



Submitted to:

**E|P|D Solutions, Inc.
2 Park Plaza, Suite 1200
Irvine, CA 92614**

**PALEONTOLOGICAL RESOURCES
ASSESSMENT
SEATON AVENUE AND
CAJALCO ROAD
PROJECT**

Riverside County, California

Reserved.



**PHASE I PALEONTOLOGICAL RESOURCES ASSESSMENT:
SEATON AVENUE AND CAJALCO ROAD PROJECT,
UNINCORPORATED RIVERSIDE COUNTY, CALIFORNIA**

Prepared for:

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August 2021

Type of Study: Paleontological resources assessment

Paleontological Resources within Area of Potential Impact: None

Paleontological Sensitivity: Low Potential (L); High Sensitivity B (High B)

USGS 7.5-minute Quadrangle: Steele Peak, Section 12 of Township 4S, Range 4W

City and County: Perris, Riverside County

APN(s): 317-140-004, -005, -019, -020, -028, -044, -045, and -046

Survey Area: Approx. 17.5 acres

Date of Fieldwork: June 9, 2021, June 16, 2021, and June 18, 2021

Key Words: Paleontology, CEQA, Phase I Survey, Riverside County, Low Potential (L), High Sensitivity B (High B)

MANAGEMENT SUMMARY

The EPD Seaton Avenue and Cajalco Road Project (hereafter referred to as Project or Project Area) proposes the demolition of existing structures on site and construction of an approximately 350,481 square foot (sq. ft) light industrial warehouse building, a parking lot, with ornamental landscaping and associated infrastructure on a 17.5-acre lot consisting of eight parcels (APNs 317-140-004, -005, -019, -020, -028, -044, -045, and -046), located at the southeast corner of Seaton Avenue and Cajalco Road, in unincorporated Riverside County, California. Material Culture Consulting, Inc. (MCC) was retained by E|P|D Solutions, Inc. to conduct a Phase I paleontological resource assessment of the Project Area. This assessment was conducted in accordance with the California Environmental Quality Act (CEQA) and included an examination of geologic maps and paleontological literature, a locality search, and a field survey.

Based on the paleontological literature and geologic maps, the Project Area is mapped as (Quaternary) very old alluvial fan deposits. No significant paleontological resources were identified directly within the Project Area during the locality search or the field survey. The locality search conducted by the Los Angeles County Museum of Natural History (LACM) did yield nearby localities from sedimentary deposits similar to those that may occur subsurface in the Project Area. The Riverside County Land Information System (RCLIS) GIS data reveals the Project Area lies within an area mapped as Low Potential (L) in the northwest corner of the Project Area and High Sensitivity B (High B) in the remainder of the Project Area (RCLIS 2021). Low Potential (L) indicates the absence of geologic formations, or mappable rock units, that have yielded few fossils in the past, based on available literature and museum records. Low sensitivity also includes geological units that have produced paleontological resources on a rare occasion under unusual circumstances. High B indicates that these sedimentary rock units have high potential for containing significant non-renewable paleontological resources at depths at or below five feet. Excavation during the course of the Project may reach paleontologically sensitive deposits, and, as a result, could impact paleontological resources. Therefore, MCC recommends the following procedures:

- A trained and qualified paleontological monitor should perform full-time monitoring of any excavations on the Project that have the potential to impact paleontological resources in undisturbed High sensitivity native sediments, at or below five feet in depth. The monitor will have the ability to redirect construction activities to ensure avoidance of adverse impacts to paleontological resources.
- The project paleontologist may re-evaluate the necessity for paleontological monitoring after examination of the affected sediments during excavation, with approval from County and Client representatives.
- Any potentially significant fossils observed shall be collected and recorded in conjunction with best management practices and Society of Vertebrate Paleontology (SVP) professional standards.
- Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.
- A report documenting the results of the monitoring, including any salvage activities and the significance of any fossils, will be prepared and submitted to the appropriate County personnel.

All notes, photographs, correspondence and other materials related to this Project are stored at Material Culture Consulting, Inc., located in Pomona, California.

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INTRODUCTION AND SETTING

The EPD Seaton Avenue and Cajalco Road Project proposes the demolition of existing structures on site, and construction of an approximately 350,481 square foot (sq. ft) light industrial warehouse building, a parking lot, with ornamental landscaping and associated infrastructure on a 17.5-acre lot consisting of eight parcels (APNs 317-140-004, -005, -019, -020, -028, -044, -045, and -046), located at the southeast corner of Seaton Avenue and Cajalco Road in unincorporated Riverside County, California. Material Culture Consulting, Inc. (MCC) was retained by E|P|D Solutions, Inc. to conduct a Phase I paleontological resource investigation of the Project Area. This paleontological resource assessment was conducted in compliance with the California Environmental Quality Act (CEQA), Public Resources Code (13 PRC) 2100, (14 CAC) 15000, Appendix G, Section J, (PRC) 2100-21177, Appendix G, (PRC) 5097.5. This study included an examination of geologic maps and paleontological literature, a locality records search, and field survey to determine whether the proposed project would adversely affect any significant paleontological resources. According to these regulations and guidelines, if development of a Project has the potential to result in significant impacts to paleontological resources, a plan must be developed to mitigate those impacts to a level which is less than significant. This assessment documents the potential for encountering paleontological resources during development of this Project and provides recommendations on how to mitigate impacts to those resources. The lead agency for this Project is Riverside County.

PROJECT LOCATION AND DESCRIPTION

The Project consists of eight parcels of approximately 17.5 acres (APNs 317-140-004, -005, -019, -020, -028, -044, -045, and -046), located at the southeast corner of Seaton Avenue and Cajalco Road in unincorporated Riverside County, California (Figures 2 and 3). The Project Area is situated west of the Perris Reservoir and west of the Escondido Freeway (Interstate 215). Specifically, the Project Area is bounded by Cajalco Road and Cajalco Expressway to the north, agricultural fields to the south, industrial buildings to the east, and Seaton Avenue to the west. The proposed Project is located within Section 12, Township 4 South, Range 4 West on the Steele Peak USGS 7.5-minute quadrangle (San Bernardino Base Meridian) (Figure 2). The Project consists of demolition of existing structures on site, and construction of an approximately 350,481 sq. ft. light industrial warehouse building, a parking lot, with ornamental landscaping and associated infrastructure. The warehouse building will include 335,481 sq. ft of warehouse space, 10,000 sq. ft of ground floor office space, and 5,000 sq. ft of mezzanine office space. The proposed building would result in a floor area ratio (FAR) of 0.4969. The proposed Project will provide 244 parking spaces and 66 trailer spaces.

PROJECT PERSONNEL

Jennifer Kelly, M.S., a Qualified Riverside County Paleontologist, served as the Principal Investigator for the study. Ms. Kelly conducted the paleontological resource literature and map reviews, oversaw the field study, and prepared this report. Ms. Kelly has a M.Sc. in Geology from California State University, Long Beach. Ms. Kelly has over 14 years of experience in environmental and paleontological compliance in California (See Appendix A). Assistant Project Manager Erika McMullin, B.A., provided co-authorship of the report and GIS support. MCC Archaeologists and Cross-trained Paleontologists Amy Chan, M.A., and Erika McMullin conducted the pedestrian survey. MCC Archaeologist and Cross-trained Paleontologist Karleen Ronsairo, M.A., provided co-authorship of this report. MCC Cultural Resource Project Manager, Lily Arias, M.A., provided peer review of the report.



Figure 1. EPD Seaton Avenue and Cajalco Road Project Vicinity (1:250,000)

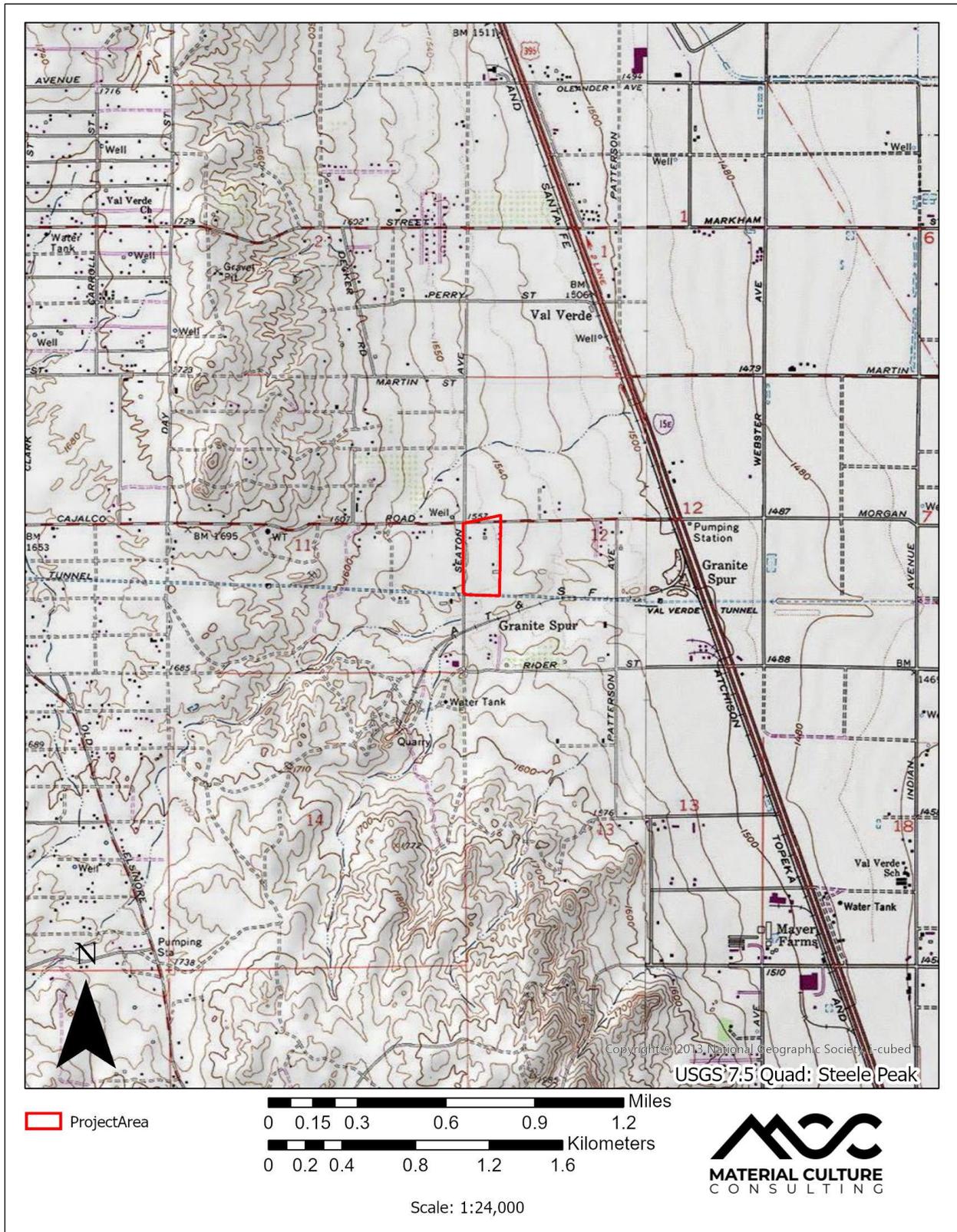


Figure 2. EPD Seaton Avenue and Cajalco Road Project Area
 (as depicted on Steele Peak USGS 7.5 minute Quadrangle, 1:24,000)



Figure 3. EPD Seaton Avenue and Cajalco Road Project Area with Parcel Boundaries (as depicted on aerial photograph, 1:2,500)

ENVIRONMENTAL SETTING

The Project Area is located outside the city limits of Perris, in an unincorporated area in northwestern Riverside County, approximately 0.6 miles west of California Interstate 215. Bounded by the Box Springs Mountains to the north, the Badlands to the east, and Lake Perris Recreation Area and associated mountains to the northeast, the Project Area is located within a relatively flat valley floor that is surrounded by hills and mountains. Elevations are approximately 475 meters (m) (1560 ft) above mean sea level (AMSL) throughout the Project Area. The region is located within the Peninsular Ranges, a northwest-southeast oriented complex of blocks separated by similarly trending faults (Norris and Webb 1978). Most geological formations found within this area are related to the Southern California Batholith, a great mass of basement igneous rocks. The climate in the region is characterized as Mediterranean, with hot, dry summers and temperate, wet winters. Vegetation observed within the Project Area included palm trees, citrus trees, and cacti from private property landscaping throughout the northern portion of the Project Area, with large willow trees and seasonal grasses in the undeveloped southern portion of the Project Area.

GEOLOGICAL CONTEXT

The Project Area lies within the Steele Peak quadrangle, which is part of the geomorphic province known as the Peninsular Ranges Province, sitting near the eastern margin of the Perris Block (Kenney 1999). The Perris Block is a structurally stable, internally cohesive mass of crustal rocks bounded on the east by the San Jacinto fault zone, bounded on the west by the Elsinore and Chino fault zones, and on the north by the Cucamonga fault zone (Norris and Webb, 1976; Morton and Matti, 1989), and on the south by a series of sedimentary basins (Morton and Matti 1989). The entire Project area is mapped as very old alluvial fan deposits (Figure 4 and Figure 5).

Very old alluvial fan deposits (Qvof) are early Pleistocene deposits consisting of mostly well-dissected, well-indurated, reddish-brown sand deposits with minor gravel (Jennings 1977; Morton 2001). These deposits are commonly observed flanking bedrock areas and can contain duripans and locally silcretes (Morton 2001). These sediments are derived as alluvial fan deposits from the elevated terrain located immediately to the south of the Project Area. The surficial sediments can be relatively coarse and lack significant vertebrate fossils in the uppermost layers but may have pockets of finer-grained Quaternary deposits that may contain significant vertebrate fossils. This unit is considered to have a high potential to produce significant paleontological resources.

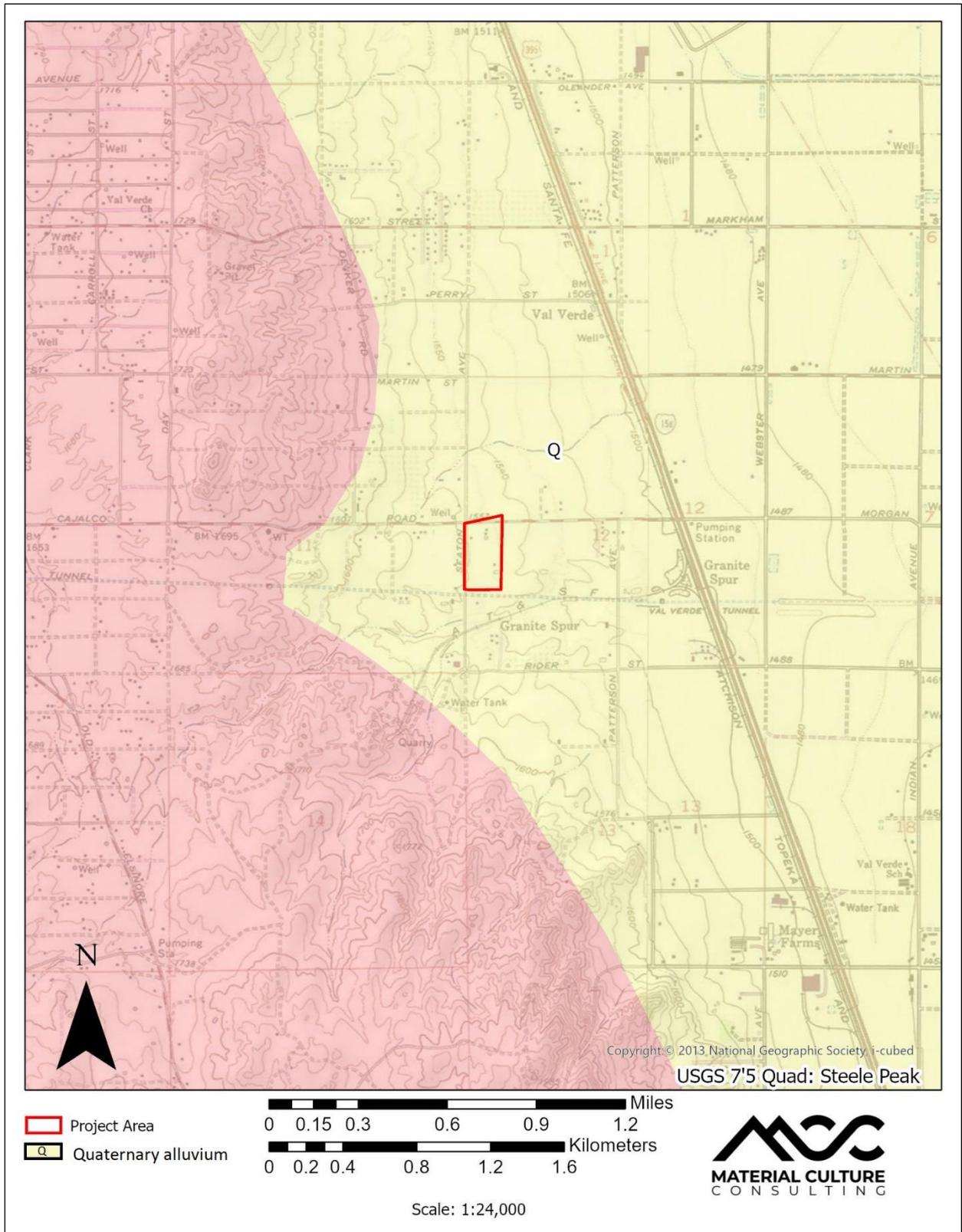


Figure 4. Seaton Avenue and Cajalco Road Project Geologic Map (from Jennings, Strand, and Rogers 1977, 1:24,000)

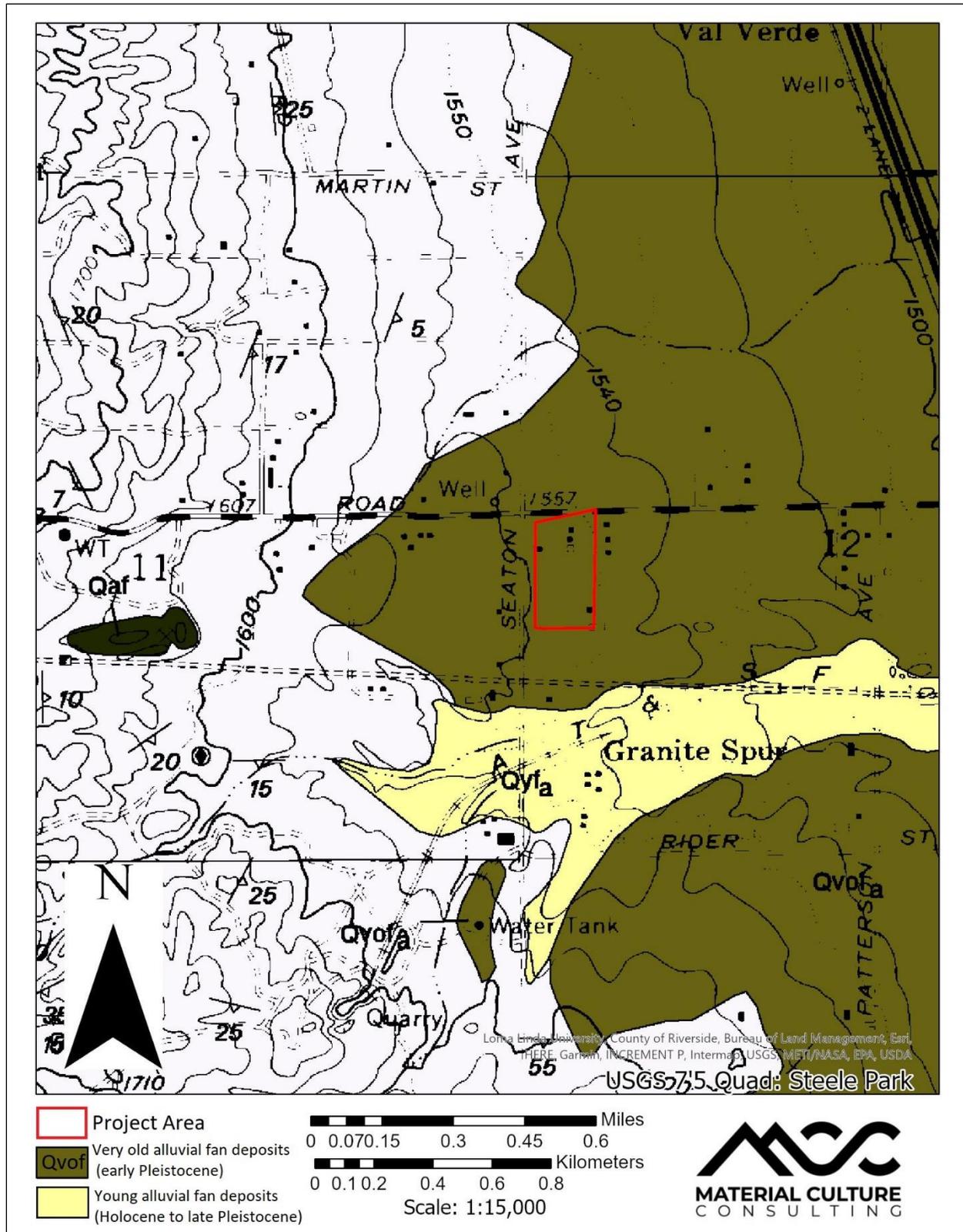


Figure 5. EPD Seaton Avenue and Cajalco Road Geologic Map (from Morton 2001, 1:15,000)

RESEARCH DESIGN

The paleontological resources assessment was conducted according to CEQA, Public Resources Code (13 PRC) 2100, (14 CAC) 15000, Appendix G, Section J, (PRC) 2100-21177, Appendix G, (PRC) 5097.5. The paleontological resources assessment was conducted to evaluate the potential existence of paleontological resources that would require a preparation of a monitoring plan and monitoring activities, in order to reduce impacts to a less than significant level. Guidelines set forth by Riverside County were consulted to ensure that all local and state requirements were met.

The Riverside County Land Information System (RCLIS) overlay map defines what a significant impact on paleontological resources would be and requires monitoring of ground disturbing activities within areas designated as having High sensitivity. High sensitivity areas are mapped as either "High A" or "High B." Rock units with a "High Potential" for paleontological resources include sedimentary rock units that have an increased potential for containing significant non-renewable paleontological resources and are rock units within which vertebrate or significant invertebrate fossils have been determined to be present or likely to be present. These units include, but are not limited to, sedimentary formations which contain significant non-renewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. High sensitivity includes not only the potential for yielding abundant vertebrate fossils, but also for production of a few significant fossils that may provide new and significant (taxonomic, phylogenetic, ecologic, and/or stratigraphic) data.

The *Riverside County General Plan* also requires that a final report documenting the findings of the monitoring and mitigation work be submitted to the Riverside County Planning Department (Riverside County 2008). *Riverside County General Plan* recommendations are based on the Society of Vertebrate Paleontology (SVP) Guidelines (SVP 1991, 1996).

The Multipurpose Open Space Element of the *Riverside County General Plan* provides the following requirements for paleontologically sensitive areas within the County:

- OS 19.6 Whenever existing information indicates that a site proposed for development has high paleontological sensitivity a paleontological resource impact mitigation program (PRIMP) shall be filed with the County Geologist prior to site grading. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources.
- OS 19.7 Whenever existing information indicates that a site proposed for development has low paleontological sensitivity no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the County Geologist shall be notified, and a paleontologist shall be retained by the project proponent. The paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.
- OS 19.8 Whenever existing information indicates that a site proposed for development has undetermined paleontological sensitivity a report shall be filed with the County Geologist documenting the extent and potential significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources prior to approval of that department.
- OS 19.9 Whenever paleontological resources are found, the County Geologist shall direct them to a facility within Riverside County for their curation, including the Western Science Center in the City of Hemet.

METHODS

LITERATURE AND MAP REVIEW AND LOCALITY SEARCH

The literature review included an examination of geologic maps of the Project Area and a review of relevant geological and paleontological literature to determine which geologic units are present within the Project Area and whether fossils have been recovered from those geologic units elsewhere in the region. As geologic units may extend over large geographic areas and contain similar lithologies and fossils, the literature review includes areas well beyond the Project Area. The results of this literature review include an overview of the geology of the Project Areas and a discussion of the paleontological sensitivity (or potential) of the geologic units within the Project Area. The County of Riverside also provides a paleontological resource sensitivity map for the entire county (RCLIS). This map was consulted by MCC staff on June 9, 2021. Additional sources reviewed included the University of California Museum of Paleontology (UCMP) Miocene Mammal Mapping Project (MioMap) and the Paleobiology Database (PBDB).

The purpose of a locality search is to establish the status and extent of previously recorded paleontological resources within and adjacent to the study area for a given project. On March 19, 2021, the results of a locality search were provided by the Los Angeles County Museum of Natural History (LACM) of Los Angeles, California (Appendix B). The purpose of the search is to identify any vertebrate localities in the LACM records that exist near the Project Area in the same or similar deposits.

PALEONTOLOGICAL RESOURCES SURVEY METHODS

The survey stage is important in a Project's environmental assessment phase to verify the exact location of each identified paleontological resource (if any), the condition or integrity of the resource, and provides invaluable information on the type of sediment present within the Project Area, which informs the assessment of paleontological sensitivity. On June 9, 2021, MCC Archaeologist and Cross-trained Paleontologist Amy Chan, M.A., conducted the survey of five parcels (APNs 317-140-004, -019,-020, -028 and-044,) of the Project Area. MCC Archaeologist and Cross-trained Paleontologist Erika McMullin surveyed two parcels (APNs 317-140-045, and -046) on June 16, 2021, and one parcel (APN 317-140-005) on June 18, 2021. Special attention was paid to any graded areas and to rodent burrows that offered a better view of the underlying sediment. The purpose of a field survey is to note the sediments in the Project Area, relocate any known paleontological localities, and identify any unrecorded paleontological resources exposed on the surface. In this way, impacts to existing, unrecorded paleontological material may be mitigated prior to the beginning of ground-disturbing activities and portions of the Project Area that are more likely to contain paleontological resources may be identified.

RESULTS

LACM LOCALITY SEARCH AND LITERATURE REVIEW RESEARCH

The record search results from the LACM (Bell 2021, Appendix B) did not indicate any fossils have been found directly within the Project Area; however, there are known localities nearby from the same sedimentary deposits mapped within the Project Area (see Table 1). The closest vertebrate fossil locality from similar deposits is LACM VP 6059, from an unknown formation, located near Lake Elsinore, located approximately 14 miles southwest of the Project Area. This locality produced a fossil specimen of camel (Camelidae) at unknown depth (Bell 2020).

The Paleobiology Database (PBDB) and the Miocene Mammal Mapping Project (MioMap) yielded no results within the region.

Table 1. LACM Paleontological Resources Record Search Results

Locality Number	Location	Formation	Taxa	Depth
LACM IP 6059	Overflow area just east-southeast of Lake Elsinore	Unknown formation (Pleistocene)	Camel family (Camelidae)	Unknown
LACM VP 7261	Skinner Reservoir, Auld Valley	Unnamed (Pleistocene; arenaceous silt)	Elephant family (Proboscidea); ungulate (Ungulata)	Unknown
LACM VP 437	West side of Castile Canyon, north of Soboba Indian Reservation	Unknown formation	Invertebrates – insect (<i>Sobobapteron kirkbayeri</i>), brachiopod (<i>Terebratalia hemphilli</i>)	Unknown
LACM VP 1207	Hill on east side of sewage disposal plant; 1 mile N-NW of Corona	Unknown formation (Pleistocene)	Bovidae	Unknown
LACM VP 7811	W of Orchard Park, Chino Valley	Unknown formation (eolian, tan silt; Pleistocene)	Whip snake (<i>Masticophis</i>)	9-11 feet bgs
LACM VP 6967, 7456	Hwy 79 and George Cushman Ct., Pauba Valley near Temecula	younger alluvium pebble – gravel sand; silt & clay	(<i>Thamnophis</i>); pocket gopher (<i>Thomomys</i>), deer mouse (<i>Peromyscus</i>); snails (gastropoda)	Unknown, collected during augering and grading

Key: VP: vertebrate paleontology; IP: invertebrate paleontology; bgs: below ground surface

The RCLIS GIS database has the Project Area mapped as Low Potential (L) in the northwest corner of the Project Area and High Sensitivity B (High B) in the remainder of the Project Area (Figure 5). Low Potential (L) indicates a low potential for yielding an abundant vertebrate fossil fauna or new significant fossils (RCLIS 2021). High B indicates a high potential for yielding an abundant vertebrate fossil fauna, in addition to potential production of a few significant fossils that may provide new and significant data (RCLIS 2021). Fossils are likely to be encountered at or below 5 feet of depth and may be impacted by construction activities.

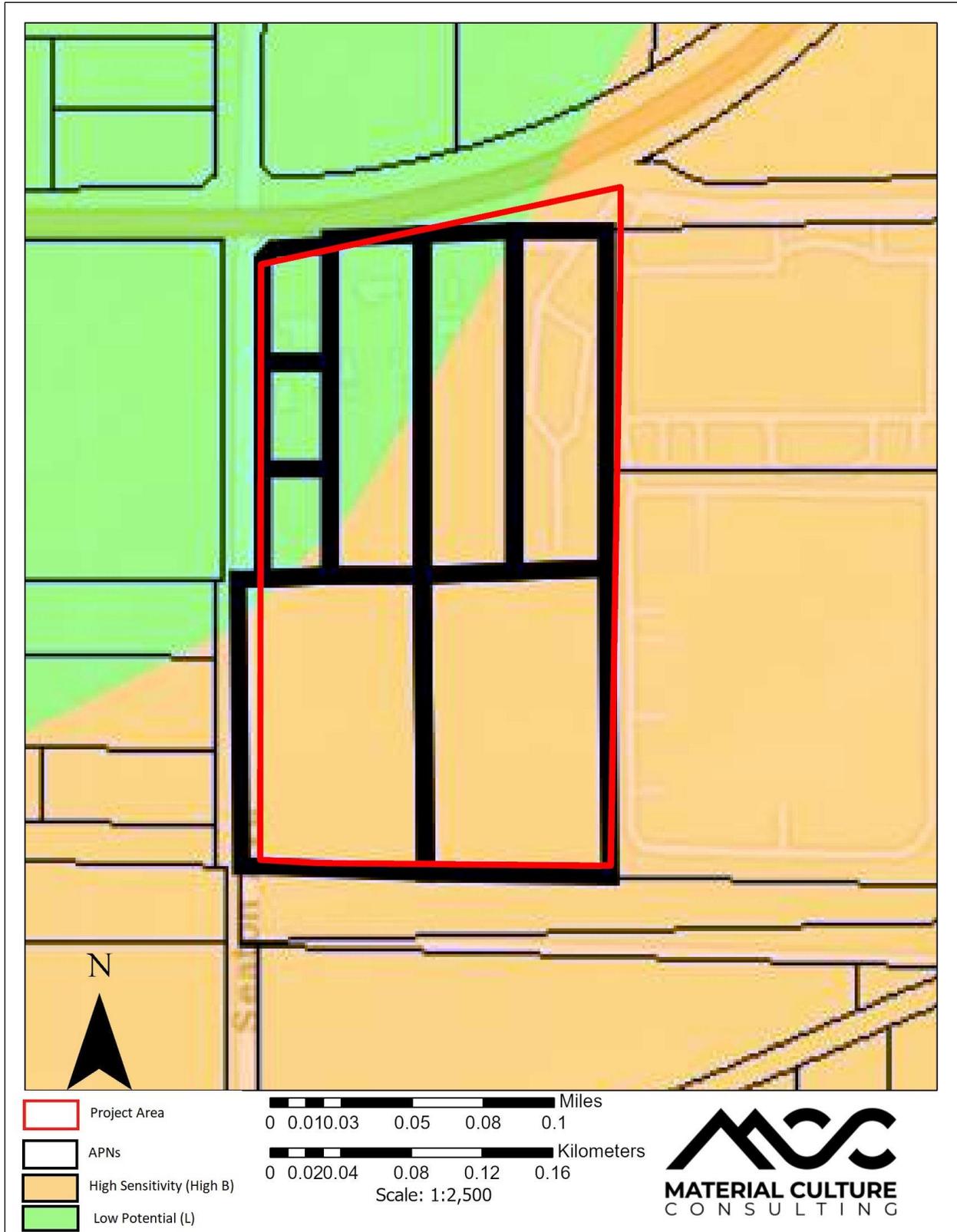


Figure 6. Paleontological Sensitivity (from RCLIS, orange indicates High B Sensitivity, green indicates Low Potential [L])

PALEONTOLOGICAL FIELD SURVEY RESULTS

On June 9, 2021, an intensive level pedestrian survey was conducted of the five parcels (APNs 317-140-004, -019, -020, -028, and -044) of the Project Area (Figures 7-18). During the survey, conditions were fair due to varying ground visibility and development of the parcels. Three parcels (APNs 317-140-044, -028, and -005) in the northern portion of the Project Area were developed private properties for residential and business purposes. The southern portion of the Project Area (APNs 317-140-019 and 317-140-020) consisted of an undeveloped area existing as an open, flat field with overgrown vegetation. Ground visibility throughout the five parcels ranged from poor to good (10-75%). Ground visibility was poor (10-25%) in the northern, developed parcels and greater (50-75%) in the undeveloped southern parcels. Vegetation observed within the Project Area included palm trees, citrus trees, and cacti from private property landscaping throughout the northern portion of the Project Area, with large pepperwood trees and seasonal grasses in the undeveloped southern portion of the Project Area. Soil consisted of light brown, fine-grained sand with gravel in the developed northern portion of the Project Area and light brown, fine-grained sand in the undeveloped southern portion of the Project Area. Imported gravels were observed throughout the parcels. The parcels have been disturbed by modern refuse and bioturbation. Additionally, the southern parcels have also been disturbed by plowing and vehicular activity.

On June 16, 2021, an intensive level pedestrian survey was conducted of two parcels (APNs 317-140-045, and -046) that were not included in the original survey effort (Figure 7, Figures 19-25). During the survey, conditions were poor to good due to both parcels being highly disturbed with residential and industrial structures and related debris. Ground visibility was fair (30-40%) for parcel 317-140-045 as most of the area was covered with a concrete foundation, two mobile homes, equipment storage, and associated residential disturbances, in addition to dense weeds and grasses obscuring the remaining ground surface. The soil in this area consisted of light brown silty sand with well-sorted granitic inclusions, subangular and subrounded in shape. Imported gravels, and other building/landscaping material was observed on the southern boundary. Vegetation included pepperwood trees, palm trees, jacaranda tree, cacti, ornamental landscaping, tall grasses and weeds. In addition to the disturbances related to the developed nature of the area, other soil disturbances included faunalurbation from chickens and a dog. For parcel 317-140-046, ground visibility was good (50%) as vegetation was minimal in the undeveloped area, however, RVs, trailers, trucks, boats, cars, and related equipment obscured portions of the ground surface. Soil consisted of a light tan silty sand with granitic pebbles. Vegetation consisted of palm trees, pepperwood trees, and eucalyptus trees, and was observed on the perimeter of the parcel. Disturbances included bioturbation, refuse, and laydown yard activity.

On June 18, 2021, an intensive level pedestrian survey was conducted of the remaining parcel (APN 317-140-005) of the Project Area (Figure 7, Figures 26-30). During the survey, conditions were good. This parcel serves as a residential home in addition to a laydown yard for vehicles, semitrucks, and other related equipment. Although the parcel has been disturbed, it had good ground visibility (60-70%). Soil consisted of light brown silty sand with pebble-sized inclusions of granitic material. Imported sand and gravel was observed throughout the Project Area. Vegetation included pepperwood trees, black mustard, and other seasonal weeds and grasses. Disturbances include bioturbation, modern refuse, vehicular activity, structures, and a variety of vehicles being present.

The entire Project Area was relatively flat, and no soil profiles or deep cuts were exposed in any of the eight parcels. No paleontological resources were observed during the surveys.

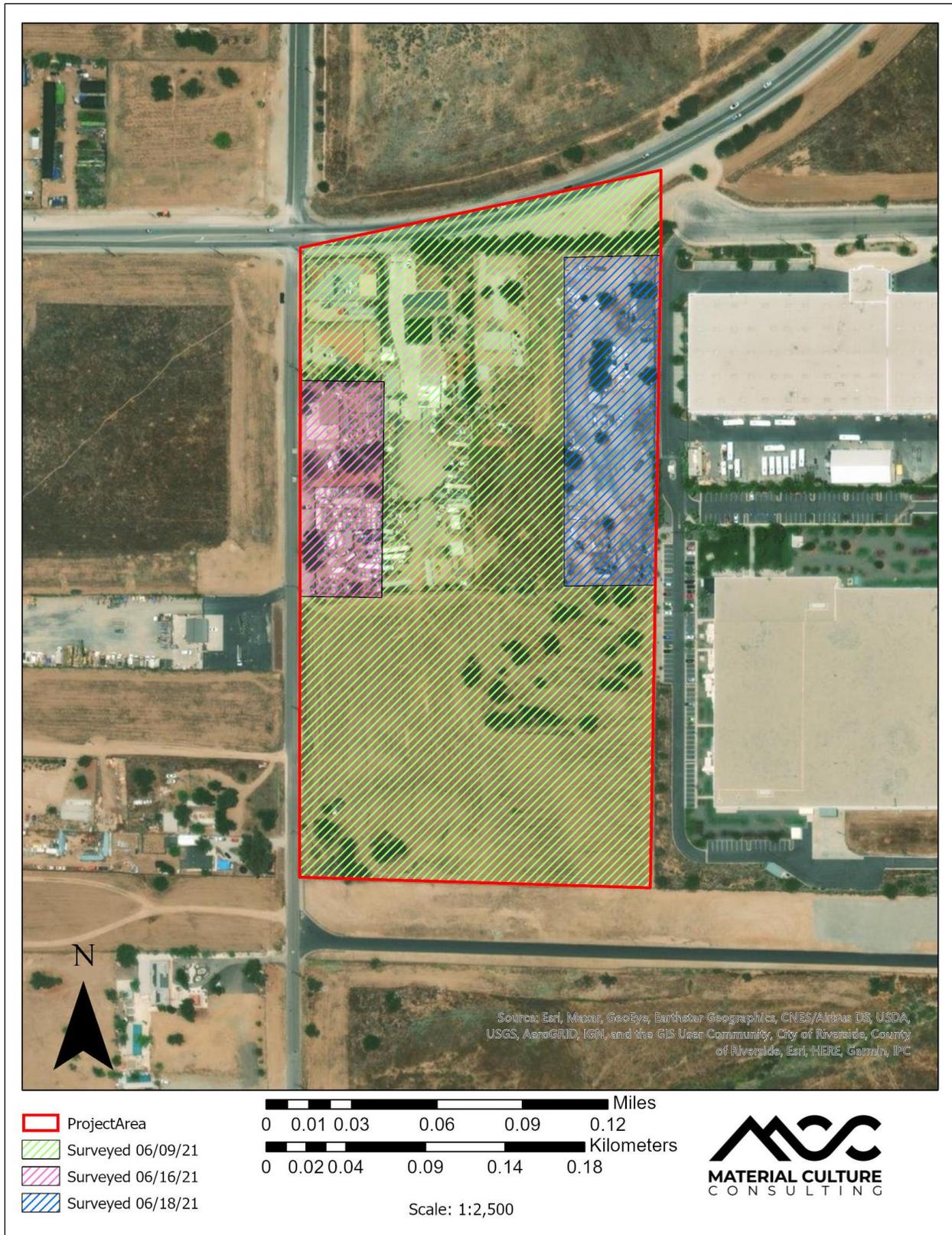


Figure 7. Map of Survey Areas and Survey Dates (as depicted on aerial photograph, 1:2,500)



Figure 8. Overview of southern section of parcel 317-140-044 with historic-age structure in background, view south



Figure 9. Overview of interior of gated property in parcel 317-140-028, view north



Figure 10. Overview of undeveloped portion of parcel 317-140-004, view southeast



Figure 11. Overview of undeveloped parcels 317-140-019 and 317-140-020, view northwest



Figure 12. Representative photo of vegetation in undeveloped portion of Project Area (317-140-019 and 317-140-020), view southwest



Figure 13. Representative photograph of soil (317-140-004), plan view



Figure 14. Representative photo of soil in Project Area (317-140-004), plan view



Figure 15. Representative photo of soil in Project Area (317-140-028), plan view



Figure 16. Representative photo of soil in Project Area (317-140-044), plan view



Figure 17. Representative photo of soil in Project Area (317-140-044), plan view



Figure 18. Representative photograph of soil and bioturbation disturbance (317-140-019, and -020), plan view



Figure 19. Overview of parcel 317-140-045 with example of residential activity and debris, view south



Figure 20. Representative photograph of ground visibility obscured by refuse and weeds, view west



Figure 21. Overview of open area with imported gravel and building supplies, view east



Figure 22. Representative photograph of soil (parcel 317-140-045), plan view



Figure 23. Overview of parcel 317-140-046, view northeast



Figure 24. Overview of parcel 317-140-046, view west



Figure 25. Representation photograph of soil (317-140-045), plan view



Figure 26. Overview of parcel 317-140-005, view north



Figure 27. Overview of parcel 317-140-005, view north



Figure 28. Overview of parcel 317-140-005, view south



Figure 29. Representative photograph of soil (317-140-005), plan view



Figure 30. Representative photograph of soil (317-140-005), plan view

SUMMARY AND RECOMMENDATIONS

MCC conducted a Phase I paleontological resource assessment of the Project Area that included a fossil locality records search, literature review, and an intensive pedestrian survey covering the Project Area. No significant paleontological resources were identified within the Project Area during the locality search or field survey. The uppermost layers of soil within the Project Area consist of very old alluvial fan deposits that have Low Potential (L) in the northwest corner of the Project Area and High Sensitivity B (High B) potential in remainder of the Project Area to yield significant fossil vertebrates based on the RCLIS.

RECOMMENDED MITIGATION

Based on the results of the Phase I paleontological resource assessment, the proposed Project Area is considered to have low to high sensitivity for the potential to impact paleontological resources during subsurface ground disturbing construction activities within undisturbed sedimentary deposits, depending on which portion of the Project Area is being excavated. MCC recommends preparation of a Paleontological Resource Management Plan (PRMP) prior to construction excavation, in order to mitigate any potential impact to non-renewable fossil resources to a less-than-significant level. It is recommended that a professional paleontologist be hired to oversee monitoring and the preparation of a PRMP. At a minimum, the PRMP should include the following items:

- A trained Riverside County paleontological monitor should perform spot checking of any excavations in undisturbed native sediments below 5 feet in depth to determine what type of sediment is present, and if the sediment is appropriate for the potential preservation of fossil remains. The monitor will have the ability to redirect construction activities to ensure avoidance of adverse impacts to paleontological resources.
- The Project paleontologist may re-evaluate the necessity for paleontological monitoring after examination of the affected sediments during excavation, with approval from County and Client representatives.
- Any potentially significant fossils observed shall be collected and recorded in conjunction with best management practices and SVP professional standards.
- Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.
- A report documenting the results of the monitoring, including any salvage activities and the significance of any fossils, will be prepared and submitted to the appropriate County personnel.

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: August 11, 2021

Signature: _____

Name: Jennifer Kelly, MSc., Geology

Riverside County Qualified Paleontologist

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Appendix A:
Qualifications

Jennifer Kelly, M.Sc.
Paleontological Principal Investigator and Project
Manager



Jennifer Kelly has experience in all aspects of paleontology. She has extensive experience with monitoring, salvage, fieldwork, project management, and report writing, as well as volunteer experience from the La Brea Tar Pits/Page Museum and the Cooper Center of Orange County (Paleontology department) and field experience as a Staff Geologist for Leighton Geotechnical. Her expertise is Geology, and she has her M.S. in Geological Sciences, emphasis in Geochemistry.

Jennifer has taught lab courses in paleontology and general geology, and also assisted with field mapping classes. Jennifer is HAZWOPER 40-hour certified and a registered Orange County paleontologist. She has authored and co-authored more than 100 paleontological compliance documents, including PRMPs, EIR, EIS, PEA, treatment plans, final monitoring reports, survey reports, and other compliance documents, in compliance with NEPA, CEQA, Caltrans and city and county laws, ordinances, regulations, and statutes.

Education

2012 M.Sc. in Geology, California State University, Long Beach, California
2005 B.S., Geology (preliminary work for entry to M.S. Geology Program), California State University, Long Beach
2004 B.A., Theater Arts, California State University, Long Beach

Certifications and Training

- 40 Hour Certification for HAZWOPER training under 29 CFR 1910.120, CA (2013 – 2014)
- Orange County Certified Paleontologist
- San Diego County Certified Paleontologist

Recent Professional Experience in California

Paleontological Principal Investigator and Project Manager, Harvill Industrial Project, City of Jurupa Valley, Riverside County, California (2017-present). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation for this project, and prepared the Paleontological Resources Impact Mitigation Plan (PRIMP). Kelly also oversees the paleontological monitoring program for this Project. This project is ongoing and is scheduled to be complete in 2020.

Paleontological Principal Investigator and Project Manager, Rider Commerce Center Project, Unincorporated Riverside County, California (2018-present). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation for this project, and prepared the Paleontological Resources Impact Mitigation Plan (PRIMP). Kelly also oversees the paleontological monitoring program for this Project. This project is ongoing and is scheduled to be complete in 2020.

Paleontological Principal Investigator and Project Manager, Ontario Ranch Logistic Center, City of Ontario, County of San Bernardino, California (2018-present) Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation for this project, and authored the PRIMP for this project. Kelly also oversees the paleontological monitoring program for this Project. This project is ongoing and is scheduled to be complete in 2021.

Paleontological Principal Investigator and Project Manager, Saddleback College, City of Mission Viejo, Orange County (2018-present) Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation for this project, prepared the Paleontological Resources Impact Mitigation Plan (PRIMP), and

oversaw the paleontological monitoring program detailed in the PRIMP. Kelly is currently co-authoring the final paleontological mitigation report. This project is in the final stages and is scheduled to be completed 2020.

Private Development Sector Experience

Paleontological Principal Investigator and Project Manager, Proposed Alta Vista Specific Plan Project, SC Development, City of Placentia, Orange County (2017). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Paleontological Principal Investigator and Project Manager, Magnolia Tank Farm Project, SLF-HB Magnolia, LLC, City of Huntington Beach, Orange County (2017). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Paleontological Principal Investigator and Project Manager, Santa Fe Springs Apartment Project, Clearwater Communities, City of Whittier, Los Angeles County (2017). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Paleontological Principal Investigator and Project Manager, Rider Business Center Project, Capstone Advisor, Unincorporated Riverside County (2017). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Paleontological Principal Investigator and Project Manager, Los Olivos French Valley Project, Newland Homes LLC, Unincorporated Riverside County (2017). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Paleontological Principal Investigator and Project Manager, Veteran's Village Community Development Project, UHC LLC, Cathedral City, Riverside County (2017). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Paleontological Principal Investigator and Project Manager, Colony Commerce East Project, CapRock Partners, City of Ontario, San Bernardino County (2016). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Paleontological Principal Investigator and Project Manager, Jurupa Valley Medical Clinic Project, Boureston Company, City of Jurupa Valley, Riverside County (2016). Ms. Kelly coordinated all surveying, preparation of compliance and environmental documentation relating to Paleontological resources for this project.

Renewable Energy Sector Experience

Paleontological Project Manager, Tehachapi Renewable Transmission Project (TRTP), Southern California Edison (SCE), Kern County, Los Angeles County, San Bernardino County (2009-2015). Ms. Kelly conducted and led surveys along this project's right of way. She was also in charge of scheduling monitoring crews during grading in areas of paleontological sensitivity, managing and reviewing log sheets, and tracking data that is incorporated to final reports. Ms. Kelly played a valuable role with scheduling for the project's needs. She monitored, surveyed, and reported on all paleontological facets of this project as the Lead Paleontological Monitor for segment 3B, which was located near Rosamond, and for segments 4-11 which extended into Los Angeles and San Bernardino Counties. She authored more than 10 of the compliance reports for this project. She also performed monitoring on every segment of this Project.

Paleontological Project Manager, West of Devers Transmission Line Project, SCE, Riverside County, California (2009-2016). Ms. Kelly provided all project management and paleontological related services. This included proper BLM authorization and permitting to conduct surveying and a research design for field reconnaissance related to PEA, EIS/EIR documentation for the proposed transmission line. She assisted with managing documentation with laws relating to paleontological resources, among which are CEQA and NEPA compliance.

APPENDIX B:
Paleontological Record Search Results
(LACM)

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

April 19, 2021

Material Culture Consulting, Inc

Attn: Erika McMullin

re: Paleontological resources for the EPD Seaton and Cajalco Project

Dear Erika:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the EPD Seaton and Cajalco project area as outlined on the portion of the Steele Peak USGS topographic quadrangle map that you sent to me via e-mail on April 16, 2021. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County.

Locality Number	Location	Formation	Taxa	Depth
LACM VP 6059	Overflow area just east-southeast of Lake Elsinore	Unknown formation (Pleistocene)	Camel (Camelidae)	Unknown
LACM VP 7261	Skinner Reservoir, Auld Valley	Unknown formation (Pleistocene, arenaceous silt)	Elephant family (Proboscidea); ungulate (Ungulata)	Unknown
LACM IP 437	West side of Castile Canyon, north of the Soboba Indian Reservation	Unknown formation (Pleistocene)	Invertebrates – insect (<i>Sobobapteron kirkbayeri</i>), brachiopod (<i>Terebratalia hemphilli</i>)	Unknown
LACM VP 1207	Hill on east side of sewage disposal plant; 1 mile N-NW of Corona	Unknown formation (Pleistocene)	Bovidae	Unknown
LACM VP 7811	W of Orchard Park, Chino Valley	Unknown formation (eolian, tan silt; Pleistocene)	Whip snake (<i>Masticophis</i>)	9-11 feet bgs
LACM VP 6967, 7456	Hwy 79 and George Cushman Ct., Pauba	younger alluvium pebble - gravel;	Tree frog (<i>Hyla</i>); legless lizard (<i>Anniella</i>); garter snake	Unknown, collected

Valley near Temecula	sand; silt & clay	(<i>Thamnophis</i>); pocket gopher (<i>Thomomys</i>), deer mouse (<i>Peromyscus</i>); snails (gastropoda)	during augering & grading
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VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search covers only the records of the Natural History Museum of Los Angeles County (“NHMLA”). It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,



Alyssa Bell, Ph.D.
 Natural History Museum of Los Angeles County

enclosure: invoice