APPENDIX E
Paleontological Records Search Results

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26 August 2011

ECORP Consulting, Inc.
215 North 5th Street
Redlands, CA 92374

Attn: Evelyn N. Chandler, Cultural Resources Manager

re: Paleontological resources for the proposed Indian Wells Valley Water District, Water Supply Improvement Project, Ecorp project number: 2010-132, near Ridgecrest, Kern County, project area

Dear Evelyn:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Indian Wells Valley Water District, Water Supply Improvement Project, Ecorp project number: 2010-132, near Ridgecrest, Kern County, project area as outlined on the portions of the Inyokern and Inyokern SE USGS topographic quadrangle maps that Kristina Lindgren sent to me via e-mail on 24 August 2011. We do not have any vertebrate fossil localities that lie within the project boundaries, but we do have localities somewhat nearby from sedimentary deposits similar to those that occur within the proposed project area.

Almost the entire proposed project area has surficial sediments composed of younger Quaternary Alluvium, predominately derived as fluvial deposits from the drainages in the lower lying areas. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, and we have no vertebrate fossil localities anywhere nearby from these surficial deposits. In the very southeastern portion of the northern parcel of the proposed project area, however, geological mapping indicates surficial exposures of older Quaternary Alluvium, derived as both fan deposits from the mountains to the south and west as well as fluvial deposits from the drainages. These older Quaternary deposits probably also underlie the younger deposits in the rest of the proposed project area. Our closest vertebrate fossil localities from older Quaternary deposits are to the northeast of the proposed project area centered around China Lake. Those fossil localities,

LACM (CIT) 266, LACM 1543, 3659, 5151-5157, 6178, 7013, and 7262, mostly come from the Quaternary lake deposits of China Lake, even when the surface deposits consist of younger Quaternary Alluvium, and have produced a typical Late Pleistocene fauna containing vertebrate fossils such as mammoth, *Mammuthus*, bison, *Bison*, camel, *Camelops*, horse, *Equus*, and duck, *Anas*. The proposed project area exists at a considerably higher elevation though, than all of the China Lake localities.

Surface grading or shallow excavations in the younger Quaternary Alluvium exposed in the proposed project area probably will not encounter any significant vertebrate fossils. Deeper excavations that extend into underlying older sedimentary deposits, however, may well uncover significant vertebrate fossil remains. Any substantial excavations below the uppermost layers in the exposures of sedimentary deposits in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. 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

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: draft invoice