

Appendix H

Revised Paleo Resources Report

REVISED PALEONTOLOGICAL ASSESSMENT FOR THE WEST CAMPUS UPPER PLATEAU PROJECT

MARCH AIR RESERVE BASE

RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

Meridian Park LLC
c/o Lewis Retail Centers
1156 N. Mountain Avenue
Upland, California 91785

Submitted to:

March Joint Powers Authority
14205 Meridian Parkway, Suite 140
Riverside, California 92518

Prepared by:

BFSA Environmental Services,
a Perennial Company
14010 Poway Road, Suite A
Poway, California 92064

December 15, 2021; Revised July 25, 2023



BFSA Environmental Services
A Perennial Company

Paleontological Database Information

- Author:*** Todd A. Wirths, M.S., Senior Paleontologist, California Professional Geologist No. 7588
- Consulting Firm:*** BFSA Environmental Services, a Perennial Company
14010 Poway Road, Suite A
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- Report Date:*** December 15, 2021; Revised July 25, 2023
- Report Title:*** Revised Paleontological Assessment for the West Campus Upper Plateau Project, March Air Reserve Base, Riverside County, California
- Prepared for:*** Meridian Park LLC
c/o Lewis Retail Centers
1156 N. Mountain Avenue
Upland, California 91785
- Submitted to:*** March Joint Powers Authority
14205 Meridian Parkway, Suite 140
Riverside, California 92518
- USGS Quadrangle:*** Portions of Sections 15, 16, 17, and 21, Township 3 South, Range 4 West, of the San Bernardino Baseline and Meridian on the USGS *Riverside East, California* (7.5-minute) topographic quadrangle
- Study Area:*** Approximately 370 acres
- Key Words:*** “High B” paleontological resource sensitivity; Riverside County; Pleistocene very old alluvial fan deposits; full-time monitoring.

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I. INTRODUCTION AND LOCATION

In response to a request from Meridian Park, LLC, courtesy of Lewis Retail Centers, BFSA Environmental Services, a Perennial Company (BFSA), conducted a paleontological study of the approximately 370 acres proposed for development (Development Area) within the West Campus Upper Plateau Project. This revised assessment is based on a review of an earlier draft of this report by the March Joint Powers Authority (MJPA). The project is located within the MJPA planning area and includes Assessor's Parcel Numbers (APNs) 276-120-01 and -07, 294-020-01, 297-080-01 to -04 and -16, 297-090-01 to -04 and -06 to -09, 297-100-84 and -93, and 297-110-36. The property is situated within Sections 15, 16, 17, 20, and 21, Township 2 South, Range 4 West, of the San Bernardino Baseline and Meridian on the U.S. Geological Survey (USGS) (7.5-minute) *Riverside East, California* topographic quadrangle map. The project is located approximately one-half mile west of Interstate 215 (I-215) in the western portion of the MJPA planning area, west of the current terminus of Cactus Avenue, east and southeast of the Mission Grove neighborhood, south of an existing County of Riverside residential neighborhood, and north of the Orangecrest neighborhood in the city of Riverside. The Development Area covers approximately 370 acres of proposed commercial, industrial, and park development, as well as off-site improvements consisting of the extension of Cactus Avenue and Brown Street to provide access to the project.

MJPA, as the lead agency for the project, required the preparation of a paleontological assessment to evaluate the project's potential to yield paleontological resources, in compliance with the California Environmental Quality Act (CEQA). The paleontological assessment of the project included a review of paleontological literature and fossil locality records for a previous project in the area; a review of the underlying geology; and recommendations to mitigate impacts to potential paleontological resources. A paleontological field survey was not conducted since almost all of the project property is geologically mapped as granitic rocks, while areas mapped as sedimentary rocks (westward extension of Cactus Avenue) are flat lying and disturbed.

II. REGULATORY SETTING

The California Environmental Quality Act (CEQA), which is patterned after the National Environmental Policy Act, is the overriding environmental document that sets the requirement for protecting California's paleontological resources. CEQA mandates that governing permitting agencies (lead agencies) set their own guidelines for the protection of nonrenewable paleontological resources under their jurisdiction.

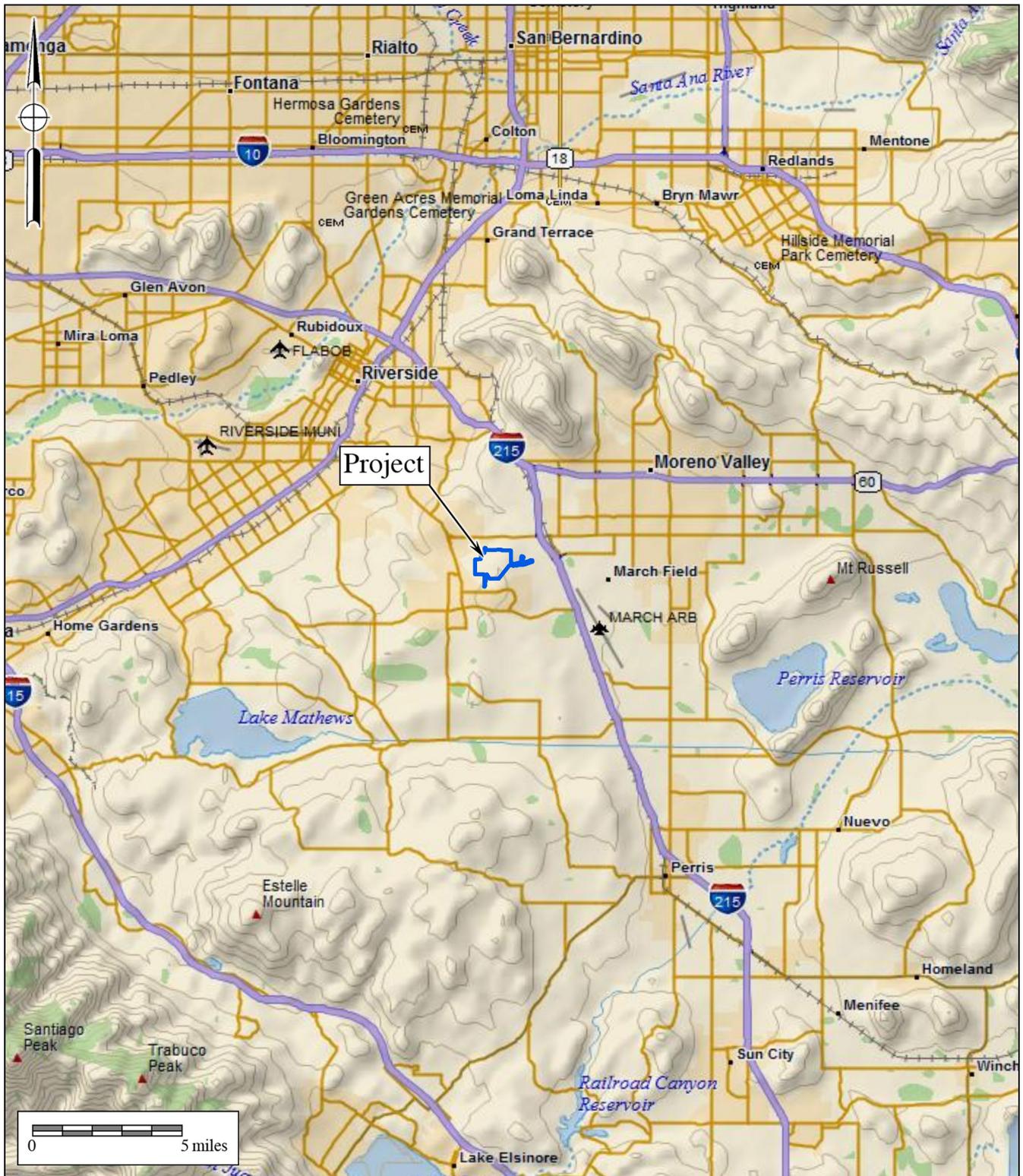


Figure 1

General Location Map

The West Campus Upper Plateau Project

DeLorme (1:250,000)



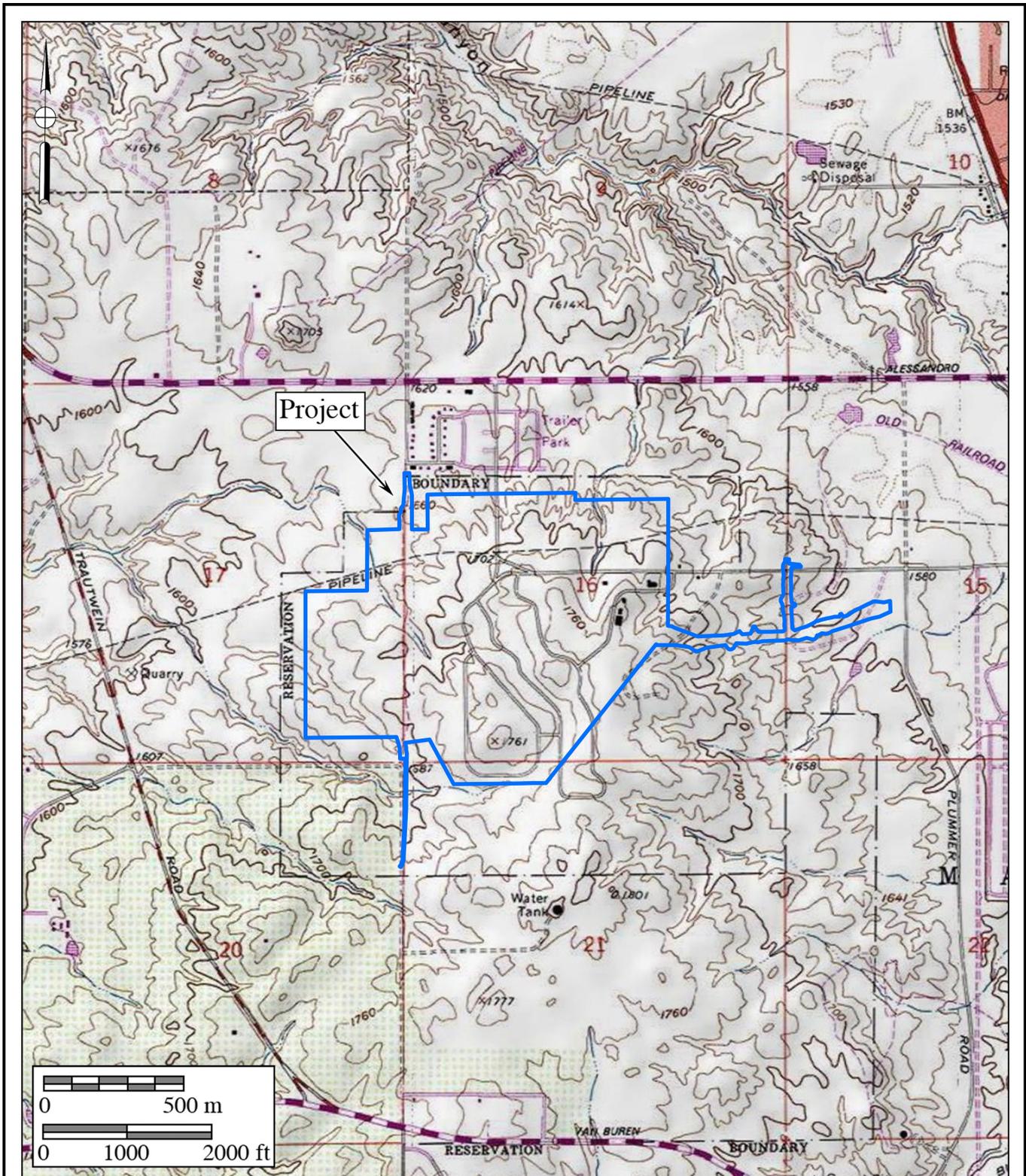


Figure 2
Project Location Map

The West Campus Upper Plateau Project
 USGS Riverside East Quadrangle (7.5-minute series)



State of California

Under “Guidelines for Implementation of the California Environmental Quality Act,” 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 CCR 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 CEQA’s 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 by which protects nonrenewable resources including fossils, which is paraphrased below:

- 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.

March Joint Powers Authority MEIR for the General Plan

In the Mitigation Monitoring Master Checklist within the Master Environmental Impact Report (MEIR) of MJPA’s General Plan (MJPA 1999, Appendix G), environmental regulatory jurisdiction of the MJPA is outlined in “Resource Management Element Programs,” which states:

Environmental Review – March JPA shall comply with the requirements of CEQA and locally adopted guidelines for implementing CEQA. March JPA shall conduct an environmental assessment of all projects prior to any development approval. March JPA shall ensure that upon environmental review, any identified mitigation measures shall be made conditions of approval for the project and the responsibilities of monitoring shall be assigned.

Paleontological resources are addressed within Section 3.14, “Cultural Resources,” of the MEIR (MJPA 1999). The MEIR acknowledged the known presence of fossils yielded by Quaternary deposits near the MJPA planning area but indicated “very few” of these resources as having “significant scientific quality.” The MEIR concluded that there are “no significant

paleontological resources to be within the [MJPA] planning area” (MJPA 1999:3–164). Nevertheless, the West March Planning Subarea, which includes the project area, “may be sensitive for paleontological resources” (MJPA 1999:3–167). Furthermore, potential impacts to any unknown resources are indicated in the MEIR to be addressed “when development is proposed or resources are discovered” (MJPA 1999:3–168).

III. GEOLOGY

Regionally, the project area lies within the Perris Block, a fault-bounded crustal block bounded on the west by the Elsinore fault zone and on the east by the San Jacinto fault zone (Morton and Cox 2001). The geology mapped at the project is mostly underlain by the Cretaceous-aged Val Verde tonalite, a type of crystalline plutonic rock related to granite (areas labeled “Kvt” and shown in light gray on Figure 3, after Morton and Cox 2001). Scattered, linear outcrops of Cretaceous granitic dikes (“Kg”), Paleozoic biotite schist (“Pzs”), and mixed-provenance crystalline rocks of pre-Cenozoic age (“KgPZ”) are mapped as surrounded by the Val Verde tonalite within the project area. At the far eastern end of the project where the proposed Cactus Avenue extension will connect with its current eastern terminus, lower Pleistocene (approximately 1.8 million- to perhaps 200,000- to 300,000-year-old), sandy, very old alluvial fan deposits are mapped (areas labeled “Qvof_a” and shown in brown on Figure 3). Approximately 1.18 acres of mapped deposits have the potential to be disturbed by the project. These sedimentary deposits are described as:

... mostly well dissected, well-indurated, reddish-brown sand deposits. Commonly contains duripans and locally silcretes. Forms widespread deposits north and south of Moreno Valley, flanking bedrock areas. Forms large area in southeastern part of quadrangle in area of March Air Force Base, and numerous smaller areas in northern part of quadrangle. Derived chiefly from rocks of southern California batholith. (Morton and Cox 2001)

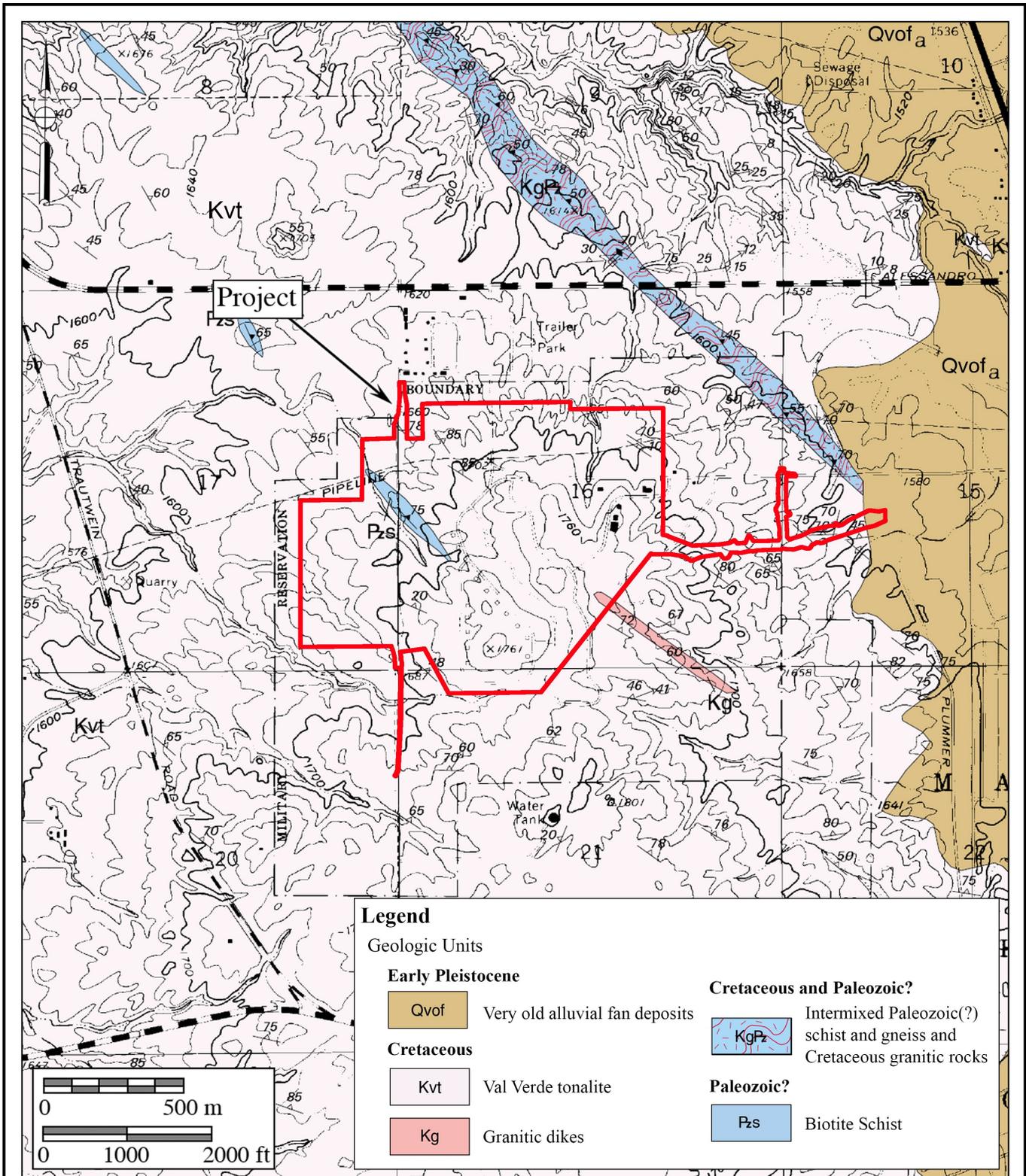


Figure 3
Geologic Map

The West Campus Upper Plateau Project

Geology after Morton and Cox (2001)

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 city guidelines (see Section II of this report). Fossils are not found in crystalline plutonic and metamorphic rocks such as those mapped at the majority of the project.

Fossil Locality Search

Three paleontological locality records searches were conducted for the project, by the Western Science Center (WSC; Radford 2021), the Los Angeles County Museum of Natural History (LACM; Bell 2021), and the San Bernardino County Museum (SBCM; Cortez 2021 [see Appendix B]). All three records searches indicated that there are no known records of fossil localities at or within one mile of the project, but that Pleistocene-aged fossil vertebrates have been found throughout the region from sedimentary deposits similar to the Pleistocene very old alluvial fan deposits mapped at the far eastern end of the project, approximately 1.18 acres of which are proposed for development.

The closest reported fossil locality to the project is located approximately 11 miles to the east, consisting of the bones of horse (*Equus* sp.), camel (Camelidae), and possible artiodactyl (even-toed ungulate) (Cortez 2021). Bell (2021) indicated nearby Pleistocene-aged vertebrate fossils were yielded approximately 13 miles west of the project site in Corona (an unidentified bovid [artiodactyl]), approximately 14 miles west of the project site in Chino Valley (sic: should read “Eastvale”) (whipsnake), and east of Lake Elsinore (camel), approximately 15 miles south of the project site. From LACM records, the closest invertebrate fossils are located southeast of the project in Castile Canyon, east of Hemet and approximately 22 miles southeast of the project site. Radford (2021) indicated the WSC does not have fossil localities near the project, although previous paleontological record searches performed by the WSC for Brian F. Smith and Associates, Inc. (BFSA) indicate their closest fossil locality is about eight miles east of the project in Moreno Valley (loc. nos. 192, 193, and 194), consisting of the late Pleistocene remains of a horse (*Equus* sp.), a giant ground sloth (*Megalonyx jeffersonii*), and a llama (*Hemiauchenia* sp.), animals that became extinct in North America at or soon after the end of the Pleistocene epoch, about 11,700 years ago.

In their record search reports for the project, Cortez (2021), Bell (2021), and Radford (2021) concluded that the Pleistocene very old alluvial fan deposits mapped at the far eastern

portion of the project at Cactus Avenue (Figure 3), approximately 1.18 acres of which are proposed for development, have the potential to yield the remains of fossil vertebrates.

V. PALEONTOLOGICAL SENSITIVITY

Professional Standards

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.

Under these criteria, based on the occurrence of Pleistocene-aged fossil localities in Riverside County from similar deposits, the Pleistocene very old alluvial fan deposits at the eastern end of the project, approximately 1.18 acres of which are proposed for development, can be considered to have a high potential to yield significant paleontological resources.

The remainder of the project (*i.e.*, west of the Pleistocene alluvial fan deposits as mapped in Figure 3) is geologically mapped as tonalite, which possesses minor granite and metamorphic rock inclusions. Tonalite, granite, and these metamorphic rocks do not yield fossils. Tonalite and granite are categorized within the granitic suite of plutonic rocks, having crystallized several miles below the earth's surface from a molten state, and were subsequently uplifted to the surface via the action of plate tectonics. As such, fossils do not exist in tonalite and granite. The metamorphic rocks within the project were probably previously sedimentary rocks that were subsequently subject to such intensive heat and pressure during subduction and exhumation that they physically altered to an interlocking, crystalline state. As such, fossils do not exist in these metamorphic rocks. Therefore, the potential for adverse impacts to paleontological resources in these rocks does not exist and monitoring for paleontological resources is not recommended in areas mapped as tonalite, granite, or any metamorphic rocks on Figure 3, as stated in Section VI.

VI. CONCLUSION AND RECOMMENDATIONS

Research has confirmed the existence of potentially fossiliferous Pleistocene very old alluvial fan deposits mapped at the eastern end of the project (“Qvof_a” on Figure 3), approximately 1.18 acres of which are proposed for development. Although the paleontological locality search did not indicate the presence of any known fossil localities within the project, the occurrence of terrestrial vertebrate fossils at shallow depths from Pleistocene older alluvial fan sediments across the Inland Empire of western Riverside County is well-documented. These Pleistocene older alluvial fan sediments are typically assigned a “High” paleontological sensitivity rating for yielding paleontological resources. Full-time monitoring of undisturbed Pleistocene old alluvial fan deposits at the project is recommended starting at the surface. Monitoring is not warranted for outcrops or exposures of tonalite and other crystalline rocks composing the majority of the project. A Paleontological Resource Impact Mitigation Program (PRIMP) covering approximately 1.18 acres of Pleistocene alluvial fan deposits is recommended for the project for approval by the MJPA before the issuance of the grading permit. The PRIMP shall follow the guidelines and the recommendations of the MJPA and the SVP (2010). The following mitigation measures are recommended for the project:

1. Prior to issuance of a grading permit, a qualified professional paleontologist shall demarcate, both on the grading plans and in the field, the extent of the Pleistocene very old alluvial fan deposits within the area of ground disturbance in the project site. Grading plans shall prohibit blasting within the demarcated area until after the completion of paleontological monitoring, or at the discretion of the professional paleontologist. In the event conditions arise that would have required blasting within the demarcated area, the applicant shall utilize alternative rock breaking methods, such as expanding chemical agents (epoxy resin).
2. Prior to issuance of a grading permit, the applicant shall submit for the MJPA’s approval, a PRIMP drafted by a qualified professional paleontologist, defined as an individual with a master’s or doctorate degree in paleontology or geology who is knowledgeable in professional paleontological procedures and techniques. The qualified professional paleontologist shall be subject to mandatory and aspirational standards of the Society of Vertebrate Paleontology Ethics Code. The PRIMP shall follow the guidelines and the recommendations of the MJPA and the Society of Vertebrate Paleontology (2010). The PRIMP shall include:
 - a. Attendance by a qualified paleontologist at the preconstruction meeting to consult with the grading and excavation contractors.
 - b. The paleontological monitoring program shall be directed by a qualified professional paleontologist. Fieldwork may be conducted by a qualified paleontological monitor, defined as an individual who has experience in the

- collection and salvage of fossil materials. The paleontological monitor shall always work under the direction of a qualified professional paleontologist.
- c. Full-time monitoring of grading or excavation activities shall be performed starting at the surface within the demarcated areas of Pleistocene very old alluvial fan deposits.
 - d. On-site presence of a paleontological monitor to inspect for paleontological resources during the excavation of previously undisturbed deposits. The paleontological monitor will be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall be empowered to temporarily halt or divert equipment to allow for the removal of abundant or large specimens in a timely manner.
 - e. Salvage and recovery of paleontological resources by the qualified paleontologist or paleontological monitor.
 - f. Preparation (repair and cleaning), sorting, and cataloging of recovered paleontological resources.
 - g. Donation of prepared fossils, field notes, photographs, and maps to a scientific institution (preferably the Western Science Center) with permanent paleontological collections.
 - h. The qualified paleontologist shall prepare a final monitoring and mitigation report of findings and significance, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). The report, when accepted as satisfactory by the MJPA, will signify satisfactory completion of the project program to mitigate impacts to paleontological resources.

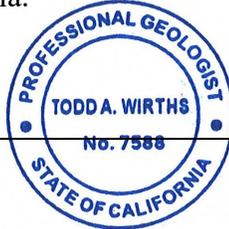
With implementation of these recommended mitigation measures, the project's impact to paleontological resources will be less than significant.

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.



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



July 25, 2023

Date

VIII. REFERENCES CITED

- Bell, A. 2021. Paleontological resources for the West Campus Upper Plateau Project. Letter regarding paleontological resources near the West Campus Upper Plateau Project, for Brian F. Smith and Associates, Inc., Poway, California, by the Natural History Museum of Los Angeles County, Los Angeles, California. (attached)
- Cortez, C. 2021. Paleontology records review for proposed West Campus Upper Plateau project (no. 21-154) in Riverside County, California. Letter regarding paleontological resources near the West Campus Upper Plateau Project, for Brian F. Smith and Associates, Inc., Poway, California, by the San Bernardino County Museum, Redlands, California. (attached)
- 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.
- March Joint Powers Authority. 1999. Master environmental impact report for the General Plan of the March Joint Powers Authority; Sate Clearinghouse Number 97071095. Final, September 1999. Prepared for and by March Joint Powers Authority, Moreno Valley, California.
- Morton, D.M., and Cox, B. 2001. Geologic map of the Riverside East 7.5' quadrangle, Riverside County, California: U.S. Geological Survey Open-File Report 01-452, scale 1:24,000.
- Radford, D. 2021. Untitled letter regarding paleontological resources near the West Campus Upper Plateau Project, for Brian F. Smith and Associates, Inc., Poway, California, by the Western Science Center, Hemet, California. (attached)

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.

APPENDIX A

Qualifications of Key Personnel

Todd A. Wirths, MS, PG No. 7588

Senior Paleontologist

BFSAE nvironmental Services, A Perennial Company

14010 Poway Road • Suite A •

Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: twirths@bfsa.perennialenv.com



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 BFSAE nvironmental Services, 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.

APPENDIX B

Paleontological Records Searches

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

July 3, 2021

Brian F. Smith and Associates, Inc.

Attn: Todd Wirths

re: Paleontological resources for the West Campus Upper Plateau Project

Dear Todd:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the West Campus Upper Plateau project area as outlined on the portion of the Riverside USGS topographic quadrangle map that you sent to me via e-mail on June 29, 2021. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that occur in a small portion of the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County.

Locality Number	Location	Formation	Taxa	Depth
LACM VP 1207	Hill on east side of sewage disposal plant; 1 mile N-NW of Corona	Unknown formation (Pleistocene)	Bovidae	Unknown
LACM VP 7811	W of Orchard Park, Chino Valley	Unknown formation (eolian, tan silt; Pleistocene)	Whip snake (<i>Masticophis</i>)	9-11 feet bgs
LACM VP 6059	Overflow area just east-southeast of Lake Elsinore	Unknown formation (Pleistocene)	Camel family (Camelidae)	Unknown
LACM IP 437	West side of Castile Canyon, north of the Soboba Indian Reservation	Unknown formation (Pleistocene)	Invertebrates – insect (<i>Sobobapteron kirkbayeri</i>), brachiopod (<i>Terebratalia hemphilli</i>)	Unknown

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search covers only the records of the Natural History Museum of Los Angeles County (“NHMLA”). It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the

project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,

A handwritten signature in black ink that reads "Alyssa Bell". The signature is written in a cursive style and is set against a light beige rectangular background.

Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

enclosure: invoice



Brian F. Smith & Associates
Todd Wirths
14010 Poway Road
Poway, CA 92064

July 12, 2021

Dear Mr. Wirths,

This letter presents the results of a record search conducted for the Upper Campus Upper Plateau Project (21-154) on March Air Force Base, Riverside County, California. The project site is located on approximately 356.62 acres southwest of Meridian Parkway and Allesando Boulevard in Township 3 South, Range 4 West in Section 15, 16, 17 and 21 on the *Riverside East*, CA USGS 7.5 minute quadrangle.

The geologic units underlying this project are mapped primarily as Cretaceous quartz diorite deposits with small segments of severely metamorphosed biotite schist dating to the Paleozoic and a small segment of alluvial fan deposits along the eastern project border dating to the Pleistocene (Dibblee & Minch, 2003). A map showing geologic mapping for the area has been included for your reference. Quartz diorite and biotite schist units are considered to be of low paleontological sensitivity and are not known to produce fossil material within the region. The alluvial fan deposits along the eastern edge of the project boundary however are considered to be paleontologically sensitive and are known to produce ample fossil materials within Southern California. The Western Science Center does not have localities within the project area or within a one mile radius.

Given the geologic makeup of the units below, it is unlikely that fossil material will be present in the majority of the project area, however there is increased likelihood of fossil materials in the small segment of alluvial along the eastern border and caution within this area should be observed. If you have any questions or would like further information, please feel free to contact me at dradford@westerncentermuseum.org

Sincerely,

A handwritten signature in black ink, appearing to read 'Darla Radford', written in a cursive style.

Darla Radford
Collections Manager



San Bernardino County Museum

Division of Earth Sciences

www.SBCounty.gov

Crystal Cortez

Curator of Earth Sciences

email: Crystal.cortez@sbcm.sbcounty.gov

29 July, 2021

Brian F. Smith and Associates, Inc.

Attn: Todd Wirths

14010 Poway Rd.,

Poway CA 92064

**PALEONTOLOGY RECORDS REVIEW for proposed West Campus Upper Plateau
project (no. 21-154) in Riverside County, California**

Dear Mr. Wirths,

The Division of Earth Sciences of the San Bernardino County Museum (SBCM) has completed a records search for the above-named project in Riverside County, California. The proposed West Campus Upper Plateau project is located near in the City of Riverside, California as shown on the United States Geological Survey (USGS) 7.5 minute Riverside east, California quadrangle.

Geologic mapping of that region indicates that the proposed development is generally located on plutonic rocks (qdi) of peninsular ranges (Dibble and Minch, 2003). These sediments have particularly low potential to contain significant paleontological resources. However, the eastern most region of the proposed project area, near Plummer Street, crosses into deposits of older Quaternary alluvium. These potentially-fossiliferous sediments were deposited between ~1.8 million years ago to ~11,000 years ago. Older Pleistocene deposits in the area have been found to be highly fossiliferous yielding the remains of ground sloths, bison and horse.

For this review, I conducted a search of the Regional Paleontological Locality Inventory (RPLI) at the SBCM. The results of this search indicate that no paleontological resources have been discovered within the proposed project site nor within a 10 mile boundary. The nearest fossil locality to this project is 11 miles east in the San Jacinto Valley (SBCM 5.3.56). SBCM

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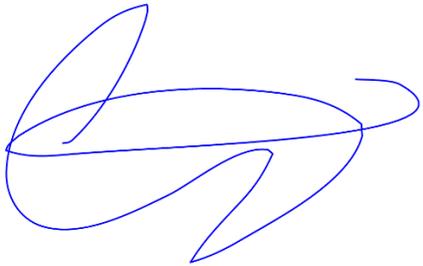
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locality 5.3.56 uncovered fossil remains belonging to *Equus* sp., Camelidae, and a possible Artiodactyl.

This records search covers only the paleontological records of the San Bernardino County Museum. 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.

Please do not hesitate to contact us with any further questions that you may have.

Sincerely,

A handwritten signature in blue ink, consisting of several overlapping loops and a long horizontal stroke, likely representing the name Crystal Cortez.

Crystal Cortez, Curator of Earth Sciences
Division of Earth Sciences
San Bernardino County Museum