbound approach to provide an additional westbound left-turn lane. With this improvement, the intersection operating conditions will return to an acceptable LOS.

For Option 1, a third mitigation measure (Mitigation Measure T-3, page 5-620 of the DEIR) has been provided to reduce impacts at the eastbound left-turn lane along Yorba Linda Boulevard at Via del Agua. The Option 1 Project traffic is expected to increase the queue length beyond the existing storage length of 100 feet. By extending the left-turn pocket northwesterly towards the intersection of Yorba Ranch Road by approximately 200 feet, adequate storage would be available to accommodate the queue and would effectively mitigate the deficiency.

For Option 2 and 2A, Mitigation Measure T-3 has been provided to reduce impacts at the eastbound left-turn lane along Yorba Linda Boulevard at San Antonio Road. The Project traffic is expected to increase the queue length beyond the existing storage length of 95 feet. By extending the left-turn pocket westerly towards the intersection of Via Piedra by approximately 180 feet, adequate storage would be available to accommodate the queue.

Regarding the SR-91 Freeway, the TIA concluded that the Weir Canyon eastbound and westbound ramps will continue to operate at acceptable service levels with the addition of the Proposed Project-related traffic at year 2020 and year 2035 during AM and PM peak hours (pages 5-563 and 5-564 of the DEIR).

Analysis in the DEIR shows that Option 2B, which provides two access roads, directs approximately 65% of the Project traffic to San Antonio Road via the main entrance and approximately 35% of the traffic to Stonehaven Drive via the secondary entrance. This distribution of Project-generated traffic reduces the volume of vehicles traversing the existing residential neighborhoods compared to the other access options, which direct project traffic through one access location.

With the installation of the three-phase traffic signal at Yorba Linda Boulevard and Via del Agua, or the fair share payment described in Mitigation Measure T-1, and the payment of fair share fees to accomplish the mitigation outlined in Mitigation Measures T-2 and T-3, impacts due to Project traffic can be significantly reduced, and the operating conditions at this intersection will return to an acceptable level of service.

San Antonio Road North of Yorba Linda Boulevard Traffic Count Update

The Traffic Impact Analysis Guidelines do not require more than one traffic count at the study locations based on industry standard practice. The City's Guidelines require multiple count days. Therefore, in response to several comments, an additional traffic count was conducted on February 20, 2014 on San Antonio Road north of Yorba Linda Boulevard. The results showed a nominal increase in existing traffic of 200 vehicles per day (vpd) from the traffic count included in the DEIR (3,730 versus 3,530). This increase is not unexpected, and the previous analysis remains valid in the professional opinion of the traffic engineers.

Weir Canyon/SR-91 Interchange Update

The Weir Canyon Road/SR-91 interchange analyses in the TIA have been updated using the latest version of the Highway Capacity Manual (HCM), which is 2010, for the Existing, Year 2020, and Buildout Year 2035 traffic conditions "Without Project" and "With Project" traffic. As shown in Tables 2, 3 and 4 below, both intersections are forecast to operate at acceptable levels of service.

**Table 2
Existing Plus Project Peak Hour Intersection Capacity Analysis – Caltrans
Esperanza Hills, County of Orange**

Key Intersection	Time Period	(1) Existing T Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Significant Impact
		Delay (s/v)	LOS	Delay (s/v)	LOS	Yes/No
14. Weir Canyon Road at SR-91 WB Ramps	AM	11.5	B	11.6	B	No
	PM	11.0	B	11.2	B	No
15. Weir Canyon Road at SR-91 EB Ramps	AM	12.9	B	12.9	B	No
	PM	20.8	C	22.7	C	No

s/v = seconds per vehicle

**Table 3
Year 2020 Peak Hour Intersection Capacity Analysis – Caltrans
Esperanza Hills, County of Orange**

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Year 2020 Cumulative Traffic Conditions		(3) Year 2020 Cumulative Plus Project		(4) Significant Impact
		Delay (s/v)	LOS	Delay (s/v)	LOS	Delay (S/V)	LOS	Yes/No
14. Weir Canyon Road at SR-91 WB Ramps	AM	11.5	B	12.8	B	13.0	B	No
	PM	11.0	B	12.7	B	13.0	B	No
15. Weir Canyon Road at SR-91 EB Ramps	AM	12.9	B	14.8	B	14.8	B	No
	PM	20.8	C	21.4	C	26.1	C	No

s/v = seconds per vehicle

**Table 4
Year 2035 Peak Hour Intersection Capacity Analysis – Caltrans
Esperanza Hills, County of Orange**

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Year 2035 Cumulative Traffic Conditions		(3) Year 2035 Cumulative Plus Project Traffic Conditions		(4) Significant Impact
		Delay (s/v)	LOS	Delay (s/v)	LOS	Delay (S/V)	LOS	Yes/No
14. Weir Canyon Road at SR-91 WB Ramps	AM	11.5	B	14.0	B	14.1	B	No
	PM	11.0	B	15.5	B	15.9	B	No
15. Weir Canyon Road at SR-91 EB Ramps	AM	12.9	B	25.2	C	25.3	C	No
	PM	20.8	C	56.5	E	57.7	E	No

s/v = seconds per vehicle

The updates provided herein respond to comments from agencies and individuals. Worksheets and calculations are included as part of this Topical Response (Appendix F herein).

Traffic ingress/egress (Section 5.14 - Transportation and Traffic) is fully addressed in the DEIR and mitigation is provided where impacts have been identified. Based on the whole record, the analysis and conclusions contained in the DEIR remain adequate. No new environmental impacts have been identified and potentially significant environmental impacts that may result from the Project related to traffic are mitigated to less than significant with payment of fees and City approval of the traffic signal installation.

Topical Response 4 – Water Provision/Capacity

This response is provided to address topical issues that were identified several times within the comment letters on the DEIR. Reference to this Topical Response is noted in appropriate individual comment letters on this topic.

Several commenters expressed concern for the availability of water to serve the Project area. Additional comments included questions regarding water adequacy and maintaining water pressure under wildfire-fighting conditions.

As described in Section 5.15 - Utilities and Service Systems in the DEIR (page 5-625), Yorba Linda Water District (YLWD) commissioned the preparation of the Northeast Area Planning Study (NEAPS). The study is intended “to evaluate the capacity of the system to supply the areas of new development and recommend sizing of infrastructure to provide water under anticipated operational conditions for future demands.”¹ New development includes the proposed Esperanza Hills Project, as well as the Cielo Vista development in addition to the Shapell & Toll Brothers, Inc. developments (north of Bastanchury Road) where infrastructure has been constructed but the homes have not yet been built. The study did not include the reasonably foreseeable development of Bridal Hills (38 units).

Water Availability

YLWD will be the potable water purveyor for the proposed Project. The NEAPS projected that the proposed Project, along with the proposed Cielo Vista project, will add 542 acre-feet per year to the annual YLWD demand. This equates to a 2% demand increase of the YLWD’s annual overall system demand of 25,388 acre-feet per year. The current maximum day demand is anticipated to increase by 0.7 million gallons per day (mgd) to 33.6 mgd.

The Project does not meet the adopted development size thresholds to require a water supply assessment and water supply verification under the provisions of Senate Bills (SB) 610 and SB 221, respectively. Even if combined with the development of Cielo Vista (112 units) and Bridal Hills (38 units), the projected number of homes remains below the 500 minimum threshold for preparation of an SB 610/SB 221 Water Supply Assessment. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code §10912(a)) subject to CEQA. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of water supply availability. Regardless, the NEAPS prepared by the Yorba Linda Water District (YLWD) and the YLWD Water Master Plan estimates that water supply is adequate up to year 2035. The YLWD Water Master Plan is the equivalent of a water supply assessment for purposes of water supply verification.

The Project Applicant is required to enter into a development agreement with YLWD for the provision of water service. Adequacy of water supply was confirmed in the Yorba Linda Water District Urban Water Management Plan, which states that water is available to serve YLWD up to year 2035 (DEIR page 5-63). Provision of infrastructure as described in the DEIR will ensure that adequate facilities are provided, and domestic water supplies are adequate to meet the water demands of the Proposed Project.

¹ Northeast Area Planning Study dated March 2013 by Carollo Engineers

Water Pressure/Volume

The NEAPS recommended that storage tanks be provided at the 1,200-foot and 1,390-foot pressure zones. Accordingly, two reservoirs will be built on the Project site, one at the 1,200-foot elevation and one at the 1,390-foot elevation. The Zone 1200 reservoir will have a capacity of approximately 0.70 mg and the 1390 Zone reservoir will have a capacity of 0.40 mg. A network of transmission water lines and two booster stations will supply water from YLWD to the two underground on-site reservoirs. The boosters will replenish the reservoirs during off-peak hours. Water supply for the Project will be provided from the reservoirs via a gravity flow system which does not require booster pumps for transmission. Transmission and distribution pipelines were designed to allow an increase in velocity to a maximum of 15 feet per second (fps) under a fire fighting scenario.

As stated on page 5-634 of the DEIR, the Project is proposing to provide the minimum fire flow storage of 1,500 gallons per minute (gpm) for a 2-hour duration with a minimum residual pressure of 20 psi to meet OCFA and YLWD fire flow requirements for single-family residential developments. The system will meet or exceed YLWD's design requirements and service standards for system pressures, pipe velocity, reservoir storage and fire flow capacities. The water distribution system complies with the California Fire Code fire flow requirement. The water improvements will be designed to meet the demands of the Project and also improve the water service reliability and fire protection for the surrounding area, enhancing the water supply and fire-fighting capabilities which were inadequate during the 2008 Freeway Complex Fire.

The water provision and capacity (Section 5.15 - Utilities and Service Systems) are fully addressed in the DEIR and mitigation is provided where impacts have been identified. Based on the whole record, the analysis and conclusions contained in the DEIR remain adequate. No new environmental impacts have been identified and potentially significant environmental impacts that may result from the Project related to water provision and capacity are mitigated to less than significant.

Topical Response 5 – Segmentation-Piecemealing

This response is provided to address topical issues that were identified several times within the comment letters on the DEIR. Reference to this Topical Response is noted in appropriate individual comment letters on this topic.

The California Environmental Quality Act (CEQA) Guidelines define a “project” as the whole of an action, which has a potential for resulting in either a direct physical change in the environmental or a reasonably foreseeable indirect physical change in the environmental (§15378 (a)). The Guidelines go on to state that the term “project” refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term “project” does not mean each separate governmental approval (§15378(c)).

The DEIR Project Description provides a complete description of the Proposed Project and includes every reasonable foreseeable component of the Proposed Project. The FEIR adequately addresses environmental impacts, including cumulative impacts, and growth-inducing impacts, and mitigation.

The term “discretionary project” is defined as a project that requires the exercise of judgment or deliberation when the public agency or body decides to approve or disapprove a particular activity, as distinguished from situations where the public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations (§15357).

Nine of the 72 commenters stated that the Esperanza Hills Proposed Project and the proposed Cielo Vista project and some also included Bridal Hills, LLC and Yorba Linda Land sites – should have been combined into a single analysis (DEIR). As noted on page 5-395 of the DEIR, the Proposed Project is a portion of the area commonly referred to in the City of Yorba Linda General Plan (Yorba Linda GP) and the Zoning Map as the “Murdock Property,” which also includes Cielo Vista, Bridal Hills, and Yorba Linda Land. The area is within the Sphere of Influence of the City of Yorba Linda. The Yorba Linda GP vision for the Murdock property is for low density residential that averages one dwelling unit per acre. The Murdock Property is designated as Opportunity Area A5 Murdock Property. The definition of “opportunity” in the Yorba Linda GP is “A portion of the community in which change is either likely and requires guidance or in which change is desired and requires stimulation.”

The County of Orange General Plan (Orange County GP) designates the entire unincorporated area as Open Space (5). The Proposed Project is within the unincorporated area jurisdiction of the County of Orange and is therefore governed by County regulations and standards.

The Esperanza Hills, Cielo Vista, Bridal Hills LLC and Yorba Linda Land properties are owned by different parties and are proposed to be developed by different developers who are completely unrelated. The development of any of the properties will not change the nature of the Proposed Project or its environmental effects, and will not avoid mitigation.

In April 2010, the landowners of the Cielo Vista property, which is adjacent to and immediately west of the Esperanza Hills site, submitted an application to the County of Orange for the proposed development of the site. At that time, there were no development plans for the Esperanza Hills site. An Area Plan for the Cielo Vista site was prepared and subsequently, in July 2013, a Notice of Preparation/Initial Study was released for public review. A DEIR was released on November 7, 2013 for the development of 112 homes on the Cielo Vista property.

To date, no applications have been submitted to the County for the development of the Bridal Hills, LLC or Yorba Linda Lands sites. The Esperanza Hills DEIR has assumed the reasonably foreseeable future development of the Cielo Vista and Bridal Hills properties. The following table identifies the DEIR Chapter and page number of the cumulative impacts section where each property has been included.

DEIR Chapter	Cielo Vista	Bridal Hills
5.2 Air Quality		Page 5-90
5.3 Biological Resources	Included in Study Area – Exhibit 5-23, page 5-92	Included in Study Area – Exhibit 5-23, page 5-92
5.5 Geology and Soils		Page 5-254
5.6 Greenhouse Gas	Page 5-273	Page 5-273
5.7 Hazards and Hazardous Materials	Page 5-340	Page 5-340
5.8 Hydrology and Water Quality	Page 5-394	Page 5-394
5.9 Land Use		Page 5-456
5.10 Noise		Page 5-482
5.11 Population and Housing		Page 5-491
5.12 Public Services		Page 5-509
5.13 Recreation		Page 5-542
5.14 Transportation and Traffic	Page 5-543	Page 5-624
5.15 Utilities and Service Systems	Page 5-651	Page 5-651

An application for development of the Esperanza Hills site was submitted to the County in August 2012. The Notice of Preparation/Initial Study for the Project was released for public review on August 23, 2013, and the DEIR was released for review on December 4, 2013. As noted, the Cielo Vista project application had been submitted several years earlier, and no development activity has been initiated to date on the Bridal Hills or Yorba Linda Land sites. It should be noted that the Project Applicant approached the Bridal Hills landowners but they declined to participate in development at this time. The scope of the governmental entitlements sought by Esperanza Hills does not include any governmental entitlements or permits for or applicable to the Cielo Vista project. Esperanza Hills was designed and planned independent of the Cielo Vista proposed project.

Growth-inducing impacts are thoroughly analyzed in Section 8 of the DEIR. The growth-inducing impacts of the proposed Cielo Vista project’s 112 residential units and the anticipated 38-unit Bridal Hills project would add 150 residential units, for a total of approximately 490 residential units with the Proposed Project in the unincorporated area. However, there is limited additional developable land due to the proximity of Chino Hills State Park. Therefore, additional development in the area is limited.

The County of Orange has the discretion to approve or disapprove any one of the projects and not the other. Based on the facts related to the entire “Murdock Property” development, it is clear that segmentation and/or piecemealing have not occurred within the definitions and intent of CEQA. Therefore, the Esperanza Hills DEIR remains adequate and complete for the proposed Project.

The DEIR identified potential significant cumulative impacts in the areas of air quality, greenhouse gas emissions, noise, and erosion if the proposed adjacent Cielo Vista project is developed. Erosion due to grading would only occur if the proposed Cielo Vista project is constructed concurrently with Esperanza Hills.

Topical Response 6 – Biological Resources/Open Space

A number of commenters have requested clarification regarding the amount of open space that will be preserved or otherwise incorporated into the Proposed Project. As will be noted in this Topical Response, open space has various functions. As such, when considering impacts, it is important to note that various topics evaluated in the DEIR receive different types of analyses. For example, when considering open space, the final disposition of an area, following construction, will potentially have different impacts on biological resources than on water quality or hydrology. For example, because parks remain pervious and support turf grass or other ornamental vegetation, they will not adversely affect runoff, while they could result in impacts to biological resources (based on site-specific conditions). This Topical Response specifically addresses the various types of open space and the potential effects on biological resources. This information does not change the analysis in the DEIR or provide additional new information that results in significant impacts. Therefore, the DEIR remains adequate and complete.

Biological Resources

A number of areas are included in the project open space as set forth in the tables below. Specifically, areas of ungraded natural open space and areas that are ungraded but subject to some vegetation removal for public safety, primarily consisting of non-native species or species that are considered highly flammable by the Orange County Fire Authority (OCFA), would still exhibit substantial biological value (e.g., Fuel Modification Zones C and D as discussed on page 306 of the DEIR) in the post-project condition. Also included in this category are limited areas that would be subject to temporary grading, but that would be subject to replanting with native species or native-compatible species following grading, while subject to some vegetation management. As discussed in more detail below, given the species that occur on the site, these areas would continue to exhibit levels of biological function consistent with existing conditions.

“Other Open Space” includes Fuel Modification Zone B, Special Maintenance Areas (as discussed on page 306 of the DEIR) consisting of slopes internal to the project, irrigated landscape slopes, entries and medians, and parks. These areas would have decreased biological function for some species, but would still exhibit some level of biological function, consistent with urban areas or the urban-wildland interface. As noted, because these areas would be pervious surfaces, they would not increase runoff; therefore, they would not contribute to hydromodification or water quality degradation.

Ungraded Natural Open Space

As summarized below, ungraded, natural open space accounts for 85.45 acres for Option 1 and 90.2 acres for Options 2, 2A, and 2B. These areas would remain unchanged, and their biological function would not be significantly affected. Mitigation Measure Bio-10 (page 5-168 of the DEIR) further ensures that any potential effects on biological resources within the natural open space would not be significantly affected by the project.

Vegetation Management Areas

Option 1 contains 72.33 acres on-site and 4.90 acres off-site that would receive limited vegetation management for purposes of public safety. For Options 2, 2A, and 2B these areas total 76.04 acres

and 4.90 acres, respectively. Specifically, these areas would be subject to selective vegetation removal that would focus first on non-native species (e.g., non-native grasses, mustards, wild radish, poison hemlock, fennel, castor bean, and tree tobacco), followed by certain native species that are considered to exhibit high levels of flammability by OCFA. Where native species are removed, they would be replaced with native species or “native-compatible” species that are not considered flammable by OCFA, allowing for maintenance of biological functions at or near existing levels. Designated habitat mitigation sites would include only native vegetation as set forth in the project Habitat Mitigation and Monitoring Plan (HMMP) (Appendix C herein), which has been incorporated into the Final EIR. In many cases the removal of non-native species, with subsequent replacement by native species, will result in incremental gains in habitat function. Given that these areas will continue to support the same species that occur in these areas currently, when combined with the Natural Open Space, there will be 157.78 acres (Option 1) and 166.24 acres (Options 2, 2A, and 2B) of open space that will continue to exhibit high levels of biological functions. (See DEIR pages 5-139 to 5-144, 6-17, and page 6-56.)

Other Open Space

Areas described as “Other Open Space” consist of areas that largely fall within the project grading limits and that include a variety of land-uses, including active and passive parks, planted slopes, special maintenance areas, and Fuel Modification Zone B. These areas will exhibit lower biological values, primarily due to reduced biological diversity and less so due to decreases in biological productivity.

While exhibiting lower levels of biodiversity, these areas will continue to support many common, edge-tolerant, or edge-enhanced species that would continue to contribute to the overall biological function of the site and the biological open space discussed above. For example, many species of avifauna that are common within various native habitats on the site will continue to persist within these areas of “Other Open Space” on the site, as well as within the landscaping of the individual homes. Resident species such as California towhee, Bewick’s wren, house finch, common yellowthroat, song sparrow, lesser goldfinch, black phoebe, house wren, northern mockingbird, scrub jay, downy woodpecker, northern flicker, mourning dove, Anna’s hummingbird, and Allen’s hummingbird (just to name the most likely to occur) along with migratory species such as white-crowned sparrow, yellow-rumped warbler, western kingbird, black-headed grosbeak, western bluebird (especially within the parks), and hooded oriole would be common throughout these areas, contributing to the prey base for more urban-adapted raptors such as the Cooper’s hawk and red-shouldered hawk. Similarly, these areas would support a variety of reptiles, such as the western fence lizard and the southern alligator lizard.

The use of bird feeders for seed eaters and hummingbirds would increase biological productivity for many of these species, which would also augment the prey base for species such as the Cooper’s hawk, which regularly forages in urban areas, especially at bird feeders.

Areas of Other Open Space account for 151.57 acres on-site and 6.66 acres off-site for Option 1, 145.2 acres on-site and 18.84 acres off-site for Option 2, and 145.2 acres on-site and 12.64 acres off-site for Options 2A and 2B. A site plan is included herein which identifies each of the areas identified for Other Open Space.

When combined with the various categories of Biological Open Space, under each alternative, there is over 300 acres of open space that would contribute to the biological functions at the site.

Option 1 (Within Property Limits)	Acres
Biological Open Space	
Ungraded Natural Open Space	85.45
Vegetation Removal (Non-Native)	29.62
Fuel Break	4.94
Riparian Zone	0.34
Fuel Mod Zone C	12.58
Fuel Mod Zone C (Outside Grading Limits)	6.17
Fuel Mod Zone D	11.31
Fuel Mod Zone D (Outside Grading Limits)	7.37
Subtotal	157.78
Other Open Space	
Fuel Mod Zone B	25.56
Fuel Mod Zone B (Outside Grading Limits)	5.65
Special Maintenance Areas	48.98
Irrigated Landscape Slopes/Entries/Medians	55.99
Parks	15.39
Subtotal	151.57
Developed	
Fuel Mod Zone A	6.52
Fuel Mod Zone A (Outside Grading Limits)	0.99
Roads	31.96
Lot Buildable Area	74.79
Lot Non Buildable Area	44.04
Alternative Methods And Materials	1.25
Subtotal	159.55
Total	468.90
Option 1 (Off-Site)	
Biological Open Space	
Fuel Mod Zone C	1.39
Fuel Mod Zone C (Outside Grading Limits)	0.68
Fuel Mod Zone D	1.84
Fuel Mod Zone D (Outside Grading Limits)	0.99
Subtotal	4.90
Other Open Space	
Fuel Mod Zone B	1.36
Fuel Mod Zone B (Outside Grading Limits)	0.29
Irrigated Landscape Slopes	5.01
Subtotal	6.66
Developed	
Emergency Evacuation Road	1.05
Total	12.61

Option 2 (Within Property Limits)	Acres
Biological Open Space	
Ungraded Natural Open Space	90.2
Vegetation Removal (Non-Native)	32.79
Fuel Break	4.94
Riparian Zone	0.34
Fuel Mod Zone C	11.6
Fuel Mod Zone C (Outside Grading Limits)	7.49
Fuel Mod Zone D	10.62
Fuel Mod Zone D (Outside Grading Limits)	8.26
Subtotal	166.24
Other Open Space	
Fuel Mod Zone B	26.93
Fuel Mod Zone B (Outside Grading Limits)	6.17
Special Maintenance Areas	47.23
Irrigated Landscape Slopes/Entries/Medians	53.56
Parks	11.31
Subtotal	145.20
Developed	
Fuel Mod Zone A	6.79
Fuel Mod Zone A (Outside Grading Limits)	0.98
Roads	29.14
Lot Buildable Area	76.24
Lot Non Buildable Area	43.89
Alternative Methods And Materials	0.42
Subtotal	157.46
Total	468.90
Option 2 (Off-Site)	
Biological Open Space	
Fuel Mod Zone C	1.39
Fuel Mod Zone C (Outside Grading Limits)	0.68
Fuel Mod Zone D	1.84
Fuel Mod Zone D (Outside Grading Limits)	0.99
Subtotal	4.90
Other Open Space	
Fuel Mod Zone B	2.43
Fuel Mod Zone B (Outside Grading Limits)	0.29
Irrigated Landscape Slopes	16.12
Subtotal	18.84
Total	23.74

Option 2A and 2B (Within Property Limits)	Acres
Biological Open Space	
Ungraded Natural Open Space	90.2
Vegetation Removal (Non-Native)	32.79
Fuel Break	4.94
Riparian Zone	0.34
Fuel Mod Zone C	11.6
Fuel Mod Zone C (Outside Grading Limits)	7.49
Fuel Mod Zone D	10.62
Fuel Mod Zone D (Outside Grading Limits)	8.26
Subtotal	166.24
Other Open Space	
Fuel Mod Zone B	26.93
Fuel Mod Zone B (Outside Grading Limits)	6.17
Special Maintenance Areas	47.23
Irrigated Landscape Slopes/Entries/Medians	53.56
Parks	11.31
Subtotal	145.20
Developed	
Fuel Mod Zone A	6.79
Fuel Mod Zone A (Outside Grading Limits)	0.98
Roads	29.14
Lot Buildable Area	76.24
Lot Non Buildable Area	43.89
Alternative Methods And Materials	0.42
Subtotal	157.46
Total	468.90
Option 2A and 2B (Off-Site)	
Biological Open Space	
Fuel Mod Zone C	1.39
Fuel Mod Zone C (Outside Grading Limits)	0.68
Fuel Mod Zone D	1.84
Fuel Mod Zone D (Outside Grading Limits)	0.99
Subtotal	4.90
Other Open Space	
Fuel Mod Zone B	3.79
Fuel Mod Zone B (Outside Grading Limits)	0.29
Irrigated Landscape Slopes	8.56
Subtotal	12.64
Total	17.54

Topical Response 7 – Special-Status Vegetation/CDFW Jurisdiction and Associated Mitigation

This Topical Response is provided as clarification regarding the impacts to special status and common vegetation resources within the California Department of Fish and Wildlife (CDFW) jurisdiction. Reference to this Topical Response is noted in responses to individual comment letters on this topic. The information provided herein does not represent new or additional information that results in significant impacts and does not change the conclusions in the DEIR.

The DEIR identified significant impacts to the following special-status vegetation communities for Option 1 and Option 2 (pages 5-141 to 5-162 of the DEIR), Option 2A (pages 6-17 to 6-20 of the DEIR), and Option 2B (page 6-56 of the DEIR):

- California Walnut Woodland
- Blue Elderberry Woodland
- Southern Willow Scrub

The DEIR also identified significant impacts to common vegetation resources which occur within the jurisdiction of California Department of Fish and Wildlife (CDFW):

- Black Willow Riparian Forest
- Blue Elderberry Woodland
- Mulefat Scrub
- Coast Live Oak Riparian Forest
- Detention Basin
- Southern Willow Scrub

The DEIR also included the unvegetated channel, covering 0.80 acre for each alternative subject to CDFW as a significant impact.

The tables below provide a summary of the impacts for each of the topics identified above. It is important to note, the impacts to walnut woodland and blue elderberry woodland, associated with Fuel Modification Zones A and B which fall outside of the grading limits have been incorporated into the impact totals (see CDFW Response Letter L4). It is also important to note that impacts to blue elderberry woodland were subject to double counting as the 0.45 acre of blue elderberry woodland within CDFW jurisdiction for each Option was not deducted from the site total for any of the alternatives.

Vegetation Types	Option 1 Impacts	Option 2 Impacts	Option 2A/2B Impacts
Upland Areas			
California Walnut Woodland	0.84 acre	0.52 acre	0.62 acre
Blue Elderberry Woodland	10.92 acres	13.20 acres	12.01 acres
Southern Willow Scrub	0.0 acres	0.0 acres	0.0 acres
Subtotal	12.21 acres	13.72 acres	12.63 acres

Vegetation Types	Option 1 Impacts	Option 2 Impacts	Option 2A/2B Impacts
CDFW Jurisdiction			
Black Willow Riparian Forest	0.0 acre	0.19 acre	0.08 acre
Blue Elderberry Woodland	0.45 acre	0.45 acre	0.45 acre
Mulefat Scrub	0.09 acre	0.09 acre	0.32 acre
Coast Live Oak Riparian Forest	0.54 acre	0.54 acre	0.54 acre
Detention Basin	0.02 acre	0.02 acre	0.02 acre
Southern Willow Scrub	0.0 acre	0.0 acre	0.36 acre
Unvegetated Channel	0.80 acre	0.80 acre	0.80 acre
Subtotal	1.90 acres	2.09 acre	2.57 acre
Total	13.11 acres	15.81 acres	15.20 acres

Finally, during preparation of the Habitat Mitigation and Monitoring Plan (HMMP) (Appendix C herein), Glen Lukos Associates identified an error in the calculations for impacts to riparian habitat. Specifically, the following vegetation types were incorrectly included in the “riparian” category: disturbed coastal sage scrub, graded, sage scrub-chaparral ecotone, and toyon-sumac chaparral. The riparian areas actually total 1.10 acres for Option 1, rather than 1.22 acres as reported in Table 5-3-8 of the DEIR; 1.29 acres for Option 2 rather than 1.41 reported in Table 2-3-10 of the DEIR; and 1.77 acres for Option 2A rather than 1.90 reported in Table 5-9 of Appendix D of the DEIR.

Based on these corrected and updated impact totals, the project mitigation is proposed as follows:

Impacts to upland California walnut woodland and blue elderberry woodland will be mitigated onsite, as set forth in the HMMP, at a ratio of 1:1 and impacts to riparian habitat within CDFW will be mitigated onsite at a ratio of 2:1. Impacts to unvegetated channel will be mitigated onsite at a ratio of 1:1 through creation of riparian habitat.

Resource to be Mitigated	Option 1	Option 2	Option 2A/2B
	Mitigation Required		
Upland Walnut and Elderberry Woodland	12.21 acres	13.72 acres	12.63 acres
CDFW Riparian (at 2:1)	2.20 acres	2.58 acres	3.54 acres
CDFW Unvegetated Channel (at 1:1)	0.80 acre	0.80 acre	0.80 acre
Subtotal CDFW	3.0 acres	3.38 acres	3.54 acres
Total	15.21 acres	17.10 acres	16.97 acres

As noted in the DEIR (Mitigation Measure Bio-4, page 5-166), an area of up to 5.27 acres has been identified in Blue Mud Canyon for creation of riparian habitat creation and/or enhancement that would include creation of suitable habitat for least Bell’s vireo. The HMMP shows candidate areas of up to 5.30 acres for riparian habitat mitigation and up to 14.7 acres of candidate areas for California walnut and blue elderberry mitigation, for a candidate area of up to 20.0 acres. The final mitigation total will be determined based on the Option selected. As noted, the HMMP provides a detailed discussion of the proposed mitigation program, for both upland and CDFW streambed and riparian resources.

Topical Response 8 – Noise Impacts

This Topical Response is provided as clarification to the impact analysis presented in the DEIR for noise impacts related to traffic (Giroux & Associates Noise Impact Analysis dated October 21, 2013 and Addendum dated October 23, 2013). The DEIR analyzed two access Options (Option 1 and Option 2) and also included two additional access alternatives (Option 2A and Option 2B). The analysis concluded that an unavoidable adverse impact would result from Project implementation. The conclusion was based on an increase of +3dB, which is a “perceptible increase” based on CEQA thresholds. The County’s threshold of 65 dBA CNEL for exterior noise levels was also considered in the analysis. In response to comments received regarding noise impacts, the County has determined that further clarification regarding the impacts under each of the four access options should be provided to differentiate the noise increase under the established 65 dBA threshold for the options.

An updated Noise Impact Analysis dated August 2014 (Appendix E) by Giroux & Associates is included herein clarifying the threshold increases that would result in an unavoidable adverse impact. The Noise Analysis states that noise impacts are considered significant if they result in a substantial permanent or temporary increase above ambient noise levels. The term “substantial” is not quantified in CEQA guidelines but is generally identified as a +3dB increase. However, where the County’s 65 dB CNEL threshold is not exceeded, a noise increase above 3 dB may not be considered significant, because the 65 dB CNEL threshold is maintained. Some agencies such as Caltrans consider increases substantial if they are +10dB or more above ambient noise levels. For analysis purposes, the DEIR considered a +3dB increase as significant under CEQA, in addition to increases in the residential noise/land use guidelines that exceed 65 dBA CNEL. A +10 dB increase would also be considered significant even if the residential noise/land use guidelines of 65 dBA CNEL are not exceeded.

As shown in the Noise Impact Analyses, this increase is not realized under Options 1, 2A or 2B, because the levels will remain under the 65 dBA CNEL threshold, and increases in noise levels are less than +10 dBA CNEL and also less than the 65 dB CNEL. However, implementation of Option 2 would significantly increase noise related to traffic because ambient noise levels along Aspen Way are low due to the very low traffic volume. Therefore, any increase in traffic noise results in a noise impact for Option 2 along Aspen Way. The addition of project traffic increases the noise levels by +14.6 dB under near term conditions and +10.6 dB in year 2020, which both exceed the +10 dB increase threshold even though the noise levels do not exceed 65 dB CNEL. If Option 2 is approved, a Statement of Overriding Considerations would be necessary for this impact.

The following tables depict the existing and projected noise levels with project implementation.

**Near Term Traffic Noise Impact Analysis
(CNEL in dB at 50 feet from Centerline)**

Road Segment	Existing	Existing + Option 1	Existing + Option 2	Existing + Option 2A	Existing Impacts Option 1	Existing Impacts Option 2	Existing Impacts Option 2A
Yorba Linda Blvd./ Imperial Hwy-Kellogg Dr.	70.7	70.9	70.9	70.9	0.2	0.2	0.2
Village Center-San Antonio	70.7	71.0	71.0	71.0	0.3	0.3	0.3
San Antonio-La Palma	70.7	70.7	70.9	70.9	0.0	0.2	0.2
Weir Canyon/ E of La Palma	74.0	74.1	74.1	74.1	0.1	0.1	0.1
San Antonio Rd./ N of Yorba Linda Blvd.	56.4	-	60.7	60.7	-	4.4	4.4
Aspen Way/ E of San Antonio	43.3	-	57.9	-	-	14.6	-
Via Del Agua/ W of Site Entrance	52.3	59.7	-	-	7.4	-	-
N of Yorba Linda Blvd.	55.6	60.5	-	-	4.9	-	-
Stonehaven Dr. E of Site Entrance	56.0	59.0	-	-	3.0	-	-
N of Yorba Linda Blvd.	58.0	60.2	-	-	2.2	-	-

**2020 Traffic Noise Impact Analysis
(CNEL in dB at 50 feet from Centerline)**

Road Segment	2020	2020 + Option 1	2020 + Option 2	2020 + Option 2A	2020 Impacts Option 1	2020 Impacts Option 2	2020 Impacts Option 2A
Yorba Linda Blvd./ Imperial Hwy-Kellogg Dr.	71.4	71.5	71.5	71.5	0.1	0.1	0.1
Village Center-San Antonio	71.1	71.4	71.4	71.4	0.3	0.3	0.3
San Antonio-La Palma	71.2	71.2	71.4	71.4	0.0	0.2	0.2
Weir Canyon/ E of La Palma	74.5	74.6	74.6	74.6	0.1	0.1	0.1
San Antonio Rd./ N of Yorba Linda Blvd.	56.9	-	61.0	61.0	-	4.1	4.1
Aspen Way/ E of San Antonio	47.6	-	58.2	-	-	10.6	-
Via Del Agua/ W of Site Entrance	52.6	59.8	-	-	7.2	-	-
N of Yorba Linda Blvd.	58.3	61.6	-	-	3.3	-	-
Stonehaven Dr. E of Site Entrance	56.2	59.2	-	-	3.0	-	-
N of Yorba Linda Blvd.	58.4	60.4	-	-	2.0	-	-

**2035 Traffic Noise Impact Analysis
(CNEL in dB at 50 feet from Centerline)**

Road Segment	2035	2035 + Option 1	2035 + Option 2	2035 + Option 2A	2035 Impacts Option 1	2035 Impacts Option 2	2035 Impacts Option 2A
Yorba Linda Blvd./ Imperial Hwy-Kellogg Dr.	72.2	72.3	72.3	72.3	0.1	0.1	0.1
Village Center-San Antonio	71.1	71.4	71.4	71.4	0.3	0.3	0.3
San Antonio-La Palma	71.8	71.8	72.0	72.0	0.0	0.2	0.2
Weir Canyon/ E of La Palma	74.9	75.0	75.0	75.0	0.1	0.1	0.1
San Antonio Rd./ N of Yorba Linda Blvd.	57.1	-	61.7	61.7	-	4.6	4.6
Aspen Way/ E of San Antonio	50.1	-	58.5	-	-	8.4	-
Via Del Agua/ W of Site Entrance	55.5	60.5	-	-	5.0	-	-
N of Yorba Linda Blvd.	60.0	62.5	-	-	2.5	-	-
Stonehaven Dr. E of Site Entrance	58.6	60.5	-	-	1.9	-	-
N of Yorba Linda Blvd.	60.7	62.0	-	-	1.3	-	-