PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT

BRODIAEA AVENUE 134 SFD PROJECT

Assessor's Parcel Numbers 478-070-013 to -015 and 478-080-003 to -005
City of Moreno Valley, Riverside County, California

For Submittal to:

Community Development Department, Planning Division
City of Moreno Valley
14177 Frederick Street
P.O. Box 88005
Moreno Valley, CA 92552

Prepared for:

Warmington Residential, South California Division
3090 Pullman Street
Costa Mesa, CA 92626

Prepared by:

Ron Schmidtling, Principal Paleontologist
Frank Raslich, Report Writer
CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

March 16, 2025

Approximately 14.2 acres
USGS Sunnymead, Calif., 7.5' (1:24,000) quadrangle
Section 14, T3S R3W, San Bernardino Baseline and Meridian
CRM TECH Contract No. 4216P

EXECUTIVE SUMMARY

Between November 2024 and March 2025, at the request of Warmington Residential, CRM TECH performed a paleontological resource assessment on approximately 14.2 acres of mostly vacant land in the City of Moreno Valley, Riverside County, California. The subject property of the study, consisting of Assessor's Parcel Numbers 478-070-013 to -015 and 478-080-003 to -005, is located at 28136 Brodiaea Avenue, on the north side of Brodiaea Avenue and to the east of Moreno Beach Drive, in the northwest quarter of Section 14, Township 3 South, Range 3 West, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the proposed subdivision of the property for single-family residential development. The City of Moreno Valley, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City 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 initiated a records search at the appropriate repository, conducted a literature review, and carried out a systematic field survey of the project area. The results of these research procedures indicate no known fossil localities within the project area or within a one-mile radius but suggest that the project location lies upon Pleistocene alluvial fan deposits that are known to be fossiliferous. The project's potential to impact significant, nonrenewable paleontological resources, therefore, appears to be high in the Pleistocene and Pliocene units occurring subsurface at this location.

Based on these findings, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent impacts on significant, nonrenewable paleontological resources or reduce the impacts to a level less than significant. As a part of the mitigation program, periodic monitoring, or "spot-checking," should be carried out upon commencement of earth-moving operations in the project area to ensure the timely identification of previously undisturbed, potentially fossiliferous sediments when they are encountered. Once the depth of three feet is reached, or if potentially fossiliferous sediments are exposed sooner, all further earth-moving operations will need to be monitored continuously. Under these conditions, CRM TECH further recommends that the proposed project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

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INTRODUCTION

Between November 2024 and March 2025, at the request of Warmington Residential, CRM TECH performed a paleontological resource assessment on approximately 14.2 acres of mostly vacant land in the City of Moreno Valley, Riverside County, California (Fig. 1). The subject property of the study, consisting of Assessor's Parcel Numbers 478-070-013 to -015 and 478-080-003 to -005, is located at 28136 Brodiaea Avenue, on the north side of Brodiaea Avenue and to the east of Moreno Beach Drive, in the northwest quarter of Section 14, Township 3 South, Range 3 West, San Bernardino Baseline and Meridian (Figs. 2, 3).

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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 initiated a records search at the appropriate repository, conducted a literature review, and carried out a systematic field survey of the project area. 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.

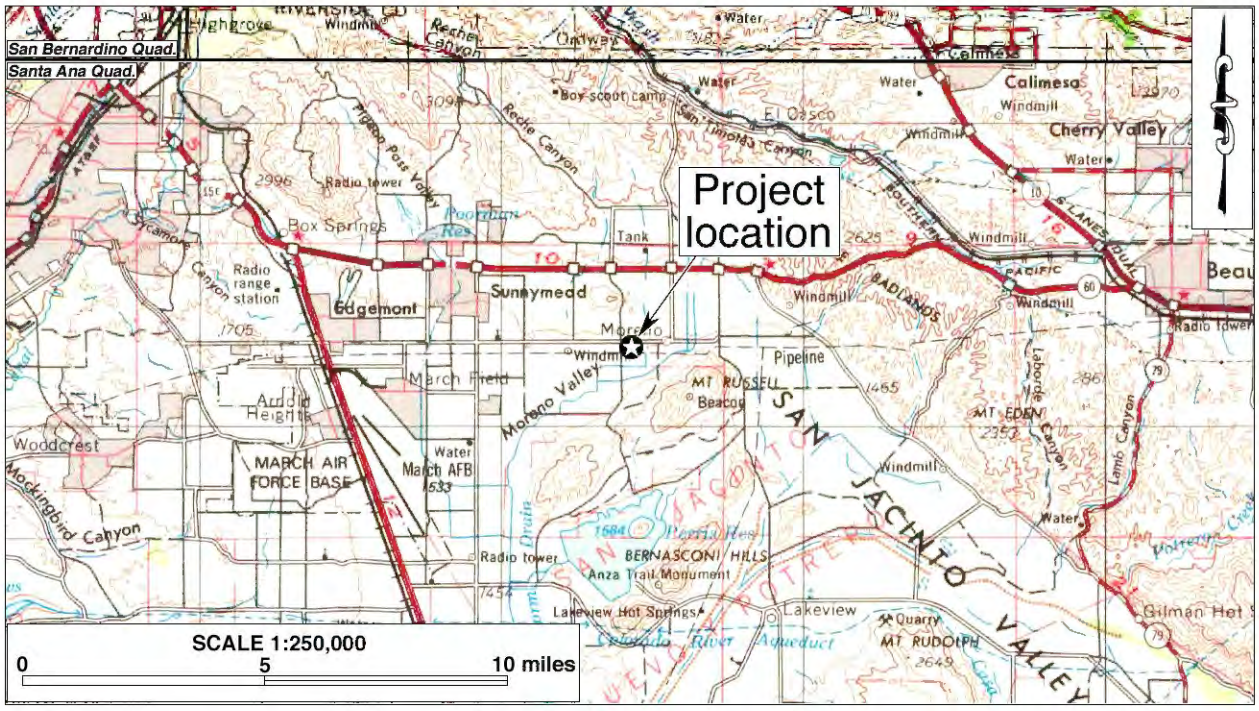

Figure 1. Project vicinity. (Based on USGS San Bernardino and Santa Ana, Calif., 120'x60' quadrangles, 1969/1979 edition)

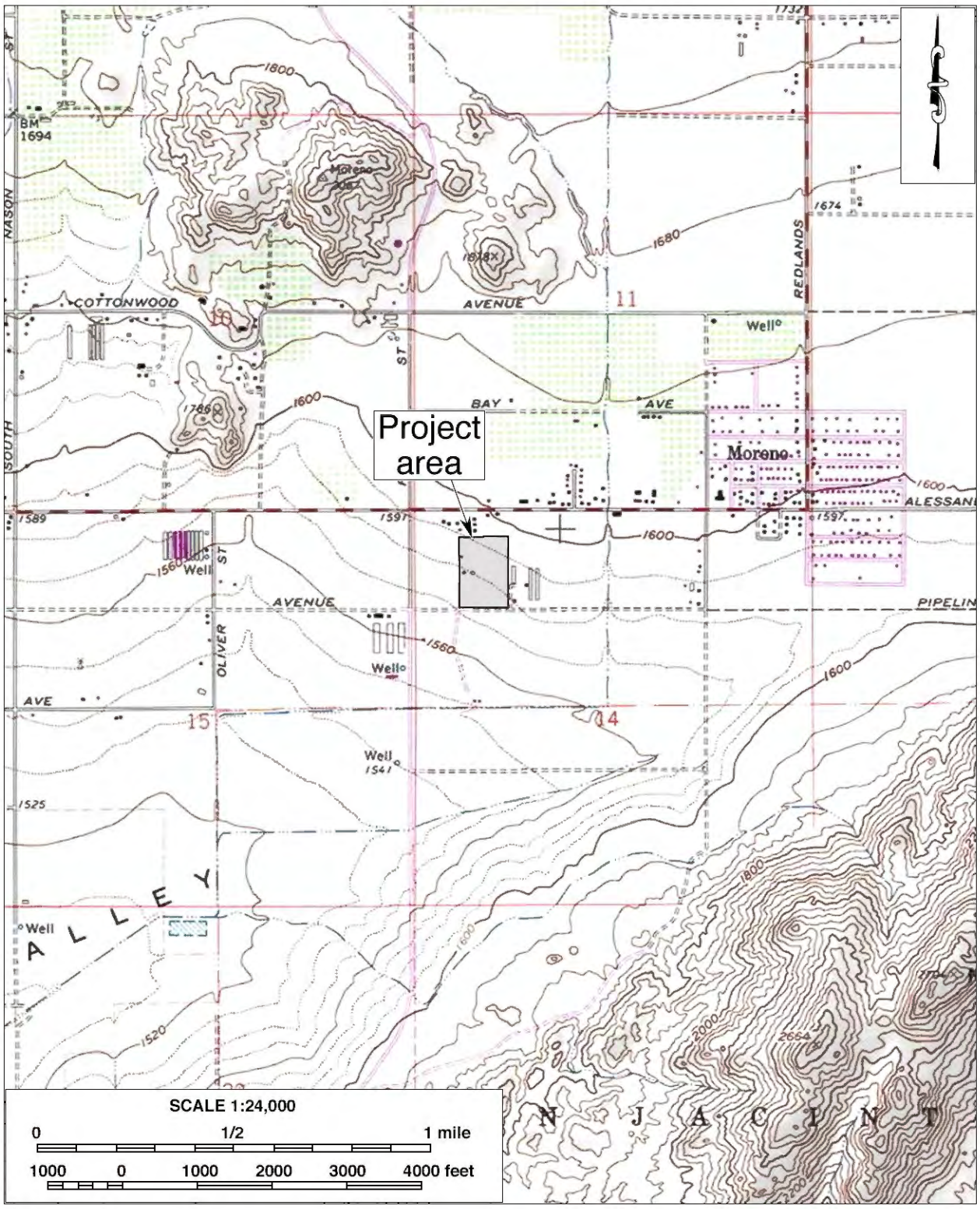

Figure 2. Project location . (Based on the USGS Sunnymead, Calif., 7.5' quadrangle, 1980 edition)

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 Eric Scott and Kathleen Springer (2003) of the San Bernardino County Museum, 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. Consequently, 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 palaeontologic 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 City of Morena Valley and its namesake geographic feature, which extends generally northeast-southwest between the northern ends of the adjacent San Jacinto Valley and Perris Valley, are located in the northern portion of the Peninsular Ranges geomorphic province (Jenkins 1980:40-41; Harms 1996:150). The Peninsular Ranges geomorphic province is bounded on the north by the Transverse Ranges province, on the northeast by the Colorado Desert province, and on the west by the Pacific Ocean. It extends southward to the southern tip of Baja California (Jahns 1954:Plate 3).

The Peninsular Ranges province is made up of a series of northwest-southeast trending structural blocks consisting of uplifted mountains that are separated by valley basins that have developed along the intervening fault zones. The mountains are made up mainly of igneous intrusive rocks, metasedimentary rocks, and some metavolcanic rocks (Harden 2004:466-468). The non-crystalline rocks in the western portion of the mountains consist of both metavolcanic and metasedimentary rocks that are mainly of Mesozoic age, while the eastern portion contains mainly metasedimentary rocks of Paleozoic and older age (*ibid.*:471-472). The crystalline basement rocks are present in both the western and the eastern portions and consist mainly of Mesozoic-age granitic rocks with some scattered gabbroic intrusions (*ibid.*:466-468).

Geologically, the project area lies on the edge of a high portion of the Perris Block, which was defined by English (1926) as a region between the San Jacinto and the Elsinore-Chino fault zones and consisting of a series of tectonically controlled valleys and ridges. The block is bounded on the north by the Cucamonga (San Gabriel) Fault and on the south by a vaguely delineated boundary near the southern end of the Temecula Valley (*ibid.*). The structural blocks are considered to have been active since Pliocene time (Woodford et al. 1971:3421). The Pliocene- and Pleistocene-age non-marine sedimentary rocks found filling the valley areas have produced vertebrate fossils, as well as plant and invertebrate fossil remains (Mann 1955:13).

The project area lies on the southeastern outskirts of the City of Morena Valley, in a semi-rural area that is gradually acquiring a suburban character as the result of residential and commercial development in recent decades. It is bounded by Brodiaea Avenue and a residential neighborhood on the south, rural residential properties of older vintages on the north, and mostly open land on the east and west (Fig. 3). Three buildings stand in the western portion of the property, including a residence, a barn, and a greenhouse (Fig. 4), none of which is currently in use. The terrain in the project area is relatively level, and the elevations range roughly from 1,575 feet to 1,590 feet above mean sea level. The ground surface shows signs of past disturbance through agricultural uses and disking, and a circular dirt bike path has been eked out in the southwestern portion of the property.

The surface soil is composed of very old alluvial fan deposits of moderately to well consolidated silt, sand, gravel, and conglomerate (Morton and Miller 2006). Existing flora includes invasive and naturalized weeds and grasses such as Russian thistle (*Echinops exaltatur*), tamarisk (*Tamarisk sp.*), Mediterranean cypress (*Cupressus sempervirens*), Mexican fence post cactus (*Lophocereus marginatus*), century plant (*Agave americana*), pepper trees (*Schinus molle*), golden spined cereus (*Bergerocactus emoryi*), palo verde (*Parkinsonia florida*), and various non-native grasses (*Poaceae sp.*). Typical fauna includes plovers (*F. Charadriidael*), cottontail rabbits (*Lepus sylvaticus*), and sparrows (*Passer domesticus*; Schoenherr 1992).

Figure 4. Overview of the project area. (Photograph taken on January 22, 2025; view to the north)

METHODS AND PROCEDURES

RECORDS SEARCHES

The paleontological records search service for this study was provided on December 26, 2024, by the Western Science Center (WSC) in Hemet. The WSC maintains files of regional paleontological localities as well as supporting maps and documents. The records search results were used to identify previously performed paleontological resource assessments and known paleontological localities within a one-mile radius of the project area. A copy of the records search results is attached to this report in Appendix 2.

LITERATURE REVIEW

In conjunction with the records search, CRM TECH report writer Frank Raslich reviewed geological literature pertaining to the project vicinity under the direction of principal paleontologist Ron Schmidtling. Sources consulted during the review include primarily topographic, geologic, and soil maps of the Moreno Valley area, the Riverside County GIS database on paleontological sensitivity, and aerial/satellite images available at the Nationwide Environmental Title Research (NETR) Online website, through the Google Earth software, and from the Geospatial Collection of the University of California, Santa Barbara (UCSB). Other materials in the CRM TECH library, including unpublished reports produced during similar surveys in the vicinity, were also consulted for pertinent information.

FIELD SURVEY

On January 22, 2025, CRM TECH paleontological surveyor Michael D. Richards 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 entire project area was systematically and closely examined to determine soil types, verify the geological formations, and search for indications of paleontological remains.

Ground visibility varied from poor to good (10-80%) depending on vegetation growth. In light of the extent of past disturbances to the ground surface in the project area, the level of visibility was deemed to be adequate for this study.

RESULTS AND FINDINGS

RECORDS SEARCHES

The records search results identified no paleontological localities within the project area or within a one-mile radius but indicated the presence of such localities discovered elsewhere in southern California in sediment lithologies similar to those known to occur at the project location, including several located approximately 1.5 miles north of the project location (Stoneburg 2025; see App. 2). According to the WSC, the project area lies on alluvial fan deposits from the Holocene and Pleistocene Epochs, with the Pleistocene-age sediments considered to be highly sensitive for paleontological resources (*ibid.*). Therefore, the WSC concluded that any fossil specimen recovered from the project area would be scientifically significant and recommended that a paleontological resource mitigation program be implemented to monitor ground-disturbing activities and salvage such specimens, if discovered (*ibid.*).

LITERATURE REVIEW

The surface geology within the project area was mapped by Dudley (1935:Geologic Map) as alluvium of Quaternary age. Rogers (1965) mapped the surface geology as entirely Quaternary alluvium (*Qal*). Morton (2004) mapped it as young alluvial fan deposits, Unit 1 (Qyf_1, from early Holocene and late Pleistocene), the oldest among the *Qyf* units. He described Qyf_1 as gravel, sand, and silt mixtures, unconsolidated to incipient consolidation, some containing boulders (*ibid.*). Morton and Matti (2001; Fig. 5) also mapped the sediments as young alluvial fan deposits (Qyf_a), a gray-hued sand, cobble-sand, and gravel-sand deposits derived from lithicly diverse sedimentary units. According to Morton and Matti (*ibid.*), Qyf_a was extensively developed in the eastern Moreno Valley and in the San Timoteo Canyon and its tributary canyons, where the unit is mostly sand and gravel-sand that is arenaceous (very coarse sand through very fine sand).

The Riverside County paleontological sensitivity map classifies the project location as High Sensitivity ("High B"; RCIT n.d.). According to the County's general plan,

> High Sensitivity B (High B) is a sensitivity equivalent to High A, but is based on the occurrence of fossils at a specified depth below the surface. This category indicates that fossils are likely to be encountered at or below 4 feet of depth, and may be impacted during excavation by construction activities. (County of Riverside RCIT n.d.)

For projects under the County's jurisdiction, the general plan requires that whenever a project site is considered high in paleontological sensitivity, a paleontological resource impact mitigation program (PRIMP) be developed to specify the steps to mitigate impacts to paleontological resources (County of Riverside 2015:OS-51). Aerial and satellite images show the entire project area to be used as agricultural fields in the 1950s before the construction of a number of buildings on the western portion of the property between 1959 and 1978 (UCSB 1953-1967; NETR Online 1959-2022;

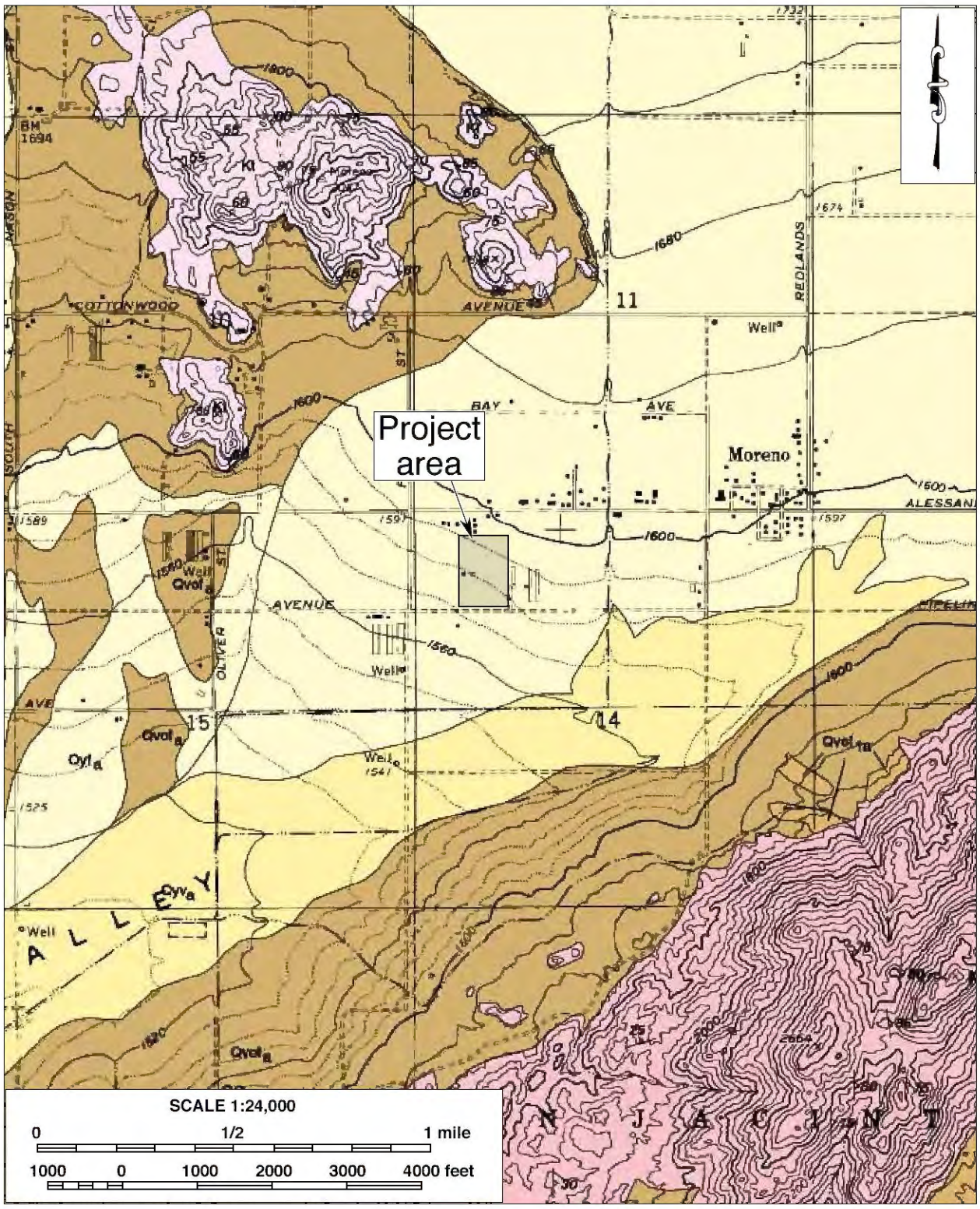

Figure 5. Geological map of the project area and vicinity. (Source: Morton and Matti 2001)

Google Earth 1996-2025). The surface soils in the project area, therefore, have clearly been disturbed in the past and thus reduced in paleontological sensitivity.

FIELD SURVEY

Throughout the course of the field survey, no surface manifestation of any paleontological remains was observed within the project area. Field observations confirmed that the ground surface in the project area had been extensively disturbed in the past due to agricultural uses, construction activities and, more recently, weed abatement by mechanical means, with little vestige of the natural landscape remaining today (Fig. 4).

DISCUSSION

According to the records search and literature review, the project area is situated upon alluvial sands and gravels of Holocene and Pleistocene age, which are conducive to the preservation of fossil remains. The Pleistocene-age sediments, in particular, have a high potential to contain significant, nonrenewable fossil remains. While no fossil localities were previously identified within the project area or within a one-mile radius, the WSC noted that fossil discoveries have been documented in similar geologic formations across southern California, including several localities lying approximately 1.5 miles north of the project area.

It was observed during the field survey that the ground surface in the project area has been disturbed in the past. However, the project location has been assigned a “High B” sensitivity rating for paleontological resources by the County of Riverside, indicating that fossil remains may be present at depths of four feet or more. Any earth-moving activities beyond the disturbed topsoil may disrupt or adversely affect paleontological resources. Therefore, while surface grading impacting previously disturbed soils will not likely reach any fossiliferous sediments, excavations into undisturbed native soils have a strong potential to encounter paleontological resources.

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.

Based on the research results presented above, the proposed project’s potential to impact significant, nonrenewable paleontological resources appears to be high in the relatively undisturbed, native alluvial sediments of Pleistocene age occurring subsurface in the project area. Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent impacts on significant, nonrenewable paleontological resources or reduce the impacts to a level less than significant. The mitigation program should be developed 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:

- Earth-moving operations within the project area should be monitored periodically, or "spot-checked," by the qualifies paleontological monitor to ensure the timely identification of previously undisturbed, potentially fossiliferous sediments when they are encountered. Once the depth of three feet is reached, or if potentially fossiliferous sediments are exposed sooner, all further earth-moving operations will need to be monitored continuously. The monitor should be prepared to quickly salvage fossil remains as they are unearthed to avoid construction delays. However, the monitor must have the power to temporarily halt or divert grading equipment to allow for the removal of abundant or large specimens.
- Samples of potentially fossiliferous sediments should be collected and processed to look for and recover small fossils that may be present.
- All recovered paleontological specimens should be identified to the lowest taxon possible and curated at a repository with permanent retrievable storage.
- A report of findings, including an itemized inventory of any recovered specimens, should be prepared upon completion of the procedures outlined above. The report should include a discussion of the significance of the paleontological findings, if any. The report and the inventory, when approved by the City of Moreno Valley, will signify completion of the mitigation program.

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

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APPENDIX 1:
PERSONNEL QUALIFICATIONS

PROJECT 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-	Project 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
Frank J. Raslich, M.A.

Education

2016-	Ph.D. candidate, Michigan State University, East Lansing.
2010	M.A., Anthropology, Michigan State University, East Lansing.
2005	B.A., Anthropology, University of Michigan, Flint.
2019	Grant and Research Proposal Writing for Archaeologists; Society for American Archaeology online seminar.
2014	Bruker Industries Tracer S1800 pXRF Training; presented by Dr. Bruce Kaiser, Bruker Scientific.

Professional Experience

2022-	Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2022	Archaeological Monitor, Agua Caliente Band of Cahuilla Indians, Palm Springs, California.
2014-2022	Board of Directors, Ziibiwing Center of Anishinabe Culture and Lifeways, Saginaw Chippewa Indian Tribe of Michigan.
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.
2016-2018	Adjunct Lecturer, Michigan State University, East Lansing.
2017-2018	Adjunct Lecturer, University of Michigan, Flint.
2009-2017	Teaching Assistant, Michigan State University, East Lansing.
2008-2014	Research Assistant, Intellectual Property Issues in Cultural Heritage, Simon Fraser University, British Columbia, Canada.
2010-2013	Research Assistant, Michigan State University, East Lansing.
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.
2013	Geochemical Analysis of the Dickenson Group of the Upper Peninsula, Michigan: A study of an Accreted Terrane of the Superior Province. Geological Society of America *Abstracts with Programs* 45:4(53).

PROJECT ARCHAEOLOGIST
Michael D. Richards, M.A.

Education

2002	M.A., Anthropology, California State University, Northridge (CSUN).
1986	B.A., Anthropology: University of California, Los Angeles (UCLA).
1982	A.A., Los Angeles Valley College, Los Angeles, California.

2015	Section 106 workshop.
2000	CSUN "Olmec" field excavation and lab analysis; La Venta, Mexico.
1999	Rock art recording, UCLA Extension; Little Lake, California.
1998	Rock art symposium, UCLA Extension.

Professional Experience

2018-	Project Archaeologist/Paleontologist, CRM TECH, Colton, Calif.
2016-2018	Co-Principal Investigator/Archaeologist, LSA Associates Inc.
2012-2016	Co-Principal Investigator/Archaeologist, ICF International (Jones & Stokes).
2010-2012	Co-Principal Investigator/Archaeologist, various CRM firms (on call).
2007-2010	Principal Investigator/Field Director/Crew Chief, ASM Affiliates, Inc.
2004-2007	Project Manager/Co-Principal Investigator, ArchaeoPaleo Resource Management, Inc.
2003-2004	Staff Archaeologist/Crew Chief, SRI, Inc.
2000-2003	Project Archaeologist/Field Director, Ancient Enterprises (Clewlow, Jr.).
1999-2000	Staff Archaeologist/Lab Crew Chief, CSC/Edwards Air Force Base.

Research Interests

Pottery and rock art analysis; prehistory the American southwest; Mesoamerica; Japan.

Cultural Resources Management Reports

Author and co-author of, contributor to, and principal investigator for numerous cultural resources management study reports since 1999.

Memberships

Society for American Archaeology; Society for California Archaeology; Archaeological Institute of America; Conejo Open Space Trails Advisory Committee; Conejo Valley Historical Society.

APPENDIX 2

RECORDS SEARCH RESULTS

WESTERN SCIENCE CENTER

Eulices Lopez
CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA

December 26, 2024

Hello,

This letter presents the results of a record search conducted for the Proposed Moreno Valley Brodiaea-134 SFD Project in City of Moreno Valley, Riverside County, California. The project site is located along the north side of Brodiaea Avenue and west of Tanberry Lane on Township 3 South, Range 3 West, in Section 14 of the *Sunnymead, CA* USGS 7.5 minute quadrangle.

The geologic units underlying this project are mapped as alluvial fan deposits from the Holocene and Pleistocene epochs (Morton, Matti, Diep and Edwards-Howells 2002). Pleistocene alluvial units are considered to be highly paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 1 mile radius, but does have localities within similarly mapped units across Southern California, including localities from the Aldi Distribution Project approximately a mile and a half north of the project area.

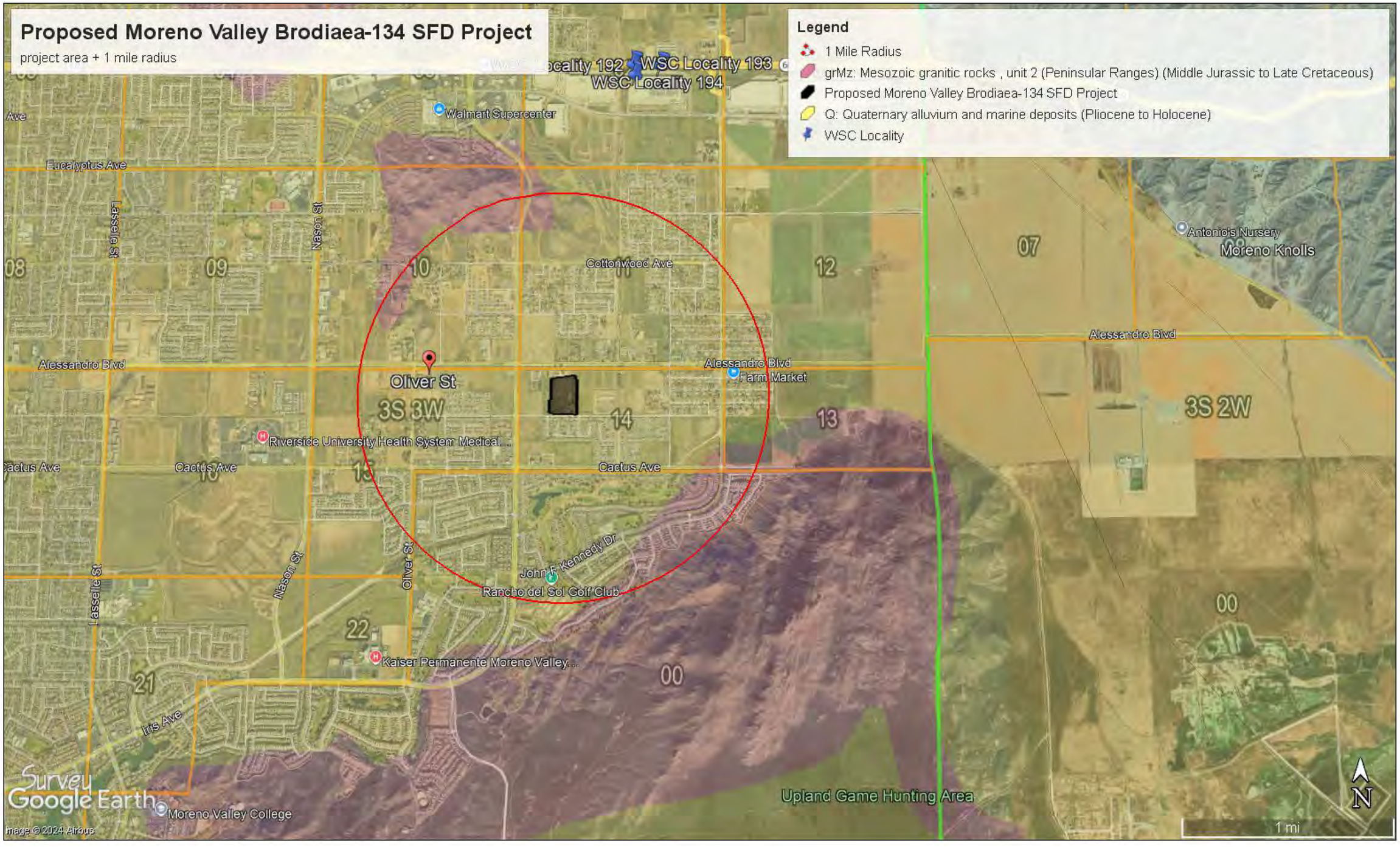
Any fossils recovered from the Proposed Moreno Valley Brodiaea-134 SFD Project area would be scientifically significant. Excavation activity associated with development of the project area would impact the paleontologically sensitive Pleistocene and Pliocene units and it is the recommendation of the 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 more information, please feel free to contact me at bstoneburg@westerncentermuseum.org.

Sincerely,

Brittney Elizabeth Stoneburg, MSc
Collections Manager

2345 Searl Parkway ♦ Hemet, CA 92543 ♦ phone 951.791.0033 ♦ fax 951.791.0032 ♦ WesternScienceCenter.org


Proposed Moreno Valley Brodiaea-134 SFD Project
project area + 1 mile radius
Legend
1 Mile Radius
grMz: Mesozoic granitic rocks , unit 2 (Peninsular Ranges) (Middle Jurassic to Late Cretaceous)
Proposed Moreno Valley Brodiaea-134 SFD Project
Q: Quaternary alluvium and marine deposits (Pliocene to Holocene)
WSC Locality
WSC Locality 192
WSC Locality 193
WSC Locality 194
Walmart Supercenter
Eucalyptus Ave
Lasselle St
Nason St
Cottonwood Ave
Alessandro Blvd
Oliver St
3S 3W
Alessandro Blvd
Farm Market
Antonio's Nursery
Moreno Knolls
3S 2W
Riverside University Health System Medical...
Cactus Ave
Cactus Ave
Cactus Ave
John F Kennedy Dr
Rancho del Sol Golf Club
Kaiser Permanente Moreno Valley...
Iris Ave
Moreno Valley College
Upland Game Hunting Area
Survey
Google Earth
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