

Appendix F Paleontological Resources Assessment Report

Appendices

This page intentionally left blank.

PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT

**PERFORMING ARTS THEATER,
ACCEL CENTER, AND LIBRARY PROJECT**

**Portions of Assessor's Parcel Numbers 149-030-005 and -008
Near the City of Tulare, Tulare County, California**

For Submittal to:

Tulare County Office of Education
6200 South Mooney Blvd
Visalia, CA 93277

Prepared for:

HANA Resources, Inc.
20361 Hermana Circle
Lake Forest, CA 92630

Prepared by:

Michael Hogan, Principal Investigator
Ron Schmidling, Principal Paleontologist
Nicole Raslich, Report Writer

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

May 28, 2025

Approximately 15.63 acres
USGS Visalia, Calif., 7.5' (1:24,000) quadrangle
Section 24, T19S R24E, Mount Diablo Baseline and Meridian
CRM TECH Project No. 4219P

EXECUTIVE SUMMARY

Between December 2024 and April 2025, at the request of HANA Resources, Inc., CRM TECH performed a paleontological resources study on approximately 15.63 acres of vacant land near the City of Tulare, Tulare County, California. The subject property of the study consists of portions of Assessor's Parcel Numbers 149-030-005 and -008, located adjacent to the west and south sides of a Tulare County Office of Education (COE) facility at 26499 North Mooney Boulevard and 11535 Avenue 264. The project location lies to the southwest of the intersection of North Mooney Boulevard (State Route 63) and Avenue 264 (Liberty Road), in the northeast quarter of Section 24, Township 19 South, Range 24 East, Mount Diablo Baseline and Meridian, as depicted in the United States Geological Survey Visalia, California, 7.5' quadrangle.

The study is part of the environmental review process for the construction of a proposed COE facility known as the Performing Arts Theater, Alternative Achievement Program, AcCEL Center, and Library Project. As the lead agency for the project, the COE required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the COE with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program, if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH conducted a literature review and carried out a systematic field survey of the project area, in accordance with the guidelines of the Society of Vertebrate Paleontology. The results of these research procedures indicate that the proposed project's potential to impact significant, nonrenewable paleontological resources is low in the previously disturbed surface and near-surface soils of Holocene age but high in the subsurface deposits of older Pleistocene alluvial sediments potentially located at depth. Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent impacts on such resources or reduce them to a level less than significant.

As the primary component of the mitigation program, all earth-moving operations impacting relatively undisturbed soils in the project area beyond the depth of five feet should be monitored periodically by a qualified paleontological monitor to identify potentially fossil-bearing sediments when they are encountered, at which time continuous monitoring will become necessary. Samples of sediment should be collected and processed to recover small fossils, and all fossil remains should be identified and curated at a repository with permanent retrievable storage. Under these conditions, CRM TECH further recommends that the project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
INTRODUCTION	1
PALEONTOLOGICAL RESOURCES.....	4
Definition	4
Significance Criteria	4
Paleontological Sensitivity.....	5
SETTING	6
METHODS AND PROCEDURES.....	7
Literature Review.....	7
Field Survey	8
RESULTS AND FINDINGS.....	8
Literature Review.....	8
Field Survey	9
CONCLUSION AND RECOMMENDATIONS	9
REFERENCES	10
APPENDIX 1: Personnel Qualifications	12

LIST OF FIGURES

Figure 1. Project vicinity.....	1
Figure 2. Project location	2
Figure 3. Recent satellite image of the project area.....	3
Figure 4. Typical landscapes in the project area.....	7
Figure 5. Geological map of the project vicinity	8

INTRODUCTION

Between December 2024 and April 2025, at the request of HANA Resources, Inc., CRM TECH performed a paleontological resources study on approximately 15.63 acres of vacant land near the City of Tulare, Tulare County, California (Fig. 1). The subject property of the study consists of portions of Assessor's Parcel Numbers 149-030-005 and -008, located adjacent to the west and south sides of a Tulare County Office of Education (COE) facility at 26499 North Mooney Boulevard and 11535 Avenue 264. The project location lies to the southwest of the intersection of North Mooney Boulevard (State Route 63) and Avenue 264 (Liberty Road), in the northeast quarter of Section 24, Township 19 South, Range 24 East, Mount Diablo Baseline and Meridian, as depicted in the United States Geological Survey (USGS) Visalia, California, 7.5' quadrangle (Figs. 2, 3).

The study is part of the environmental review process for the construction of a proposed COE facility known as the Performing Arts Theater, Alternative Achievement Program, AcCEL Center, and Library Project. As the lead agency for the project, the COE required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to provide the COE with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program, if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH conducted a literature review and carried out a systematic field survey of the project area, in accordance with the guidelines of the Society of Vertebrate Paleontology. The following report is a complete account of the methods, results, and final conclusion of this study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

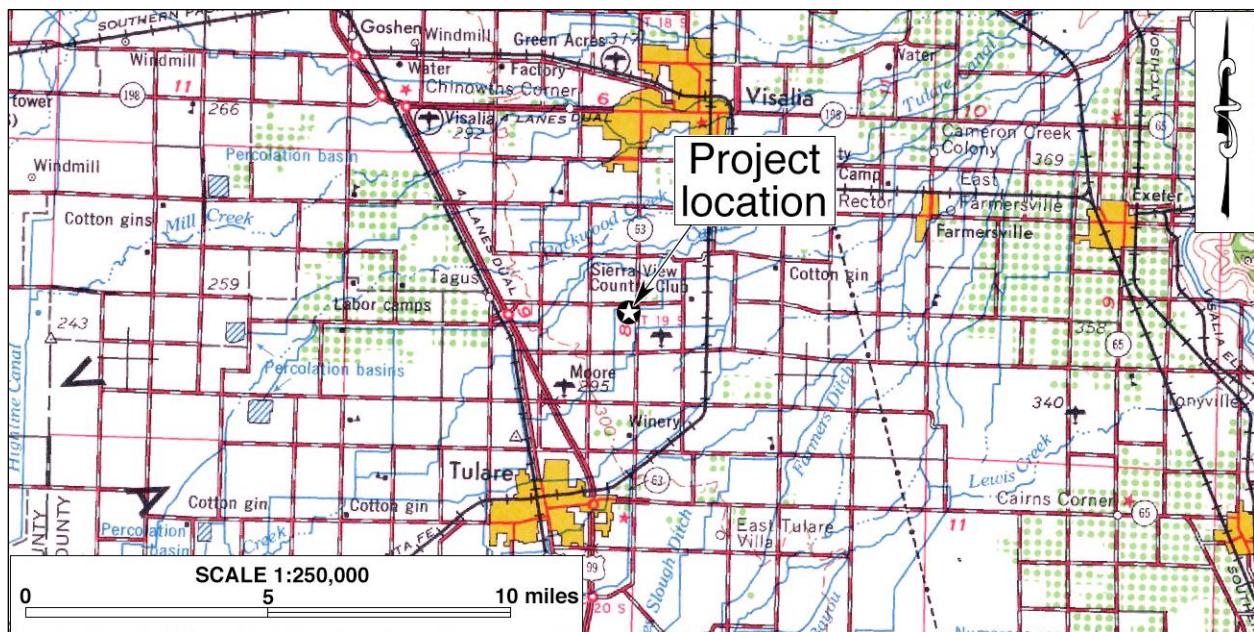


Figure 1. Project vicinity. (Based on USGS Fresno, California., 120' x 60' quadrangle [USGS 1966]).

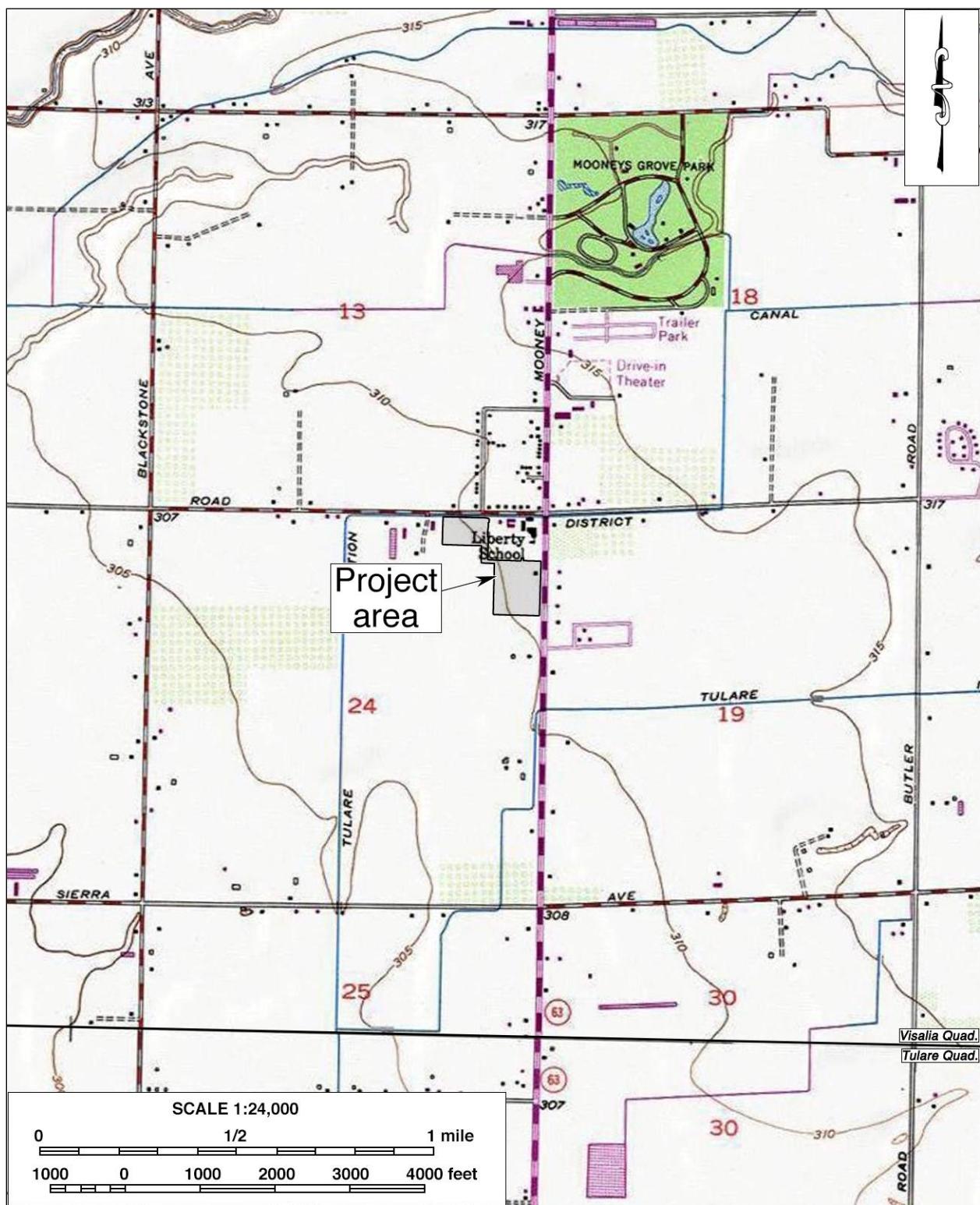


Figure 2. Project location. (Based on USGS Tulare and Visalia, Calif., 7.5' quadrangles [USGS 1969a; 1969b])



Figure 3. Recent satellite image of the project area.

PALEONTOLOGICAL RESOURCES

DEFINITION

Paleontological resources represent the remains of prehistoric life, exclusive of any human remains, and include the fossils themselves as well as the sedimentary rock formations in which they were found. The defining character of fossils or fossil deposits is their geologic age, typically older than recorded human history and/or older than the middle Holocene Epoch, which dates to circa 5,000 radiocarbon years (Society of Vertebrate Paleontology 2010:11).

Common fossil remains include marine and freshwater mollusk shells; the bones and teeth of fish, amphibians, reptiles, and mammals; leaf imprint assemblages; and petrified wood. Trace fossils, another type of paleontological resource, include internal and external molds (impressions) and casts, such as footprints, created by these organisms. These items can serve as important guides to the age of the rocks and sediments in which they are contained and may prove useful in determining the temporal relationships between rock deposits from one area and those from another as well as the timing of geologic events. They can also provide information regarding evolutionary relationships, development trends, and environmental conditions.

Fossil resources generally occur only in areas of sedimentary rock (e.g., sandstone, siltstone, mudstone, claystone, or shale). Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered nonrenewable paleontological resources. Occasionally fossils may be exposed at the surface through the process of natural erosion or because of human disturbances; however, they generally lay buried beneath the surficial soils. Thus, the absence of fossils on the surface does not preclude the possibility of their being present within subsurface deposits, while the presence of fossils at the surface is often a good indication that more remains may be found in the subsurface.

SIGNIFICANCE CRITERIA

According to guidelines proposed by Scott and Springer (2003:6), paleontological resources can be considered to be of significant scientific interest if they meet one or more of the following criteria:

1. The fossils provide information on the evolutionary relationships and developmental trends exhibited among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or the interactions between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; and/or
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

PALEONTOLOGICAL SENSITIVITY

The fossil record is unpredictable, and the preservation of organic remains is rare, requiring a particular sequence of events involving physical and biological factors. Skeletal tissue with a high percentage of mineral matter is the most readily preserved within the fossil record; soft tissues not intimately connected with the skeletal parts, however, are the least likely to be preserved (Raup and Stanley 1978). For this reason, the fossil record contains a biased selection not only of the types of organisms preserved but also of certain parts of the organisms themselves. As a consequence, paleontologists are unable to know with certainty the quantity of fossils or the quality of their preservation that might be present within any given geologic unit.

Sedimentary units that are paleontologically sensitive are those geologic units (mappable rock formations) with a high potential to contain significant nonrenewable paleontological resources. More specifically, these are geologic units within which vertebrate fossils or significant invertebrate fossils have been determined by previous studies to be present or are likely to be present. These units include, but are not limited to, sedimentary formations that contain significant paleontological resources anywhere within their geographical extent as well as sedimentary rock units temporally or lithologically amenable to the preservation of fossils.

A geologic formation is defined as a stratigraphic unit identified by its lithic characteristics (e.g., grain size, texture, color, and mineral content) and stratigraphic position. There is a direct relationship between fossils and the geologic formations within which they are enclosed and, with sufficient knowledge of the geology and stratigraphy of a particular area, it is possible for paleontologists to reasonably determine the formation's potential to contain significant nonrenewable vertebrate, invertebrate, marine, or plant fossil remains.

The paleontological sensitivity for a geologic formation is determined by the potential for that formation to produce significant nonrenewable fossils. This determination is based on what fossil resources the particular geologic formation has produced in the past at other nearby locations. Determinations of paleontologic sensitivity must consider not only the potential to yield a large collection of fossil remains but also the potential to yield a few fossils that can provide new and significant taxonomic, phylogenetic, and/or stratigraphic data.

The Society of Vertebrate Paleontology issued a set of standard guidelines intended to assist paleontologists to assess and mitigate any adverse effects/impacts to nonrenewable paleontological resources. The guidelines defined four categories of paleontological sensitivity for geologic units that might be impacted by a proposed project, as listed below (Society of Vertebrate Paleontology 2010:1-2):

- **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.
- **Low Potential:** Rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus 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.

SETTING

The project area is located within the greater San Joaquin Valley, a forearc basin that is a sediment filled depression between the California Coast Ranges and the Sierra Nevadas. Like much of this region, the San Joaquin Valley is cut by numerous faults, many of which are active and associated with recent earthquakes. The climate in the region experiences hot, dry summers and foggy, rainy winters, with seasonal average temperatures ranging between lows in the 30°F range in winter and highs over 90°F in summer. Rainfall is typically less than 20 inches annually, most of which occurs between November and April.

The San Joaquin Valley is bound by the Coast Range on the west, the Transverse Range (San Emigdio Mountains) on the south, and the Sierra Nevada (including the Tehachapi Mountains) on the east. The area is underlain by thick sequences of sedimentary rocks, primarily from the Miocene epoch. These layers include sandstones, siltstones, shales, and conglomerates, deposited over millions of years in fluvial, deltaic, and marine environments.

The San Joaquin Valley is located within the Central Valley province, one of several geomorphic provinces identified in California (Jenkins 1980). To the east, the basin of the Central Valley is bound by the Sierra Nevada foothills and mountains, while to the west the basin is bound by the California Coast Ranges. The Central Valley is filled with deep layers of sedimentary materials derived primarily from the Sierra Nevada (Page 1983). The Sierra Nevada Mountain range is composed of both igneous and metamorphic rocks. The sediments from these materials are primarily feldspar, mica, and quartz. The Coast Ranges are geologically different and are composed of gypsiferous marine shale, sandstone, and volcanics. The sediments derived from these mountains are primarily gypsiferous (Meade 1967). Sediments in the Central Valley are deposited as alluvial-fan, flood-basin, lake and marsh deposits with some deltaic deposits in specific regions (Page 1983:12).

The soil within the project area consists of tan to brown loam with a light amount of clay containing small amounts of tiny, rounded pebbles. Areas of bioturbation and subsurface areas exposed by the removal of a residence (Google Earth 2024; 2025) are indicative that this soil variety continues to at least one foot below the ground surface. The vegetation observed in the project area consists of a dense field of mallow with small grasses and shrubs present (Fig. 4). The rows of trees that stood on the property until 2024 (Google Earth 2024; 2025) were cut down and chipped on the property, leaving vast areas of wood chip ground coverage. A single cactus paddle near the former site of the house is the only remnant of the apparently extensive garden and landscaping that once existed.

As mentioned above, the irregularly shaped project area wraps around the west and south sides of an existing COE facility, with a residential neighborhood further to the north, a commercial property to the east, and agricultural land to the south and west. Lying between the city limits of Tulare and Visalia, the project area is currently vacant and fallow except for ruderal grasses. The terrain on the property is relatively level, and the elevation is roughly 310 feet above mean sea level. In its native state, the project area would be a part of the California Central Oak Woodland plant community, and two oak trees exist just outside of the western project boundary. With an extensive history of agricultural activity, the native vegetation is all but eliminated.



Figure 4. Typical landscape in the project area. (Photograph taken on February 21, 2025; view to the northeast)

METHODS AND PROCEDURES

LITERATURE REVIEW

As a part of the research procedures, CRM TECH report writer Nicole Raslich reviewed geological literature pertaining to the project vicinity under the direction of principal paleontologist Ron Schmidling. Sources consulted during the review include primarily published literature on regional geology; topographic, geologic, and soil maps of the Tulare area; aerial and satellite images available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software; and other materials in the CRM TECH library, including unpublished reports produced during similar surveys in the vicinity. In conjunction with the literature review, a paleontological records search for this study was requested from both the Natural History Museum of Los Angeles County (LANHM) in Los Angeles, California, and California State University, Fresno (CSUF), in Fresno, California.

FIELD SURVEY

On February 21, 2025, CRM TECH paleontological surveyor Hunter O'Donnell carried out the field survey of the project area. The survey was completed on foot at an intensive level by walking a series of parallel north-south transects at 15-meter (approximately 50-foot) intervals. In this way, the ground surface in the project area was carefully examined to determine the soil types, to verify the geological formations, and to look for any indications of paleontological remains. Ground visibility was generally poor due to the dense vegetative cover over much of the property (Fig. 4). In light of past ground disturbances in the project area, however, the ground visibility was deemed adequate for the purpose of the survey.

RESULTS AND FINDINGS

LITERATURE REVIEW

Geologic literature and maps indicate that the surface sediments within the project area consist of recent alluvial deposits from the Kaweah River and various creeks. These deposits include gravels, sands, silts, and clays, providing fertile soil for agriculture. The project location lies directly upon the floodplain of the Kaweah River, which is composed of late Holocene alluvial fan deposits (*Qf*; Fig. 5). These deposits are made up of “unconsolidated boulders, cobbles, gravel, sand and silt recently deposited...gravelly sediment generally more dominant than sandy sediment” (Haydon and Hayhurst 2011).

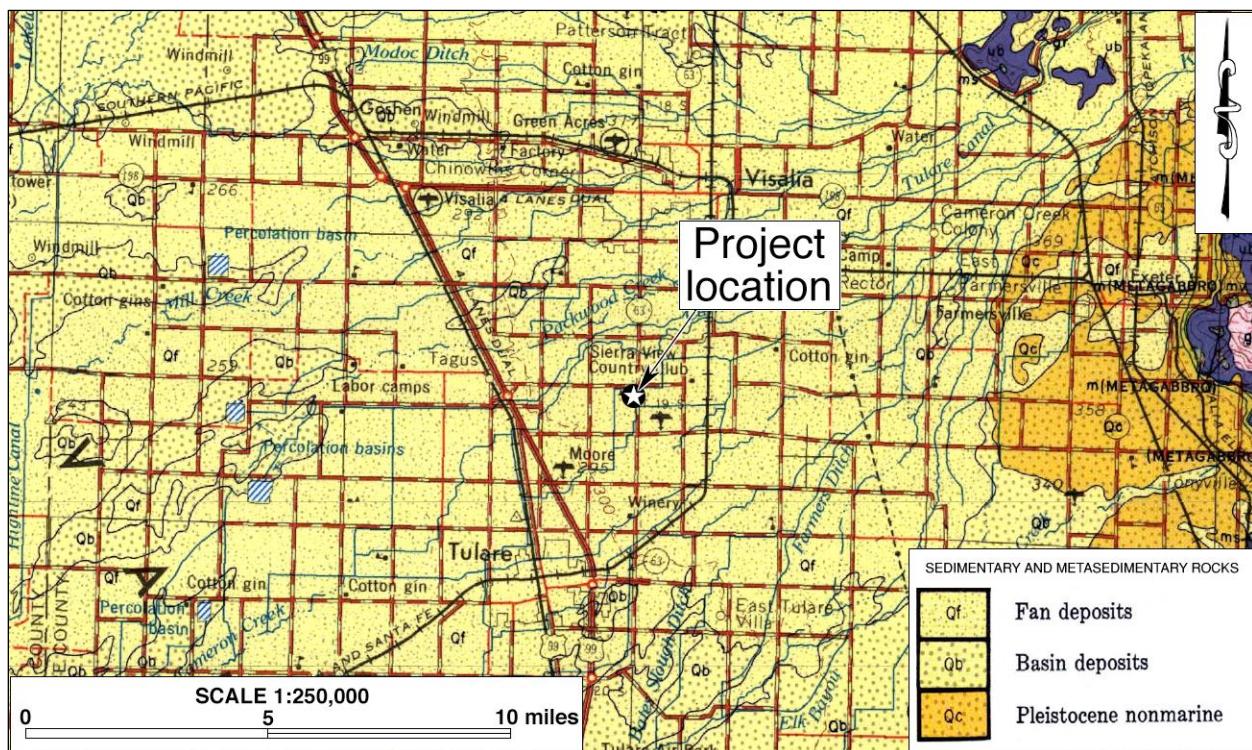


Figure 5. Geological map of the project vicinity. (Source: Jenkins 1965)

Jenkins (1965) notes that these sediments are deposited from streams emerging from highlands surrounding the Great Valley. The highlands are recorded as part of the Modesto Formation composed of granitic sand and silt. Holocene-age alluvium is generally considered to be geologically too young to contain significant nonrenewable paleontological resources, and it is thus typically assigned a low paleontological sensitivity. Although this particular sediment is low in paleontological sensitivity, the floodplains to the southwest do contain older Pleistocene non-marine deposits (*Qc*) that have a high paleontological sensitivity. These deposits may be encountered at depth within the project area.

The surface geology in the project area was described as sediments generalized by two grain size trends. The first is a downward fining trend where the grain size decreases as the silt and clay content increases with depth. The second is the lateral trend where the sediments become much finer-grained, and the coarse-grained sand and gravel deposits become thinner as the distance from sediment source increases. In the San Joaquin Valley, sediment texture from the Sierra Nevada is more crystalline in structure, and it tends to be higher in coarse-grained material than those derived from the Coastal Ranges. The Coastal Ranges sediments are finer-grained as a result of deriving from a shale rich environment (Faunt et al. 2010).

The LANHM replied to the records search request via email, offering suggestions as to potential informational resources regarding paleontological resources within or near the project area, including CSUF. However, no specific information on paleontological records for the project vicinity was provided. To date, no response to the records search request was received from CSUF.

FIELD SURVEY

The field survey produced negative results for potential paleontological resources. The soils observed in the project area showed no indication of either surficial or immediately subsurface paleontological deposits, and extensive ground disturbance has occurred in the past as a result of agricultural operations as well as construction and demolition activities. Freshwater mollusk shells were identified towards the northern end of the project area, in the area where an irrigation canal once flowed in the open, likely associated with invasive species within the canals rather than being representative of an ancient period of inundation.

CONCLUSION AND RECOMMENDATIONS

CEQA guidelines (Title 14 CCR App. G, Sec. V(c)) require that public agencies in the State of California determine whether a proposed project would “directly or indirectly destroy a unique paleontological resource” during the environmental review process. The present study, conducted in compliance with this provision, is designed to identify any significant, non-renewable paleontological resources that may exist within or adjacent to the project area, and to assess the possibility for such resources to be encountered in future excavation and construction activities.

The results of the literature review indicate that the project area is located on Holocene sedimentation that is unlikely to contain fossil materials due to their relatively recent age of deposition. Furthermore, past agricultural operations have left the surface sediments extensively

disturbed. However, these younger soils could potentially sit on top of Pleistocene-age alluvium, which has a high potential to contain significant, nonrenewable fossil remains. Deep-reaching earth-moving activities, therefore, may potentially disrupt or adversely affect paleontological resources.

In summary, the proposed project's potential to impact significant, nonrenewable paleontological resources appears to be low in the previously disturbed surface and near-surface soils of Holocene age but high in the subsurface deposits of older Pleistocene alluvial sediments potentially present at depth. Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent impacts on such resources or reduce them to a level less than significant. The mitigation program should be formulated in accordance with the provisions of CEQA (Scott and Springer 2003) as well as the proposed guidelines of the Society of Vertebrate Paleontology (2010), and should include but not be limited to the following components:

- All earth-moving operations during construction that reach beyond the depth of five feet below the current ground surface should be monitored periodically by a qualified paleontological monitor to identify potentially fossil-bearing sediments when they are encountered, at which time continuous monitoring will become necessary. The frequency of the periodic monitoring, or "spot-checking," will be determined and adjusted upon inspection of exposed subsurface soils. The monitor should be prepared to quickly salvage fossils as they are unearthed to avoid construction delays and should collect samples of sediments that are likely to contain fossil remains of small vertebrates or invertebrates. However, the monitor must have the authority to temporarily halt or divert grading equipment to allow for the removal of abundant or large specimens.
- Samples of sediment should be collected and processed to recover small fossils, and all fossil remains should be identified and curated at a repository with permanent retrievable storage, such as the Fossil Discovery Center of Madera County in Chowchilla, the Buena Vista Museum of Natural History in Bakersfield, or the Fresno Discovery Center in Fresno.
- A report of findings, including an itemized inventory of recovered specimens, should be prepared upon completion of on-site monitoring and sample processing. The report should include a discussion of the significance of the paleontological findings, if any. The report and the inventory, when approved by the COE, would signify completion of the program to mitigate potential impacts on paleontological resources.

Under these conditions, CRM TECH further recommends that the proposed project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

REFERENCES

Faunt, Claudia, Kenneth Belitz, and Randall Hanson.
2010 Development of a Three-Dimensional Model of Sedimentary Texture in Valley-Fill Deposits of Central Valley, California. *Hydrology Journal* 18(3):625-649.

Google Earth
2024-2025 Satellite photographs of the project vicinity. Available through Google Earth software.

Haydon, Wayne D., and Cheryl A. Hayhurst
2006 Geologic Map of the San Bernardino and Santa Ana 30'x60' quadrangle, California. U.S. Geological Survey Open-File Report 2006-1217. Digital preparation by Pamela M. Cossette and Kelly R. Bovard.

Jenkins, Olaf P.
1965 Geologic Map of California. Olaf P. Jenkins Edition. Fresno Sheet compilation by Robert A. Matthews and John L. Burnett.
1980 Geomorphic Provinces Map of California. *California Geology* 32(2):40-41.

Meade, R.H.
1967 *Petrology of Sediments Underlying Areas of Land Subsidence in Central California*. U.S. Geological Survey Professional Paper 497-C.

Page, R.W.
1983 *Geology of the Tulare Formation and Other Continental Deposits, Kettleman City Area, San Joaquin Valley, California, with a Section on Ground-Water Management Considerations and Use of Texture Maps*. U.S. Geological Survey Water-Resources Investigations Report 83-4000.

Raup, David M., and Steven M. Stanley
1978 *Principle of Paleontology*. W.H. Freeman and Company, San Francisco.

Scott, Eric, and Kathleen Springer
2003 CEQA and Fossil Preservation in California. *Environmental Monitor* Fall:4-10.
Association of Environmental Professionals, Sacramento, California.

Society of Vertebrate Paleontology
2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. http://vertpaleo.org/Membership/Member-Resources/SVP_Impact_Mitigation_Guidelines.aspx.

APPENDIX 1:
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR
Michael Hogan, Ph.D.

Education

1991 Ph.D., Anthropology, University of California, Riverside.
1981 B.S., Anthropology, University of California, Riverside; with honors.
1980-1981 Education Abroad Program, Lima, Peru.

2002 "Section 106—National Historic Preservation Act: Federal Law at the Local Level," UCLA Extension Course #888.
2002 "Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002 "Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992 "Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992 "Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002- Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002 Project Archaeologist/Field Director, CRM TECH, Riverside, California.
1996-1998 Project Director and Ethnographer, Statistical Research, Inc., Redlands, California.
1992-1998 Assistant Research Anthropologist, University of California, Riverside.
1992-1995 Project Director, Archaeological Research Unit, U.C. Riverside.
1993-1994 Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992 Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998 Project Director, Field Director, Crew Chief, and Archaeological Technician for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Principal investigator for, author or co-author of, and contributor to numerous cultural resources management study reports since 1986.

Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PRINCIPAL PALEONTOLOGIST
Ron Schmidtling, M.S.

Education

1995 M.S., Geology, University of California, Los Angeles.
1991 Pasadena City College, Pasadena, California.
1985 B.A., Archaeology, Paleontology, Ancient Folklore, and Art History, University of Southern Mississippi, Hattiesburg.

Professional Experience:

2020- Principal Paleontologist, CRM TECH, Colton, California.
2014- Instructor of Earth Science, History of Life, Ecology, and Evolutionary Biology, Columbia College Hollywood, Reseda, California.
2013, 2015 Volunteer, excavation of a camarasaur and a diplodocid in southern Utah, Natural History Museum of Los Angeles County, California.
1993-2014 Consultant, Getty Conservation Institute, Brentwood, California.

- Geological Consultant on the Renaissance Bronze Project, characterizing constituents of bronze core material;
- Paleontological Consultant for Antiquities/Conservation, identifying the foraminifera and mineral constituents of a limestone torso of Aphrodite;
- Scientific Consultant on the Brentwood Site Building Project, testing building materials for their suitability in the museum galleries.

1999-2001 Archaeological and Paleontological Monitor, Michael Brandman Associates, Irvine, California.
1997 Department of Archaeology, University of California, Los Angeles.
1994 Scientific Illustrator and Teaching Assistant, Department of Earth and Space Sciences and Department of Biological Sciences, University of California, Los Angeles.

Memberships

AAPS (Association of Applied Paleontological Sciences), USA; CSEOL (Center for the Study of Evolution and the Origin of Life), Department of Earth Sciences, University of California, Los Angeles.

Publications and Reports

Author, co-author, and contributor on numerous paleontological publications and paleontological resource management reports.

REPORT WRITER
Nicole A. Raslich, M.A.

Education

2017- Ph.D. candidate, Michigan State University, East Lansing.
2011 M.A., Anthropology, Michigan State University, East Lansing.
2005 B.A., Natural History of Biology and Anthropology, University of Michigan, Flint.

2022 Adult First Aid/CPR/AED Certification, American Red Cross.
2019 Grant and Research Proposal Writing for Archaeologists; SAA Online Seminar.
2014 Bruker Industries Tracer S1800 pXRF Training; presented by Dr. Bruce Kaiser, Bruker Scientific.
2013 Introduction to ArcGIS, Michigan State University, East Lansing.

Professional Experience

2022- Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2022 Archaeological Technician, Agua Caliente Band of Cahuilla Indians, Palm Springs, California.
2008-2021 Archaeological Consultant, Saginaw Chippewa Indian Tribe of Michigan.
2019 Archaeologist, Sault Tribe of Chippewa Indians and Little Traverse Bay Band of Odawa Indians
2018 Teaching Assistant, Michigan State University, East Lansing.
2017 Adjunct Professor, University of Michigan, Flint.
2015-2016 Graduate Fellow, Michigan State University Campus Archaeology Program, East Lansing.
2015 Archaeologist, Michigan State University, Illinois State Museum, and Dickson Mounds Museum.
2013-2015 Curation Research Assistant, Michigan State University Museum, East Lansing.
2008-2014 Research Assistant, Intellectual Property Issues in Cultural Heritage, Simon Fraser University, British Columbia, Canada.
2009-2012 Editorial Assistant/Copy Editor, *American Antiquity*.
2009-2011 Archaeologist/Crew Chief, Saginaw Chippewa Indian Tribe of Michigan.

Publications

2017 Preliminary Results of a Handheld X-Ray Fluorescence (pXRF) Analysis on a Marble Head Sarcophagus Sculpture from the Collection of the Kresge Art Center, Michigan State University. Submitted to Jon M. Frey, Department of Art, Art History, and Design. Michigan State University, East Lansing.
2016 Preserving Sacred Sites: Arctic Indigenous Peoples as Cultural Heritage Rights Holders (L. Heinämäki, T.M. Herrmann, and N.A. Raslich). University of Lapland Printing Centre, Rovaniemi, Finland.

PALEONTOLOGICAL SURVEYOR/FIELD CREW CHIEF
Hunter C. O'Donnell, B.A.

Education

2016- M.A. Program, Applied Archaeology, California State University, San Bernardino.
2015 B.A. (*cum laude*), Anthropology, California State University, San Bernardino.
2012 A.A., Social and Behavioral Sciences, Mt. San Antonio College, Walnut, California.
2011 A.A., Natural Sciences and Mathematics, Mt. San Antonio College, Walnut, California.

2014 Archaeological Field School, Santa Rosa Mountains; supervised by Bill Sapp of the United States Forest Service and Daniel McCarthy of the San Manuel Band of Mission Indians.

Professional Experience

2022- Field Crew Chief, CRM TECH, Colton, California.
2017- Project Archaeologist, CRM TECH, Colton, California.
2016-2018 Graduate Research Assistant, Applied Archaeology, California State University, San Bernardino.
2016-2017 Cultural Intern, Cultural Department, Pechanga Band of Luiseño Indians, Temecula, California.
2015 Archaeological Intern, U.S. Bureau of Land Management, Barstow, California.
2015 Peer Research Consultant: African Archaeology, California State University, San Bernardino.

