PALEONTOLOGICAL ASSESSMENT FOR THE OTTAWA BUSINESS CENTER PROJECT

CITY OF VICTORVILLE
SAN BERNARDINO COUNTY, CALIFORNIA

APNs 3090-401-05 to -08; 3090-411-01 to -05; 3090-531-02 to -04; and 3090-551-02 and -04 to -07.

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June 15, 2021

Paleontological Database Information

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Report Title:	Paleontological Assessment for the Ottawa Business Center Project, City of Victorville, San Bernardino County, California
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Assessor's Parcel Numbers:	3090-401-05 to -08; 3090-411-01 to -05; 3090-531-02 to -04; 3090-551-02 and -04 to -07.
USGS Quadrangle:	*Hesperia, California* (7.5 minute)
Study Area:	Approximately 51.92 acres
Key Words:	Paleontological assessment; Pleistocene to Pliocene deposits of ancient Mojave River; High sensitivity; mammoths; City of Victorville.

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I. INTRODUCTION AND LOCATION

A paleontological resource assessment has been completed for the Ottawa Business Center Project, located northeast of the intersection of Hesperia Road and Ottawa Street in the city of Victorville, San Bernardino County, California (Figures 1 and 2). The approximately 51.92 acre project includes Assessor's Parcel Numbers 3090-401-05 to -08; 3090-411-01 to -05; 3090-531-02 to -04; and 3090-551-02 and -04 to -07. On the United States Geological Survey 7.5-minute, 1:24,000-scale *Hesperia, California* topographic quadrangle map, the project is located in the northern half of Section 27, Township 5 North, Range 4 West, San Bernardino Base and Meridian. The project will include the construction of a 986,520-square-foot warehouse with 10,000 square feet of office space, a total of 331 parking spaces and 310 trailer parking spaces, a detention basin, and a rail spur.

Currently, the project is mostly undeveloped, with dirt roads crisscrossing throughout. The northeast and northwest corners of the project have been previously graded and contain foundations from prior structures. Two large, seasonal, northeast-to-southwest-trending drainages bisect the project. The vegetation present within the project includes creosote, pickleweed, and yucca.

II. REGULATORY SETTING

The California Environmental Quality Act (CEQA), which is patterned after the National Environmental Policy Act, is the overriding environmental regulation 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.

State of California

Under "Guidelines for Implementation of CEQA," 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, one of the questions to answer 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:

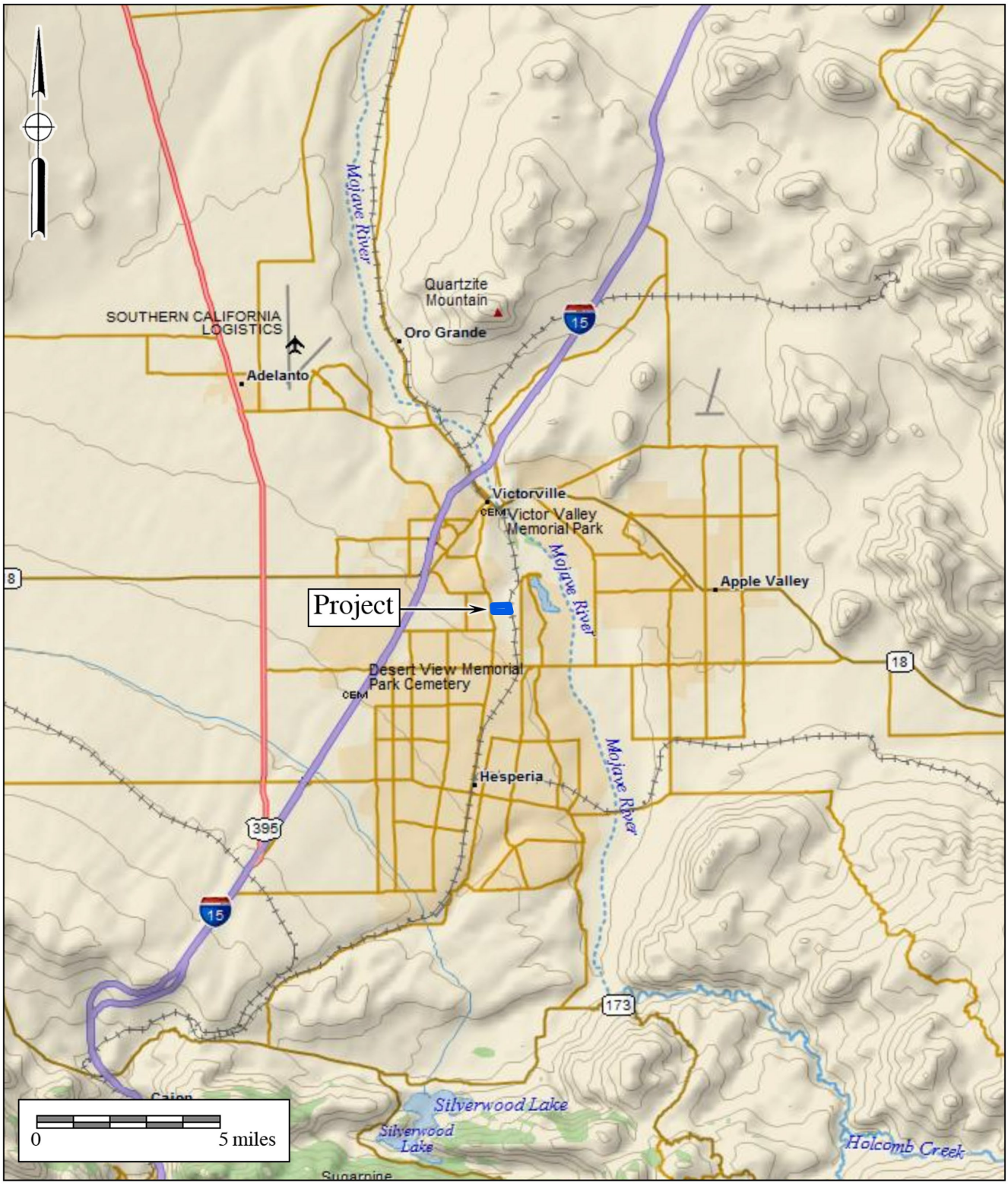


Figure 1

General Location Map

The Ottawa Business Center Project

DeLorme (1:250,000 series)

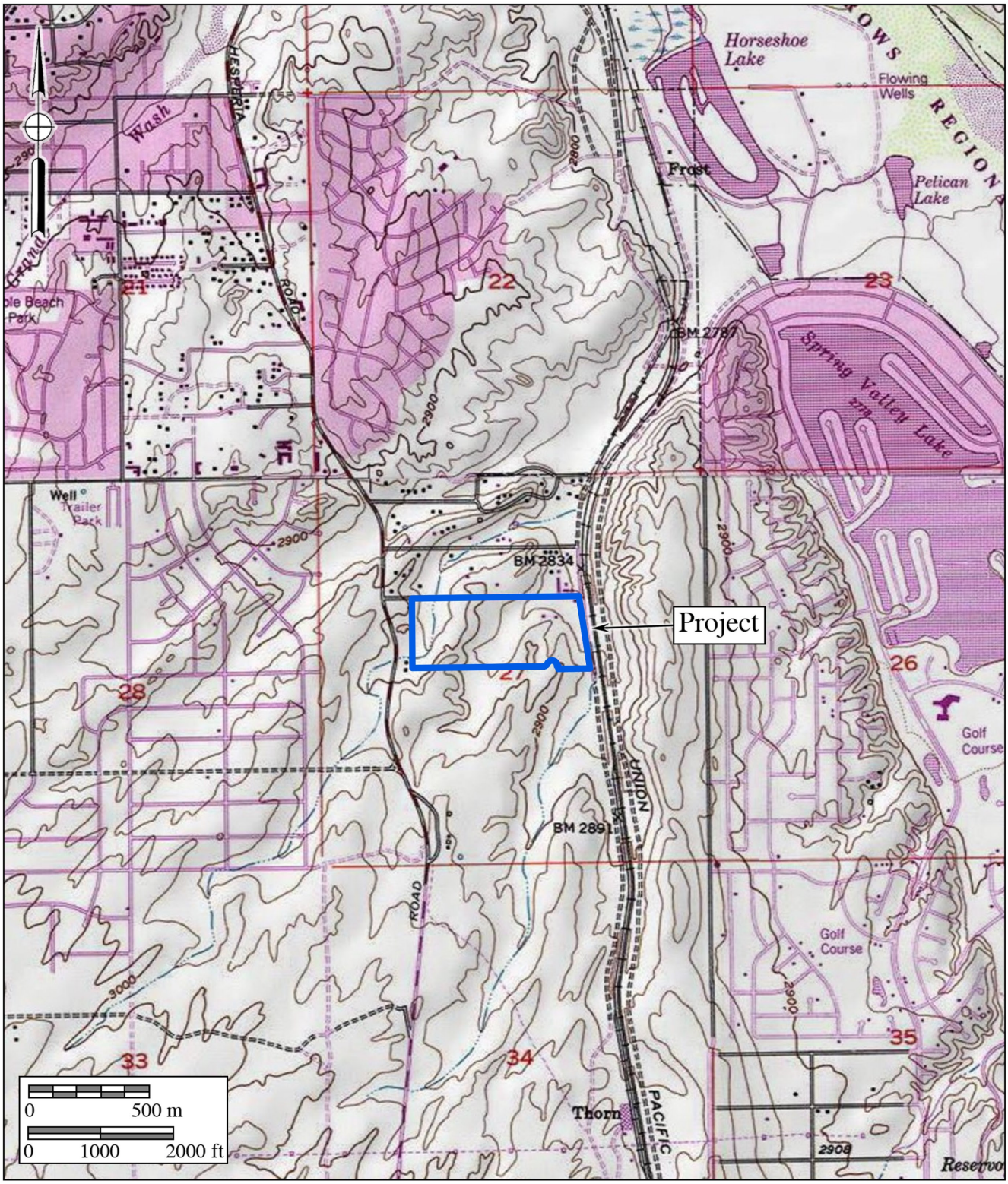


Figure 2

Project Location Map

The Ottawa Business Center Project

USGS *Hesperia* and *Victorville* 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 Victorville

In the Final Environmental Impact Report (EIR) of the City of Victorville General Plan, paleontological resource mitigation measures are specified in CUL-1. For previously undeveloped properties greater than one acre, mitigation measure CUL-1 must be implemented before construction starts (City of Victorville 2008a). The measure is as follows:

> CUL-1: The applicant shall provide for an on-site paleontological/archaeological inspector to monitor all grading operations, or a letter from said licensed professional indicating that monitoring is not necessary during grading. Further, if disturbed resources are required to be collected and preserved, the applicant shall be required to participate financially up to the limits imposed by Public Resources Code Section 21083.2. The results of said monitoring shall be filed with the Development Director or his designee prior to the final approval of the development. (City of Victorville 2008a)

III. GEOLOGY

The project is situated in the drainage basin of the Mojave River. The current configuration of the Mojave River has developed gradually over a span of at least one million years. About 60 to 70 thousand years ago, the ancestral Mojave River began incising its modern canyon between Victorville and Barstow (Cox et al. 2003). As shown on the lower half of Figure 3A, the project overlies middle to early Pleistocene very old alluvial-fan deposits (brown areas labeled as "Qvof," after Morton and Miller 2006). In the upper half of Figure 3A, more accurate mapping by Hernandez et al. (2008) indicates the project overlies the Pleistocene and Pliocene-aged "alluvium of the ancestral Mojave River" (orange areas labeled as "Qoam" on Figure 3). The deposits are characterized as:

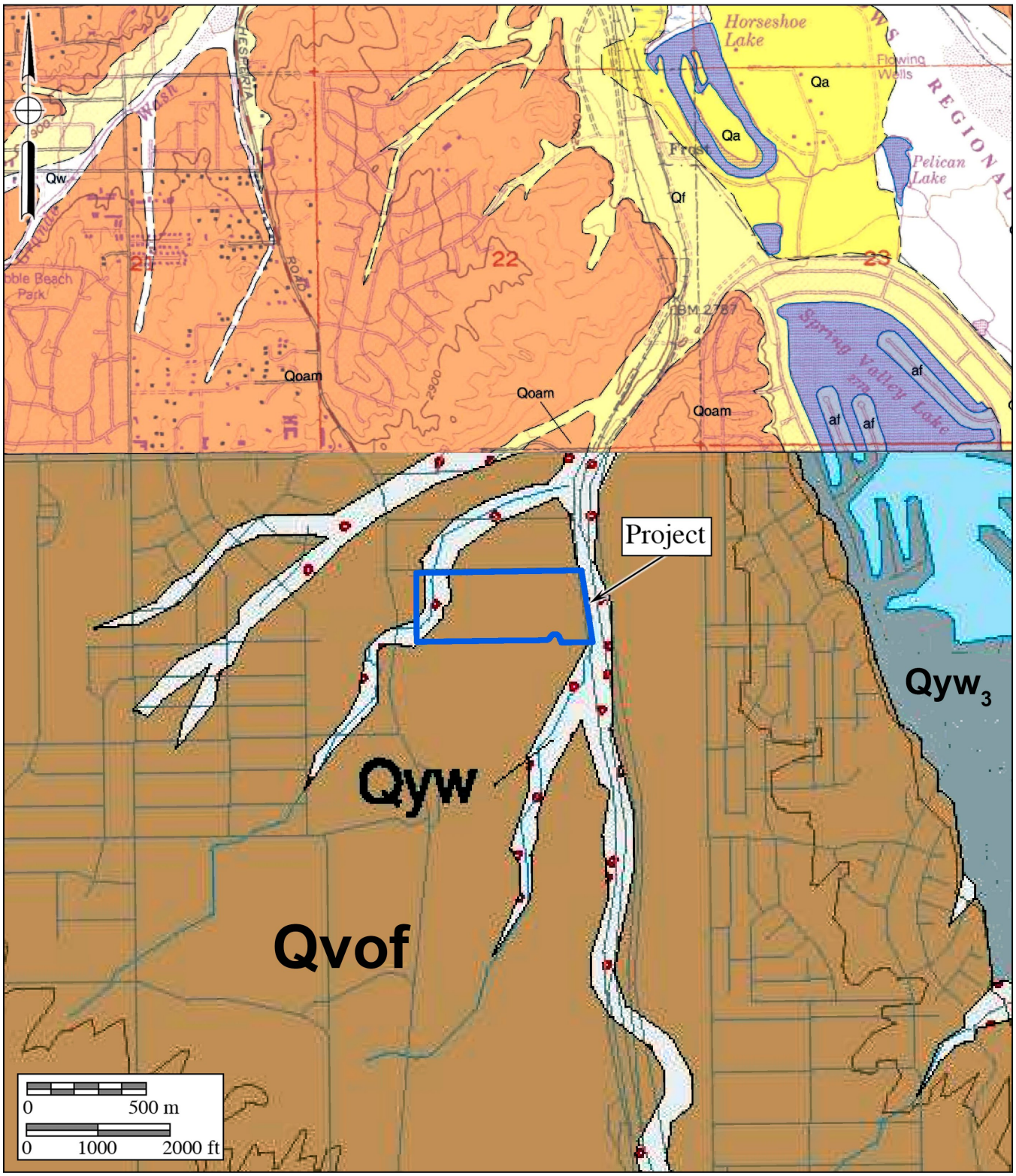


Figure 3A

Geologic Map

The Ottawa Business Center Project

Geology after Morton and Miller (2006) and Hernandez et al. (2008)

DESCRIPTION OF MAP UNITS

Geology after Hernandez et al. 2008

af — **Artificial fill and disturbed areas (Holocene, historic)** - Surfaces intensely modified by human construction and grading activities. Includes large developed areas at former George Air Force Base, Oro Grande, and includes compacted fill soils and landfill debris at the San Bernardino County Victorville landfill.

Qw — **Wash deposits (late Holocene)** - Alluvium of active washes. Unconsolidated fine- to medium-grained sand, with some coarse sand and fine gravel, and silt. Deposits are pale-brown (10YR 5/3), angular to sub-angular grains, derived from local bedrock, or reworked from other local Quaternary sources. Subject to localized reworking and new sediment deposition during storm events. Boundary of mapped deposit is based on interpretation of digital orthophoto coverage (USGS, 1994) showing configuration of active wash.

Qa — **Modern alluvium of the Mojave River (Holocene)** - Loose yellowish-gray sand, silt, and pebble-cobble gravel forming active channel and floodplain of the Mojave River. Consists predominately of moderately sorted coarse-grained to very coarse-grained arkosic sand. Gravel clasts are mainly subangular to subrounded and are chiefly composed of silicic plutonic rocks. The floodplain includes stream terraces lying as much as 3 m above the active channel; the configuration of the channel and bordering stream terraces changes significantly during large floods that occur on average about every 10 years. Wash deposits (Qw) incised into the Mojave River channel and Bell Mountain wash reflects interpretation of digital orthophoto coverage (USGS, 1994) showing configuration of active wash.

Qf — **Modern alluvial fan deposits (Holocene)** - Loose, unweathered yellowish-gray to light-yellowish-brown sand and gravel. Forms continuous alluvial fringe and associated washes along the margin of Mojave River. Also includes isolated fans and washes both east and west of Mojave River. Deposits typically are poorly sorted and contain abundant matrix of silty lithic-arkosic sand. Clasts are mainly angular to subangular, but detrital composition varies with location. Fans and washes southwest and southeast of George Air Force Base contain mixtures of granitic detritus and Pelona Schist, reflecting derivation from the San Gabriel Mountains region. Deposits east of the Mojave River consist of clasts from locally derived metavolcanic, metasedimentary and plutonic rock sources, mixed with variable amounts of quartz and feldspar sand.

Qoam — **Alluvium of the ancestral Mojave River (Pleistocene and Pliocene)** - Loose to well-consolidated yellowish-gray to light-yellowish-brown sand, silt, and pebble-cobble gravel. Unit underlies a deeply dissected high alluvial terrace lying about 60-78 m above the active channel of the Mojave River. The sediments mainly consist of silicic plutonic detritus like that in the modern channel of the Mojave River (unit Qa). Therefore, the unit evidently was deposited by the northward-flowing ancestral Mojave River (Sibbett, 1996; 1999; Cox and others, 1998; Cox and Hillhouse, 2000). Coarse-grained fluvial sand at the top of the unit evidently was deposited about 60-70 Ka based on optically stimulated luminescence (Ruppert, 1999). The unit is locally capped by an eroded soil profile comprising an argillic horizon about 0.5 m thick and an underlying stage-III calcic horizon (Gile and others, 1966; Bachman and Machette, 1977) about 30 cm-thick (Cox and Hillhouse, 2000

Geology after Morton and Miller 2006

Qyw — **Young wash deposits (early Holocene)** - Unconsolidated to slightly consolidated sand and gravel deposits in marginal parts of active and recently active washes and ephemeral river channels of axial-valley streams. Differs from very young wash deposits by absence or modification of flood scours, modified channel-and-bar morphology, and immature soil horizons. Mapped mainly on north sloping fan surfaces north of Cajon Summit area, where sediment is mixed with eroded and slumped material from steep, high, stream embankments. Clast size reflects distance from mountain front to same degree as Qw deposits. All is sediment derived from local bedrock or reworked from local, older Quaternary deposits. West of Rabbit Dry Lake and west of Silverwood Lake, includes sediment in partially abandoned washes. Subunits are distinguished by relative position in local terrace riser succession.

Qyw_3 — **Young wash deposits, Unit 3 (early Holocene)** - Unconsolidated silt, sand, and coarse-grained sand to cobble alluvium. Forms low, moderately well defined terrace risers along Antelope Valley wash south of Hesperia. Truncated by locally younger Qwy sediments, but shows very little surface modification

Qvof — **Very old alluvial-fan deposits (middle to early Pleistocene)** - Moderately to well consolidated silt, sand, gravel, and conglomerate. Subdivided units are distinguished on basis of soil-profile development, relative position in local terrace-riser succession, and overlapping relationships. In much of Peninsular Ranges area, unit is moderately well consolidated orangish brown sand and silt that is typically well dissected. Very extensively developed on north side of San Bernardino and San Gabriel mountains, especially in area between Mojave River and Sheep Creek alluvial fan. Includes upper part of unit Meisling and Weldon (1989) term Victorville fan deposits. Typically consists of medium to dark, reddish-brown lithic arkose. Moderately to well consolidated; in places, supports natural and artifical vertical faces 10 m high. Grain size variable over wide range, but mostly medium to very coarse sand; ranges from sparsely to highly conglomeratic. Bedding features obscure in much of unit, most commonly defined by lensoidal pods of conglomerate or conglomeratic, lithic arkose. Contains abundant, conspicuous clasts of Pelona Schist in most of unit.

Figure 3B

Geologic Map Key

The Ottawa Business Center Project

Geology after Morton and Miller (2006) and Hernandez et al. (2008)

> Loose to well-consolidated yellowish-gray to light-yellowish-brown sand, silt, and pebble-cobble gravel. Unit underlies a deeply dissected high alluvial terrace lying about 60-78 m above the active channel of the Mojave River. The sediments mainly consist of silicic plutonic detritus like that in the modern channel of the Mojave River (unit Qa). Therefore, the unit evidently was deposited by the northward-flowing ancestral Mojave River. (Hernandez et al. 2008)

According to Cox et al. (2003), sediments of the ancient Mojave River underlying the surface of the project belong to the "upper fluvial unit," a "texturally heterogeneous, but compositionally homogeneous, succession of granitic sand, silt, and gravel." The unit approaches 200 feet thick in the area of the project and thickens southward. These deposits range from approximately latest Pliocene to Pleistocene, between 1.95 million years to 65 thousand years old.

Lining the shallow drainage channels crossing the project are Holocene-aged deposits of sand and gravel ("Qyw" and "Qf" on Figures 3A and 3B).

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 [SVP] 2010) but may include younger remains (subfossils) when viewed in the context of local extinction of the organism or habitat, for example. Fossils are considered a nonrenewable resource under state, county, and local guidelines (see Section II of this report).

Fossil Locality Search

A review of published and unpublished literature was conducted for potential paleontological resources that are known in the vicinity of the project. The sources reviewed did not indicate the presence of any known fossil localities within the project. However, in the greater Victorville area, there are many recorded Pleistocene vertebrate fossil localities (Jefferson 1986, 1991, 2009; Cox et al. 2003; Romero and Hillburn 2006; City of Victorville 2008b; and several sources by R.E. Reynolds not reviewed). Most of the specimens and records recovered from these localities are held by the San Bernardino County Museum (SBCM). All the localities discussed below are derived from the alluvium of the ancestral Mojave River of Hernandez et al. (2008) and Cox et al. (2003).

Three localities are less than a half-mile north and northeast of the project, recovered from Eureka Street, Dean Place, and Shrives Road (SBCM localities [locs.] 01.114.7, 01.114.31, and 01.114.32, respectively; Jefferson 1986, 1991, 2009). These localities include the remains of

mammoths, camels, extinct horse, and rodents. Just over one mile to the south at the Southern California Edison office locality, SBCM loc. 01.114.38 yielded the remains of several species of rodents and hare (Jefferson 2009). Northeast of the project, between four to six miles distant, are several more known localities. Tusks of the mammoth species *Mammuthus* sp., cf. *M. meridionalis* were recovered during mitigation monitoring northwest of the intersection of Tawney Ridge Lane and Amargosa Road (Romero and Hillburn 2006; Jefferson 2009), and are on display at the Mojave River Valley Museum in Barstow. More mammoth (*M. meridionalis*) remains, consisting of the skull, mandible, pelvis, and several ribs (SBCM loc. 01.114.28), were recovered near the intersection of Village Drive and Jurassic Place (Jefferson 1986, 1991, 2009), and were estimated to be approximately 375,000 years old (Cox et al. 2003). In the neighborhood of Turner Springs north of Air Base Road, fossils of hare (*Lepus* sp.) and freshwater invertebrates were found (SBCM locs. 01.114.24-26; Jefferson 1986, 1991, 2009). Several other Pleistocene-aged localities in the Victorville/George Air Force Base area listed by Jefferson (1986, 1991, 2009) could not be precisely located, but included mammoth, camel, llama, horse, mastodon, and rodent species.

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 thus typically assigned a low paleontological sensitivity. Old, Pleistocene (greater than 12,700 year old) alluvial and alluvial fan deposits in the Inland Empire and Mojave Desert, however, often 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). These Pleistocene sediments are thus accorded a High paleontological resource sensitivity.

Professional Standards

The Society of Vertebrate Paleontology (SVP) 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, the presence of nearby significant fossil localities and the strong likelihood that the nearby fossil localities originated from the same geologic formation as that of the project, the Pleistocene alluvium of the ancestral Mojave River can be considered to have a high potential to yield paleontological resources.

City of Victorville Assessment

Section 5.5.1.2 of the City of Victorville's Draft EIR for the general plan (City of Victorville 2008b) describes the paleontologic resources within the city. Based on Pleistocene vertebrate fossils recovered from sediments deposited by the ancestral Mojave River, areas mapped at such are assigned a "moderate to high sensitivity" for the potential to yield significant paleontological resources (City of Victorville 2008b [Sections 5.5-29, 5.5-30]).

In Section 5.5.4, "Project Impacts," of the Draft EIR, mitigation of potentially significant impacts to significant nonrenewable resources is required if identified in program-level paleontological assessments. Implementation Measure 5.1.2.4 "Require[s] paleontologic monitoring of land alteration projects involving excavation into native geologic materials known to have a high sensitivity for the presence of paleontologic resources" (City of Victorville 2008b [Section 5.5-22]).

VI. CONCLUSIONS AND RECOMMENDATIONS

Research has confirmed the existence of potentially fossiliferous Pleistocene to Pliocene-aged alluvium of the ancestral Mojave River ("Qvof" and "Qoam" on Figures 3A and 3B) that are mapped at the surface of the project; the known occurrence of significant terrestrial vertebrate fossils at shallow depths from deposits of the ancient Mojave River across Victorville; and the "moderate to high" paleontological sensitivity rating assigned to deposits of the ancient Mojave River for yielding paleontological resources all support paleontological monitoring be implemented during mass grading and excavation activities in undisturbed Pleistocene to Pliocene-aged alluvium of the ancestral Mojave River in order to mitigate any adverse impacts (loss or destruction) to potential nonrenewable paleontological resources. Full-time monitoring of undisturbed alluvium of the ancestral Mojave River at the project is warranted starting at the surface. Monitoring of the shallow drainage deposits ("Qyw" and "Qf" on Figures 3A and 3B) is

not recommended.

The following Mitigation Monitoring and Reporting Program (MMRP) guidelines, outlined below, are based on the findings stated above. Paleontological monitoring may be reduced upon the observations and recommendations of the professional-level project paleontologist. The following MMRP, when implemented, would reduce potential impacts of paleontological resources to a level below significant:

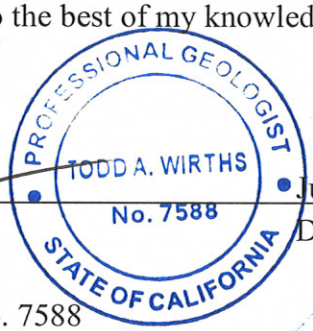
1. Prior to initiation of any grading, drilling, and/or excavation activities, a preconstruction meeting will be held and attended by the paleontologist of record, representatives of the grading contractor and subcontractors, the project owner or developer, and a representative of the lead agency. The nature of potential paleontological resources shall be discussed, as well as the protocol that is to be implemented following the discovery of any fossiliferous materials.
2. Monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources shall be performed by a qualified paleontologist or paleontological monitor. Starting at the surface, monitoring will be conducted full-time in areas of grading or excavation in undisturbed sediments of the alluvium of the ancestral Mojave River.
3. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or, if present, are determined upon exposure and examination by qualified paleontological personnel to have low potential to contain fossil resources. The monitor shall notify the project paleontologist, who will then notify the concerned parties of the discovery.
4. Paleontological salvage during trenching and boring activities is typically from the generated spoils and does not delay the trenching or drilling activities. Fossils are collected and placed in cardboard flats or plastic buckets and identified by field number, collector, and date collected. Notes are taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place. On mass grading projects, discovered fossil sites are protected by flagging to prevent them from being overrun by earthmovers (scrapers) before salvage begins. Fossils are collected in a similar manner, with notes and photographs being taken before removing the fossils. Precise location of the site is determined with the use of handheld GPS units. If the site involves remains from a large terrestrial vertebrate, such as large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, a fossil recovery crew shall excavate around the find, encase the find within a plaster and burlap jacket, and remove it after the plaster is set.

For large fossils, use of the contractor's construction equipment may be solicited to help remove the jacket to a safe location.

5. Isolated fossils are collected by hand, wrapped in paper, and placed in temporary collecting flats or five-gallon buckets. Notes are taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place.
6. Particularly small invertebrate fossils typically represent multiple specimens of a limited number of organisms, and a scientifically suitable sample can be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry screen the sediment in the field, a concentrated sample may consist of one or two buckets of material. For vertebrate fossils, the test is usually the observed presence of small pieces of bones within the sediments. If present, as many as 20 to 40 five-gallon buckets of sediment can be collected and returned to a separate facility to wet-screen the sediment.
7. In accordance with the "Microfossil Salvage" section of the SVP guidelines (2010:7), bulk sampling and screening of fine-grained sedimentary deposits (including carbonate-rich paleosols) must be performed if the deposits are identified to possess indications of producing fossil "microvertebrates" to test the feasibility of the deposit to yield fossil bones and teeth.
8. In the laboratory, individual fossils are cleaned of extraneous matrix, any breaks are repaired, and the specimen, if needed, is stabilized by soaking in an archivally approved acrylic hardener (*e.g.,* a solution of acetone and Paraloid B-72).
9. Recovered specimens are prepared to a point of identification and permanent preservation (not display), including screen-washing sediments to recover small invertebrates and vertebrates. Preparation of individual vertebrate fossils is often more time-consuming than for accumulations of invertebrate fossils.
10. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage (*e.g.,* the San Bernardino County Museum) shall be conducted. The paleontological program should include a written repository agreement prior to the initiation of mitigation activities. Prior to curation, the lead agency (*e.g.,* the City of Victorville) will be consulted on the repository/museum to receive the fossil material.
11. A final monitoring and mitigation report of findings and significance will be prepared, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). The report, when submitted to, and accepted by, the appropriate lead agency, will signify satisfactory completion of the project program to mitigate impacts to any potential nonrenewable paleontological resources (*i.e.,* fossils) that might have been lost or otherwise adversely affected without such a program in place.

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.



June 15, 2021

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Date

VIII. REFERENCES

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APPENDIX A

Qualifications of Key Personnel

Todd A. Wirths, MS, PG No. 7588

Senior Paleontologist

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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.