

SAN DIEGO ZOO
INSTITUTE FOR
CONSERVATION
RESEARCH.

January 2, 2018

Via Electronic Mail (jhelmer@escondido.org)

Mr. John Helmer
Contract Planner
City of Escondido
201 North Broadway
Escondido, California 92025

Re: Environmental Impact Report for the proposed Safari Highlands Ranch and Citywide Sphere of Influence Update; ENV 15-0009, SUB 15-0019; (SCH No. 2015091039)

Dear Mr. Helmer:

The Institute for Conservation Research (“ICR”) is run by San Diego Zoo Global. ICR is dedicated to generating, sharing, and applying scientific knowledge vital to the conservation of plants and animals worldwide. Our efforts are focused in the following eight strategic areas: Conservation Genetics, Reproductive Sciences, Population Sustainability, Disease Investigations, Plant Conservation, Recovery Ecology, Community Engagement and Global Partnerships. In addition, ICR manages and studies the Safari Park Biodiversity Preserve, the portions of the Safari Park within the City of San Diego MSCP/MHPA adjacent to the Safari Highlands project area.

We believe the Safari Highlands DEIR does not adequately identify, analyze and mitigate certain biological impacts. Our conclusions are based on our years of study and analysis of the adjacent Safari Park BioPreserve.

Sensitive Species Were Not Adequately Surveyed

Native animal species of special conservation concern that we have found in our long-term monitoring work on the Safari Park BioPreserve are likely also present on the Safari Highlands site. However, because of inadequate survey and scientific methodologies, the biology analysis fails to identify all of them.

For two decades, the Safari Park BioPreserve has supported scientific research on an array of species and topics that have informed our understanding of local biodiversity

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and ecology. This research has resulted in a number of scientific publications in peer-reviewed literature dating back to 2000.

- Scientific methodologies employed in studying the Safari Park area include cover-board arrays, funnel traps, pitfall trapping, visual surveys, microbiological sample extraction, tissue sampling, and soil sampling for laboratory analysis.
- Many of the Species of Special Concern (SSC) are abundant in the area's coastal sage scrub habitat, yet absent from the introduced grasslands. Many generalist herpetological and mammal species are abundant in all habitats. Visual surveys are usually unsuccessful for many fossorial species, but these species are readily found using cover-boards and pitfall traps.
- Several SSC's known to be present in the Safari Park BioPreserve are listed below, but several are not represented in the DEIR.
- * indicates rarely observed but known to be present:
 - Amphibians:
 - Western Spadefoot toad (*Spea hammondi*)*
 - Reptiles:
 - Southern CA legless lizard (*Anniella stebbinsi*)
 - Orange-throated whiptail (*Aspidoscelis hyperythra*)
 - Coastal tiger whip[tail (*Aspidoscelis tigris stejnegeri*)
 - Coastal banded gecko (*Coleonyx variegatus abbotti*)
 - Coast horned lizard (*Phrynosoma blainvillii*)*
 - Coronado skink (*Plestiodon skiltonianus interparietalis*)
 - Granite night lizard (*Xantusia henshawi*)
 - Red diamond rattlesnake (*Crotalus ruber*)
 - San Diego ring-necked snake (*Diadophis punctatus similis*)
 - Coastal rosy boa (*Lichanura trivirgata roseofusca*)
 - Coastal patch-nosed snake (*Salvadora hexalepis virgulata*)*
 - Two-striped garter snake (*Thamnophis hammondi*)*
 - Small Mammals:
 - California pocket mouse (*Chaetodipus californicus*)*
 - San Diego pocket mouse (*Chaetodipus fallax*)
 - Bryant's woodrat (*Neotoma bryanti*)

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- Delzura kangaroo rat (*Dipodomys simulans*)*
 - Birds
 - Golden eagle (*Aquila chrysaetos*)
- Additional species specific comments:
 - The spadefoot toad is of particular concern as they are proposed for federal listing and they do not travel as far as is stated in the DEIR. Metamorphs in the area would have come from pools along the dirt road, not from the offsite pond.
 - The site is badger habitat, but the DEIR preparations didn't survey for them.
 - The site could have tree nesting Golden eagles, but the DEIR preparation didn't survey for them. The birds are known to have nested at Guejito in the past.
- Our conclusions are based on observations and on information in scientific publications resulting from work in the Safari Park BioPreserve:
 - Brown, T. K., Lemm, J., Montagne, J. P., Tracey, J., and A. C. Alberts. (2008). Spatial ecology, habitat use and survivorship of resident and translocated Red Diamond Rattlesnakes (*Crotalus ruber*). Pp. 375- 394. Biology of the Rattlesnakes. Hayes, W., K. Beaman, M. Cardwell, and S. Bush (editors). Loma Linda University press. 606 pp.
 - Case, T. J., & Fisher, R. N. (2001). Measuring and predicting species presence: coastal sage scrub case study. In Spatial Uncertainty in Ecology (pp. 47-71). Springer, New York, NY.
 - Diffendorfer, J. E., Rochester, C., Fisher, R. N., & Brown, T. K. (2005). Movement and space use by coastal rosy boas (*Lichanura trivirgata roseofusca*) in coastal southern California. Journal of Herpetology, 39(1), 24-36.
 - Fisher, R. N., & Case, T. J. (2000). Southern California Herpetofauna Research and Monitoring.
 - Fisher, R. N., Suarez, A. V., & Case, T. J. (2002). Spatial patterns in the abundance of the coastal horned lizard. Conservation Biology, 16(1), 205-215.

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- Franklin, J., Wejnert, K. E., Hathaway, S. A., Rochester, C. J., & Fisher, R. N. (2009). Effect of species rarity on the accuracy of species distribution models for reptiles and amphibians in southern California. *Diversity and Distributions*, 15(1), 167-177.
- Hoefen, T. M., Kokaly, R. F., Martin, D. A., Rochester, C., Plumlee, G. S., Mendez, G., & Fisher, R. N. (2009). Sample collection of ash and burned soils from the October 2007 southern California Wildfires (No. 2009-1038). US Geological Survey.
- Laakkonen, J., Fisher, R. N., & Case, T. J. (2001). Spatial analysis on the occurrence of *Pneumocystis carinii* in the shrew *Notiosorex crawfordi* in fragmented landscape in southern California. *Journal of Eukaryotic Microbiology*, 48(s1).
- Laakkonen, J., Fisher, R. N., & Case, T. J. (2001b). Effect of land cover, habitat fragmentation and ant colonies on the distribution and abundance of shrews in southern California. *Journal of Animal Ecology*, 70(5), 776-788.
- Laakkonen, J., Fisher, R. N., & Case, T. J. (2003). Factors influencing the variation in capture rates of shrews in southern California, USA. *Acta theriologica*, 48(2), 157-166.
- Laakkonen, J., Fisher, R. N., & Case, T. J. (2003b). Microparasite assemblages of conspecific shrew populations in southern California. *Journal of Parasitology*, 89(6), 1153-1158.
- Lemm, J. (2006). *Field Guide to Amphibians and Reptiles of the San Diego Region*. University of California Press, Berkeley, CA: 312 pp.
- Lemm, J. (2009). Species accounts for *Dipsosaurus dorsalis*, *Plestiodon gilberti*, and *Aspidoscelis hyperythra*. *Lizards of the American Southwest: A Photographic Field Guide*. Larson, L. and R. Lovich (eds.) Rio Nuevo Publishers. 560 pp.
- Lemm, J., Tobler, M., & M. Anderson. In prep. Factors Affecting the Presence and Abundance of Amphibians, Reptiles, and Small Mammals Under Artificial Cover in Southern California.
- Wood, D. A., Fisher, R. N., & Reeder, T. W. (2008). Novel patterns of historical isolation, dispersal, and secondary contact across Baja California in the Rosy Boa (*Lichanura trivirgata*). *Molecular phylogenetics and evolution*, 46(2), 484-502.

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We believe the biology survey methodologies should be improved to accurately reflect the site's existing biodiversity and the biology report should be revised accordingly.

We appreciate the opportunity to comment on the Safari Highlands DEIR.

Very truly yours,

DocuSigned by:
Allison Alberts
86950A8FC7724F4...

Allison Alberts
Chief Conservation and Research Officer
Institute for Conservation Research

cc: Douglas Myers
Robert McClure
Lisa Peterson

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