

July 9, 2018

Supervisor Das Williams
Supervisor Joan Hartmann
Santa Barbara County Board of Supervisors
123 East Anapamu Street
Santa Barbara, CA 93101

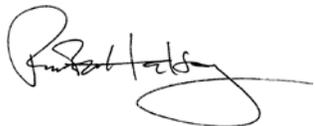
Dear Honorable Supervisors Williams and Hartmann,

Thank you for arranging the workshop for the Gaviota Coast Plan LCP Amendment on July 3, 2018. It was an honor to be able to offer testimony supporting the California Coastal Commission's suggested modifications to the Plan so that chaparral may be considered Environmentally Sensitive Habitat (ESH) where it is either "rare" or "*especially valuable because* of its special nature or role in an ecosystem."

It is essential that the Plan protects as much intact chaparral as possible because **Santa Barbara County may very well be the chaparral's best hope of continued survival in the southern half of the state** as climate change modifies the environment over the next century. Therefore, the Gaviota Plan must consider what the future holds for natural habitats rather than what is present today.

In my testimony on July 3, I referenced two comprehensive research papers that have provided some dire predictions about how climate change may impact the chaparral ecosystem in California (Thorne et al. 2016, Thorne et al. 2017). This research has indicated that much of the area currently occupied by chaparral in southern California may no longer be suitable for that plant community (Figure 1). The research also suggests that the chaparral in Santa Barbara County will likely become increasingly vulnerable and rare. The Gaviota Coast Plan LCP needs to reflect these possibilities.

Sincerely,



Director
California Chaparral Institute

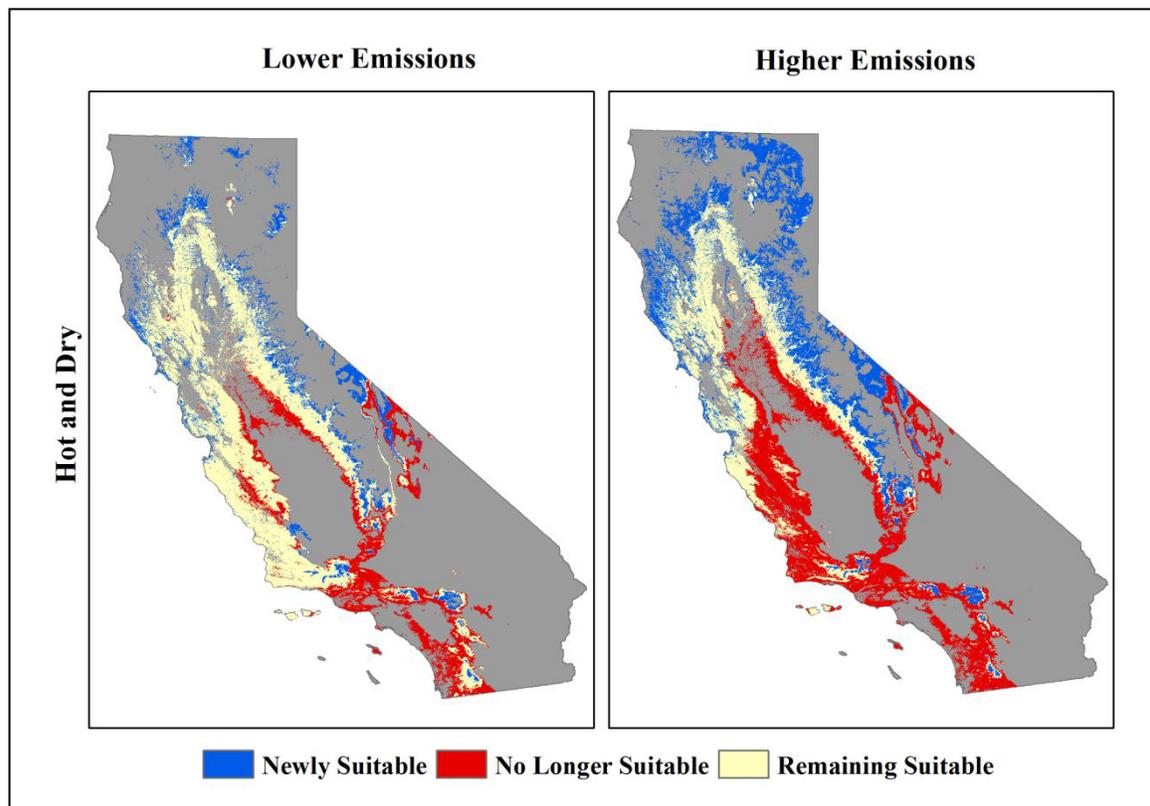


Figure 1. Two possibilities for chaparral in California under a future hot and dry climate change scenario for the time period 2070 – 2099 with either lower or higher carbon emissions. Much of the area currently occupied by chaparral will likely no longer be suitable for that plant community (shown in red). The community’s replacement will likely be highly flammable, non-native weeds. Note the vulnerability of Santa Barbara County. From Thorne et al. 2016.

References (available for download)

Thorne, J.H., H. Choe, R.M. Boynton, J. Bjorkman, W. Albright, K. Nydick, A.L. Flint, L.E. Flint, M.W. Schwartz. 2017. The impact of climate change uncertainty on California’s vegetation and adaptation management. *Ecosphere*. Ecological Society of America. <https://doi.org/10.1002/ecs2.2021>

[Thorne, J.H., R.M. Boynton, A. J. Holguin, J.A.E. Stewart, J. Bjorkman. 2016. A Climate Change Vulnerability Assessment of California’s Terrestrial Vegetation. California Dept. of Fish and Wildlife \(CDFW\), Sacramento, CA.](#)