Appendix G Paleontological Assessment Memorandum for the Westside Area Plan Project

Appendices

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March 7, 2024

Addie Farrell
PlaceWorks, Inc.
700 South Flower Street
Los Angeles, California 90017
Submitted via email: afarrell@placeworks.com

RE: Paleontological Assessment Memorandum for the Westside Area Plan Project, Los Angeles County, California

Dear Ms. Farrell:

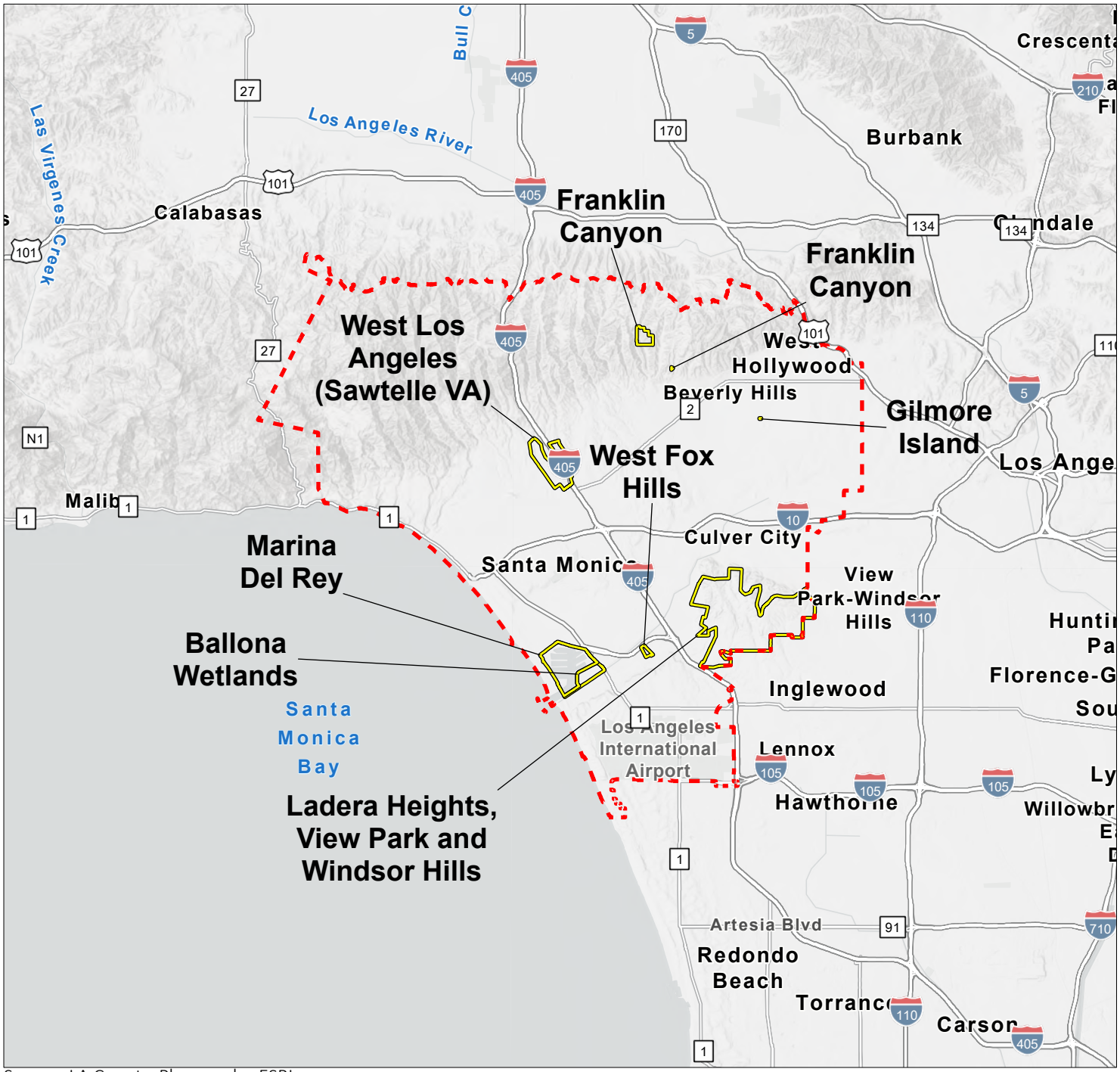
ECORP Consulting, Inc. completed a thorough investigation into the potential to directly impact paleontological resources for the Westside Area Plan Project (Project). This investigation included a paleontological record search through the Los Angeles County Natural History Museum in Los Angeles, California (NHMLAC) and a desktop study of the geology and paleontology of the Project Area (Figure 1). The aim of the Westside Plan Area is to update existing Los Angeles County regulations in specific communities to encourage more housing development, historic preservation, and multimodal transportation (Los Angeles County 2023). The Westside Planning Area includes the following unincorporated communities of the County: Ladera Heights, View Park, and Windsor Hills; Marina del Rey; Ballona Wetlands; and Westside Islands, which includes West Los Angeles (Sawtelle Veterans Affairs (VA)), West Fox Hills, Franklin Canyon, Beverly Hills Island, and Gilmore Island. Collectively, these communities are referred to as the Project Area. (Figure 1).

GEOLOGIC SETTING

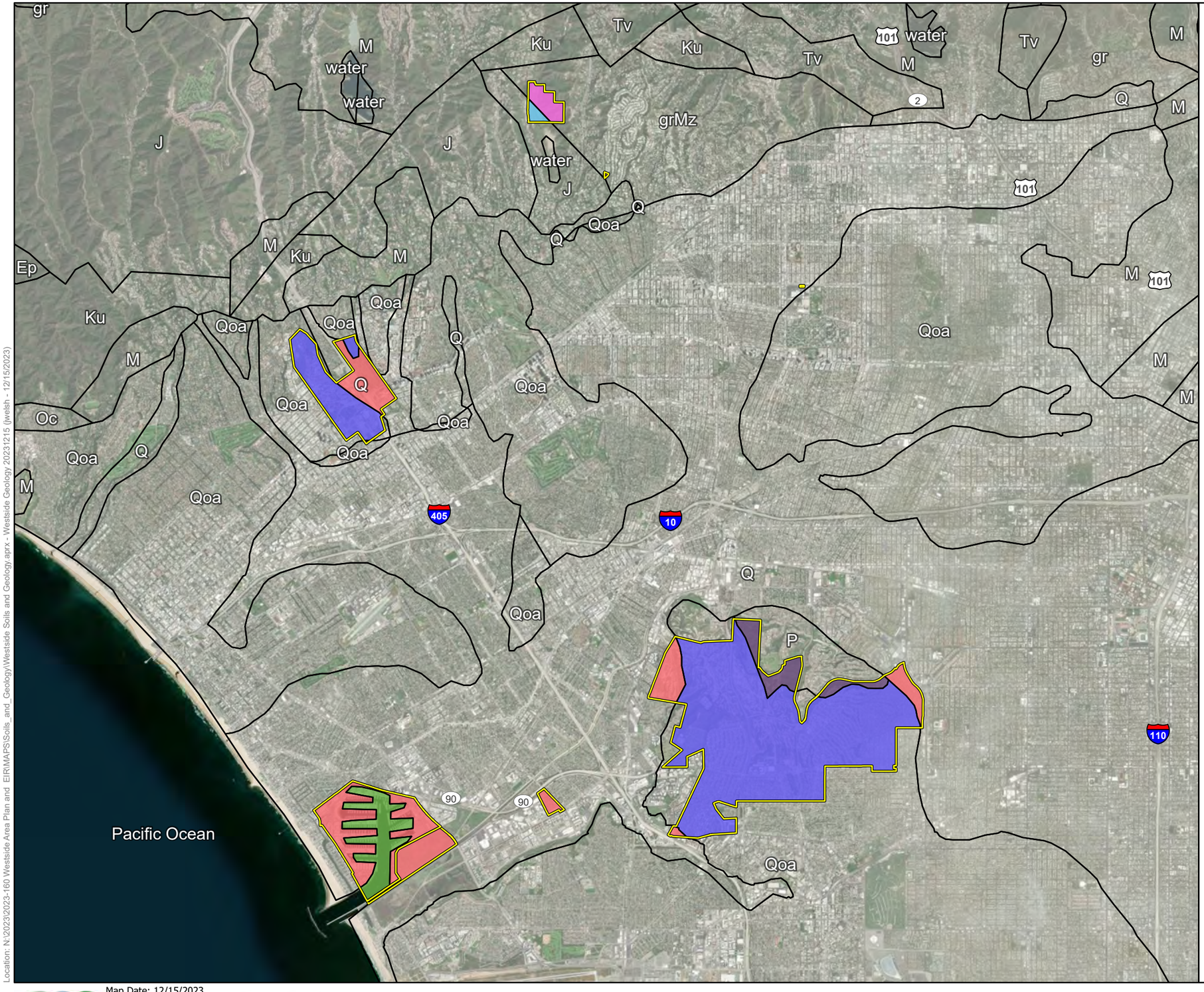
The Project Area is located in southwestern Los Angeles County and is part of the present-day Los Angeles basin, which is a northwest-trending lowland coastal plain approximately 50 miles long and 20 miles wide. The coastal plain overlies a structural trough filled with a thick sequence of early Cenozoic through Holocene marine and nonmarine sediments (Yerkes et al. 1965). Desktop studies of the geology for the Project Area indicate that the underlying geologic units are fairly consistent across the Project Area, with dominance of Quaternary older alluvium (Qoa) consisting of lake, playa, and terraced deposits (Figure 2). In addition, there are smaller traces of Quaternary alluvium consisting of lake, playa, and terrace deposits consisting of unconsolidated and semi-consolidated nonmarine and marine deposits closer to the portions of the Project Area near the coast, particularly the Marina Del Rey and Ballona Wetlands Project Areas. Further north, near the Franklin Canyon Project Area, marine sedimentary and metasedimentary rocks of Jurassic age dominate. These rocks are generally devoid of fossils.

Figure 1

Project Vicinity



Source: LA County, Placeworks, ESRI



Map Contents

Project Area - 4,731.74 ac.

Geology Type within Project Area

Pacific Ocean

Marine and nonmarine (continental) sedimentary rocks (Pleistocene)

Qoa - Older alluvium, lake, playa, and terrace deposits.

Marine and nonmarine (continental) sedimentary rocks (Pleistocene-Holocene)

Q - Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine, but includes marine deposits near the coast.

Marine sedimentary and metasedimentary rocks (Jurassic)

J - Shale, sandstone, minor conglomerate, chert, slate, limestone; minor pyroclastic rocks.

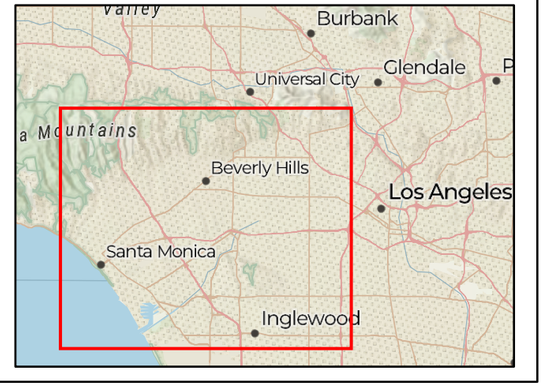
Marine sedimentary rocks (Pliocene)

P - Sandstone, siltstone, shale, and conglomerate; mostly moderately consolidated.

Plutonic rocks (Mesozoic)

grMz - Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite.

Sources: California Department of Conservation - Geologic Atlas of California, ESRI, Maxar (2022)



Map Date: 12/15/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Miles
0 1.25

Figure 2. Geology

2023-160 Westside Area Plan and EIR

RECORD SEARCH

ECORP conducted a paleontological record search through the NHMLAC. The NHMLAC has some fossil localities recorded within the Proposed Project Areas (Bell 2023; Table 1). Fossils found within Holocene or recent surface deposits are considered insignificant because these surface deposits are unlikely to contain fossils due to the modern associated dates. However, if ground disturbance exceeds Holocene deposits, the likelihood of reaching Pleistocene-age (approximately 2 million years ago to 11,700 years ago) alluvial sediments would increase. Pleistocene-age alluvial sediments have the potential to contain fossils.

Table 1. Closest Known Fossil Localities

Locality Number	Location	Formation	Taxa	Depth
LACM IP 7809	Mulholland Drive; 0.25 mile east of Franklin Canyon	Topanga Formation (Sandstone)	Invertebrates	Surface
LACM IP 31280, 20142	14000 W. Mulholland Drive, near Beverly Drive	Modelo Formation	Invertebrates (uncatalogued)	Unknown
LACM VP 6057	3363 Dixie Canyon Avenue	Modelo Formation	Porpoise (Phocoenidae); ray-finned fish (*Thyrsocles*), bonito (*Sarda*), herring (*Ganolytes, Xyne*), silverside (*Atherinopsis*)	Unknown
LACM VP 5833	10580 Wilshire Boulevard; south side of street between Thayer & Westholme Avenues in excavation for building called 'The Wilshire'	Lakewood Formation (poor to well graded; greyish-brown sand & sandy silt with occasional gravels & grey-black cobbles)	Freshwater snails; rodents (Rodentia); horse (*Equus)*	Unknown
LACM VP 5462	2500 block of Michigan Avenue, Santa Monica	Unknown formation (Pleistocene)	American lion (*Felis atrox*)	6 feet bgs
LACM VP 7495	600 feet north of the corner of Fairfax Avenue and 3rd Street	Older alluvium (siltstone & claystone that overlies unconsolidated sand)	Camel (*Camelops hesternus*), bison (*Bison antiquus*), horse (*Equus occidentalis*), mammoth (*Mammuthus columbi),* rabbit *(Sylvilagus),* kangaroo rat *(Dipodomys),* vole *(Microtus*), pocket gopher *(Thomomys*), turtle (*Clemmys*)	Unrecorded; 171-174 feet above mean sea level (collected during construction of Building A for the Grove at Farmers Market)

Table 1. Closest Known Fossil Localities

Locality Number	Location	Formation	Taxa	Depth
LACM VP 3261	Intersection of Kilkea Boulevard and Beverly Boulevard	Unknown formation (pebbly silt medium to coarse grained)	Elephant family (Proboscidea)	Unknown (collected during construction of the North Outfall Sewer)
LACM VP 3371	Intersection of Sierra Bonita and Oakwood Avenue	Unknown formation (Pleistocene; greenclay)	Bison (*Bison*)	12 feet bgs (sewer replacement project)
LACM IP 5535, 21060	Baldwin Hills; Lincoln Boulevard	Unknown formation (Pleistocene)	Invertebrates (*Cantharus* and other uncatalogued taxa)	Unknown
LACM VP 3369	Rodeo Road and Sycamore Avenue	Unknown formation (Pleistocene, greenish clay-silt)	Horse family (Equidae)	6 feet bgs
LACM VP 3366	Near intersection of Exposition Boulevard and Sycamore Street, Los Angeles	Unknown formation (greenish clay-silt	Camel (*Camelops*)	Unknown (collected during the Limpo Outfall Sewer)
LACM VP 4942	SE corner of Airport Boulevard and Manchester Avenue	Unknown formation (Pleistocene, massive sandy mudstone with scattered pieces of gravel)	Mammoth (*Mammuthus)*; bison (*Bison)*; hare (*Lepus*)	16 feet bgs
LACM VP 3789	8734 Bellanca Avenue, Westchester	Unknown (Pleistocene; pebbly gray-green to brown mud that directly overlies a gray-green fine sand)	Mammoth (*Mammuthus)*	14 feet bgs
LACM IP 24216	Sewer ditch at Venice between 55th and 57th streets	Unknown Formation (Pleistocene)	Invertebrates (uncatalogued)	30 feet bgs
LACM IP 7189	Lincoln Boulevard, near Loyola Marymount University	San Pedro Sand	Wide variety of invertebrates	Unknown
LACM VP 3264	Los Angeles International Airport	Unknown formation (Pleistocene sands)	Elephant clade (Proboscidae)	25 feet bgs
LACM VP 7332	Westchester, NW of intersection of West Century Boulevard and Bellanca Avenue	Unknown formation (Pleistocene; silty sand)	Mammoth (*Mammuthus)*	40 feet bgs

Notes: VP = Vertebrate Paleontology; IP = Invertebrate Paleontology; bgs = below ground surface

RECOMMENDATIONS

To assess the significance of a geologic unit to contain paleontological resources (i.e., paleontological potential/sensitivity), paleontologists have adopted the standards set forth by the Society of Vertebrate Paleontology (2010). The presence of Holocene alluvium on the surface within Project Area has been assigned a low-sensitivity criteria for producing fossils. However, due to the presence of Pleistocene alluvial deposits near the surface and/or beneath the ground surface at certain portions of the Project Area, ECORP recommends that a Paleontological Resources Mitigation and Monitoring Plan (PRMMP) be set forth prior to the start of ground distributing activities during construction within the Project Area. The PRMMP will discuss the laws and regulations that have been set for the protection of paleontological resources, the significance of the fossils, and protocol to follow in case a discovery is made. The PRMMP will also outline the duties of the paleontological monitor onsite, including the salvaging and preparation of fossils and the final submission of all paleontological resources to an accredited museum or facility for curation. Based on this assessment, the following paleontological mitigation measures are applicable to the Project.

GEO-1 For projects facilitated by the West Side Area Plan (WSAP) that involve ground disturbance, the project proponent shall retain a paleontologist who meets the Society of Vertebrate Paleontology's (SVP 2010) definition for qualified professional paleontologist (Qualified Paleontologist) to prepare a paleontological resources assessment report prior to the start of construction activities. The report shall include methods and results of the paleontological resources assessment, monitoring requirements (including depths, frequency, and reporting), and maps that outline where monitoring is required. Monitoring shall follow SVP Guidelines: no monitoring of ground-disturbing activities within units of Low Sensitivity or No Potential; monitoring of all ground-disturbing activities (with depths specified) in units of Low to High Significance; and at all depths within units of High Significance unless the Qualified Paleontologist's report identifies previous disturbances or the use of construction methods which do not warrant monitoring; and monitoring at the initiation of excavation in units of Undetermined Significance. The report also shall stipulate whether screen washing is necessary to recover small specimens following SVP Guidelines and determine whether unique geologic features are present onsite. If monitoring is conducted, then the Qualified Paleontologist shall prepare a final report summarizing monitoring results and submit it to the project proponent and the County.

GEO-2 Prior to the start of ground-disturbing activities for projects facilitated by the WSAP with potentially significant impacts on paleontological resources, the Qualified Paleontologist or its designee shall conduct construction worker paleontological resources sensitivity training (or may be provided via digital recording) for all construction workers. Construction workers shall be informed on how to identify the types of paleontological resources that may be encountered, the proper procedures to be enacted in the event of an inadvertent discovery of paleontological resources, and safety precautions to be taken when working with paleontological monitors. The project proponent shall ensure that

construction workers are made available for and attend the training. The project proponent shall retain documentation demonstrating attendance and provide it to the County.

GEO-3 If a potential fossil is found, the paleontological monitor shall be allowed to temporarily divert or redirect grading and excavation activities in the area of the exposed fossil to facilitate evaluation of the discovery. An appropriate buffer area determined by the paleontological monitor shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. At the monitor's discretion, and to reduce any construction delay, the grading/excavation contractor shall assist, where feasible, in removing rock/sediment samples for initial processing and evaluation. If a fossil is determined to be significant, the Qualified Paleontologist shall implement a paleontological salvage program to remove the resources from their location, following the guidelines of the SVP (2010). Any fossils encountered and recovered shall be prepared to the point of identification, catalogued, and curated at a public, nonprofit institution with a research interest in the material and with retrievable storage, such as the Natural History Museum of Los Angeles County, if such an institution agrees to accept the fossils. Accompanying notes, maps, and photographs shall also be filed at the repository. If no institution accepts the fossil collection, it may be donated to a local school or other interested organization in the area for educational purposes. If construction workers discover any potential fossils during construction while the paleontological monitor is not present, regardless of the depth of work or location, work at the discovery location shall cease in a 50-foot radius of the discovery until the Qualified Paleontologist has assessed the discovery and recommended and implemented appropriate treatment as described earlier in this measure. Any salvage reports resulting from implementation of this measure shall be filed with the Natural History Museum of Los Angeles County.

If you have any questions, please feel free to contact me at nkottachchi@ecorpconsulting.com or at (916) 708-5330.

Sincerely,

Niranjala Kottachchi
Paleontological Resources Manager

REFERENCES

Los Angeles County. 2023. Westside Area Plan. https://planning.lacounty.gov/long-range-planning/westside-area-plan/.

Society of Vertebrate Paleontology (2010). Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, 11p.

Yerkes, R.F., T.H. McCulloh, J.E. Schoellhamer, and J.G. Vedder. 1965. Geology of the Eastern Los Angeles Basin Southern California, Geological Survey Professional Paper 420-A, 64p.

Personal Communication

Email from Alyssa Bell. October 22, 2023. Paleontological Record Search Natural History Museum of Los Angeles County (NHMLAC), Los Angeles, California.