17 November 2021

To Whom it may concern,

Dear Sir/Madam,

I am writing regarding my concern about aspects of the proposed SDC development. Considering the ongoing encroachment and overburdening of our natural areas in Sonoma, it would be prudent to consider a thorough, data-driven wildlife-orientated investigation preceding any plans for development.

ACR's Living with Lions Project has collected extensive data on the movements of mountain lions in this specific area. These large, far-ranging predators are useful in helping us identify key corridors through their movement patterns. Studies in Southern California have highlighted, for example, how the lack of appropriate corridors is leading to genetic-inbreeding depressions in mountain lion populations with consequential health issues in these animals. Evidence that the loss of corridors is affecting other native species has also been found. The result is that an \$80 Million overpass needs to be built to connect wildlife populations in this area, costs that could have been avoided with proper planning.

As the Director and Principal Investigator of this mountain lion study, I have been monitoring the movement of mountain lions in Sonoma County using GPS tracking data from radio collars placed on individuals since October 2016. Of the mountain lions we have tracked, 3 collared adult lions (2 males and 1 female) regularly use the area in and around the SDC. The female (P1) has patrolled the area with three different litters of cubs - the GPS collared offspring from three of her litters, a female (P2) from the first litter, female P6 (second litter) and a male (P19) from the third litter, also used this area after they dispersed. None of the mountain lions from these three litters (n=7) survived to breeding age. Of the ones to survive to dispersal age, P2 was killed in Glen Ellen and P6 in Kenwood due to conflict situations with humans over livestock. Through the use of trail cameras, I am aware of another (uncollared) adult female mountain lion whose home range overlaps with P1 in the area adjacent to the SDC, and who in all likelihood uses the SDC as much or more than P1

I have included maps which showcase the use of the SDC area by GPS-collared mountain lions. The key things to note are that mountain lions select areas with tree cover or dense vegetation in a significant manner. This has been confirmed through our preliminary habitat selection data analysis using ~50,000 mountain lion GPS locations taken every 2 hours. Drainages and creeks are used as primary thoroughfares for these Californian apex predators. These are particularly important in areas perturbed through human habitation. As such, Sonoma Creek running through the SDC is of utmost importance

for movement of mountain lions as well as other mammal species including bobcats, foxes, skunks, racoons, opossums and deer. It would be worth mentioning that variation in movement on a seasonal basis should be considered where high water levels in winter may preclude the use of the creek beds, and result in mountain lions negotiating the edge of the creek to move through the area.

Humans are the biggest threat to mountain lions across their range through habitat encroachment, loss of habitat and conflict. Large predators, including mountain lions have been recognized for their importance in maintaining the integrity of ecosystems. Mountain lion data collected in the SDC over the past 5 years has taken place at a time with little human presence. The current three development proposals need to take into account that there will be more overlap between people and wildlife with wildlife usually coming off second best under these circumstances. A focus on ensuring the key corridors are maintained and even expanded through removal of some infrastructure, combined with habitat rehabilitation, could prove beneficial to maintaining wildlife populations and ecosystem health. The SDC does not only have Sonoma Creek and other drainages as key corridors, but acts as a key part of a corridor for wildlife moving from the Mayacamas east of HWY12 through drainages such as Stuart Creek and Butler Creek.

I sincerely hope that data from the ongoing mountain lion study will be given due consideration and can be supplemented with an in-depth wildlife monitoring program using trail cameras in order to better ascertain the current state of wildlife populations here, while assessing what developments would have the least impact on the area from an ecological point of view.

Sincerely,

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