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**EXHIBIT B**
Please see the Global Responses to Fire Hazard Impact Analysis and Adequacy of Emergency Evacuation and Access along with Responses to Comments O3a-24 through O3a-49 for more details regarding the following responses.

Response to Comment O3c-1
The County acknowledges these introductory comments; however, they do not raise an issue concerning the environmental analysis or adequacy of the EIR. Please see the responses below to specific comments.

Response to Comment O3c-2
The County disagrees with the stated opinions regarding the Project. The Project’s Fire Protection Plan (FPP) recognizes that the area has been designated a very high fire hazard severity zone. As such, it is required to implement important fire safety measures including ignition-resistant construction materials and methods for all structures, fuel modification on the perimeter and throughout the Project, access, water, and many others (refer to the Project’s FPP).

Regarding long term assurance that the adequate wildfire protection and community safety will occur, the Project’s FPP defines numerous fire protection and fire safety measures that are required to be implemented and maintained for the life of the Project. Additionally, it has been determined that adequate fire protection from existing fire response resources are available and can and will respond to the Project.

The FPP evaluates the climax condition for vegetation surrounding the Project. This is considered a worst-case condition that would produce the highest flame lengths. It is speculative at this point to presume future fire conditions based on climate change. Research indicates that vegetation in southern California may convert to lighter fuels as the result of more frequent fires. This would result from drier, hotter climates where fuels would convert to lighter flashy fuels through repeated wildfires and a change in the fire regime to one with lower intensity and faster spread rates. These types of fires may produce embers, but they include faster decay rates and enable firefighters better options for control. The comment’s assertion that the Project has not adequately considered embers (fire brands) and structure fires is not accurate. The Project’s FPP requires
ember-resistant vents, beyond the code requirements, along with application of Chapter 7A which largely focuses on mitigating ember intrusion.

Further, application of the latest code requirements, including interior, automatic sprinklers, addresses structure fires based on decades of code development aimed at minimizing structure fire occurrence, damage, and duration.

**Response to Comment O3c-3**

The Project’s FPP analyzes and prescribes fire protection measures based on typical and extreme fire weather. The potential risk to the Project was evaluated to levels exceeding County requirements and results of the FPP, the Rohde & Associates independent fire study, as well as Rancho Santa Fe Fire Protection District (RSFFPD) and County review and evaluation, is that the fire protection features being provided lower the Project’s fire risk to a less than significant level. It is speculative to make conclusions regarding future climates, especially given the varying scientific studies that indicate different future conditions.

Several alternative routes for secondary access were evaluated and the results of that analysis is presented in the FPP, Appendix C. The results presented in that study are the culmination of County Planning, Biological, Fire and discussions with the Project applicant and the applicant’s team. No additional analysis is considered necessary. Please see the Global Response to Fire Hazard Impact Analysis for response to the assertion that the Project would be non-compliant with County emergency access standards.
In summary, the following issues were identified in our review of the DEIR, Fire Protection Plan and supporting materials:

1) The DEIR and Plan fail to adequately describe the fire history and existing setting of the area;
2) Current understanding of fire branding and structure loss during a wildfire event is not adequately addressed in the DEIR and the Plan;
3) Evacuation plans, community design, and shelter in place measures proposed in the DEIR provide inadequate protection and assurance that the community can safely respond to severe wildfires;
4) The DEIR and Plan fail to adequately address future changes in precipitation, temperature, and wind;
5) The DEIR and Plan fail to consider how future land use change scenarios, invasive species, and habitat succession are expected to alter fire frequency and intensity;
6) The Plan as proposed does not adequately address actual wildfire community risks.

A detailed review of the Project is provided on the following pages, along with supporting references. If you have any questions, please feel free to contact me at any time.

Respectfully submitted,

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1.0 Introduction

There is always an inherent danger in placing an urban development in what is currently an undeveloped wildland area located within an historic fire corridor. Although the DEIR and the related Wildfire Risk Assessment claim that the HGV Project meets or exceeds fire and building code requirements, the Project does not comply with standards related to emergency access. Furthermore, the DEIR proposes modifications to local and currently accepted standards related to dead and roads and evacuation routes, but the proposed measures are untested and have not been evaluated under real-world scenarios. The DEIR provides no evidence that during an emergency these measures will provide the same or higher level of community protection and safety. If anything, based on the high risks at the Project site, the County should apply more stringent standards that have a proven record of success.

Given that the proposed development is located in such a high risk wildfire area, it is incumbent on the County to integrate a prospective approach to decision-making and risk analysis. Unfortunately, the modified mitigation measures proposed in this Plan are tantamount to a community-level experiment, where untested measures are assumed to provide the same level of public safety that current code provides.

2.0 Fire History

Given the topography, climate, and vegetation, the Plan mischaracterizes the extreme wildfire risk of the proposed site. As recognized throughout the DEIR and supporting documents, wildfires are regular occurrences in and around the project area. However, the analysis fails to adequately describe the modern risk, diluting the modern history of the site with data from before 1950, when records and fire assessments were spotty at best. Modern history shows that the fire return interval within three miles of the site is not seven years. Rather, the local area has had eighteen fires from 1980-2014, suggesting a modern fire frequency of less than two years. Furthermore, the characteristics of wildfires are underestimated with regard to wind-driven events, with the analysis suggesting average and peak wind velocities that are lower than the documented conditions that occurred during recent wildfires (including the Witch Fire in 2007). Finally, while the data used are from actual recorded wildfire events, the numbers of actual ignitions is likely much higher. The analysis should have provided an assessment of all the known ignitions and areas for high historic wildfire risk. This underestimate (and lack of assessment of future climatic and vegetation scenarios described later) creates a faulty foundation on which the analysis and subsequent mitigation measures are based.

The DEIR and the Plan suggest that the development of the Project actually reduces wildfire risk because the project will result in the conversion of high risk fuels into an area of developed land with ignition resistant structures and landscaping. While there is no doubt that the development will remove existing habitat, simply placing a community within a high risk fire area does not reduce fire risk. To be certain, the risks still exist from the surrounding area, and the addition of a dense development into a high fire prone area has a long and demonstrated history of creating an environment where wildfires become

Response to Comment O3c-5

Please see the Global Response to Fire Hazard Impact Analysis for response to the assertion that the Project would be non-compliant with County emergency access standards. The decision-making process used to determine consistency of the proposed alternative methods with the code are based on several months of evaluation by multiple professional fire planners and fire prevention officers. The list of measures providing justification for the County making findings that the measures meet the intent of the code included evaluation by Dudek fire protection planners, an independent third-party, Rohde & Associates, RSFFPD the agency providing fire service to the Project), and the County. Typically, these types of decisions are made by one fire agency within whose jurisdiction a project occurs. This Project is unique in that it included additional analysis and critique by multiple fire professionals with long histories of working throughout San Diego County and within the Harmony Grove area. Therefore, the County disagrees with the comment that the provided measures are untested and not suitable for making the appropriate findings.

Response to Comment O3c-6

The County disagrees that the proposed measures have not been tested and or observed in real world applications to provide fire protections in line with their intended uses at Harmony Grove Village South (HGV South). The FPP provides a list of fire protection features, many of which exceed the existing fire and building codes, which the RSFFPD and the County have deemed appropriate and adequate to make findings that the Project meets the intentions of the fire and building codes. The proposed features include a variety protections that have been proven through scientific testing and/or real world experience to reduce the potential fire impacts to residential communities. Providing structure related protections reduce the potential for ember penetration, landscape related protections set structures back from off-site fuels, road and parking related protections are designed to increase the flow of traffic and minimize obstructions, and resident educational protections raise the awareness of residents to their options during an emergency; all are measures that are in use in varying degrees throughout the County.
Response to Comment O3c-7
The County disagrees with the commenter’s opinion that the wildfire risk has been mischaracterized. The Project’s FPP and independent Rohde’s & Associates report both analyzed the area’s fire environment according to industry standard methods. The data used for the various fire behavior modeling was considered to represent worst-case conditions. Fire history includes all recorded fires occurring within a given area. The analysis considers the long term fire history, but does recognize that as areas develop, the fire environment changes. The frequency with which fires occur provides a data point, but is not the basis for Project design. As such, whether fires burn in a pattern of 2 years, 7 years, or some other period, is not germane to the discussion of wind direction, topography, etc. In fact, placing reliance on and assuming more frequent fires could lead to underestimation of available fuel to support a fire (not the case here). Fire patterns change as areas are converted from naturally vegetated areas to urban areas. Fire starts may increase, at least for a temporary period, but the average burned acreage is reduced due to the maintained landscapes, which are more ignition-resistant and the typical presence of fire response resources in urbanizing areas. The County further disagrees that the fire risk analysis creates a faulty foundation on which the analysis and subsequent mitigation measures are based. The FPP adequately recognizes that the area has been subject to wildfires, can have extreme fire behavior, and is within a Very High Fire Hazard Severity Zone (VHFHSZ). The FPP then proceeds to address the proposed structures, access, fuel modification, and other fire requirements consistently with the applicable codes. Finally, the comment includes a number of unsubstantiated claims. For instance, the comment states that the average and peak wind velocities used in the analysis are lower than the documented conditions that occurred during recent wildfires. The commenter also claims that while data used are from actual recorded wildfires events, the number of actual ignitions is “likely” much higher but fails to provide any information or evidence to substantiate this statement. Without further information to substantial such claims it is difficult to address such claims.

Response to Comment O3c-8
The comment mischaracterizes the FPP as concluding that merely removing existing habitat with the development of the Project will reduce fire risk. As previously described, the Project will implement important fire safety measures
including using ignition-resistant construction materials and methods for all structures, and provide fuel modification on the perimeter and throughout the Project. The Project’s FPP defines numerous other fire protection and fire safety measures that are required to be implemented and maintained for the life of the Project. Additionally, it has been determined that adequate fire protection from existing fire response resources are available and can and will respond to the Project. The County also disagrees with the comment’s suggestion that well designed, master planned communities have a long and demonstrated history of posing higher risk to first responders, residents, and infrastructure. In fact, this type of development, where landscape level conversions to maintained, irrigated, ignition-resistant communities occurs, creates a large fuel break. With regard to the comment that the Project would result in a wildland/urban interface fire of higher risk, developments with the type of highly restricted, inspected and maintained structures and landscapes have been tested by fire within RSFFPD and have performed as designed.
Response to Comment O3c-9
The comment is noted and will be before the decision makers during consideration of the Project. The potential risk to the Project was analyzed in accordance with County standards and a FPP was accepted by the RSFFPD.

Response to Comment O3c-10
The County appreciates the commenter’s opinion but it is not at variance with the EIR and requires no further response.

Response to Comment O3c-11
The County appreciates the commenter’s opinion but it is not at variance with the EIR and requires no further response.

Response to Comment O3c-12
The County disagrees with the commenter’s assertion that the fire modeling is not adequate. It is unclear if the comment is intended for this Project as it mentions modeling conducted by HELIX. HELIX was not involved with fire modeling for HGV South. Regardless, the modeling conducted by Dudek utilized the latest fire behavior models, standard and extreme weather based on actual historical weather data from the HGV South area, and actual and projected vegetation conditions. The comment that the Rohde & Associates analysis states deficiencies in the Dudek modeling is inaccurate. Both modeling efforts (Dudek and Rohde & Associates) utilized the latest models. Both modeling efforts resulted in similar outputs for flame length, rate of spread, and ember travel. Between the two analyses, the fire behavior modeling was evaluated beyond that which typically occurs for projects in California, including in San Diego County.
Response to Comment O3c-13

The County disagrees that the statements quoted from the FPP are contradictory. The FPP is stating that the fire modeling and practical experience acknowledges that there will be fire embers produced by off-site vegetation and that they may produce embers that blow onto and over the HGV South Project, but that the ignition resistance of the buildings and landscape features will be difficult to ignite and unlikely to sustain fire.

Response to Comment O3c-14

The County appreciates the comment regarding embers. Because the FPP identifies embers (pages 19 and 27) as a potential risk, it specifically addresses the most vulnerable component of a structure to embers, its vents. On page 33, it requires code-exceeding, ember-resistant vents for all structures, which combined with the ignition resistance of the latest building code for structures in VHFHSZs, provides an appropriate level of protection for the fire environment in which the Project occurs. Based on the ignition resistance of the structures to wildfire flames, the primary other means to any wildland urban interface structure is from burning embers/fire brands. The Project has addressed this by requiring code-exceeding, ember-resistant vents on all structures. The fire protection system that the Project will implement is based on these significant threats and mitigates the most likely avenues of ignitions, resulting in a development that is considered to include a relatively low risk.

Response to Comment O3c-15

The County disagrees with the assertion that the risk of structure fire from embers, as presented in the Project’s FPP, is inaccurate. The County agrees with the comment that structure hardening is one factor in structure risk and that the operations and management of the community are also important factors. To that end, the FPP details the level of maintenance that will be required and because the Project occurs within RSFFPD, it will be subject to ongoing inspections, as currently occurs with similar communities. The landscape and structure exteriors will be required to be maintained as intended and described in the Project’s FPP.
Response to Comment O3c-16

Please refer to Response to Comment O3c-15. In addition, the type of accumulation of flammable materials described would not be allowed in HGV South due to the homeowners’ association restrictions and the ongoing inspections by RSFFPD.

Response to Comment O3c-17

The County disagrees with the comment, which appears to confuse statements from the Rohde & Associates report. The comment quotes the Rohde & Associates report out of context. In fact, the statement regarding 15 percent of the homes being indefensible is referring to existing residences that are already built and not part of the HGV South Project. These homes are not part of a master planned community and each homeowner is responsible for maintaining landscapes and fuel modification areas as well as the ignition resistance of their homes. At the time of the inspection, Rohde & Associates identified a number of them that would be especially vulnerable to wildfire. These residences would not directly threaten the HGV South. Regarding the Rohde & Associates reference to chaparral on the site, again the comment takes the quote out of context. The reference was made as part of the general description of the Project site. If homes were to be built within or adjacent to chaparral fuels, then there would be concern for flames, radiant heat, and branding. However, the Project is not building within the chaparral vegetated areas and has set back structures appropriately with fuel modification zones adjacent to off-site scrub and grass fuels. Therefore, no additional response or analysis is necessary.

Response to Comment O3c-18

The County disagrees with this comment’s assertion that the modeling conducted for the Project does not adequately characterize structure exposure conditions. The modeling evaluated the expected fire behavior for fuels directly adjacent to the Project’s structures, which is the fuel that would have the highest impact. The perimeter fuel modification zones and site-wide landscaping restrictions, along with ongoing inspections and maintenance, separate flammable vegetation from the structures by at least 100 feet and/or reduce the fuel loads so that less heat is generated.
Heat dissipates across distances and Cohen’s (1995, 1996, 2000, 2003) research confirms that a distance of 30 feet (the Project provides at least 100 feet from native habitat) is adequate for separating the site’s ignition-resistant structures from vegetation heat sources. The modeling also analyzed the ember production and exposure. All materials used for constructing the Project’s structures will meet the highly restrictive requirements of the building code and the state fire marshal. Therefore, the comment requires no further analysis or response.

Response to Comment O3c-19
The County disagrees with the comment that additional analysis is required regarding firebrands. The Project has analyzed and addressed fire embers requiring code-exceeding, ember-resistant vents on all structures. The potential vulnerabilities expressed in the comment are vulnerabilities that every structure in the wildland urban interface faces. The fire protection system has been based on the significant threats and mitigates the most likely avenues of ignitions, resulting in a project that is considered to include a relatively low risk. Please refer to responses provided to comments in Sections 3.0 and 3.1 of this letter (above) for more information.
not been assessed for this Project. No real effort was made to address or quantify community exposure to ignition from firebrands for this Project. Firebrands, from both vegetation and structures, are often a major source of structure ignition in WUI fires. NIST has been actively engaged in WUI/firebrand research; results from this research should be included in modern planning. This is particularly important for the Project, since the majority of homes lost during local fires were not from direct flame contact, but rather from the intrusion of embers driven by winds.

Current wildfire research supports the need to augment and improve existing modeling and actual causes of structure loss as a high priority. Recently, NIST conducted a post-fire study of a community burned by the nearby Witch and Guajito fires during the October 2007 southern California firestorm. Those fires destroyed 30% of the structures within the fire line, 40% of the structures on the perimeter (in closest proximity to wildland fuels), and 20% in the interior were destroyed. Firebrands were responsible for at least two out of every three structures lost. More worrisome is that the fire during this event spread up to 500 meters into the interior of the community. This demonstrates the importance of modeling for firebrands and of implementing protection measures during the planning process rather than relying solely on heat flux radiation or direct flame contact. Understanding the impact of firebrands and embers is a serious consideration for modern planning, and our current understanding of the causes of structure loss should be incorporated into the DEIS and supporting documents. This is particularly important for this Project, as much of the most insightful research on this topic was conducted on 2007 fires near the Project site.

**3.2 Inadequate Emergency Access and Evacuation**

The Fire Protection Plan states that secondary access for the project site is infeasible, citing challenges with biological resources, topography, and landowner agreements/easements. Secondary access is not something that can be dismissed due to logistical constraints — it is a development standard for very important reasons. For example, the National Fire Protection Association 2016 standards provide guidelines for disaster planning, mitigation and evacuation, with experts roundly stressing that people should have multiple evacuation routes, if possible, as fire conditions can change rapidly. Similarly, as described in the Plan, local and state standards emphasize multiple access routes for communities in high risk wildfire areas. Ignoring this long-established and necessary requirement may potentially be acceptable in areas with low risk, but extreme fire risk areas, such as the HGVs site, should arguably never be approved without adequate secondary access.

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1. Mehl et al.
3. Shaffer et al. (2016)
5. California Building Code (Chapter 7a) and County of San Diego Consolidated Fire Code (2014).
A single access road is also problematic because such access does not allow efficient and safe movement of residents out of the area in a timely manner. With an estimated 1,500 to 1,800 vehicles (for just this community – depending on the analysis and report cited) attempting evacuation during a wildfire, a best-case evacuation time would take at least one hour and thirty minutes. Given that the modeling predicts that wildfires can result in spread rates of 17 mph, the development and its evacuation route can become encircled by a wildfire in less than five minutes. Moreover, wind speed and direction of wildfires can change in unpredictable and rapid ways (something that is not accounted for in traditional modeling or this risk assessment).

It is widely recognized that evacuations can result in traffic jams, traffic collisions, nervousness and panic, which can cause harm to people during fire events and result in a breakdown of the best designed plans. Evacuation is further complicated when having to evacuate large and small animals and residents with special needs. The DEIR as well as supporting documentation should be revised to address these issues. The DEIR should also include a comprehensive worst case evacuation scenario accounting for the total time that would be required to evacuate the entire surrounding community that ultimately uses Country Club Drive to Auto Park Way that addresses the population of Harmony Grove, Eden Valley, Hidden Hills and Elfin Forest. Unfortunately, none of this analysis was performed in the DEIR.

With respect to the comment that the Project has inadequately

Response to Comment O3c-22
The comment quotes from the EIR and raises no issues with the analysis or conclusions. Please see the Global Responses to Adequacy of Emergency Evacuation and Access, particularly the section “Evacuation Scenarios were Analyzed.”

Response to Comment O3c-23
The County disagrees with the comment’s assertion that worst case evacuation conditions were not considered in the EIR. Please see the Global Response to Adequacy of Emergency Evacuation and Access, particularly the section “Evacuation Scenarios were Analyzed.”

Response to Comment O3c-24
The County disagrees with the commenter’s opinion that the Project has only a single point of access and that the road widening only occurs at the point of egress only. Please see the Global Response to Adequacy of Emergency Evacuation and Access, particularly the section “Evacuation Scenarios were Analyzed.”

Response to Comment O3c-25
The County disagrees with the comment’s opinion that the modification to dead end road length is based only on access and easement agreements or that it has not been adequately mitigated. The topography and environmental conditions that require a modification have all been taken into account in the design of Project roads proposed in lieu of meeting an 800-foot road length, which were subject to intensive review by County and fire staff. The site is constrained by a number of environmental factors that needed to be addressed during site design, the most notable of which is the pristine biological habitat in the southern portion of the Project. The terrain is often steep, with hills that do not allow for straight access routes. Given the terrain, on-site streets must curve in order to meet required grade and curve requirements. In addition, there are a number of open space areas (including landscaped swaths) in the Project site that were avoided in order to reduce visual effects. Finally, the Project was designed to avoid adding traffic to off-site streets south of the southern Project entrance. With respect to the comment that the Project has inadequately

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analyzed and addressed wildfire hazards and public safety, Section 3.1.3.2 of the FEIR concluded that the Project would not expose people or structures to a significant risk of loss, injury or death from wildland fires because the Project would comply with the FPP accepted by the Fire Authority Having Jurisdiction (FAHJ) and would be in compliance with the fire codes by including, as design features of the Project, the specifically developed measures and features detailed in Section 5.2.1.2 of the FPP. Please see the Global Response to Fire Hazards Impact Analysis, particularly the section “The Project Complies with the Fire Codes and Project is Consistent with the Recommendations Described in an Accepted FPP.” Finally, as described in the Project’s FPP and the Rohde & Associates report, there are multiple egress routes provided for the HGV South Project.
Response to Comment O3c-26

The County disagrees with the commenter’s opinion that the modification to dead-end road length has not been adequately analyzed or mitigated. With regard to “real world scenarios,” please refer to Response to Comment O3c-6. Please also see the Global Response to Fire Hazards Impact Analysis, particularly the section “The Project Complies with the Fire Codes and Project is Consistent with the Recommendations Described in an Accepted FPP”.

Response to Comment O3c-27

Please see the Global Response to Fire Hazards Impact Analysis, particularly the section “The Project Complies with the Fire codes and Project is Consistent with the Recommendations Described in an accepted FPP” as well as Global Responses to Adequacy of Emergency Evacuation and Access, particularly the section “Evacuation Scenarios Were Analyzed.” Note that a contingency plan would be available if it was considered unsafe to evacuate.

Response to Comment O3c-28

Please refer to responses provided to comments in Sections 3.0 and 3.1 of this letter, as well as Global Response to Fire Hazards Impact Analysis for more information on the EIR’s analysis of fire embers/brands.

Response to Comment O3c-29

The County disagrees with the commenter’s suggestion that ember-resistant vents, designed and tested to exclude embers, provide limited protection during a wildfire. The comment focuses on mesh opening size, but neglects to consider the type of vents that are being required at HGV South, which are vents that rely on configuration, not mesh size, to exclude embers.

Response to Comment O3c-30

The proposed modification to dead-end road length is expressly addressed in Global Response to Fire Hazards Impact Analysis under the heading “The Project Complies with the Fire Codes and Project is Consistent with the Recommendations Described in an Accepted FPP.” The County disagrees with the commenter’s statement that a parking plan and enforcement within HGV South would not contribute to successful evacuations. In addition to keeping...
lanes unobstructed for evacuation events, it also provides for faster response during medical or other emergencies within the community. Parking enforcement would occur at all times. The comment’s statement on illegal holiday parking is speculative and therefore, does not require additional response.

Response to Comment O3c-31
The County disagrees with the commenter’s opinion that restricting landscaping within 3 feet of the structures in unproven. Vegetation and flammable materials within 3 feet of structures has been observed during after-fire assessments to result in ignitions through the weep screed. Therefore, providing this restriction directly reduces the possibility that flame impinges through the weep screed and into the home.
The County disagrees with the commenter’s assertion that fire spread and embers have not been adequately analyzed and mitigated. Please refer to responses provided to comments in Section 3.0 and 3.1 of this letter as well as Global Response to Fire Hazards Impact Analysis for more information on the EIR’s analysis of fire embers/brands. Further, regarding structure spacing and density, the same ignition-resistant features provided for wildfire protection provide a level of fire protection from neighboring structures. The close proximity of fire response resources combined with the ignition-resistive exteriors and interior sprinklers that are very successful controlling or extinguishing interior fires will assist to provide adequate protection from structure-to-structure fires.

Response to Comment O3c-33
The County acknowledges the comment and disagrees with its suggestion that the Project’s ability to temporary refuge firefighters and citizens is based on recognition of serious deficiencies in ingress/egress. The Project, like any new master planned development in southern California, would enable emergency responders/decision makers to utilize some form of temporarily refuging firefighters and (as a last resort) residents, on site during wildfire emergencies. It is worth noting that the only “shelter in place” communities, which HGV South has been modeled after, within the RSFFPD, do not rely solely on shelter-in-place; just as HGV South does not solely rely on shelter-in-place. The RSFFPD has required a very high level of ignition resistance and fuel modification that is consistent with what will be provided at the HGV South site. Also, even in The Crosby, Cielo and other shelter-in-place communities, the first and preferred priority is early evacuation. During the 2007 Witch Creek Fire, RSFFPD evacuated residents of The Crosby and Cielo and did so early, several hours before fire approached the community. Temporarily refuging on site should be considered as a contingency solution for instances when an early evacuation is not possible. Fire officials recognize that sheltering in an ignition-resistant community, like The Crosby or HGV South, is safer than a late evacuation.
Response to Comment O3c-34
Please refer to Response to Comment O3c-33 regarding the temporary refuge option that is available at HGV South. Please see the Global Responses to Adequacy of Emergency Evacuation and Access for more details regarding the planned approach. Further, the County has determined the analysis of the evacuation options and the Project’s clubhouse, which can provide temporary refuge during an emergency, to meet the industry standards. Please refer to responses provided to comments in Section 3.0 and 3.1 of this letter for details of the Project’s considerable analysis of embers and their potential at the HGV South site and how the Project addresses embers for the site’s structures and landscape.

Response to Comment O3c-35
The commenter compares the concept of sheltering in place with the “Leave Early or Stay and Defend” (LEOSAD) model that was at one time promoted in Australia. The two concepts are completely different as are the building requirements between San Diego County and Australia. The Australian strategy of “stay and defend” differs from the “temporary refuge” strategy. “Stay and defend” is an active process where individuals who decide to remain at home during a wildfire actively implement fire protection measures before, during, and following a wildfire. The proposed temporary refuge strategy emphasizes early evacuation, if evacuation can be done safely. Only if early evacuation is not possible would the temporary refuge strategy be implemented.

As described by Dr. Chris Dicus (Professor, Cal Poly San Luis Obispo) in his 2010 presentation to the California Fire Prevention Officers Institute, the concept of LEOSAD is very different from what is proposed for HGV South. Dr. Dicus was in Melbourne, Australia, before, during, and after the 2009 Victorian wildfires. Based on information in his presentation “Fire Down Under – The Good, the Bad, and the Downright Tragic,” and communication during the question/answer session with Mr. Michael Huff of Dudek who prepared the Project FPP, the damage and loss from the Australian wildfires cannot be compared to wildfire risks for the Project site for several reasons.
Some of the homes that were destroyed in the Victorian fire were located in eucalyptus forest and were not protected with defensible space (fuel modification zones). Some homes were not constructed with ignition-resistant materials. In addition, many residents ignored the evacuation warning given 24 hours before the wildfire began. In contrast, the Project will provide substantial fuel modification zones throughout the Project site. New structures will be built with ignition-resistant materials and the site will be regularly inspected by RSFFPD. The emergency procedures for the Project require the early evacuation of residents as the primary option during a wildfire emergency. If safe relocation is not possible, the residents may be directed to temporarily refuge on-site in their homes or at the clubhouse, both of which will be designed to the latest ignition-resistant standards. For a description of other protective features, please see the FPP, Appendix L of the EIR.

Response to Comment O3c-36
Please refer to Response to Comment O3c-35. The commenter fails to acknowledge the difference between all aspects of the Australian communities and that of HGV South and other San Diego County developments with regard to contrasts between fuel types, building and construction standards, landscape fuel modification standards, enforced maintenance, and inspections.
Response to Comment O3c-37

The comment is speculative. There is no information regarding amount or type of smoke, length of exposure, etc. that can be tied to a specific future fire event. Regardless, please refer to previous responses to comments regarding the Project’s temporary refuge contingency option. Should this contingency option be enacted by responding law enforcement and emergency personnel, it would be for a short period of time as a wildfire burned through the native vegetation beyond the Project’s fuel modification zones. The typical wildfire through fuel types found near the Project would be 30 minutes or less. Even if the burn time were longer, the residents would remain in their homes or the clubhouse, which would limit their exposure to smoke and contaminants listed in the comment. The availability of open air sheltering (parkland) is not relied upon for the Project’s evacuation or contingency. The open air refuge would be appropriate for firefighters and as a last resort for motorists and large animal trailers. There is no intention of temporarily refuging HGV South residents in the open air where they would be exposed to smoke conditions except as a tertiary contingency option. In this scenario, those seeking refuge would remain in their vehicles with windows rolled up, limiting their exposure to smoke. The EIR’s analysis is considered adequate and no further response is required or necessary.

Response to Comment O3c-38

The County acknowledges the EIR/Wildfire Risk Analysis contemplation of sheltering individuals possibly needing to reposition themselves if sheltering in one of the off-site open field or park areas. The Project intends to temporarily refuge only when it is unsafe to evacuate and the refuge will occur within homes and/or the clubhouse. The areas mentioned in the Wildfire Risk Analysis report would be tertiary sheltering sites for anyone who may be attempting a late evacuation and needing to seek a safe space or for existing residents who may have large animals and trailers. The repositioning mentioned in the Wildfire Risk Analysis refers to the possibility that off-site fuels ignite and create heat. Repositioning would mean...
moving away from the heat source, but remaining within the large park and within vehicles.

The EIR analysis is considered sufficient and no additional response is necessary or required.

Response to Comment O3c-39
The County acknowledges the comment and climate change projections it presents. However, it is speculation to attempt to determine the potential future fire impacts from climate change and to directly relate increased acreage burned to climate alone. By the end of this century, average temperature in California is expected to increase by 2.7°F to 8.1°F (1.5°C to 4.5°C) depending on many factors, including future carbon emissions (Cayan et al. 2008). Under projected future climate change scenarios, wildfire risk and the amount of area burned annually in California is predicted to increase (Lenihan et al. 2008; Westerling and Bryant 2008). Generally, it is presumed that if temperatures rise, vegetation communities will gradually shift elevations upward, with grasslands dominating larger areas. For example, grasslands are predicted to expand into woodlands and shrublands, which could further affect wildfire regimes (Lenihan et al. 2008), resulting in more frequent fires and perpetuation of the flashy-fuel dominated landscape. Models of fire damage in a changing climate predict an increase in wildfire-caused property damage in the WUI near major metropolitan areas, such as coastal southern California (Westerling and Bryant 2008). However, there is some uncertainty about future fire regimes in southern California as increasing aridity and higher temperatures could reduce availability of fine fuels, which could lower fire frequency and the conversion of heavier fuels to lighter fuels could result in less intense fires and a reduction in wildfire-caused property damage, especially given the ever-improving ignition-resistant building codes. It is also unclear whether Santa Ana winds might be altered in a warming climate. Because of the speculative nature of projecting future conditions and the potential possibility that fire risk is reduced through vegetation type conversions, the FPP analysis of worst-case conditions is considered valid and no additional analysis is required or necessary.
Response to Comment O3c-40

Please refer to the Project’s EIR and to Response to Comment O3c-39 for more information regarding climate change and its potential effects on wildfire risk, and corresponding conclusion on the EIR’s analysis adequacy.

Response to Comment O3c-41

The County agrees with the commenter’s statements that Santa Ana winds can affect fire spread rates and intensities. However, the County disagrees with the commenter’s suggestions that the fire behavior modeling conducted by Dudek and Rohde & Associates is limited or introduces uncertainty of the mitigation measure efficacy. The Project’s fire behavior analysis was performed according to industry standards and then re-analyzed with FlamMap and LANDFIRE applications. This level of analysis exceeds County standards and provides a reliable estimation of typical and worst-case fire conditions, including during Santa Ana wind events. Attempting to predict future changes in wind events is speculative and not required by CEQA. Therefore, no additional analysis is required or necessary.

Response to Comment O3c-42

Please refer to Response to Comment O3c-2. Modeling worst-case fire behavior near the Project is the best way to determine how fires are expected to respond given fuels, terrain, and weather. Beyond the modeling efforts, fire events that have occurred in the area are analyzed in order to gain a more regional view, as well as to predict specific on-site effects, and to confirm models are consistent. To that end, knowing how a fire behaves based on data obtained from like areas, similar fuels, etc. is considered critical for determining appropriate fuel modification zone setbacks, appropriate ignition-resistant construction features, and where additional measures may be necessary. The County disagrees that there was a lack of data or that modeling inputs were not accurate and conservative (i.e., allowed for appropriate estimate of uncertainty). The modeling was performed according to County and industry standards and does not require additional analysis.
Response to Comment O3c-43
Please refer to Response to Comment O3c-39 for information regarding the speculative nature of attempting to predict future climate conditions, which would include precipitation conditions. Please note that it can be argued that if the commenter is correct and precipitation is reduced, certain vegetation types will not be sustainable, converting to a grassland with potentially more fires, but of much lower, controllable intensity.

Response to Comment O3c-44
The County acknowledges that climate change may result in future fuel conditions that are different than today. However, as indicated in Responses to Comments O3c-39 and O3c-41, it is speculative to assume how climate change may impact native vegetation areas and whether it will result in a more or less risky condition. Regardless, the approach to fire protection being applied to the HGV South Project considers a worst-case condition at the outer perimeter of the Project. The vegetation throughout the Project’s landscape and its perimeter fuel modification zones can be predicted with a high degree of accuracy since it will be a managed, maintained space. Based on the requirements for the fuel modification zones and landscape space throughout the Project, wildfire within these areas will be minimal as the fuels will not support/facilitate fire ignition or spread. Changes in the vegetation beyond the maintained areas, within the open space preserve areas, may occur, and may include the establishment of species that are not presently there. Because the open space would be managed for habitat continuity and function, however, substantial changes are not considered likely in the foreseeable future, and are speculative in any event. Because such conditions are currently speculative, modeling of unknown future conditions is not required.

Response to Comment O3c-45
Please refer to Responses to Comments O3c-39 through O3c-44 for information and approach regarding the fire behavior of existing vs future conditions. Specifically with regard to non-native grasses cited in the comments, however, if the commenter’s climate change scenario occurs, it is likely that the non-native species will be grasses, herbs and forbs or other weedy species that can
survive with reduced moisture that also include reduced fire behavior from that modeled.
The County disagrees with the commenter’s opinion that the EIR’s fire behavior modeling did not model the worst-case condition. The County agrees that if a future condition includes conversion to non-native grasses, which is already the case for much of the Project site, there may be a higher fire frequency. However, the fire intensity would be reduced, therefore not representing a worst-case condition. Please refer to Responses to Comments O3c-39 through O3c-44 for information and approach regarding the fire behavior of existing vs future conditions.

Response to Comment O3c-47
The County disagrees with the assertion that the EIR relies on a faulty model and analysis for mitigation measures, as described in the preceding responses to Section 4.1 of this letter.

Response to Comment O3c-48
Please refer to Responses to Comments O3c-39 through O3c-44 for information and approach regarding the existing vs future conditions. Further, while it is true that humans are the cause of most fires in California and throughout the United States, no available data link increases in wildfires with the development of ignition-resistant, fire-aware communities. Likewise, lighting-caused fires are associated primarily with forested areas where vertical, flammable objects may be more prone to strikes. Lightning-caused fires typically become wildfires because they occur in remote areas where detection and suppression are delayed. That would not be the case in the vicinity of HGV South as fires that start in the Harmony Grove Valley are quickly detected due to the developed areas throughout the valley.

Response to Comment O3c-49
The County disagrees with the commenter’s comparison of northern California lighting strikes with future conditions in southern California and provides no evidence regarding southern California conditions. In any event, please refer to Responses to Comments O3c-39 through O3c-44 and Response to Comment O3c-48 for information and approach regarding the fire behavior of existing versus future conditions.
Response to Comment O3c-50

The County acknowledges the comment and notes that it provides concluding remarks that do not raise new or additional environmental issues concerning the adequacy of the EIR. Please refer to previous responses provided to comments in Sections: Cover Letter, and Sections 1.0 through 4.0 of the letter correlating with this response, with particular attention to Responses to Comments O3-24 through O3-49. For these reasons, the County provides no further response to this comment.
Regardless of analysis used or the models evaluated, it must be remembered that these are simply tools that are meant to provide information to assist in making an informed decision. We must remember that these tools are fraught with considerable uncertainty. Ultimately, the decision to approve a development is based on the level of risk that we are willing to accept for a community. Ideally, decision-makers should operate under the precautionary principle that states: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically." Failure to adhere to a "caution is best" approach can have serious repercussions on the long-term sustainability and resilience of our neighborhoods and the success or failure of community planning.

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*The most widely cited definition of the precautionary principle comes from the Rapporteur Statement on the Precautionary Principle, 1998.*