

05-0K330 - Gaviota Culvert Repair
Responses to SB County Questions Re: CDP Appeals
Paul Andreano, Associate Biologist, Caltrans District 5
July 6, 2020

Question: *How was it determined that no wildlife corridors are present? Because of lack of habitat or other studies?*

Response: Any creek or riparian system may function as a wildlife corridor, so a better way to ask this question might be “How did Caltrans determine Canada del Barro is not a wildlife corridor that warrants designing a wildlife undercrossing to mitigate for extensive roadkill and/or excessive wildlife-vehicle collisions?”

Between March and October 2017 Caltrans biologists conducted 78 person-hours of field work at the project site during the PAED phase of project development. Fieldwork included wildlife surveys (visual observations, track and sign surveys), nesting bird surveys, botanical surveys, and jurisdictional delineations. Fieldwork was primarily conducted by Caltrans Associate Biologist Paul Andreano who has over 18 years’ experience as a professional field biologist, nine of those years working for the Department of Transportation. A further 30+ person-hours of fieldwork has been conducted by Caltrans biologists onsite since 2017, during the permitting phase for this project.

Field studies for this project indicated that the existing culvert (or Canada del Barro at large) is not an important corridor being utilized by wildlife for coastal access from the inland side of US-101. Scant mule deer tracks were observed on the inland side of the culvert and none were observed at the outlet. Small mammal tracks (skunk, ground squirrel, woodrat, rabbit) were observed in the wetland area at the culvert outlet, as would be expected, but none indicated that these animals were moving through the existing culvert. No coyote dens, badger burrows, woodrat nests, deer bedding sites, or other indicators of mammal occupancy were observed. During the 100+ hours spent on site (diurnal observations only), mule deer, California ground squirrel and desert cottontail were the only mammals observed in the project area.

A “camera study” of the existing culvert was not warranted for several reasons, in addition to the dearth of animal sign observed on site. During field studies the existing culvert was approximately 50% clogged at the outlet and completely unpassable by large mammals. Furthermore, based on our professional judgement and review of the best available science, the existing culvert was far too long (500 feet), too steep (0.5%-27.1% slope), and too dark to be considered a viable wildlife passageway in the first place. A habitat assessment also determined that there was no unique habitat (breeding areas, foraging opportunities, designated critical habitat) that existed near the culvert outlet or inlet that did not exist elsewhere locally. On the contrary; the habitat on the inlet side is relatively contiguous grassland and there are limited opportunities for wildlife to move beyond the culvert outlet due to the deep incision of Canada del Barro, the surrounding network of fence lines, the railroad fill slope, and the steep cliff at the coastline.

In addition to field studies, Caltrans biologists conducted an extensive desktop/GIS review of the best available science when assessing the project site for use as a wildlife corridor. As with all of our projects, we consulted the California Essential Habitat Connectivity (CEHC) Project database, the California Connectivity Opportunity Areas (COAs) model, the California Roadkill Observation System (CROS), and California Highway Patrol (CHIPs) roadkill data at both the project site level, and for the surrounding landscape. A thorough review of the above confirmed our initial assessment that Canada del Barro is not a regionally or locally important wildlife corridor.

With regard to the data sets (CROS, CHIPs) curated by Dr. Frasier Schilling of the U.C. Davis Road Ecology Center (REC), Caltrans acknowledges their value and applied them to the planning of this project. **Attachment 1** displays the CROS and CHIPs data available to Caltrans in 2017 (2010-2016 data). At that time there were five known road kills within ½ mile of the project location, and none were associated with Canada del Barro. **Attachment 2** displays the currently available CROS and CHIPs data (2010-2019). Five additional road kills were documented within ½ mile of the project in those three years, and still none of them were associated with Canada del Barro. When viewed at

a regional scale, the CROS and CHIPs data do suggest that the Gaviota Creek corridor is an area that is seeing increased levels of vehicle/wildlife conflict. **Attachment 3** displays the full, current CROS and CHIPs dataset for the Gaviota Creek corridor and Gaviota Coast. According to the U.C. Davis Road Ecology Center, roadkill "hot spots can vary in length from one to several miles" and are relative at the "State scale". Taken in this context, the entire corridor from the Nojoqui Summit to Calle Mariposa could be defined as a "hot spot", but when viewed at this scale the data suggest absolutely no correlation with the existing culvert or Canada del Barro in general.



05-0K330 - Gaviota Culvert Repair
CROS and CHIPS roadkill data 2010-2016

- Area of Potential Impacts (API)
- 0.5-mile project buffer
- Proposed Culvert
- Existing Culvert
- CHIPS dataset 2010-2016
- CROS dataset 2010-2016

RACCOON
2015

MULE DEER
2015

COYOTE
2014

GRAY FOX
2010

GRAY FOX
2014

Canada del Barro

MULE DEER
2015

GROUND SQUIRREL
2014

STRIPED SKUNK
2015

MULE DEER
2015

MULE DEER
2016



05-0K330 - Gaviota Culvert Repair
CROS and CHIPS roadkill data 2010-2019

-  Area of Potential Impacts (API)
-  0.5-mile project buffer
-  Existing Culvert
-  Proposed Culvert
-  CHIPS dataset 2010-2019
-  CROS dataset 2010-2019



RACCOON
2015

MTN LION
2018

MULE DEER
2015

COYOTE
2014

GRAY FOX
2014

GRAY FOX
2010

COYOTE
2018

BOBCAT
2019

RED FOX
2018

MULE DEER
2015

GROUND SQUIRREL
2014

STRIPED SKUNK
2015

MULE DEER
2015

MULE DEER
2016

MTN LION
2019

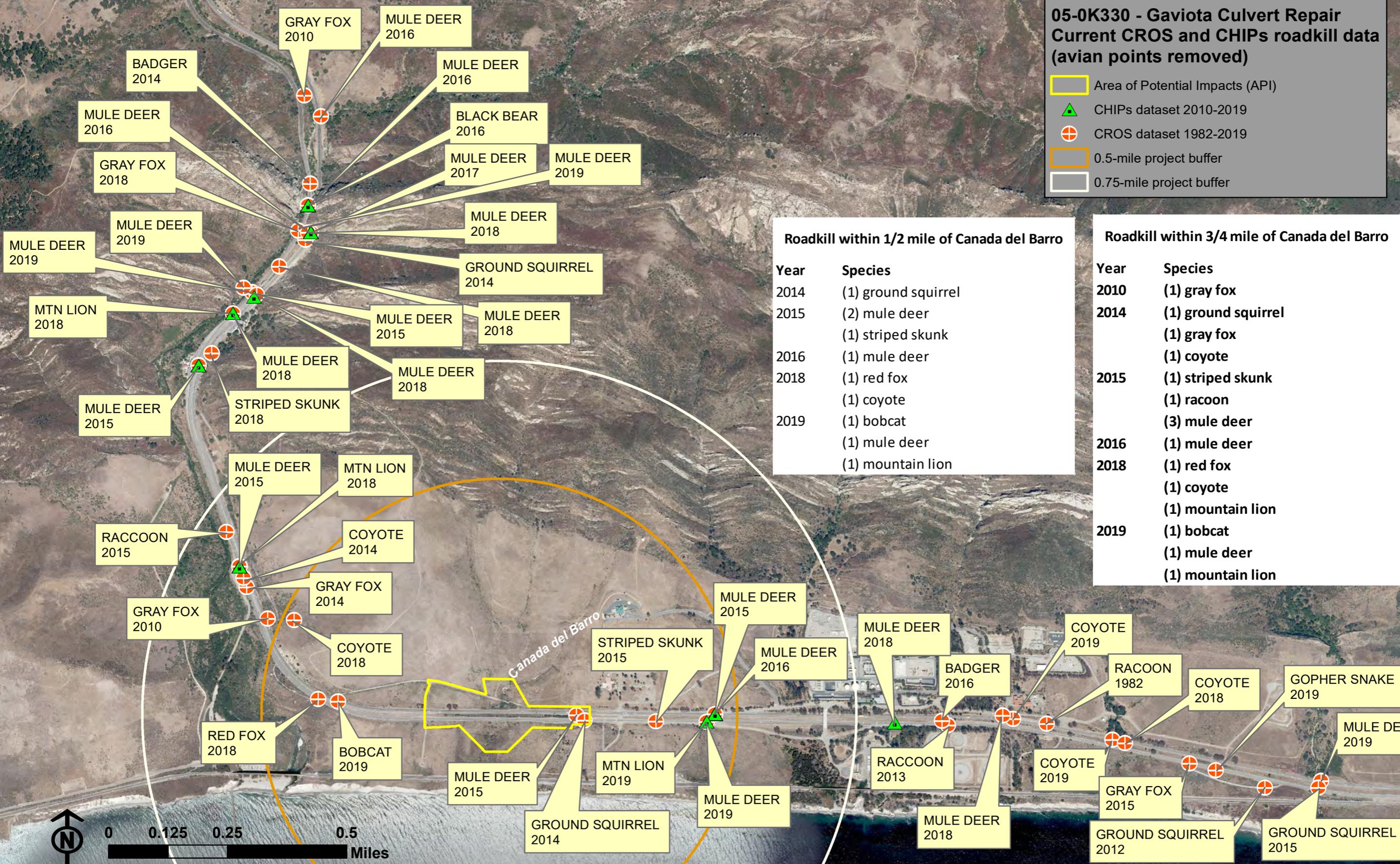
MULE DEER
2019

Canada del Barro



05-0K330 - Gaviota Culvert Repair
Current CROS and CHIPs roadkill data
 (avian points removed)

- Area of Potential Impacts (API)
- ▲ CHIPs dataset 2010-2019
- ⊕ CROS dataset 1982-2019
- 0.5-mile project buffer
- 0.75-mile project buffer



Roadkill within 1/2 mile of Canada del Barro

Year	Species
2014	(1) ground squirrel
2015	(2) mule deer (1) striped skunk
2016	(1) mule deer
2018	(1) red fox (1) coyote
2019	(1) bobcat (1) mule deer (1) mountain lion

Roadkill within 3/4 mile of Canada del Barro

Year	Species
2010	(1) gray fox
2014	(1) ground squirrel (1) gray fox
	(1) coyote
2015	(1) striped skunk (1) racoon
2016	(1) mule deer
2018	(1) red fox (1) coyote (1) mountain lion
2019	(1) bobcat (1) mule deer (1) mountain lion

