

Appendix 6

Paleontological Resources Report for Chery Outpost Project

Paleontological Resources Report

Cherry Outpost Project

Riverside County, California



Prepared For:

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Report Date:

July 2024



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Project Team

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Paleontological Resources Summary Information

USGS 7.5-Minute Quadrangle(s): Lake Elsinore

City and County: Wildomar, Riverside County

Dates of Fieldwork: N/A

Total Acreage of Lands Surveyed: N/A

Total Linear Miles Surveyed: N/A

Geologic Units in Project Site: Late Pleistocene- to Holocene-age alluvial fan deposits (low paleontological potential)

Paleontological Resources Identified in Project Site: 0

Previously Recorded Resources in Project Site: 0

Newly Recorded Resources in Project Site: 0



MANAGEMENT SUMMARY

Bargas Environmental Consulting, LLC (Bargas) completed a paleontological resources assessment at the request of HELIX Environmental Planning, Inc. (HELIX) for the Cherry Outpost Project (Project) in the City of Wildomar, California. The purpose of the assessment was to determine if the Project has the potential to impact paleontological resources within the Project Site. All work was completed in compliance with the California Environmental Quality Act (CEQA) and City of Wildomar requirements.

The Project Site is located immediately east of Interstate 15 at the intersection of Cherry Street and Bundy Canyon Road in the City of Wildomar. The proposed Project consists of construction of a commercial retail center on a 6.64-acre site and includes 16,514 square feet of retail space, a 72-room hotel, on-site improvements, and roadway improvements. Proposed retail uses include restaurants, a convenience store, a car wash, and a gas and diesel station.

Bargas completed a desktop-level paleontological study that included reviews of geologic maps and paleontological literature, a records search at the Western Science Center (WSC), and searches of the online University of California Museum of Paleontology (UCMP) locality database and Paleobiology Database (PBDB).

Geologic mapping indicates that the Project Site is entirely underlain by late Pleistocene- to Holocene-age young alluvial fan deposits (Qyf₁). On March 15, 2023, Bargas requested a records search of the Project Site and a 1-mile radius from the WSC to identify any known paleontological resources within the Project boundaries or from the same geologic unit within the Project vicinity. Based on the results of the literature and database reviews, in addition to the WSC records search, there are no known paleontological resources within the Project Site boundaries. However, fossils have been reported from Pleistocene-age alluvial fan deposits elsewhere in Riverside County from depths as shallow as 5 feet below the surface. The WSC records search also reported that numerous vertebrate fossil specimens, including camel, bison, and Columbian mammoth, were recovered from an area mapped at the surface as late Holocene-age deposits during excavations for the Summerly Project, located approximately 2 miles northwest of the Project Site boundaries. The Holocene-age deposits present at the surface of the Project Site are typically considered to have a low potential (Potential Fossil Yield Classification [PFYC] 2) for significant paleontological resources at and near the surface due to the relatively young age of the deposits; however, planned Project excavations are anticipated to reach depths of approximately 10 to 13 feet and have the potential to result in direct impacts to paleontological resources if the moderate paleontological potential (PFYC 3) late Pleistocene sections of the young alluvial fan deposits (Qyf₁) are encountered in the subsurface.

Paleontological monitoring is recommended during excavations greater than 5 feet deep. In the event of an unanticipated paleontological resource discovery, work within 50 feet of the resource shall stop until a qualified paleontologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery is identified as potentially significant, additional work, such as recovery, laboratory preparation, fossil identification, curation, and reporting, may be necessary. Recovered paleontological resources should be deposited in an appropriate fossil repository to be determined by the lead agency in consultation with the qualified paleontologist. With implementation of these paleontological resource monitoring and treatment recommendations, impacts on paleontological resources would be reduced to less than significant levels.



Table of Contents

MANAGEMENT SUMMARY	ii
1 Introduction	1
1.1 Project Location and Description	1
2 Methods	1
2.1 Paleontological Potential and Impact Methods	1
2.2 Paleontological Resources Definition and Significance Criteria	6
3 Regulatory Framework	6
3.1 State Regulations	6
3.1.1 California Environmental Quality Act	6
3.1.2 California Public Resources Code	7
3.2 Local Regulations	7
3.2.1 Riverside County	7
3.2.2 City of Wildomar	7
4 Geological and Paleontological Setting	7
4.1 Regional Overview	7
4.2 Geologic Map and Paleontological Literature Review	8
5 Records Search Results	10
6 Paleontological Impact Analysis	10
7 Summary and Recommendations	10
8 References Cited	11
9 Project Personnel	12

List of Tables

Table 1. PFYC Summary	4
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List of Figures

Figure 1. Project Vicinity Map	2
Figure 2. Project Location Map	3
Figure 3. Project Geology and Paleontological Sensitivity Map	9

Attachments

Appendix A. Western Science Center Records Search Results



1 Introduction

Bargas Environmental Consulting, LLC (Bargas) completed a paleontological resource assessment at the request of HELIX Environmental Planning, Inc. (HELIX) for the Cherry Outpost Project in the City of Wildomar, California. The purpose of the assessment was to determine if the Project has the potential to impact paleontological resources within the Project Site. All work was completed in compliance with the California Environmental Quality Act (CEQA) and City of Wildomar requirements.

1.1 Project Location and Description

The Project Site is located on approximately 6.64 acres immediately east of Interstate 15 at the intersection of Cherry Street and Bundy Canyon Road in the City of Wildomar, Riverside County, California. Specifically, the site is located within Section 23 of Township 6 South, Range 4 West of the U.S. Geological Survey's (USGS) *Lake Elsinore, California* 7.5-minute quadrangle (Figures 1 and 2). The proposed Project consists of the construction of a commercial retail center that includes 16,514 square feet of retail space, a 72-room hotel, on-site improvements, and roadway improvements. Proposed retail uses include restaurants, a convenience store, a car wash, and a gas and diesel station. The Project Site is currently zoned Commercial Retail and is bordered to the north by an area currently zoned as Medium Density Residential. Excavations for the Project's on-site improvements are anticipated to reach depths of approximately 10 feet, with potential for over excavations to depths of 12 to 13 feet. Excavations for off-site roadway improvements are anticipated to be 2-feet deep within the street right-of-way (ROW) and 5-feet deep outside of the street ROW.

2 Methods

Bargas completed a desktop-level paleontological study that included reviews of geologic maps and paleontological literature, searches of the online University of California Museum of Paleontology (UCMP) locality database and Paleobiology Database (PBDB), and a records search at the Western Science Center (WSC) to identify any known paleontological resources within the Project boundaries or from the same geologic unit within a 1-mile buffer. Paleontological potential rankings were assigned using the federal Potential Fossil Yield Classification (PFYC) system (see Section 2.1).

2.1 Paleontological Potential and Impact Methods

In general, paleontological resources are preserved in sedimentary rocks; however, they can occasionally be preserved in low-grade metamorphic rocks and can, on rare occasions, be preserved in volcanic rocks. Beyond acting as a vessel for the preservation of fossil remains, sedimentary strata record telltale information reflecting the environment in which they were deposited (e.g., sedimentary structures, maturity, and lithology). For example, fossil remains found within the fine-grained sediments of a floodplain deposit represent organisms that died and were later buried on an ancient floodplain. Because of the interwoven relationship between fossil remains and their geologic contexts, paleontological sensitivity is generally assigned to geologic units rather than to specific regions, areas, or localities.

For this project, the paleontological potential of the geologic units within the Project Site, both at the surface and at depth, were assigned using the federal PFYC system developed by the Bureau of Land Management (BLM 2016). PFYC rankings are assigned to geologic units based on the relative abundance of significant paleontological resources within a given geologic unit and their sensitivity to impacts. The rankings and typical management recommendations are summarized in Table 1.

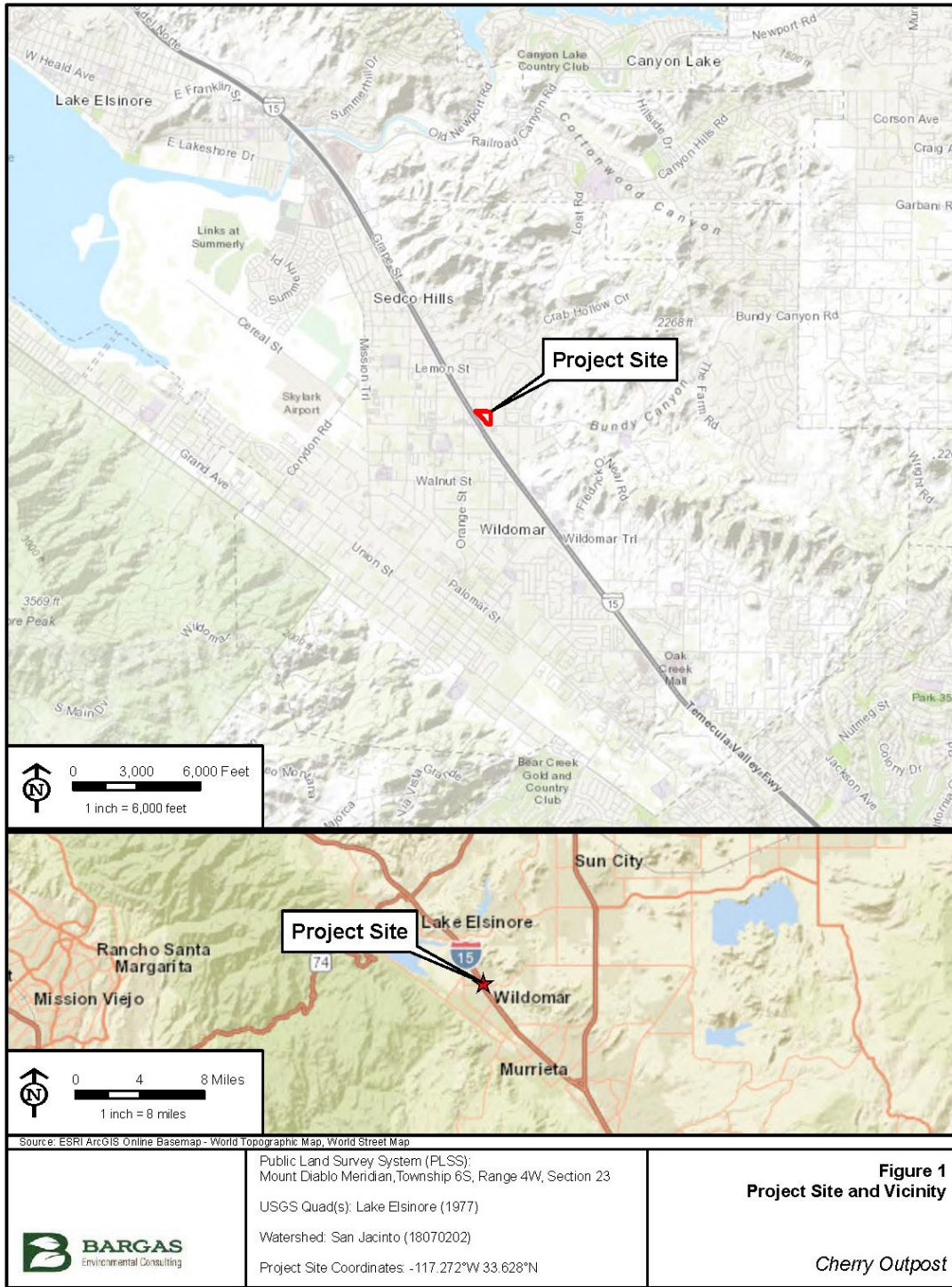


Figure 1. Project Vicinity Map



Map Created: 3/8/2023, Map Revised: 3/22/2023, Bargas Project Number: 1689-22

Figure 2. Project Location Map



Table 1. PFYC Summary

PFYC Ranking	Description	Typical Management Recommendations
Class 1 – Very Low Potential	<p>Geologic Units that are not likely to contain recognizable paleontological resources. Geologic units typically have one or more of the following characteristics:</p> <ul style="list-style-type: none"> • Geologic units are igneous or metamorphic, excluding air-fall and reworked volcanic ash units • Geologic units are Precambrian in age 	<p>Management concerns are usually negligible or not applicable and paleontological mitigation is unlikely to be necessary except in very rare or isolated circumstances.</p>
Class 2 – Low Potential	<p>Geologic units are not likely to contain paleontological resources. Geologic units typically have one or more of the following characteristics:</p> <ul style="list-style-type: none"> • Field surveys have verified that significant paleontological resources are not present or are very rare • Units are generally younger than 10,000 years before present • Recent aeolian deposits • Sediments exhibit significant physical and chemical changes (i.e., diagenetic alteration) that make fossil preservation unlikely 	<p>Management concerns are generally low except where paleontological resources are known or found to exist, and paleontological mitigation is usually unnecessary except in occasional or isolated circumstance.</p> <p>Localities containing important paleontological resources may exist but are occasional and should be managed on a case-by-case basis.</p>
Class 3 – Moderate Potential	<p>Sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence. Geologic units have some of the following characteristics:</p> <ul style="list-style-type: none"> • Marine in origin with sporadic known occurrences of paleontological resources • Paleontological resources may occur intermittently, but abundance is known to be low • Geologic unit may contain significance paleontological resources, but these occurrences are widely scattered • The potential for an authorized land use to impact a significant paleontological resource is known to be low-to-moderate 	<p>Management concerns are moderate because the existence of significant paleontological resources is known to be low.</p> <p>Paleontological mitigation strategies are proposed based on the nature of the proposed activity, and may include record searches, pre-construction surveys, monitoring, mitigation, or avoidance. Areas with common invertebrate or plant fossils may present opportunities for casual collecting by the public.</p>
Class 4 – High Potential	<p>Geologic units that are known to contain a high occurrence of paleontological resources. Geologic units typically have the following characteristics:</p> <ul style="list-style-type: none"> • Significant paleontological resources have been documented, but may vary in occurrence and predictability • Surface-disturbing activities may adversely affect paleontological resources • Rare or uncommon fossils, including non-vertebrate (such as soft body preservation) or unusual plant fossils, may be present • Illegal collecting activities may impact some areas 	<p>Management concerns are moderate to high.</p> <p>Paleontological mitigation strategies are proposed based on the nature of the proposed activity, but often include a field assessment by a qualified paleontologist to assess local conditions, preparation of mitigation plans, and on-site monitoring or spot-checking. In some cases, avoidance of known paleontological resources may be necessary.</p>



PFYC Ranking	Description	Typical Management Recommendations
Class 5 – Very High Potential	<p>Highly fossiliferous geologic units that consistently and predictably produce significant paleontological resources. Geologic units have some or all of the following characteristics:</p> <ul style="list-style-type: none"> • Significant paleontological resources have been documented and occur consistently • Paleontological resources are highly susceptible to adverse impacts from surface-disturbing activities • The geologic unit is frequently the focus of illegal collecting activities 	<p>Management concerns are high to very high.</p> <p>Paleontological mitigation often includes pre-construction surveys and on-site monitoring. Avoidance or resource preservation may be necessary.</p>
Class U – Unknown Potential	<p>Geologic units that cannot receive an informed PFYC assignment. Characteristics of these geologic units may include:</p> <ul style="list-style-type: none"> • Geologic units may exhibit features or preservational conditions that suggest significant paleontological resources could be present, but little information about the actual paleontological resources of the unit or area is known • Geologic units represented on a map are based on lithologic character or basis or origin, but have not been studied in detail • Scientific literature does not exist or does not reveal the nature of paleontological resources • Reports of paleontological resources are anecdotal or have not been verified • Area or geologic unit is poorly or under-studied • The nature of the geologic unit has not yet been assessed 	<p>Management concerns are medium to high until a provisional assignment is made.</p> <p>Since these geologic units are often poorly studied, field surveys, record searches, literature searches, and consultation may be necessary. Once adequate information is available to make an informed PFYC determination, the ranking should be updated.</p>
Class W – Water	Any surface area that is mapped as bodies of water	<p>Bodies of water do not normally contain paleontological resources. However, uncovered or transported fossils may be present along shorelines; fossils may be exposed during low water intervals in reservoirs; and fossils may be present in karst area sinkholes and cenotes where animals may have become trapped and preserved. Project activities in those areas should be carefully considered for impacts to paleontological resources. Activities that result in the disturbance of sediments, such as dredging, should also be assessed for the potential to encounter paleontological resources.</p>
Class I – Ice	Any area that is mapped as ice or snow	<p>Receding glaciers and melting snow fields should be considered for the potential to reveal recently exposed paleontological resources.</p>

Source: Modified from BLM 2016



2.2 Paleontological Resources Definition and Significance Criteria

Fossils are generally defined here as the remains or trace remains (both physical and chemical) of prehistoric organisms (i.e., animals, plants, and microorganisms). These resources can be preserved as body fossils, such as bones, teeth, shells, and plant matter, or as trace fossils, such as burrows and footprints. Geologic deposits make up the context in which these fossil remains were originally buried and provide information about the environment in which an organism lived. In the broadest sense, a fossil can be defined as any remains documenting past life. Typically, to be considered within the scope of paleontology, fossils must be at least 10,000 years in age (i.e., dating from before the beginning of the modern Holocene Epoch). However, some Holocene-age remains are also considered of paleontological interest if they contribute to our understanding of the record of past life. Alteration or replacement (e.g., permineralization, petrification, or “fossilization”) of the original organic material is not required for determination of whether an object is a fossil or not.

Fossils are important scientific and educational resources because they serve as direct and indirect evidence of prehistoric life and are used to understand the history of life on Earth, the nature of past environments and climates, the membership and structure of ancient ecosystems, and the pattern and process of organic evolution and extinction. Fossils are limited, nonrenewable resources, because they typically represent organisms that are now extinct or life in a context that no longer exists. Therefore, if destroyed, a particular fossil can never be replaced, and the information associated with it is forever lost. However, not all fossils are regarded as significant resources or offered protection under existing laws and regulations. CEQA, the National Environmental Policy Act (NEPA), and many other regulations do not define what constitutes unique or significant paleontological resources, instead leaving it to agencies to determine or adopt appropriate criteria. Many agencies have adopted the Society of Vertebrate Paleontology (SVP) standards, which define significant paleontological resources as:

“... fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).” (SVP 2010)

3 Regulatory Framework

3.1 State Regulations

3.1.1 California Environmental Quality Act

The purpose of CEQA is to 1) inform governmental decision makers and the public about the potential, significant environmental effects of proposed projects; 2) identify ways to avoid or reduce environmental damage; 3) prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when feasible; and 4) disclose to the public the reason why a governmental agency approved the project if significant environmental effects are involved (CEQA Guidelines, Article 1, Section 15002(a)). The CEQA Environmental Checklist Form includes one question regarding proposed project effects on paleontological resources:

“Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?” (CEQA Guidelines, Appendix G, Section VII, Part F)

The answer to this question must take account of the whole action involved, including on-site, off-site, direct, indirect, construction, operational, project-level, and cumulative impacts. If a project would result in significant adverse effects on paleontological resources, then alternative plans or mitigation measures must be considered. The level of consideration may vary with the importance of the paleontological resource.



3.1.2 California Public Resources Code

The California Public Resources Code (PRC) Section 5097.5 provides protection for paleontological resources located on public lands in California, which are defined as lands owned by, or under the jurisdiction of, the state, or any city, county district, authority, or public corporation, or any agency thereof. Under PRC Section 5097.5, it is a misdemeanor for a person to knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any vertebrate paleontological site, including fossilized footprints, or any other paleontological feature situated on public lands without the express permission of the public agency having jurisdiction of the lands.

3.2 Local Regulations

3.2.1 Riverside County

The Multipurpose Open Space Element of the Riverside County General Plan (2015) includes the following policies to ensure that paleontological resources are appropriately considered:

- **OS 19.6:** Whenever existing information indicates that a site proposed for development has high paleontological sensitivity as shown on Figure OS-8 [of the Riverside County General Plan], a paleontological resource impact mitigation program (PRIMP) shall be filed with the Riverside 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 [of the Riverside County General Plan], no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the Riverside 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 [of the Riverside County General Plan], a report shall be filed with the Riverside 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 Riverside County Geologist shall direct them to a facility within Riverside County for their curation, including the Western Science Center in the City of Hemet.

3.2.2 City of Wildomar

The City of Wildomar has adopted the Riverside County General Plan and all elements related to policies related to paleontological resources are the same as listed under the Multipurpose Open and Space Element of the Riverside County General Plan (2015) (see Section 3.2.1).

4 Geological and Paleontological Setting

4.1 Regional Overview

The Project Site is located in the Peninsular Ranges Geomorphic Province which extends approximately 1,450 kilometers (km) (900 miles) from the Transverse Ranges in the north to the southern tip of the Baja Peninsula in Mexico and varies in width from 48 to 160 km (30 to 100 miles) (Norris and Webb 1990). The terrestrial (i.e., unsubmerged) portion of the Peninsular Ranges Province is characterized by a series of elongated northwest–southeast-trending mountains (Yerkes et al. 1965). These mountain ranges are composed dominantly of plutonic igneous rocks (often granites and granitoids) of Cretaceous age



(approximately 120 to 90 million years ago [Ma]) and older metamorphic rocks of Jurassic to earliest Cretaceous age (approximately 200 to 140 Ma) (Gastil 1975; Krummenacher et al. 1975; Walawender 2000). In the basins and valleys beneath these mountain ranges, these igneous and metamorphic basement rocks are often overlain by sedimentary deposits of late Mesozoic to Cenozoic age (approximately 90 Ma to 10 thousand years ago [ka]) (Tweet et al. 2014).

4.2 Geologic Map and Paleontological Literature Review

The entirety of the Project Site is mapped as late Pleistocene- to Holocene-age young alluvial fan deposits (Qyf₁) (Morton and Miller 2006) which consist of slightly to moderately consolidated and moderately dissected silt, fine- to coarse-grained sand, and boulders (Figure 3). In the vicinity of the Project Site, the alluvial fan deposits are primarily composed of gravel, sand, and silt (Morton and Weber 2003).

Holocene-age deposits typically do not contain fossils at or near the surface due to their relatively young age. Reworked or transported fossils may be present; however, these types of fossils are out of context and are generally not considered to be significant. Therefore, Holocene-age young alluvial fan deposits are assigned a low paleontological potential (PFYC 2) using BLM guidelines (2016) (Table 1; Figure 3).

Fossils from Pleistocene-age alluvial fan deposits in Riverside County have been reported from depths as shallow as 5 feet below the surface (Springer et al. 2009), and include mammoth (*Mammuthus* sp., *Mammuthus columbi*, *Mammuthus meridionalis*?), mastodon (*Mammuthus pacificus*), ground sloth (*Paramylodon harlani*), bison (*Bison antiquus*, *Bison* sp.), deer (*Odocoileus* sp.), horse (*Equus* sp., cf. *E. occidentalis*), camel (cf. *Camelops* sp.), saber-tooth cat (*Smilodon* sp.), rabbit, hare, or pika (Lagomorpha), rodents (*Neotoma* sp., *Microtus californicus*, *Microtus* sp., *Dipodomys* sp., *Thomomys bottae*, Microtinae, Cricetidae, Sciuridae), lizards (Sauria), turtles (*Clemmys* sp.), gopher tortoise (*Gopherus* sp.), snakes (Colubridae, *Crotalus* sp.), frogs (Anura), birds (Aves), bony fish (Osteichthyes), invertebrates, and plants (UCMP 2023; PBDB 2023; Jefferson 1991a,b).

Sections of the young alluvial fan deposits (Qyf₁) that are late Pleistocene in age are assigned a moderate paleontological potential (PFYC 3) using BLM guidelines (2016) due to the intermittent occurrence of significant paleontological resources (Table 1; Figure 3).

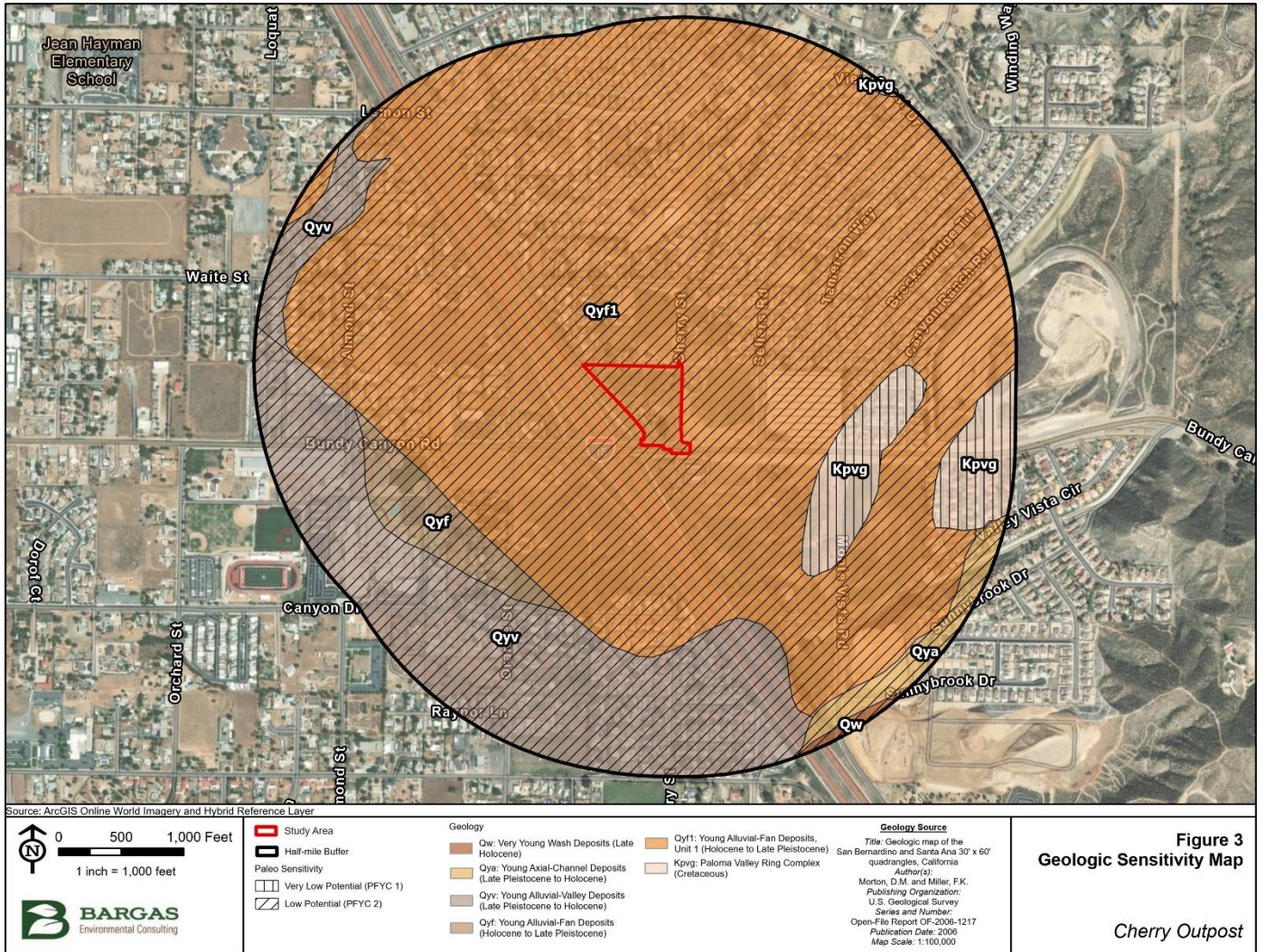


Figure 3
Geologic Sensitivity Map
 Cherry Outpost

Figure 3. Project Geology and Paleontological Sensitivity Map



5 Records Search Results

On March 15, 2023, Bargas requested a records search of the Project Site and a 1-mile radius from the WSC to identify any known paleontological resources within the Project boundaries or from the same geologic unit within the Project vicinity. The records search was completed on May 2, 2023 (WSC 2023; Appendix A). The records search results indicate that the WSC does not have any record of paleontological localities within the Project Site or a 1-mile buffer. However, numerous fossil localities were noted from similarly mapped units across Southern California, including multiple vertebrate specimens (e.g., camel [*Camelops* sp.], bison [*Bison* sp.], and Columbian mammoth [*Mammuthus columbi*]) that were recovered from an area mapped at the surface as late Holocene-age deposits during excavations for the Summerly Project, located approximately 2 miles northwest of the Project Site boundaries (WSC 2023; Appendix A).

6 Paleontological Impact Analysis

Impacts under CEQA are classified as direct, indirect, or cumulative. Direct impacts are the primary effects of a project. For paleontological resources, direct impacts are typically the result of ground-disturbing construction or maintenance activities that damage or destroy paleontological resources at the surface or in the subsurface. Indirect impacts are the secondary effects of a project, including project-induced changes such as increased public access to paleontologically sensitive areas and increased susceptibility of fossil-bearing geologic units to erosion due to activities like vegetation removal, which may result in adverse impacts to paleontological resources from illegal collection and damage from weathering, respectively. Cumulative impacts are the incremental effects of a project in combination with the effects of past, current, and probable future projects.

No fossils were documented from within the Project Site boundaries, but fossil localities were recovered approximately 2 miles northwest of the Project Site boundaries during excavations for the Summerly Project (WSC 2023; Appendix A). The Holocene-age deposits present at the surface of the Project Site are typically considered to have a low potential (PFYC 2) for significant paleontological resources at and near the surface due to the relatively young age of the deposits; however, planned Project excavations for are anticipated to reach depths of approximately 10 to 13 feet and have the potential to result in direct impacts to paleontological resources if the moderate paleontological potential (PFYC 3) late Pleistocene sections of the young alluvial fan deposits (Qyf₁) are encountered in the subsurface. Implementation of the Project would not increase public access or erosion; therefore, no indirect impacts to significant paleontological resources are anticipated. With implementation of the paleontological resource monitoring and treatment recommendations described in Section 7, direct impacts on paleontological resources would be reduced to less than significant levels, and the Project's potential to contribute to cumulative impacts would be negligible.

7 Summary and Recommendations

Bargas completed a desktop-level paleontological study that included reviews of geologic maps and scientific literature, searches of the online UCMP locality database and PBDB, and a records search at the WSC to identify any known paleontological resources within the Project boundaries or from the same geologic unit within a 1-mile buffer. Paleontological potential rankings were assigned using the federal PFYC system.

Based on the results of the literature and database reviews, in addition to the WSC records search, there are no known paleontological resources within the Project Site boundaries. However, fossils have been reported from Pleistocene-age alluvial fan deposits elsewhere in Riverside County from depths as shallow as 5 feet below the surface, and the WSC reported that numerous vertebrate fossils were recovered from an area mapped at the surface as late Holocene-age deposits during excavations for the Summerly Project, approximately 2 miles northwest of the Project Site boundaries (WSC 2023; Appendix A). The Holocene-age deposits present at the surface of the Project Site are typically considered to have a low potential (PFYC 2) for significant paleontological resources at and near the surface due to the relatively young age of the deposits; however,



planned Project excavations for are anticipated to reach depths of approximately 10 to 13 feet and have the potential to encounter the moderate paleontological potential (PFYC 3) late Pleistocene sections of the young alluvial fan deposits (Qyf₁) in the subsurface.

Paleontological monitoring is recommended for all anticipated excavations that extend beyond depths of 5 feet, namely those anticipated to reach depths of 10 feet, with potential for over excavations to depths of 12 to 13 feet. In the event of an unanticipated paleontological resource discovery, work within 50 feet of the resource shall stop until a qualified paleontologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery is identified as potentially significant, additional work, such as recovery, laboratory preparation, fossil identification, curation, and reporting, may be necessary. Recovered paleontological resources should be deposited in an appropriate fossil repository to be determined by the lead agency in consultation with the qualified paleontologist.

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9 Project Personnel

Courtney Richards, Principal Paleontologist

M.S., Biological Sciences (paleontology focus), Marshall University (2011)

B.S., Earth and Space Sciences, University of Washington (2006)

Years of Experience: 18

Dr. Joshua Corrie, Paleontologist

Ph.D., Geology, University of Otago (2019)

M.S., Biological Sciences, Marshall University (2013)

B.S., Earth and Environmental Sciences, University of Illinois Chicago (2010)

Years of Experience: 13



Appendix A. Western Science Center Records Search Results



May 2nd, 2023

Bargas Environmental Consulting
Joshua Corrie
680 East Colorado Blvd, 2nd Floor & Ste. 180
Pasadena, CA 91101

Dear Mr. Corrie,

This letter presents the results of a record search conducted for the Cherry Outpost Project located in Riverside County, CA. The project area is located north of Bundy Canyon Road and along the eastern edge of Interstate 15 on Township 6 South, Range 4 West, Section 23 on the *Elsinore, CA* USGS 7.5 minute quadrangle.

The geologic units underlying this project are mapped as alluvial fan deposits of gravel, sand, and silt dating from the Holocene and late Pleistocene epochs (Morton and Weber 2003). Pleistocene alluvial units are considered to be of high preservation value and are likely to contain fossils. The Western Science Center does not have localities within the project area or within a 1 mile radius, but does have localities from similarly mapped units across Southern California. The Summerly Project lies approximately two miles northwest of the Cherry Outpost Project in what is listed by Morton and Weber as late Holocene deposits; this Project resulted in numerous vertebrate fossils specimens, including *Camelops sp.*, *Bison sp.*, and *Mammuthus columbi*.

Any fossils recovered from the Cherry Outpost Project would be scientifically significant. Excavation activity associated with development of the project area would impact the paleontologically sensitive Pleistocene Pliocene units and it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If you have any questions, or would like further information about the Summerly Project, please feel free to contact me at bstoneburg@westerncentermuseum.org.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brittney Stoneburg', with a large, elegant flourish at the end.

Brittney Elizabeth Stoneburg, MSc
Collections Manager