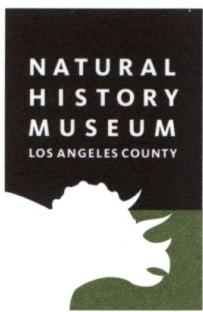

APPENDIX P

PALEONTOLOGICAL RESOURCES RECORDS SEARCH



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900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
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Vertebrate Paleontology Section
Telephone: (213) 763-3325

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18 September 2019

UltraSystems Environmental
16431 Scientific Way
Irvine, CA 92618-7443

Attn: Stephen O'Neil, Cultural Resources Manager

Re: Paleontological Records Search for the proposed Chadwick Ranch Estates Project,
UltraSystems Environmental Project No. 7023, in the City of Bradbury, Los Angeles
County, project area

Dear Stephen:

We have conducted a thorough search of our Vertebrate Paleontology records for the proposed Chadwick Ranch Estates Project, UltraSystems Environmental Project No. 7023, in the City of Bradbury, Los Angeles County, project area as outlined on the portion of the Azusa USGS topographic quadrangle map that Megan Black Doukakis sent to me via e-mail on 4 September 2019. We do not have any vertebrate fossil localities that lie within the proposed project area boundaries, but we do have localities nearby from sedimentary deposits somewhat similar to those that occur in the proposed project area, either at the surface or at depth.

Most of the proposed project area, the northern portion, has exposures of plutonic igneous rocks that will not contain recognizable vertebrate fossils. In the drainages of Bradbury Canyon in the west and in Spinks Canyon in the southeast, there are surface deposits of younger Quaternary Alluvium. Otherwise, there are exposures of coarse older Quaternary gravels on the slopes. Both of these Quaternary deposits usually do not contain significant vertebrate fossils, at least in the uppermost layers, but at shallow depth they may contain significant fossil vertebrate remains.

Our closest vertebrate fossil locality in somewhat similar older Quaternary deposits is LACM 1807, south-southeast of the proposed project area south of Arrow Highway and east of Irwindale Avenue north of Dalton Wash, that produced a fossil specimen of mastodon, *Mammut americanum*, in a gravel pit at a depth of 115-120 feet below the original surface. Due west of the proposed project area, in Pasadena north of the Foothill Freeway (I-210) west of Allen Avenue and south of Washington Boulevard, our older Quaternary locality LACM 2027 produced a fossil specimen of mammoth, *Mammuthus*, at shallow but unstated depth.

Excavations in the igneous bedrock exposed in most of the proposed project area will not encounter recognizable vertebrate fossils. Shallow excavations in the younger Quaternary Alluvium and in the older Quaternary gravels exposed in the proposed project area probably will not encounter significant vertebrate fossils. Deeper excavations in those latter areas, however, always have the potential of uncovering significant vertebrate fossils. Any substantial excavations in the Quaternary deposits exposed in the proposed project area, therefore, should be closely monitored to quickly and professionally collect any specimens without impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,



Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice