

Natural History Museum
of Los Angeles County
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Vertebrate Paleontology Section
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21 November 2018

LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614

Attn: Kelly Vreeland, Paleontologist

re: Paleontological Resources Records Check for the proposed Glenelder Residential Project,
LSA Project # LHC1802, in Hacienda Heights, Los Angeles County, project area

Dear Kelly:

I have thoroughly searched our paleontology collection records for the locality and specimen data for the proposed Glenelder Residential Project, LSA Project # LHC1802, in Hacienda Heights, Los Angeles County, project area as outlined on the portion of the Baldwin Park USGS topographic quadrangle map that you sent to me via e-mail on 7 November 2018. We do not have any vertebrate fossil localities that lie within the proposed project site boundaries, but we do have localities nearby from the same sedimentary deposits that probably occur at depth in the proposed project area.

Surficial deposits throughout the proposed project area consist of younger Quaternary Alluvium, derived as alluvial fan deposits from the San Jose Hills and the Puente Hills to the east via San Jose Creek that currently flows to the north. These younger Quaternary deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but at relatively shallow depth older sedimentary deposits may well contain significant fossil vertebrate remains. In the surrounding hills there are surface deposits of older Quaternary Alluvium, the marine Pliocene Fernando Formation and the marine late Miocene Puente Formation and these deposits may well occur at modest depth in the proposed project area.

Our closest vertebrate fossil locality in older Quaternary deposits is LACM 1807, just east of due north of the proposed project area in Irwindale south of Arrow Highway and east of Irwindale Avenue north of Dalton Wash, that produced a fossil specimen of mastodon, *Mammuth americanum*, in a gravel pit at a depth of 115-120 feet below the original surface.


We have a series of Fernando Formation (Repetto Member) localities, LACM 6350-6361, just west-northwest of the proposed project area from the Puente Hills landfill that produced a suite of fossil marine vertebrates including great white shark, *Carcharodon carcharias*, herring, *Ganolytes*, hake, *Merluccius*, lanternfish, *Diaphus* and *Lampanyctus*, mackerels, Scombridae, swordfish, *Coelorhynchus scaphopsis*, flounder, Pleuronectidae, and whale, Cetacea. Our next closest locality from the Fernando Formation (Siltstone Member) is LACM 1897, situated near Penn Park in northeastern Whittier west-southwest of the proposed project area, that produced a specimen of a fossil dolphin, Odontoceti.

Our closest vertebrate fossil localities in the Puente Formation, LACM 5837, 6170, 6907-6908, and 7046, are situated just to the east of the proposed project area with localities LACM 5837 and 6170 north of San Jose Creek and localities 6907-6908, and 7046 south of San Jose Creek. These localities have produced a rich suite of fossil marine vertebrates including bonito shark, *Isurus oxyrinchus*, top smelts, *Atherinops barkeri* and *Atherinopsis*, sauries, Scomberesocidae, herrings, *Etringus scintillans* and *Ganolytes cameo*, cod, *Eclipes*, anglerfish, *Acentrophryne longidens*, lanternfish, Myctophidae, jack, *Decapterus*, snake mackerel, *Thyrsocles kriegeri*, croakers, *Seriphus lavenbergi* and *Lompoquia*, sanddab, Pleuronectiformes, deep sea smelt, Bathylagidae, viperfish, *Chauliodus eximius*, bristlemouth, *Cyclothone*, pipefish, *Syngnathus emeritus*, and whale, Cetacea. Specimens of the fossil pipefish, *Syngnathus emeritus*, from locality LACM 7046 were published in the scientific literature by R. A. Fritzsche (1980. Revision of the eastern Pacific Syngnathidae (Pisces: Syngnathiformes), including both Recent and fossil forms. Proceedings of the California Academy of Science, 42(6):181-227). Specimens of the fossil anglerfish, *Acentrophryne longidens*, from locality LACM 6908 was figured in the scientific literature by T. W. Pietsch and R. J. Lavenberg (1980. A fossil ceratoid anglerfish from the Late Miocene of California. Copeia, 1980(4):906-908). The fossil croaker, *Seriphus lavenbergi*, from locality LACM 6907 is a holotype (specimen that is the name bearer for a species new to science) described by R. W. Huddleston and G. T. Takeuchi (2006. A New Late Miocene Species of Sciaenid Fish, Based Primarily on an *in situ* Otolith from California. Bulletin of the Southern California Academy of Sciences, 105(1):30-42).

Shallow excavations in the younger Quaternary Alluvium in the proposed project area are unlikely to encounter significant vertebrate fossils. Deeper excavations that extend down into older sedimentary deposits, however, may well uncover significant fossil vertebrate remains. Any substantial excavations in the proposed project area, therefore, should be closely monitored to quickly and professionally collect any vertebrate fossil remains 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,

A handwritten signature in cursive script that reads "Samuel A. McLeod". The signature is written in black ink and is positioned above the typed name.

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice



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November 7, 2018

Dr. Samuel McLeod
Natural History Museum of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

Subject: Paleontological Locality Search for the Glenelder Residential Project, Hacienda Heights, unincorporated Los Angeles County, California

Dear Dr. McLeod:

LSA Associates, Inc. (LSA) is requesting the Natural History Museum of Los Angeles County conduct a fossil locality search for the Glenelder Residential Project (project) in Hacienda Heights, unincorporated Los Angeles County, California. The project seeks to construct a 54-unit residential development. The project area is located at 16234 Folger Street, and is bounded by Folger Street to the north, Glenelder Avenue to the east, Hinnen Avenue to the west, and single-family homes along Denley Street to the south. The attached figure (Fossil Locality Search) depicts the project area on the *Baldwin Park, California* 7.5-minute United States Geological Survey (USGS) topographic map in Township 2 South, Range 10 West, and Section 8, San Bernardino Baseline and Meridian (USGS, 1982).

LSA is interested in knowing the location of fossil localities within an approximately 1-mile radius around the project area. In addition, LSA would like to know what specimens have been found from those localities. If there are no known fossils localities within a 1-mile radius, please provide the location of the closest localities within similar sediments to those found within the project area, as well as the fossils recovered.

Please send an invoice to my attention, including a reference to LSA project number **LHC1802**. If possible, LSA is requesting receipt of the results by **November 28, 2018**. Please send the results via e-mail to kelly.vreeland@lsa.net.

Thank you.

Sincerely,

LSA ASSOCIATES, INC.

Kelly Vreeland, M.Sc.
Paleontologist

Attachment: Fossil Locality Search

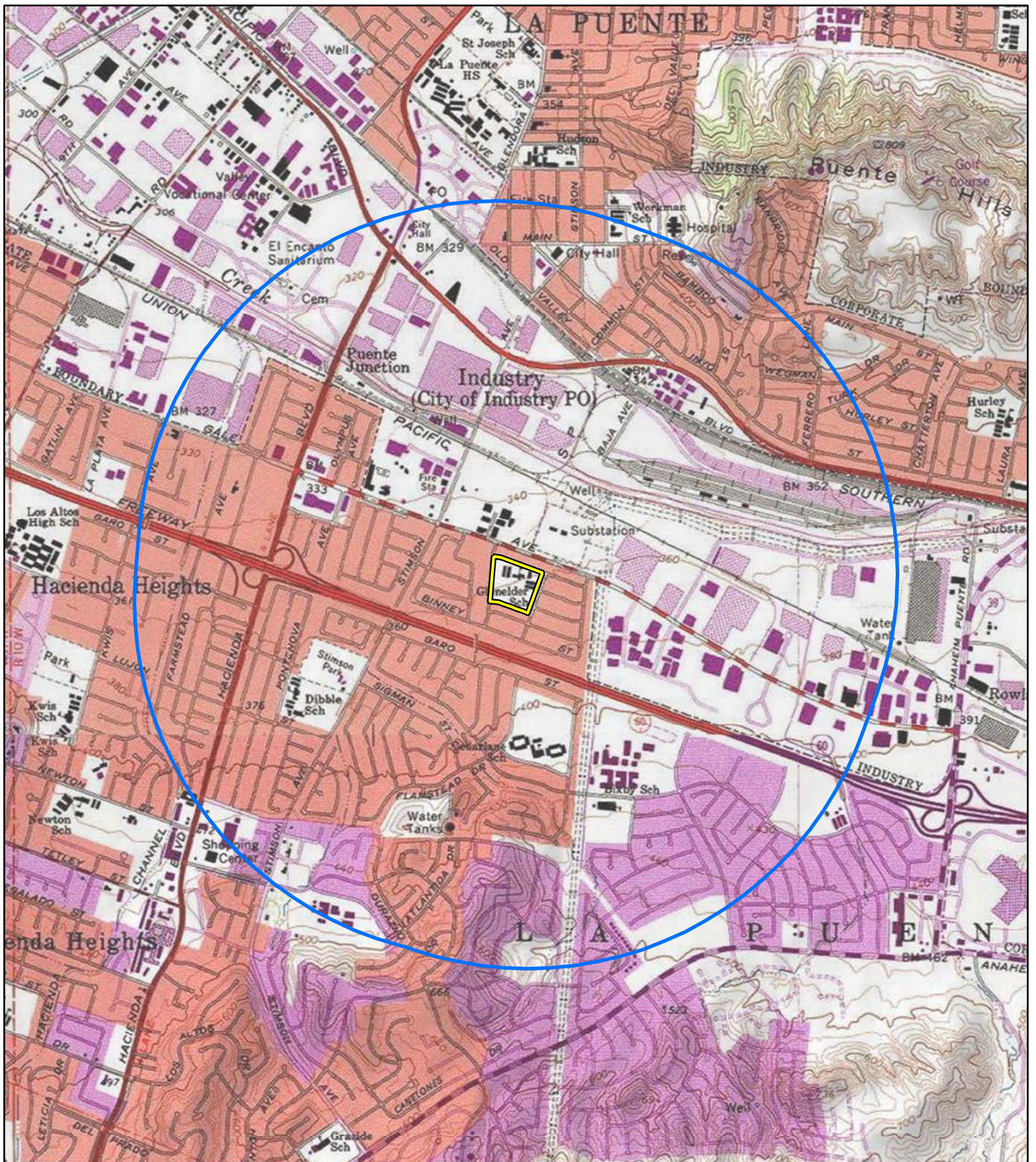


FIGURE 1

LSA

LEGEND

- Project Location
- Mile Buffer



SOURCE: USGS 7.5' Quad., Baldwin Park, CA (1981); La Habra, CA (1981)

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Glenelder Residential Development
Fossil Locality Search