PALEONTOLOGICAL ASSESSMENT FOR THE FIRST HARLEY KNOX II PROJECT

PERRIS, RIVERSIDE COUNTY, CALIFORNIA

APNs 302-020-013, -028, -032, -038, -040, -043, and -048

Submitted to:

City of Perris
Planning Division
101 North D Street
Perris, California 92570

Prepared for:

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May 15, 2023; Revised November 18, 2024

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Paleontological Database Information

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Report Title:	Paleontological Assessment for the First Harley Knox II Project, Perris, Riverside County, California
Prepared for:	First Industrial Realty Trust, Inc., First Industrial, L.P., First Industrial Acquisitions, LLC, and their Affiliates and Assigns c/o Weis Environmental, LLC 1938 Kellogg Avenue, Suite 116 Carlsbad, California 92008
Submitted to:	City of Perris Planning Division 101 North D Street Perris, California 92570
Assessor's Parcel Number:	302-020-013, -028, -032, -038, -040, -043, and -048
USGS Quadrangle:	Section 6, Township 4 South, Range 3 West on the USGS *Perris, California* (7.5-minute) topographic quadrangle
Study Area:	25.6 acres
Key Words:	Paleontological assessment; Pleistocene very old alluvial fan deposits; High paleontological sensitivity; City of Perris; full-time monitoring of subsurface excavations.

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I. INTRODUCTION AND LOCATION

A paleontological resource assessment has been completed for the First Harley Knox II Project (Assessor's Parcel Numbers [APNs] 302-020-013, -028, -032, -038, -040, -043, and -048) located along the south side of Harley Knox Boulevard between Webster Avenue and Indian Avenue in the northern portion of the city of Perris, Riverside County, California (Figures 1 and 2). The project site is situated in Section 6, Township 4 South, Range 3 West, of the San Bernardino Baseline and Meridian, as shown on the U.S. Geological Survey (USGS) (7.5-minute) 1:24,000-scale *Perris, California* topographic quadrangle map (Figure 2). Project plans propose to redevelop the 25.6-acre property. Only APN 302-020-032 is currently developed; the other parcels are vacant.

As the lead agency, the City of Perris has required the preparation of a paleontological assessment to evaluate the project's potential to yield paleontological resources. The paleontological assessment of the project site included a review of paleontological literature and fossil locality records in the area; a review of the underlying geology; and recommendations to mitigate impacts to potential paleontological resources, if necessary.

II. REGULATORY SETTING

The California Environmental Quality Act (CEQA), which is patterned after the National Environmental Policy Act, is the overriding regulation that sets the requirement for protecting California's cultural and paleontological resources. CEQA does not establish specific rules that must be followed but mandates that governing permitting agencies (lead agencies) set their own guidelines for the protection of nonrenewable paleontological resources under their jurisdiction.

State of California

Under the "Guidelines for Implementation of the California Environmental Quality Act" (CEQA Guidelines), as amended in December 2018 (California Code of Regulations [CCR] Title 14, Division 6, Chapter 3, Sections 15000 et seq.), procedures define the types of activities, persons, and public agencies required to comply with CEQA. Section 15063 of the CEQA Guidelines provides a process by which a lead agency may review a project's potential impact to the environment, whether the impacts are significant, and provide recommendations, if necessary.

In the CEQA Guidelines Appendix G Environmental Checklist Form, a question to respond to is, "would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (Appendix G, Section VII, Part f). This is to ensure compliance with California Public Resources Code Section 5097.5, the law that protects nonrenewable resources including fossils, which is paraphrased below:

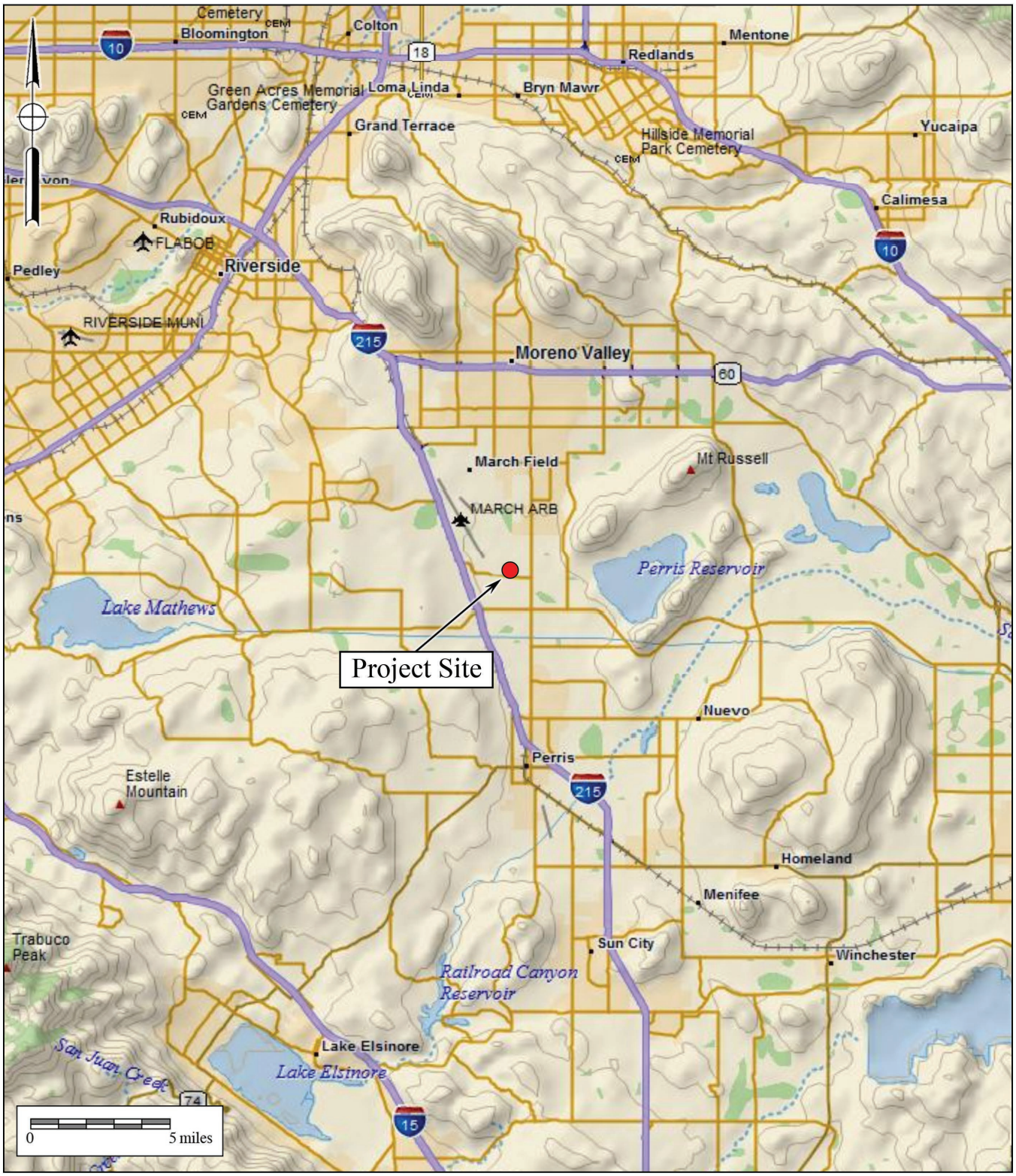

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Figure 1

General Location Map

The First Harley Knox II Project

DeLorme (1:250,000)

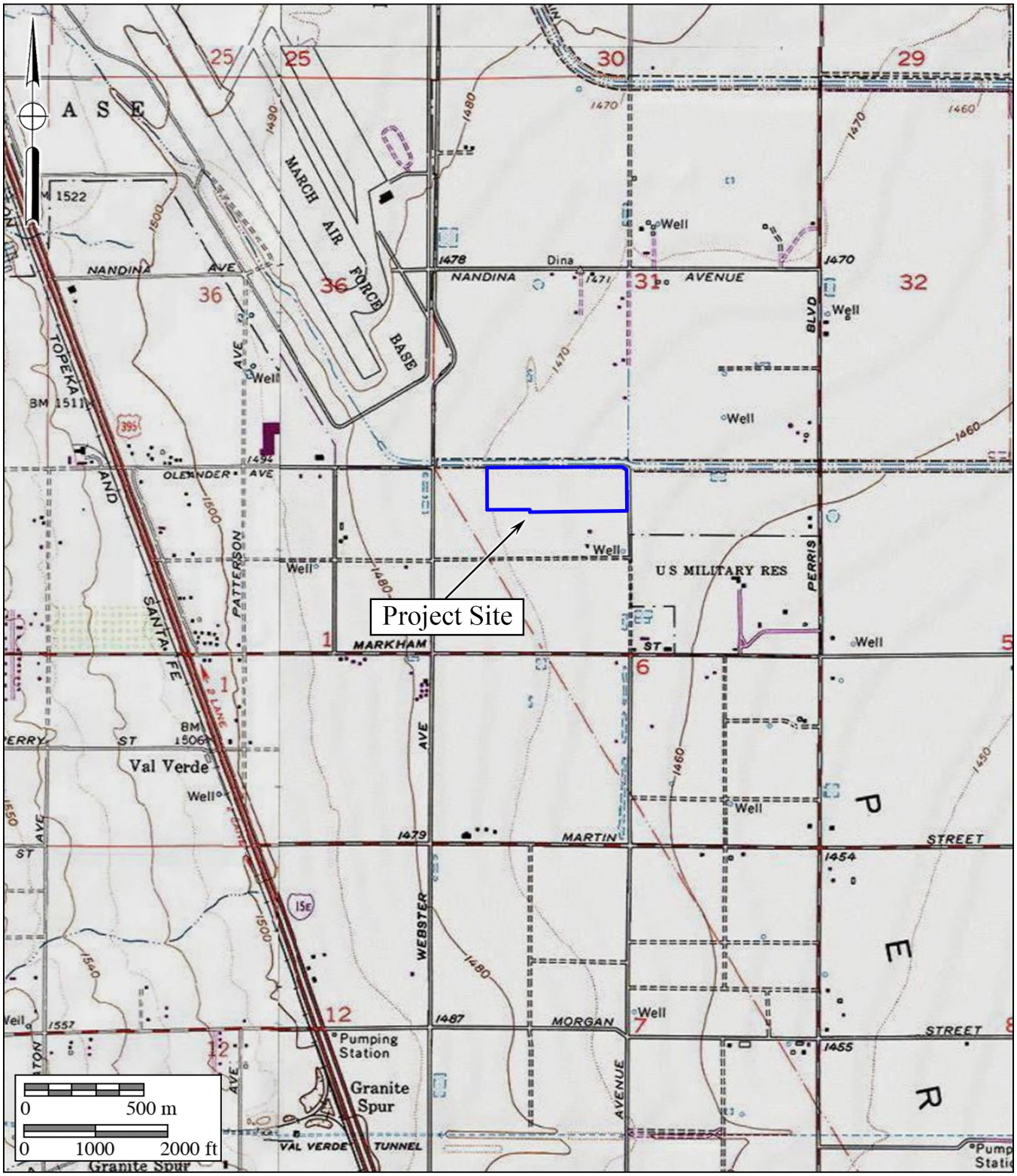

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Figure 2

Project Location Map

The First Harley Knox II Project

USGS *Perris* and *Steele Peak* Quadrangles (7.5-minute series)

a) A person shall not 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 such lands.
b) As used in this section, "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.
c) A violation of this section is a misdemeanor.

City of Perris

The City of Perris has allocated requirements addressing paleontological resources in the Conservation Element of the City's General Plan (City of Perris 2005:26–27 [Exhibit CN-7]). The Conservation Element "provides goals and policies as a framework for the management, preservation, and use of the City's resources" (City of Perris 2005). Goals, policies, and implementation measures specific to paleontological resources are as follows:

> **Measure IV.A.4**: In Area 1 and Area 2 shown on the Paleontological Sensitivity Map [Exhibit CN-7], paleontological monitoring of all projects requiring subsurface excavations will be required once any excavation begins. In Areas 4 and 5, paleontological monitoring will be required once subsurface excavations reach 5 feet in depth, with monitoring levels reduced if appropriate, at the discretion of a certified Project Paleontologist. (City of Perris 2005:47)

Based on the Paleontological Sensitivity Map (Exhibit CN-7) in the Conservation Element of the City's General Plan (City of Perris 2005), the First Harley Knox II Project site is located within Area 1, which requires paleontological monitoring once excavation begins.

Perris Valley Commerce Center Specific Plan

The First Harley Knox II Project site is located within the boundaries of the Perris Valley Commerce Center Specific Plan (PVCCSP) of the city of Perris (City of Perris 2011). The PVCCSP was adopted by the City of Perris on January 12, 2012 (Ordinance No. 1284). Environmental impacts resulting from implementation of allowed development under the PVCCSP have been evaluated in the Perris Valley Commerce Center Specific Plan Final Environmental Impact Report (PVCCSP EIR) (State Clearinghouse No. 2009081086), which was certified by the City of Perris in January 2012. The PVCCSP EIR analyzes the direct and indirect impacts resulting from implementation of the allowed development under the PVCCSP. Measures to mitigate, to the extent feasible, the significant adverse project and cumulative

impacts resulting from that development are identified in the EIR. The PVCCSP EIR includes mitigation measures for the study and protection of paleontological resources. PVCCSP EIR mitigation measure MM Cultural 1 outlines the requirements for preparation of a Phase I cultural resources study (City of Perris 2011), which has been completed through the preparation of this assessment. PVCCSP EIR mitigation measure MM Cultural 5 would be applicable to the project. The City has subsequently modified PVCCSP EIR mitigation measure MM Cultural 5; the modified mitigation measure applicable to the project site being located within Paleontological Sensitivity Area 1 is presented below:

> Prior to the issuance of grading permits, the project proponent/developer shall submit to and receive approval from the City, a Paleontological Resource Impact Mitigation Monitoring Program (PRIMMP). The PRIMMP shall include the provision for a qualified professional paleontologist (or his or her trained paleontological representative) to be on-site for any project-related excavations that exceed three (3) feet below the pre-grade surface. Selection of the paleontologist shall be subject to approval of the City of Perris Planning Manager and no grading activities shall occur at the project site or within the off-site project improvement areas until the paleontologist has been approved by the City.
>
> Monitoring shall be restricted to undisturbed subsurface areas of older Quaternary alluvium. The approved paleontologist shall be prepared to quickly salvage fossils as they are unearthed to avoid construction delays. The paleontologist shall also remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall have the power to temporarily halt or divert grading equipment to allow for removal of abundant or large specimens.
>
> Collected samples of sediments shall be washed to recover small invertebrate and vertebrate fossils. Recovered specimens shall be prepared so that they can be identified and permanently preserved. Specimens shall be identified and curated and placed into an accredited repository (such as the Western Science Center or the Riverside Metropolitan Museum) with permanent curation and retrievable storage.
>
> A report of findings, including an itemized inventory of recovered specimens, shall be prepared upon completion of the steps outlined above. The report shall include a discussion of the significance of all recovered specimens. The report and inventory, when submitted to the City of Perris Planning Division, will signify completion of the program to mitigate impacts to paleontological resources.

III. GEOLOGY

Regionally, the project site lies within the Perris Block, a structural block bounded on the west by the Elsinore fault zone and on the east by the San Jacinto fault zone (Morton 2003). The geology mapped underlying the project site and immediate area indicates that the project site is underlain by lower Pleistocene (approximately 1.8 million to perhaps 200,000 to 300,000 years old) very old alluvial fan deposits (labeled as "$Qvof_a$," and shown in brown on Figure 3) (Morton 2001, 2003). These sediments are described as "…mostly well dissected, well-indurated, reddish-brown sand deposits. Commonly contains duripans and locally silcretes" (Morton 2003). According to Woodford et al. (1971), the alluvium overlying the granitic bedrock below the project site ranges from approximately 750 to 800 feet thick.

IV. PALEONTOLOGICAL RESOURCES

Definition

Paleontological resources are the remains of prehistoric life that have been preserved in geologic strata. These remains are called fossils and include bones, shells, teeth, and plant remains (including their impressions, casts, and molds) in the sedimentary matrix, as well as trace fossils such as footprints and burrows. Fossils are considered older than 5,000 years of age (Society of Vertebrate Paleontology 2010), but may include younger remains (subfossils), for example, when viewed in the context of local extinction of the organism or habitat. Fossils are considered a nonrenewable resource under state and local guidelines (see Section II of this report, above).

Fossil Locality Search

A paleontological literature review and collections and locality records search was conducted for the project site using records from prior Brian F. Smith and Associates, Inc. (BFSA) projects, the Division of Geological Sciences at the San Bernardino County Museum (SBCM), the Los Angeles County Museum of Natural History (LACM), and the Western Science Center (WSC), as well as data from published and unpublished paleontological literature (Jefferson 1991, 2009). The resulting locality records search did not identify any previously recorded fossil localities from within the boundaries of the project site. The closest-known fossil localities, held by the SBCM, are approximately six miles southeast of the project site, southeast of Lake Perris, and consist of late Pleistocene-aged mammoth, horse, and bison remains (SBCM localities [locs.] 5.3.151 and 5.3.153). The LACM's closest fossil localities, in similar geologic deposits as the project site, are located east of southern Lake Elsinore (LACM locs. 5168 and 6059), while the WSC holds fossils found in Moreno Valley, about 6.5 miles to the northeast (WSC locs. 192, 193, and 194). These localities from both institutions consist of late Pleistocene mammals.

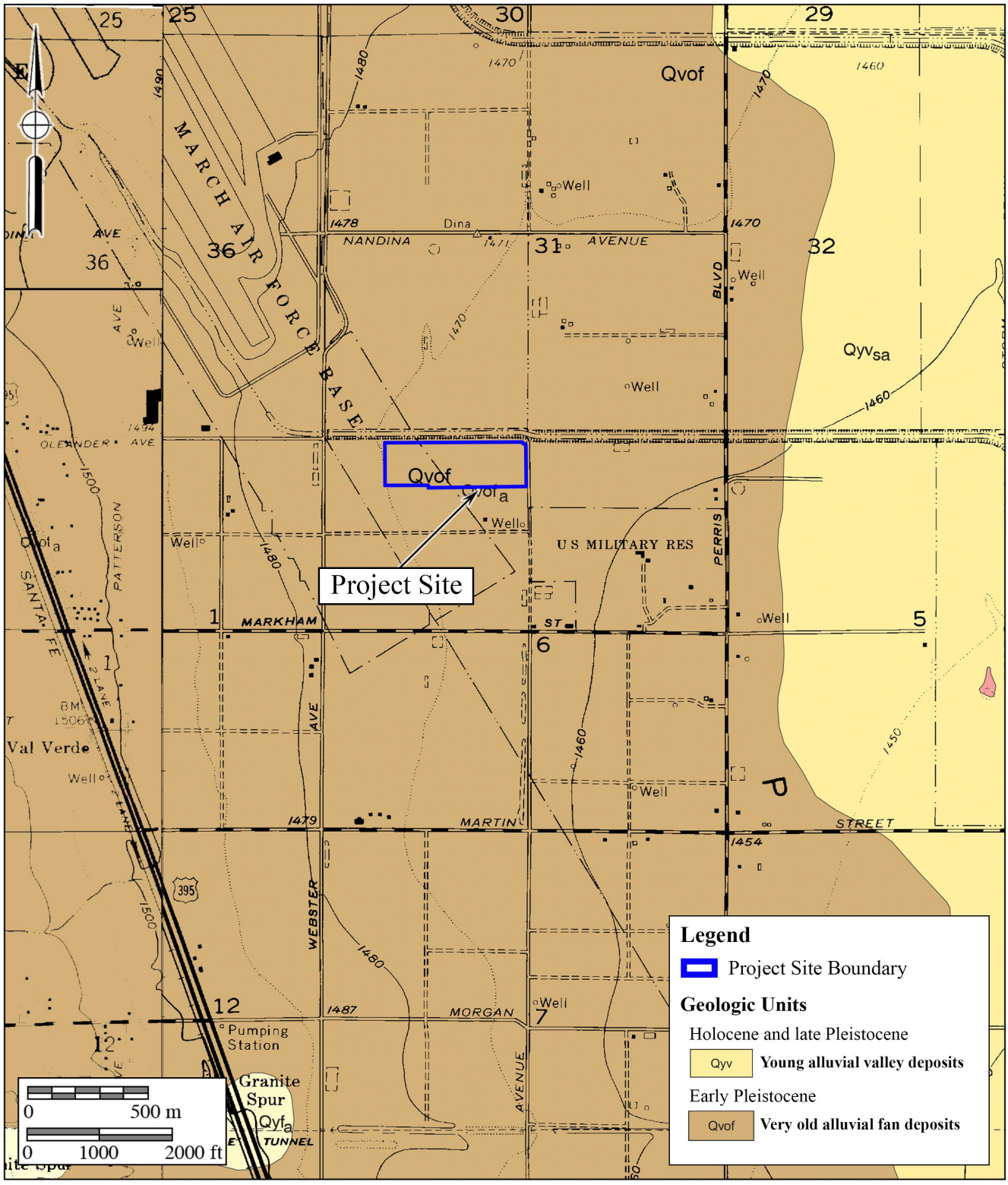

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Figure 3

Geologic Map

The First Harley Knox II Project

Geology after Morton (2001, 2003)

V. PALEONTOLOGICAL SENSITIVITY

Overview

The degree of paleontological sensitivity of any particular area is based on a number of factors, including the documented presence of fossiliferous resources on a site or in nearby areas, the presence of documented fossils within a particular geologic formation or lithostratigraphic unit, and whether or not the original depositional environment of the sediments is one that might have been conducive to the accumulation of organic remains that might have become fossilized over time. Holocene alluvium is generally considered to be geologically too young to contain significant nonrenewable paleontological resources (*i.e.*, fossils), and is therefore typically assigned a low paleontological sensitivity. However, Pleistocene (greater than 11,700 years old) alluvial and alluvial fan deposits in western Riverside County and the Inland Empire can yield important Ice Age terrestrial vertebrate fossils, such as extinct mammoths, mastodons, giant ground sloths, extinct species of horse, bison, and camel, saber-toothed cats, and others (Jefferson 1991). Therefore, these Pleistocene sediments are accorded a High paleontological resource sensitivity.

Professional Standard

The Society of Vertebrate Paleontology has drafted guidelines that include four categories of paleontological sensitivity for geologic units (formations) that might be impacted by a proposed project, as listed below:

- *High Potential:* Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.
- *Undetermined Potential:* Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment, and that further study is needed to determine the potential of the rock unit.
- *Low Potential:* Rock units that are poorly represented by fossil specimens in institutional collections or based on a general scientific consensus that only preserve fossils in rare circumstances.
- *No Potential:* Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks.

Using these criteria, based on the age of the geologic formation mapped at the project site and the fossil record of the formation, the very old alluvial fan deposits at the project site may be assigned a high potential to yield significant paleontological resources.

City of Perris Paleontological Sensitivity Assessment

The project site is located within the area covered by the PVCCSP and it is subject to the mitigation measure guidelines specified within the PVCCSP EIR. PVCCSP EIR mitigation measure MM Cultural 5 (Webb 2011) requires the monitoring of paleontological resources for excavations exceeding five feet deep in subsurface areas of undisturbed older alluvium. However, the Paleontological Sensitivity Map in the Conservation Element of the City's Comprehensive General Plan (City of Perris 2005 [Exhibit CN-7]) shows that the First Harley Knox II Project site is located within Paleontological Sensitivity Area 1, which is assigned a high paleontological sensitivity, based on the presence of the Pleistocene older valley deposits mapped at the surface. Sites located within Area 1 are required to have paleontological monitoring commence once any excavation begins (City of Perris 2005, Goal IV.A.4).

VI. CONCLUSIONS AND RECOMMENDATIONS

Research has confirmed the existence of potentially fossiliferous Pleistocene alluvial fan deposits mapped as underlying the First Harley Knox II Project site ($Qvof_a$ on Figure 3), and the occurrence of terrestrial vertebrate fossils at shallow depths from Pleistocene older alluvial fan sediments across the Inland Empire and western Riverside County has been documented. The "High" paleontological sensitivity typically assigned to Pleistocene alluvial fan sediments for yielding paleontological resources supports the recommendation that paleontological monitoring be required during mass grading, trenching, and excavation activities in undisturbed Pleistocene alluvial fan sediments in order to mitigate any adverse impacts (loss or destruction) to potential nonrenewable paleontological resources.

Full-time monitoring during earth disturbance activities, as required by the City of Perris General Plan Conservation Element (City of Perris 2005). The proposed Paleontological Resource Impact Mitigation Project (PRIMP) is detailed below, which should be implemented prior to the approval of the project's grading permits by the City of Perris. When implemented with the provisions of CEQA, and the guidelines of the Society of Vertebrate Paleontology (2010), this PRIMP would mitigate any adverse impacts (loss or destruction) to potential nonrenewable paleontological resources (fossils), if present, to a less than significant level.

Proposed PRIMP

1. Monitoring of mass grading and excavation activities shall be performed by a qualified paleontologist or paleontological monitor. Full-time monitoring for paleontological resources will be conducted in areas where grading, excavation, or drilling activities occur in order to mitigate any adverse impacts (loss or destruction) to potential nonrenewable paleontological resources. Monitoring of artificial fill and disturbed soils is not warranted.
2. Paleontological monitors will be equipped to salvage fossils as they are unearthed to

avoid construction delays and to remove samples of sediment that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow for the removal of abundant or large specimens in a timely manner. The monitor shall notify the project paleontologist, who will then notify the concerned parties of the discovery. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if they are present, are determined upon exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources.

3. Preparation of recovered specimens to a point of identification and permanent preservation will be conducted, including screen-washing sediments to recover small vertebrates and invertebrates if indicated by the results of test sampling. Preparation of any individual vertebrate fossils is often more time-consuming than for accumulations of invertebrate fossils.
4. All fossils must be deposited in an accredited institution (university or museum) that maintains collections of paleontological materials. The WSC in Hemet, California, is the preferred institution by the County of Riverside and the PVCCSP. All costs of the paleontological monitoring and mitigation program, including any one-time charges by the receiving institution, are the responsibility of the developer.
5. Preparation of a final monitoring and mitigation report of findings and significance will be completed, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). A letter documenting receipt and acceptance of all fossil collections by the receiving institution must be included in the final report. The report, when submitted to and accepted by the appropriate lead agency (*e.g.*, the City of Perris), will signify satisfactory completion of the project program to mitigate impacts to any nonrenewable paleontological resources.

VII. CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this paleontological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief and have been compiled in accordance with CEQA criteria.

November 18, 2024

Todd A. Wirths
Senior Paleontologist
California Professional Geologist No. 7588

Date

VIII. REFERENCES

Albert A. Webb Associates. 2011. Perris Valley Commerce Center Specific Plan Final EIR (SCH No. 2009081086). City of Perris. Electronic document, https://www.cityofperris.org/home/showpublisheddocument/2645/637455522835370000.

California Natural Resources Agency. 2023. 2023 California Environmental Quality Act (CEQA) Statute and Guidelines. Association of Environmental Professionals.

City of Perris. 2005. Conservation Element, City of Perris General Plan. Electronic document, http://www.cityofperris.org/city-hall/general-plan/Conservation_Element_01-08-09.pdf.

Jefferson, G.T. 1991. A catalogue of late Quaternary vertebrates from California: Part two, mammals. Natural History Museum of Los Angeles County, Technical Reports, no. 7: i-v + 1-129.

Morton, D.M. 2001. Geologic map of the Steele Peak 7.5' quadrangle, Riverside County, California: U. S. Geological Survey Open-File Report 01-449, scale 1:24,000.

Morton, D.M. 2003. Preliminary geologic map of the Perris 7.5' quadrangle, Riverside County, California: U. S. Geological Survey Open-File Report 03-270, scale 1:24,000.

Society of Vertebrate Paleontology. 2010. Standard procedures for the assessment and mitigation of adverse impacts to paleontological resources; by the SVP Impact Mitigation Guidelines Revision Committee: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf.

Woodford, A.O., Shelton, J.S., Doehring, D.O., and Morton, R.K. 1971. Pliocene-Pleistocene history of the Perris Block, southern California. Geological Society of America Bulletin, v. 82, p. 3421–3448, 18 figs.

APPENDIX A

Qualifications of Key Personnel

Todd A. Wirths, MS, PG No. 7588

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BFSA Environmental Services
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Education

Master of Science, Geological Sciences, San Diego State University, California **1995**

Bachelor of Arts, Earth Sciences, University of California, Santa Cruz **1992**

Professional Certifications

California Professional Geologist #7588, 2003
Riverside County Approved Paleontologist
San Diego County Qualified Paleontologist
Orange County Certified Paleontologist
OSHA HAZWOPER 40-hour trained; current 8-hour annual refresher

Professional Memberships

Board member, San Diego Geological Society
San Diego Association of Geologists; past President (2012) and Vice President (2011)
South Coast Geological Society
Southern California Paleontological Society

Experience

Mr. Wirths has more than a dozen years of professional experience as a senior-level paleontologist throughout southern California. He is also a certified California Professional Geologist. At BFSA, Mr. Wirths conducts on-site paleontological monitoring, trains and supervises junior staff, and performs all research and reporting duties for locations throughout Los Angeles, Ventura, San Bernardino, Riverside, Orange, San Diego, and Imperial Counties. Mr. Wirths was formerly a senior project manager conducting environmental investigations and remediation projects for petroleum hydrocarbon-impacted sites across southern California.

Selected Recent Reports

2019 *Paleontological Assessment for the 10575 Foothill Boulevard Project, City of Rancho Cucamonga, San Bernardino County, California*. Prepared for T&B Planning, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2019 *Paleontological Assessment for the MorningStar Marguerite Project, Mission Viejo, Orange County, California.* Prepared for T&B Planning. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2019 *Paleontological Monitoring Report for the Nimitz Crossing Project, City of San Diego.* Prepared for Voltaire 24, LP. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2019 *Paleontological Resource Impact Mitigation Program (PRIMP) for the Jack Rabbit Trail Logistics Center Project, City of Beaumont, Riverside County, California.* Prepared for JRT BP 1, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2020 *Paleontological Monitoring Report for the Oceanside Beachfront Resort Project, Oceanside, San California.* Prepared for S.D. Malkin Properties. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2020 *Paleontological Resource Impact Mitigation Program for the Nakase Project, Lake Forest, Orange County, San California.* Prepared for Glenn Lukos Associates, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2020 *Paleontological Resource Impact Mitigation Program for the Sunset Crossroads Project, Banning, Riverside County*. Prepared for NP Banning Industrial, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2020 *Paleontological Assessment for the Ortega Plaza Project, Lake Elsinore, Riverside County*. Prepared for Empire Design Group. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2020 *Paleontological Resource Record Search Update for the Green River Ranch III Project, Green River Ranch Specific Plan SP00-001, City of Corona, California*. Prepared for Western Realco. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2020 *Paleontological Assessment for the Cypress/Slover Industrial Center Project, City of Fontana, San Bernardino County, California*. Prepared for T&B Planning, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2020 *Paleontological Monitoring Report for the Imperial Landfill Expansion Project (Phase VI, Segment C-2), Imperial County, California*. Prepared for Republic Services, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2021 *Paleontological Assessment for the Manitou Court Logistics Center Project, City of Jurupa Valley, Riverside County, California*. Prepared for Link Industrial. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2021 *Paleontological Resource Impact Mitigation Program for the Del Oro (Tract 36852) Project, Menifee, Riverside County*. Prepared for D.R. Horton. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2021 *Paleontological Assessment for the Alessandro Corporate Center Project (Planning Case PR-2020-000519), City of Riverside, Riverside County, California*. Prepared for OZI Alessandro, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

2021 *Paleontological Monitoring Report for the Boardwalk Project, La Jolla, City of San Diego*. Prepared for Project Management Advisors, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.