

# PALEONTOLOGICAL ASSESSMENT FOR THE FIRST PALM SPRINGS COMMERCE CENTER PROJECT

## PALM SPRINGS RIVERSIDE COUNTY, CALIFORNIA

APNs 666-320-010, -011, -012, -015, and -019

**Prepared on Behalf of:**

**First Industrial Realty Trust, Inc.; First Industrial, LP;  
and First Industrial Acquisitions II, LLC  
c/o Weis Environmental, LLC  
1938 Kellogg Avenue, Suite 116  
Carlsbad, California 92008**

**Prepared for:**

**City of Palm Springs  
3200 East Tahquitz Canyon Way  
Palm Springs, California 92262**

**Prepared by:**

**BFSA Environmental Services,  
a Perennial Company  
14010 Poway Road, Suite A  
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*March 22, 2023; Revised June 16, 2023; Revised August 18, 2023*



**BFSA Environmental Services**  
A Perennial Company

## **Paleontological Database Information**

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***Consulting Firm:*** BFSA Environmental Services, a Perennial Company  
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***Report Date:*** March 22, 2023; Revised June 16, 2023;  
Revised August 18, 2023

***Report Title:*** Paleontological Assessment for the First Palm Springs Commerce Center Project, Palm Springs, Riverside County, California

***Prepared for:*** First Industrial Realty Trust, Inc.; First Industrial, LP; and First Industrial Acquisitions II, LLC  
c/o Weis Environmental, LLC  
1938 Kellogg Avenue, Suite 116  
Carlsbad, California 92008

***Submitted to:*** City of Palm Springs  
3200 East Tahquitz Canyon Way  
Palm Springs, California 92262

***USGS Quadrangle:*** Section 15, Township 3 South, Range 4 East, of the *Palm Springs, California* USGS quadrangle.

***Assessor's Parcel Numbers:*** 666-320-010, -011, -012, -015, and -019

***Study Area:*** 236 acres

***Key Words:*** "Low" paleontological resource sensitivity; Holocene alluvial deposits; no monitoring recommended.

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## **I. INTRODUCTION AND LOCATION**

This paleontological resources assessment report has been completed for the First Palm Springs Commerce Center Project, located southwest of the intersection of 18<sup>th</sup> Avenue and Indian Canyon Drive, at the northern edge of the city of Palm Springs in Riverside County, California (Figures 1 and 2). The paleontological assessment for the project includes Assessor's Parcel Numbers (APNs) 666-320-010, -011, -012, -015, and -019, which total approximately 93 acres, and a 500-foot buffer area collectively comprising a 236-acre study area. In addition, the project includes the installation of approximately 1,300 linear feet of off-site water line south along the Karen Avenue Right-of-Way to 19<sup>th</sup> Avenue. The subject property, 500' buffer, and off-site improvement area are within Sections 10, 11, 14, and 15, Township 3 South, Range 4 East, of the San Bernardino Baseline and Meridian, as shown on the U.S. Geological Survey (USGS) 7.5-minute *Desert Hot Springs, California* topographic quadrangle map. The project proposes to clear the project parcels for the construction of an industrial warehouse development.

As the lead agency, the City of Palm Springs has required the preparation of a paleontological assessment to evaluate the project's potential to yield paleontological resources. 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, if necessary.

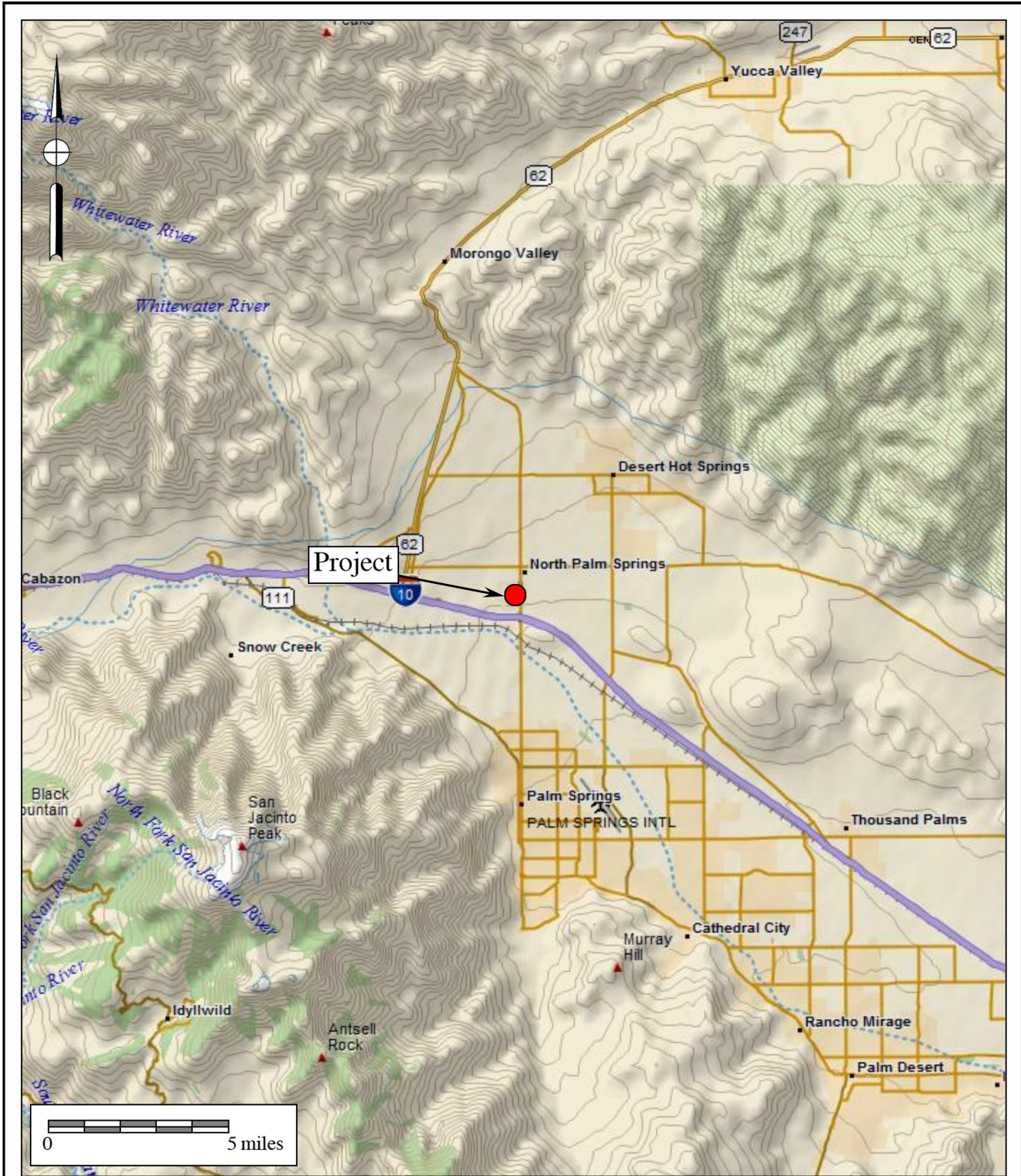
## **II. REGULATORY SETTING**

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 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.

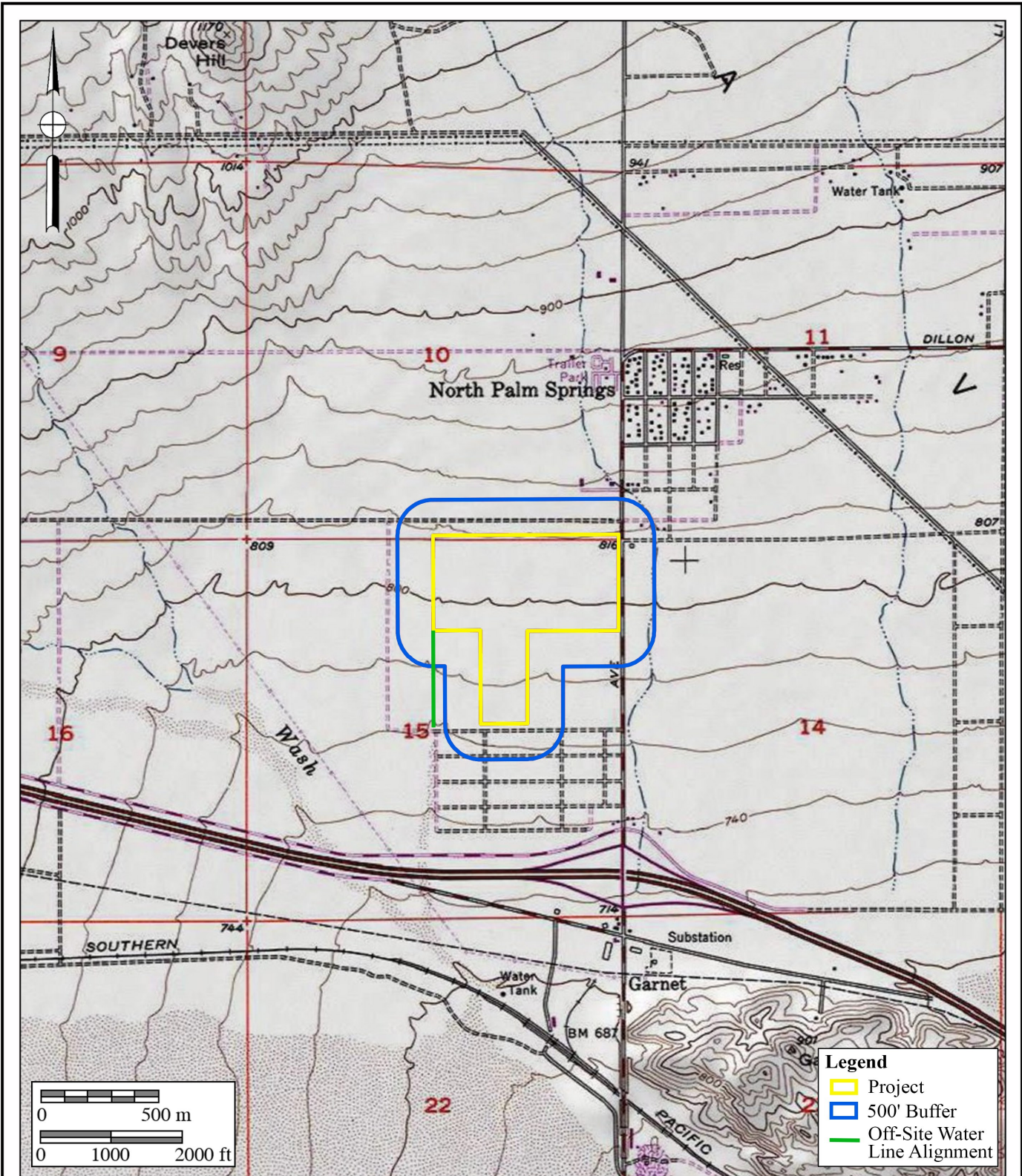
In CEQA's Environmental Checklist Form, one of the questions to answer is, "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (Appendix G, Section VII, Part f). This is to ensure compliance with California Public Resources Code Section 5097.5, the law by which protects nonrenewable resources including fossils, which is paraphrased below:



**Figure 1**  
**General Location Map**

The First Palm Springs Commerce Center Project  
 DeLorme (1:250,000 series)





**Figure 2**  
**Project Location Map**

The First Palm Springs Commerce Center Project  
 USGS *Desert Hot Springs* Quadrangle (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.

**County of Riverside Guidelines**

For Riverside County, policies concerning paleontological resources are addressed under the 2015 Multipurpose Open Space Element of the Riverside County General Plan, and are as follows:

- OS 19.6 Whenever existing information indicates that a site proposed for development has high paleontological sensitivity as shown on Figure OS-8, a paleontological resource impact mitigation program (PRIMP) shall be filed with the County Geologist prior to site grading. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources.
- OS 19.7 Whenever existing information indicates that a site proposed for development has low paleontological sensitivity as shown on Figure OS-8, no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the County Geologist shall be notified and a paleontologist shall be retained by the project proponent. The paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.
- OS 19.8 Whenever existing information indicates that a site proposed for development has undetermined paleontological sensitivity as shown on Figure OS-8, a report shall be filed with the County Geologist documenting the extent and potential significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources prior to approval of that department.

OS 19.9 Whenever paleontological resources are found, the County Geologist shall direct them to a facility within Riverside County for their curation, including the Western Science Center in the City of Hemet. (County of Riverside 2015a)

A comprehensive review of paleontological resources, including regulatory background, permitting conditions, significance thresholds, and procedures for the treatment of discovered resources, can be found in the County’s draft environmental impact report (County of Riverside 2015b).

**City of Palm Springs Guidelines**

The Palm Springs General Plan does not address paleontological resources (City of Palm Springs 2007).

**III. GEOLOGY**

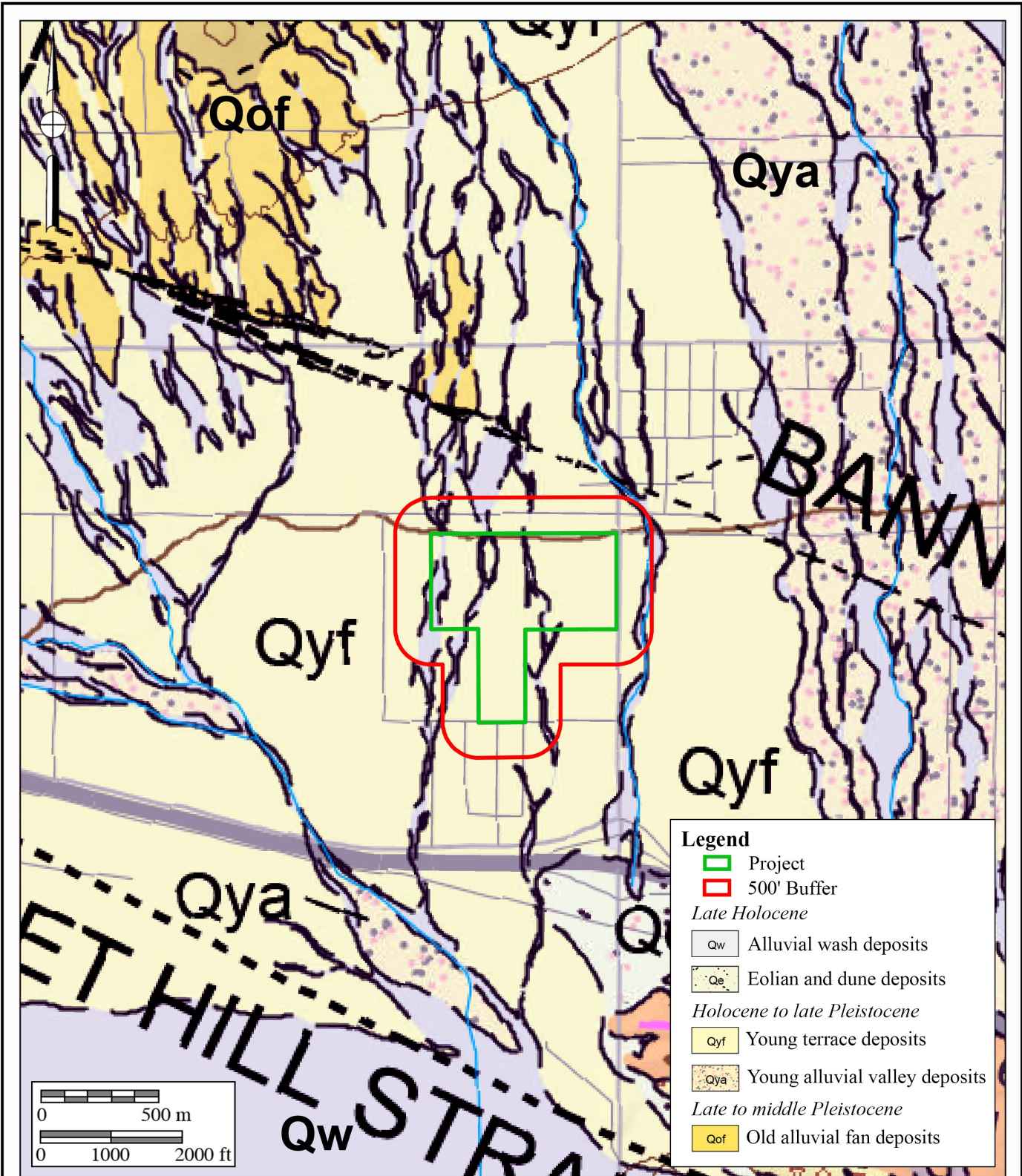
The project is located in the San Gorgonio Pass, which is characterized by a variety of older and younger alluvial fan sediments that have been shed off the topographic highs of the San Bernardino Mountains and redeposited onto the valley floor below (Lancaster et al. 2012). As shown on Figure 3, the project is situated over Holocene to late Pleistocene-aged young alluvial fan deposits that are overlain by interspersed, modern wash deposits, according to mapping by Lancaster et al. (2012). These deposits consist of silt, sand, and gravel. From other workers, these deposits are simply mapped as Holocene alluvium (Rogers 1965; Dibblee 2004).

**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) when viewed in the context of local extinction of the organism or habitat, for example. Fossils are considered a non-renewable resource under state and local guidelines (Section II of this report).





**Figure 3**  
**Geologic Map**

The First Palm Springs Commerce Center Project  
Geology after Lancaster et al. (2012)

### **Fossil Locality Search**

A paleontological literature review and collections and locality records search was conducted for the project by the San Bernardino County Museum (SBCM). The resulting locality records search did not identify any previously recorded fossil localities within one mile of the project. The nearest fossil localities held by the SBCM are several miles away (Kottcamp 2023; Attachment B).

According to published literature, the nearest fossil localities occur at Garnet Hill, approximately 1.5 miles south-southeast of the project, along the south side of Interstate 10. Garnet Hill mostly consists of an outcrop of the upper Miocene-aged Imperial Formation, documenting an early incursion of marine flooding of the proto-Gulf of California. A diverse fauna of late Miocene-aged invertebrates, mostly bivalve mollusks with some echinoderm remains (sand dollars and urchins), have been documented there since the 1930s. These specimens are held by the Museum of Paleontology at the University of California at Berkeley (Powell 1995).

### **Project Survey**

On February 16, 2023, BFSa staff, under the supervision of Principal Investigator Todd A. Wirths, conducted a visual inspection of the property to determine if any paleontological resources were visible. The field methodology employed for the project included walking evenly spaced survey transects set approximately 15 meters apart while visually inspecting the ground surface. All potentially sensitive areas where paleontological resources might be located were closely inspected. Rodent spoils piles were closely inspected for evidence of fossils. The visibility of the natural ground surface was generally good. The project property is generally flat. No bedrock outcrops were exposed that might indicate the presence of fossils. No paleontological resources, or evidence of paleontological resources, were observed during the survey.

## **V. PALEONTOLOGICAL SENSITIVITY**

### **Professional Standards**

The Society of Vertebrate Paleontology (SVP 2010) 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 upon 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 Holocene deposits mapped at the project may be considered to have a low potential to yield significant paleontological resources.

### **Riverside County Sensitivity**

The County of Riverside Land Information System ranks the Holocene alluvium at the project properties as having a “Low” paleontological sensitivity (County of Riverside Land Information System 2023). The category “Low” indicates that fossils are unlikely to be encountered during excavation activities and, therefore, there is a low potential for paleontological resources to be significantly impacted.

## **VI. CONCLUSION AND RECOMMENDATIONS**

Based on the young age of the alluvium at the project, a low potential for the presence of paleontological resources to occur in the young alluvium, and the lack of known paleontological localities in the area of the project, paleontological monitoring during earth disturbance activities at the project is not recommended.

However, if paleontological resources are discovered, the area of the discovery should be cordoned off and a Riverside County qualified paleontologist should be consulted to determine the significance of the finds. If the discovery is determined to be significant by the qualified paleontologist, a paleontological resource impact program (PRIMP) is recommended for the project for approval by the City of Palm Springs to reduce adverse impacts to paleontological resources to a level below significant. The PRIMP should follow the guidelines of the City of Palm Springs, the County of Riverside, and the recommendations of the Society of Vertebrate Paleontology (2010). The PRIMP, if needed, should include methods for:

- Attendance by a qualified paleontologist at the preconstruction meeting to consult with the grading and excavation contractors.
- On-site presence of a paleontological monitor to inspect for paleontological resources during the excavation of previously undisturbed deposits.
- Salvage and recovery of paleontological resources by the qualified paleontologist or paleontological monitor.
- Preparation (repair and cleaning), sorting, and cataloguing of recovered paleontological resources.

- Donation of prepared fossils, field notes, photographs, and maps to a scientific institution with permanent paleontological collections.
- Completion of a final summary report that outlines the results of the mitigation program.

## **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.



August 18, 2023

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

Date

## **VIII. REFERENCES CITED**

- City of Palm Springs. 2007. Palm Springs 2007 General Plan. <https://www.palmspringsca.gov/government/departments/planning/general-plan>.
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- Kottcamp, S. 2023. Paleontology Records Review for site of First Industrial 18th and Indian Canyon project, North Palm Springs, Riverside County, California. Unpublished letter report for BFS Environmental Services, Poway, California, by the San Bernardino County Museum, Redlands, California. (in Appendix B)
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- 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](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

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

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

## Professional Certifications

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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

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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

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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

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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**

**Fossil Locality Search**



**Museum**  
Division of Earth Science

**Scott Kottkamp**  
Curator of Earth Science

15 March, 2023

Brian F. Smith & Associates Environmental Services  
Attn: Todd Wirths  
14010 Poway Road  
Poway, CA 92064

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PALEONTOLOGY RECORDS REVIEW for site of First Industrial 18th and Indian  
Canyon project, North Palm Springs, Riverside County, California

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Dear Mr. Wirths,

The Division of Earth Science of the San Bernardino County Museum (SBCM) has completed a records search for the above-named project in Riverside County, California. The proposed project site (First Industrial 18th and Indian Canyon) is in the unincorporated community of North Palm Springs, California as shown on the United States Geological Survey (USGS) 7.5-minute Desert Hot Springs, California quadrangle.

Geologic mapping of the region done by Dibblee and Minch (2004) indicates the entire project area is located atop Holocene age Quaternary alluvial sand and gravel (Qa). Qa is primarily derived from igneous and metamorphic source rock in the nearby mountains, though sediment reworked from older sedimentary units is also present. This alluvium is unlikely to be fossiliferous but may be underlain by local units of Pleistocene and Pliocene age, several of which are reported to be fossiliferous.

Surface deposits of older Pleistocene age alluvium are present around Deper's Hill to the northwest of the project area. This older alluvium consists of weakly indurated, dissected, grey-colored fan gravel and sand. Terrestrial macro- and microfossils are commonly found in Pleistocene age alluvium throughout the southwest of North America, including much of the Mojave Desert (Harris 2014). Because of the coarse grain size of Qoa in the local area, any fossils

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found in Qoa would be likely be fragmental. There are also exposures of the Imperial Formation (Ti) on Garnet Hill, within a mile southeast of the project site. Ti normally consists of tan, vaguely bedded, and weakly lithified fine-grained sandstone, but at Garnet Hill there are also beds of gray silty claystone. Ti is currently interpreted as a shallow marine environment of early Pliocene age (Dibblee and Minch 2004), though older studies place it in the late Miocene (Powell 1995). Fossil shell fragments are common throughout the sandstone and the units exposed at Garnet Hill are highly fossiliferous. At least 15 distinct taxa of bivalves, 4 taxa of echinoids, and the barnacle *Balanus* sp. were reported from Ti on Garnet Hill by Powell (1995). However, the fossils tend to be quite poorly preserved, most occurring as thin shell fragments or friable internal molds. The rare exceptions are complete valves of taxa with calcitic tests, e.g., *Ostrea angelica*.

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 SBCM paleontological localities have been discovered within the proposed project site, nor within a one-mile radius of its perimeter (however, see description of the Imperial Formation at Garnet Hill, above). The nearest SBCM locality to the project site is SBCM 5.8.2, located 5.6 miles east-southeast of the project area. SBCM 5.8.2 is located within alluvial conglomerate of the middle-to-late Pleistocene age Ocotillo Formation (Qo), the presence of which has not been reported from within a mile of the project area's perimeter (Dibblee and Minch 2004, 2008). RPLI records indicate that permineralized bone and tooth fragments of *Equus* sp., *Mammut pacificus*, and *Mammuthus columbi* were sifted from a 431 Kg sediment sample collected at SBCM 5.8.2.

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,



Scott Kottkamp, Curator of Earth Science  
Division of Earth Science  
San Bernardino County Museum

#### Literature Cited

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First Industrial 18th and Indian Canyon, North Palm Springs, CA

March 15<sup>th</sup>, 2023

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