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COASTAL RANCHES CRC CONSERVANCY

SUPPORTING NATURE CONSERVATION, RESTORATION, AND EDUCATION ON THE GAVIOTA COAST

August 25, 2020

Board of Supervisors

County of Santa Barbara

RE: Caltrans Gaviota Culvert Appeal

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COUNTY OF SANTA BARBARA
CLERK OF THE
BOARD OF SUPERVISORS

Attached is additional new information for you to consider in our appeal of the Planning Commission's approval of the Gaviota Culvert Project on May 27.

1. We now have two studies showing this culvert location as having extraordinarily high wildlife-vehicle conflict. Much of this data comes from "carcass counts" made by CHP and Caltrans maintenance workers, however, the UCSB study also included data from additional local sources.
    a. One study was done by CCBER at the request of Coastal Ranches Conservancy before this culvert project arose. You can review this study at: http://coastalranchesconservancy.org/wp-content/uploads/2020/05/ccber-wildlife-data-gaviota-final-report-12-17_rc.pdf
    b. The second study was done recently at our request by Dr. Fraser Shilling and is attached in the form of a letter from him. Dr. Shilling is the director of the Road Ecology Center at UC Davis and his analysis is that this location is in the top 15% of all wildlife vehicle conflict locations statewide. Dr. Shilling was the lead author of the Caltrans "California Wildlife Crossings Manual" which is the guidance that Caltrans is supposed to follow when initially studying a project like this one.

2. We have confirmed with both field visits and camera traps that there is a high concentration of wildlife at both ends of the existing culvert and some wildlife appear to be using the culvert to cross under the highway. A selection from the hundreds of photos taken by our camera trap is attached. The number of deer in this location is truly extraordinary and represent a high potential for a serious accident, unless we can build a new culvert that allows them to cross safely beneath the highway. Had Caltrans placed a camera trap at the culvert location when the project was being designed, I believe they also would have reached the conclusion that the culvert needs to be able to accommodate wildlife. Unfortunately, they did not take this simple step.

3. We know from Dr. Shilling that Caltrans' analysis that this location "does not represent a....key migratory pathway" is based on the faulty premise that wildlife in our region migrate using established corridors. They do not; this is an extraordinary oversight. Regardless, wildlife do cross the road here, do get run over, and can cause serious accidents resulting in the loss of human life. This faulty premise voids the conclusion of their environmental analysis that no wildlife are impacted by the project.

4. We also know that Caltrans did not consult the State database of wildlife-vehicle conflicts until June of this year, after we brought the issue to their attention in the May hearing. Therefore, these facts were also not included in their environmental analysis. We believe this is also a "fatal flaw" that warrants rejection of the project for failing to adequately consider all of the project impacts.

It is simple common sense that when we upgrade or replace old highway infrastructure, we should learn from our past mistakes and take the needs of fish and wildlife into account. If this is considered when a project is initiated, then the additional cost is likely to be small or zero. Going forward, it may actually be less expensive to re-design the project than to build it in its current configuration. The cost to insurance companies of deer-vehicle collisions country-wide is more than $1 billion every year. The cost of just one deer-caused fatality is typically over $1 million, without considering obvious related factors. Just three years ago we had two people die as a result of a single collision with a deer on Hwy 154 and there is a potential for this to happen here too.

This is a chance to put into action our Gaviota Plan which calls for extraordinary protection of the natural resources of the Gaviota Coast. By rejecting the current project, you can allow Caltrans to do a redesign which takes into account all of the relevant new information we have provided.

Sincerely,

Doug Campbell
Executive Director
Coastal Ranches Conservancy

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8/23/2020

Doug Campbell

Mr. Campbell:

I am writing this letter to provide some comment on wildlife movement and connectivity in the vicinity of the Gaviota Culvert Replacement project on US 101. I have studied road impacts on wildlife and habitats for the last 20 years, primarily in California. I have a PhD in ecology from the University of Southern California, am faculty in the Transportation Technology and Policy Graduate Group (UC Davis) and am co-director of the Road Ecology Center at UC Davis. In the last 20 years I have published extensively on road and highway impacts on landscapes, ecosystems, and wildlife. I have led research projects in Geographic Information System (GIS)-based modeling of connectivity and corridors, wildlife genetics and highways, wildlife movement detected using trail cameras and radio-collars, wildlife-vehicle conflict, prioritization of transportation projects based on wildlife impacts, and traffic disturbance of wildlife movement. I am also the lead for the California Roadkill Observation System (CROS), which collects carcass on road observations from agency staff and volunteer-observers; and the California Highway Incident Processing System (CHIPS), which collects carcass and collision (between vehicles and animals) observation from California Highway Patrol records. We have the largest database of observations of wildlife-vehicle conflict in California, including for carcasses and collisions, and we regularly share these data with Caltrans, California Department of Fish and Wildlife, academic scientists, and consultants to evaluate impacts to wildlife and plan mitigation.

In response to the proposed Gaviota Culvert Replacement project, I have the following comments and information. I am responding in particular to this paragraph, which states the overall limits on consideration of wildlife for the project:

"*The location of the Gaviota Culvert Replacement project does not represent a core habitat area or key migratory pathway for regional wildlife populations. This is not to say that animals do not attempt to cross US 101. However, given the lack of core habitat on the west side of the highway, the project will not impede any wildlife dispersal along an established regional dispersal corridor. Since wildlife corridors are not present, they are not further discussed in this section*".

My CROS and CHIPS projects have continuously collected data throughout California since 2009 and 2015, respectively and in this area for the last 5 years (2016 through present). The location of the Gaviota Culvert Replacement project is near and within hotspots at the state scale, meaning that it has both high rates of collisions with large mammals and there is a statistically significant ($P<0.05$) concentration of collisions with mammals at that point and nearby areas. This is shown in the map below (Figure 1), where the orange color on the highway indicates the hotspot for numbers of collisions. There were 15 reported roadkilled mammals to the west of the culvert area and 36 to the east. Due to carcass reporting by Caltrans, sometimes to the nearest mile-post, certain carcass points may graphically lie on top of each other in the map, but are still counted in the totals.

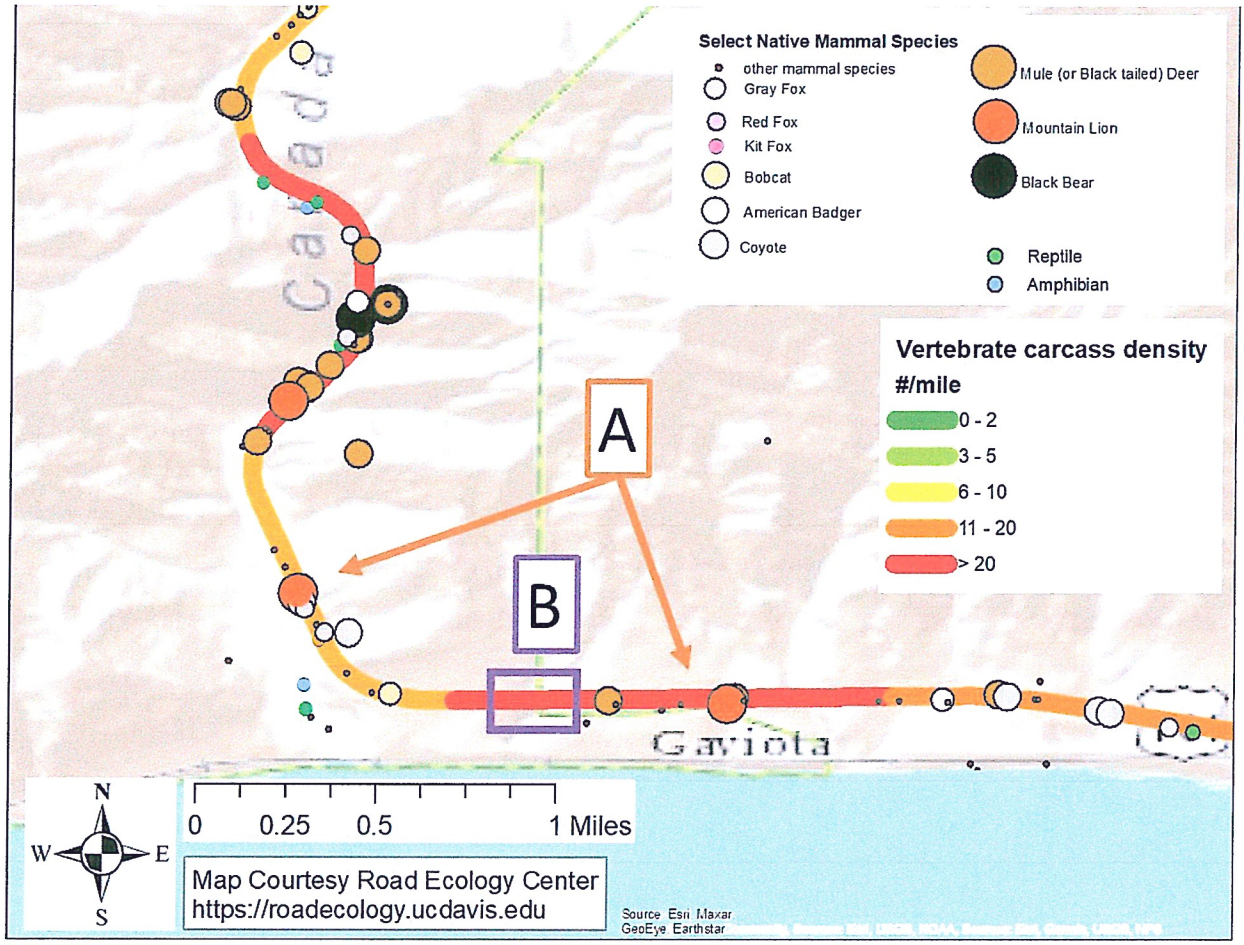


Figure 1. Locations of hotspots of wildlife-vehicle collisions (orange color), collisions with animals of different types and sizes (points) within the local vicinity (area indicated with arrows "A") and the exact location of the culver project (red box "B"). Data from the California Roadkill Observation System, California Highway Incidents Processing Systems, California Natural Diversity Database, and the USGS Biodiversity Information in Service of Our Nation database.

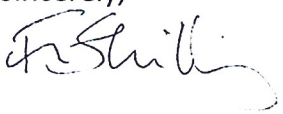
The number of mammals killed by collisions in the immediate area of the culvert and the density per year (2-12) indicate both that there are immediate impacts to large mammals and risk to drivers through this area. The density of collisions with all mammals and with large mammals, 4 per mile per year are among the top 15% I have calculated in California. The number/density of all mammals (51/2 miles) in the immediate area of the culvert project and the number/density in the larger area also indicate that there are current impacts to wildlife in this area because they are actually moving, or attempting to move back and forth across the highway.

The Environmental Assessment language quoted above suggests that there is no "core habitat" in the area of the project. The fact that black bears, mountain lions, mule deer, coyotes, bobcat, gray fox, badger and other smaller mammals are all being found dead on this stretch of highway, suggesting that this area is core wildlife habitat and wildlife are apparently moving back and forth. The EA language above also suggests that "*the project will not impede any wildlife dispersal along an established regional dispersal corridor*". There is no evidence in California wildlife biology, including in

this area that any of the species found dead in the area use the same parts of landscape to move from day to day, season to season, or year to year, which is the idea underlying "wildlife corridors". Indeed, only ungulate species like elk, caribou, deer, and various African species have been shown to move along linear paths that could be called "corridors". In California, only a few mule deer herds in the northern part of the state seem to move along similar paths from one year to the next. So the application of the term "regional dispersal corridor" is meaningless here when applied to wildlife that live in this region. A Geographic Information System (GIS)-based map of "core habitats" and "corridors" is meaningless to wildlife conservation, protection, and driver safety if it has no relationship to the presence of wildlife. If the finding here is based on such a GIS-based map, then it is incorrect on its face as obviously wildlife are moving back and forth through this area.

Please feel free to contact me with any questions or comments.

Sincerely,



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Road Ecology Center
https://roadecology.ucdavis.edu

Some Recent Wildlife Photos

From downstream end of existing culvert

Over a 3 week period this July, a number of different individual deer and a bobcat (below) were captured by our camera trap, aimed at the culvert mouth. This is a small sampling of several hundred photos taken. In addition, a skunk entered the culvert and did not come back out, presumably passing all the way under the highway.

NOTE; Culvert was originally much larger but has filled with sediment

Bobcat