## Appendix N-4 Evacuation Mitigation Plan



**ROB GIORDANO** ROB@CASSAFETYCONSULTING.COM

**CLINT SHUBEL** 

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Bibiana Sparks Acorn Environmental 5170 Golden Foothill Parkway El Dorado Hills, CA 95762

RE: Evacuation Mitigation Plan - Shiloh Resort and Casino Project

Dear Bibiana Sparks:

(707) 806-7628

The purpose of this letter is to provide our Evacuation Mitigation Plan based on the Evacuation Travel Time Assessment results by Fehr and Peers<sup>1</sup>. After review, CAS Safety Consulting has the following two options to help relieve evacuation traffic for the Project:

- 1. Trigger Evacuation Zone
- 2. Shiloh Resort and Casino Pre-Determined Evacuation Zone

First, disasters are unpredictable, much like human behavior in response to them. Although the traffic study used the Kincade fire because an actual event gives us the most realistic scenario, we also must recognize that future events will unfold differently. No analysis can predict an actual scenario but preplanning with reasonable assumptions can reduce risk.

Second, it's important to understand the differences between Sonoma County fire scenarios of today verse years past. Wildfires are unpredictable and "No Notice" evacuations still merit significant consideration and planning. However, several systems have been put in place that reduce the risk of a "No Notice" event. Sonoma County has developed preventive measures such as:

- Enhanced public education on fire preparedness.
- Taking an active approach in broadcasting high fire danger times (Red Flag Warnings).
- Implementing a more robust Alert and Warning System.
- Developing Pre-determined Evacuation Zones.
- Utilizing early detection devices such as wildfire cameras.

The wildfire camera system consists of cameras on mountaintops that can detect a wildfire from a distance, locate and mark the wildfire, and the direction of travel. The system immediately notifies dispatchers and emergency officials. From this, Emergency Managers have situational awareness of where the fire is and the direction of travel.

<sup>&</sup>lt;sup>1</sup> Fehr & Peers Traffic engineering/planning consulting firm.



CLINT SHUBEL CLINT@CASSAFETYCONSULTING.COM

ROB GIORDANO
ROB@CASSAFETYCONSULTING.COM

Pre-determined evacuation zones enable a methodical approach to move people out of areas in case of an emergency. Since the 2017 Tubbs Fire, Sonoma County has employed a philosophy of early and wide evacuations. Emergency Managers have learned that they need people out of the way ahead of time to protect life and safety and enable firefighters the ability to fight the fire. This philosophy has been applied in previous Sonoma County fires<sup>2</sup>, which has resulted in no deaths and less property damage.

Furthermore, Pacific Gas & Electric has developed other protection measures, such as: Public Safety Power Shutoffs (PSPS) and Enhanced Powerline Safety Settings (EPSS). PSPS' are when Pacific Gas and Electric intentionally shuts off the power in an area because of high-risk fire weather, such as red flag warnings, to prevent a downed line from starting a fire. These shut offs have become a tool to prevent wildfires. EPSS' are designed to prevent fires in the event of a fault in a power line. These enhanced settings shut down power in an area immediately upon a line integrity issue, such as a fallen tree bringing a power line down.

CAS Safety members have also witnessed fire personnel applying more aggressive firefighting tactics at the onset of a fire<sup>3</sup>. Strike teams and firefighting aircraft are routinely dispatched to small fires to prevent the fire from spreading.

## **EVACUATION MITIGATION PLAN – OPTION 1**

CAS Safety analyzed the Evacuation Travel Time Assessment conducted by Fehr and Peers. At the request of CAS Safety consulting, Fehr and Peers analyzed the evacuation time for the project-site-only, while still applying the "With Notice" scenario assumptions, such as the level of background traffic and the evacuation destinations. The results showed the project vehicles would need a maximum of 52 minutes (in year 2028) and 54 minutes (in year 2040) to evacuate the site and clear the study area. This analysis included a conservative assumption of maximum capacity of the passenger parking and bus parking, and a further increased demand of five percent (5%) totaling 5,367 vehicles that would need to evacuate from the project site.

In order to reduce traffic congestion for the surrounding community and to provide sufficient time to clear vehicles from the Project, CAS Safety developed a Trigger Evacuation Zone. Meaning, the Project will begin evacuations when identified zones are issued an evacuation warning or order. The goal being to achieve an evacuation travel time with the least amount of impact to the surrounding community.

CAS Safety recommends the following:

<sup>&</sup>lt;sup>2</sup> 2019 Kincade Fire, 2020 Glass Fire, and 2020 Walbridge and Meyers Fires.

<sup>&</sup>lt;sup>3</sup> CAS Safety members frequently monitor "Watch Duty".



ROB GIORDANO
ROB@CASSAFETYCONSULTING.COM

We recommend Shiloh Resort and Casino immediately evacuate all guests and visitors when any of the pre-determined evacuation zones within the Trigger Evacuation Zone have been issued an evacuation warning or order.

This Trigger Evacuation Zone method would immediately force evacuation of the Project site when any of the zones inside the red outlined area are issued an evacuation warning or order. As an example, if a wildfire was occurring in the northeast section of the county (like the 2019 Kincade Fire) as soon as zone SON-2M1 was issued a warning or order the Project would immediately evacuate.

CAS Safety developed the Trigger Evacuation Zone by analyzing Fehr and Peers Evacuation Travel Time Assessment report, reviewing past fire behavior and the timing of evacuations by zones, and understanding how today's emergency managers would likely proceed with evacuations with the current pre-determined evacuation zone system. We used the Trigger Evacuation Zone method to specify early evacuation of the Project as it related to Fehr and Peers' traffic travel time assessment modeling of the Kincade Fire. Additionally, we understand that no future event will unfold like past events because of changes in emergency response and disasters, such as fires.

See Figure 1 - Trigger Evacuation Zone map on next page.

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## **Trigger Evacuation Zone**

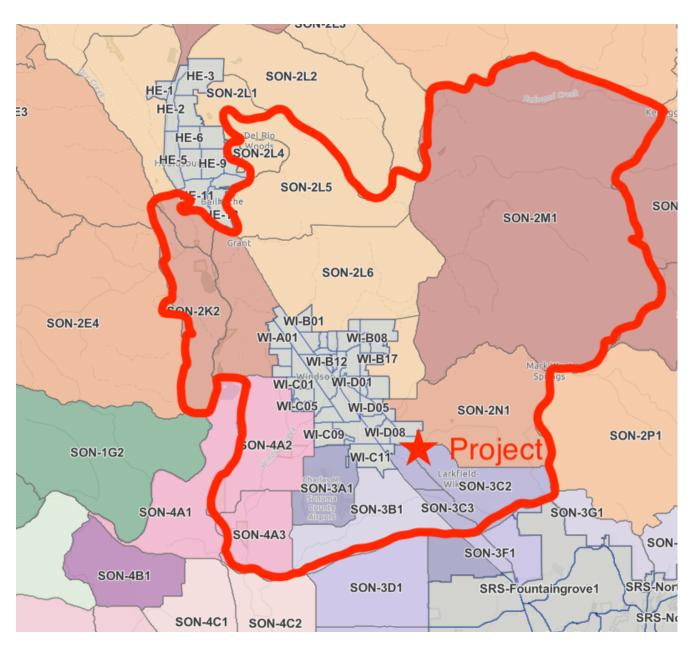


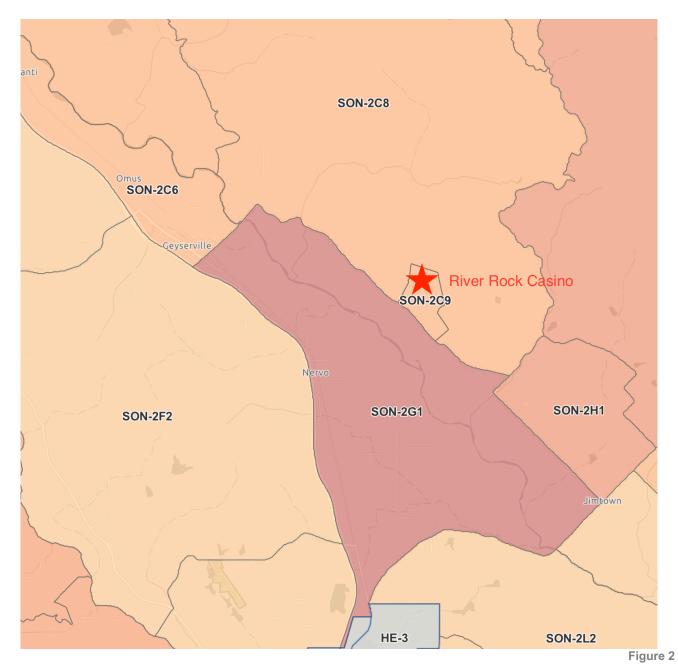
Figure 1

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## **EVACUATION MITIGATION PLAN – OPTION 2**

There is a second option for evacuation travel time mitigation. The County of Sonoma can create a pre-determined evacuation zone specifically for the Shiloh Resort and Casino. Currently, River Rock Casino lies within its own defined zone SON-2C9.



CLINT SHUBEL CLINT@CASSAFETYCONSULTING.COM

ROB GIORDANO ROB@CASSAFETYCONSULTING.COM

We recommend Koi Nation work with the County of Sonoma in developing its own predetermined evacuation zone for the Shiloh Resort and Casino.

This option could benefit both the County of Sonoma and Shiloh Resort and Casino. The County's Emergency Officials could order an evacuation of the zone within its orderly approach during a disaster. County Emergency Officials have all the situational awareness during a disaster to determine the most appropriate time to issue an evacuation order, understanding the population of the casino, and other pre-determined evacuation zones.

Shiloh Resort and Casino could benefit as well by not having to provide constant training to staff on understanding all the Trigger Evacuation Zones or having the sole responsibility to evacuate when conditions are met.

In conclusion, CAS Safety presents these two above options as a means of providing a safer evacuation for the entire community.

2/19/24 Clint Shubel Date