IV. Environmental Impact Analysis

D. Geology and Soils—Paleontological Resources

1. Introduction

In January 2018, 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. They have since been moved to the Geology and Soils section. 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 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 is based on a records search included as Appendix F of this Draft EIR, as well as a review of previous, existing, and proposed on-site conditions.

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.

(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. A Project-specific paleontological records search was conducted in July 2018 through the Natural History Museum of Los Angeles County. The following discussion is based on correspondence received from the Natural History Museum, which is included in Appendix F of this Draft EIR. The results of the paleontological records search indicate that there are no previously encountered vertebrate fossil localities located within the Project Site. However, there are localities that have been identified nearby from the same sedimentary deposits that occur subsurface in the Project area, as identified below.

The Project area has surface deposits of younger Quaternary Alluvium, derived as fluvial deposits from the flood plain of the Los Angeles River that currently flows in a concrete channel to the east. These younger Quaternary deposits usually do not contain significant fossil vertebrates in the uppermost layers, but the underlying older Quaternary deposits found at varying depths may contain significant vertebrate fossils.

The closest vertebrate fossil locality from the older Quaternary deposits is LACM 1755, located approximately 2 miles west-northwest of the Project area near the intersection of Hill Street and 12th Street, which produced a fossil specimen of horse (*Equus*) at a depth of 43 feet below the street. The next closest vertebrate fossil locality from older Quaternary deposits beneath the younger Quaternary Alluvium is LACM 2032, located north-northeast of the Project area near the intersection of Mission Road and Daly Street around the Golden State Freeway (I-5), which produced fossil specimens of pond turtle (*Clemmys mamorata*), ground sloth (*Paramylodon harlani*), mastodon (*Mammut americanum*), mammoth (*Mammuthus imperator*), horse (*Equus*), and camel (*Camelops*) at depths of 20 to 35 feet below the surface. At LACM 1023, just north of LACM 2032 near the intersection of Workman Street and Alhambra Avenue, excavations for a storm drain recovered fossil specimens of turkey (*Meleagris californicus*), sabre-toothed cat (*Smilodon fatalis*), horse (*Equus*), and deer (*Odocoileus*) at unstated depths.

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 criteria 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 criteria 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

The Project Site and surrounding area are fully developed and generally characterized by flat topography or vicinity. There are no unique geologic features on the Project Site. Therefore, the Project would not destroy any distinct and prominent geologic or topographic features. In addition, as discussed above in Subsection 2.b. on page IV.D-2, according to the paleontological records search conducted for the Project Site, there are no previously encountered fossil vertebrate localities located within the Project Site. The closest identified localities o the Project Site were identified approximately two miles west-northwest of the Project Site and were collected at depths between 20 and 43 feet below the surface area. The paleontological records search indicates that shallow excavations in the younger Quaternary Alluvium exposed throughout the Project Site are unlikely to uncover significant vertebrate fossils. However, deeper excavations into the older Quaternary deposits have the potential to encounter significant fossil vertebrates. The Project would require maximum excavation depths of approximately 77 feet. Thus, the possibility exists that paleontological artifacts that were not discovered during prior construction or other human activity may be present. As set forth in Mitigation Measure GEO-MM-1, below, a qualified paleontologist would be retained to perform periodic inspections of excavation and grading activities of the Project Site. In the event paleontological materials are encountered, the paleontologist would temporarily divert or redirect grading and excavation activities in the area of the exposed material to facilitate evaluation and, if necessary, salvage. **Therefore, with implementation of Mitigation Measure GEO-MM-1, the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature and impacts would be less than significant.**

(2) Mitigation Measures

GEO-MM-1: A qualified paleontologist shall be retained by the Applicant 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 and the materials being excavated. 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 Applicant 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 and the Department of City Planning. 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.