

IV. Environmental Impact Analysis

D. Geology and Soils—Paleontological Resources

1. Introduction

In January 2018, the Governor’s Office of Planning and Research (OPR) proposed comprehensive updates to the CEQA Guidelines which revised thresholds for Aesthetics, Air Quality, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Transportation, and Utilities and Service Systems. At the time the Initial Study for the Project was published, Paleontological Resources were addressed under Cultural Resources (Section V). They have since been moved to the Geology and Soils (Section VII). Impacts to Geology and Soils thresholds (a) through (e) were determined to be less than significant. Refer to the Initial Study included as Appendix A of this Draft EIR, as well as Section VI, Other CEQA Considerations of this Draft EIR for further details.

This section of the Draft EIR provides an analysis of the Project’s potential impacts with regard to paleontological resources. This analysis of potential impacts to paleontological resources is based on a paleontological records search conducted on April 19, 2017, through the Natural History Museum of Los Angeles County and is included as Appendix G of this Draft EIR.

2. Environmental Setting

a. Regulatory Framework

(1) State of California

Paleontological resources are afforded protection under the California Environmental Quality Act (CEQA). Appendix G of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, which states that a project could have a potentially significant impact on the environment if it could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Public Resources Code (PRC) Section 5097.5 states that violation of the following section would be a misdemeanor:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.¹

(2) City of Los Angeles

Section 3 of the Los Angeles General Plan Conservation Element, adopted in September 2001, includes policies for the protection of paleontological resources. As stated therein, it is also the City's policy that paleontological resources be protected for historical, cultural research, and/or educational purposes. Section 3 sets as an objective the identification and protection of significant paleontological sites and/or resources known to exist or that are identified during "land development, demolition, or property modification activities."

b. Existing Conditions

Paleontology is the study of fossils, which are the remains of ancient life forms. Paleontological resources are the fossilized remains of organisms that have lived in a region in the geologic past and whose remains are found in the accompanying geologic strata. This type of fossil record represents the primary source of information on ancient life forms, since the majority of species that have existed on earth from this era are extinct.

On April 19, 2017, a Project-specific paleontological records search was conducted through the Natural History Museum of Los Angeles County to determine the potential impacts of the Project on paleontological resources. The results of the paleontological records search, which are included in Appendix G of this Draft EIR, indicate there are no vertebrate fossil localities that lie directly within the Project Site. In addition, the Project Site is not located in a designated Vertebrate Paleontological Site or Site Area.² However, according to the records search, there are localities that have been identified nearby from the same sedimentary deposits that occur at depth within the Project area, as identified below.

¹ *PRC Section 5097.5 specifies that "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.*

² *Los Angeles Citywide General Plan Framework Environmental Impact Report, Section 2.15 Cultural Resources, Figure CR-2, January 1995.*

The Project area contains surface deposits that consist of older Quaternary Alluvium, derived as alluvial deposits from the Hollywood Hills immediately to the north. While the uppermost layers of these deposits do not typically contain significant vertebrate fossil remains, vertebrate fossil localities have been found to the east of the Project Site east of the Hollywood Freeway (US-101). During excavations for the Metro Red Line tunnels and stations, four vertebrate fossil localities, LACM 6297-6300, from these late Pleistocene deposits were collected at depths between 47 and 80 feet below the surface along Hollywood Boulevard between the Hollywood Freeway and Western Avenue. Fossil specimens of horse, *Equus*, bison, *Bison*, camel, *Camelops*, and mastodon, *Mammut americanum*, were recovered from these localities.

To the south-southwest of the Project Site, near the Rancho La Brea asphalt deposits in the Hancock Park region, fossil vertebrates have been recovered at shallower depths. The closest vertebrate fossil locality from the older Quaternary deposits found at shallow depth, though, is LACM 5845, which is located approximately 2.2 miles southeast of the Project Site near the intersection of Western Avenue and Council Street. This locality produced a fossil specimen of mastodon, *Mammutidae*, at a depth of only 5 to 6 feet below the surface. Approximately 2.7 miles southeast of the Project Site and east-northeast of locality LACM 5845 at approximately the intersection of Madison Avenue and Middlebury Street, an additional fossil locality LACM 3250 produced a fossil specimen of mammoth, *Mammuthus*, at a depth of approximately 8 feet below street level. Approximately 2 miles southwest of the Project Site and near the intersection of Sierra Bonita Avenue and Oakwood Avenue, the vertebrate fossil locality LACM 3371 produced fossil specimens of bison, *Bison antiquus*, at a depth of 12 feet below the surface.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines decision, the Project would have a significant impact related to geology and soils if it would:

Threshold (a): Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 *L.A. CEQA Thresholds Guide*, as appropriate, to assist in answering the Appendix G Threshold questions.

The *L.A. CEQA Thresholds Guide* identifies the following factors to evaluate paleontological resources:

- Whether, or the degree to which, the project might result in the permanent loss of, or loss of access to, a paleontological resource; and
- Whether the paleontological resource is of regional or statewide significance.

In assessing impacts related to hazardous geology and soils in this section, the City will use Appendix G as the thresholds of significance. The factors identified above from the *L.A. CEQA Thresholds Guide* will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

b. Methodology

To address potential impacts associated with paleontological resources, a formal records search was conducted to assess the paleontological sensitivity of the Project Site and vicinity. In addition, an evaluation of existing conditions and previous disturbances within the Project Site, the geology of the Project Site, and the anticipated depths of grading were evaluated to determine the potential for uncovering paleontological resources.

c. Project Design Features

No specific project design features are proposed with regards to geology and soils.

d. Analysis of Project Impacts

Threshold (a): Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

(1) Impact Analysis

As previously discussed, a records search conducted for the Project Site indicates there are no previously encountered fossil vertebrate localities located within the Project Site. The closest identified localities from older Quaternary deposits in proximity to the Project Site are LACM 6297-6300, which were collected at depth between 47 and 80 feet below the surface to the east of the Project Site along Hollywood Boulevard between the Hollywood Freeway and Western Avenue. The fossil specimens included horse, *Equus*, bison, *Bison*, camel, *Camelops*, and mastodon, *Mammut americanum*. Furthermore, the closest identified locality recovered at shallow depth is LACM 5845, which produced a fossil specimen of mastodon, *Mammutidae*, at 5 to 6 feet below the surface and southeast of the Project Site. While the Project Site has been subject to grading and development in the past, excavation to construct the subterranean parking garage would extend to a depth of approximately 40 feet below grade. Thus, it is possible that paleontological artifacts that

were not recovered during prior construction or other human activity may be present. As set forth in Mitigation Measure GEO-MM-1, a qualified paleontologist shall be retained to perform periodic inspections of excavation and grading activities of the Project Site. In the event paleontological materials are encountered, the paleontologist shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed material to facilitate evaluation and, if necessary, salvage. **Therefore, implementation of Mitigation Measure GEO-MM-1 would ensure that any potential impacts related to paleontological resources would be less than significant.**

(2) Mitigation Measures

The following mitigation measure is proposed with respect to paleontological resources:

Mitigation Measure GEO-MM-1: The Project Applicant or its successor shall retain a qualified paleontologist to perform periodic inspections of excavation and grading activities at the Project Site. The frequency of inspections shall be based on consultation with the paleontologist and shall depend on the rate of excavation and grading activities, the materials being excavated, and if found, the abundance and type of fossils encountered. If paleontological materials are encountered, the paleontologist shall temporarily divert or redirect grading and excavation activities in the area of the exposed material to facilitate evaluation and, if necessary, salvage. The paleontologist shall then assess the discovered material(s) and prepare a survey, study or report evaluating the impact. The Project Applicant or its successor shall then comply with the recommendations of the evaluating paleontologist, and a copy of the paleontological survey report shall be submitted to the Los Angeles County Natural History Museum. Ground-disturbing activities may resume once the paleontologist's recommendations have been implemented to the satisfaction of the paleontologist.

(3) Level of Significance After Mitigation

Project impacts to paleontological resources would be less than significant with the implementation of Mitigation Measure GEO-MM-1.

e. Cumulative Impacts

(1) Impact Analysis

With regard to potential cumulative impacts related to paleontological resources, the Project and the related projects are located within an urbanized area that has been

disturbed and developed over time. In the event that paleontological resources are uncovered, each related project would be required to comply with applicable regulatory requirements. In addition, as part of the environmental review processes for the related projects, it is expected that mitigation measures would be established as necessary to address the potential for uncovering paleontological resources.

Therefore, with adherence to applicable regulations, Project impacts related to paleontological resources would not be cumulatively considerable and cumulative impacts would be less than significant.

(2) Mitigation Measures

Cumulative impacts to paleontological resources would be less than significant. Therefore, no mitigation measures are necessary.

(3) Level of Significance After Mitigation

Cumulative impacts to paleontological resources would be less than significant without mitigation.