

Appendix E
Paleontological Resource Assessment

Paleontological Resources Assessment

1400 Montefino Project,
City of Diamond Bar, Los Angeles County, California

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Executive Summary

South Environmental was retained by De Novo Planning Group to conduct a paleontological resources assessment for the 1400 Montefino Project (project) in the City of Diamond Bar, Los Angeles County, California (project). The purpose of this assessment is to describe the results of a paleontological resources literature review and records search, summarize the paleontological sensitivity of the geologic units within the project site, assess the potential for the project to impact scientifically significant paleontological resources, and provide management recommendations for avoiding or reducing project-related impacts to paleontological resources. This study was completed in compliance with the California Environmental Quality Act (CEQA) and following the guidelines regarding mitigation of adverse impacts to paleontological resources provided by the Society of Vertebrate Paleontology (SVP).

The approximately 3.9-acre project site is located at 1400 Montefino Avenue in the City of Diamond Bar. The project site is within Assessor's Parcel Numbers 8293-044-015 and 8293-044-016. The site is approximately 1.3 miles southeast of the interchange of the Pomona Freeway (State Highway 60) and the Orange Freeway (State Highway 57). The project proposes demolishing the existing building and parking lot and developing a for-sale residential community of 49 units in a mix of detached and attached three-story condominiums, together with private drives, parking, landscaping, and utilities.

No scientifically significant fossil materials have been discovered within the project site according to the records searches of previously recorded fossil localities completed by the Natural History Museum of Los Angeles County (NHMLA) and South Environmental. The geology exposed at the surface of the project site is Holocene-aged alluvium that originated from recent erosion of the adjacent sedimentary hills. A geotechnical investigation of the area was performed and found that that Artificial Fill extends to a depth of between 5.5 and 15.5 feet and was laid in 1982 during preconstruction grading for the current office building (Roe and Delgadillo, 2025). Below this, young alluvial deposits extend to a depth of up to 35 feet below ground surface. Below this is the Miocene Puente formation, which is highly sensitive for significant paleontological resources.

Based on the current project grading plan, it is unlikely that construction activities will exceed six feet in depth and thus will not impact Puente Formation geologic units with a High potential to contain scientifically significant fossils. Therefore, the potential to impact scientifically significant fossil resources is low, and the project would have a less than significant impact on paleontological resources. No further action to meet the requirements of CEQA and the guidelines of the SVP. Standard recommendations for unanticipated fossil discovery are presented in Section 3.2.

1 Introduction

South Environmental was retained by De Novo Planning Group to conduct a paleontological resources assessment for the 1400 Montefino Project (project) in the City of Diamond Bar, Los Angeles County, California (project). The purpose of this assessment is to describe the results of a paleontological resources literature review and records search, summarize the paleontological sensitivity of the geologic units within the project site, assess the potential for the project to impact scientifically significant paleontological resources, and provide management recommendations for avoiding or reducing project-related impacts to paleontological resources.

This report was prepared in conformance with the California Environmental Quality Act (CEQA) and all applicable City of Diamond Bar ordinances by South Environmental Paleontologist Nicolas Oliver, BS, Archaeologist Samantha Jovanovic, MA, MS, and Principal Archaeologist Kevin Hunt, BA. Resumes for key staff are provided in Appendix C.

1.1 Project Location

The project site is located at 1400 Montefino Avenue in the City of Diamond Bar in Los Angeles County, California. The project site is within Assessor's Parcel Numbers (APNs) 8293-044-015 and 8293-044-016, approximately 1.3 miles southeast of the interchange of the Pomona Freeway (State Highway 60) and the Orange Freeway (State Highway 57). The project site is depicted on the U.S. Geological Survey (USGS) *Yorba Linda, California* 7.5-minute topographic quadrangle map, and within Section 15 of Township 02 South, Range 09 West, San Bernardino base and meridian (Figure 1).

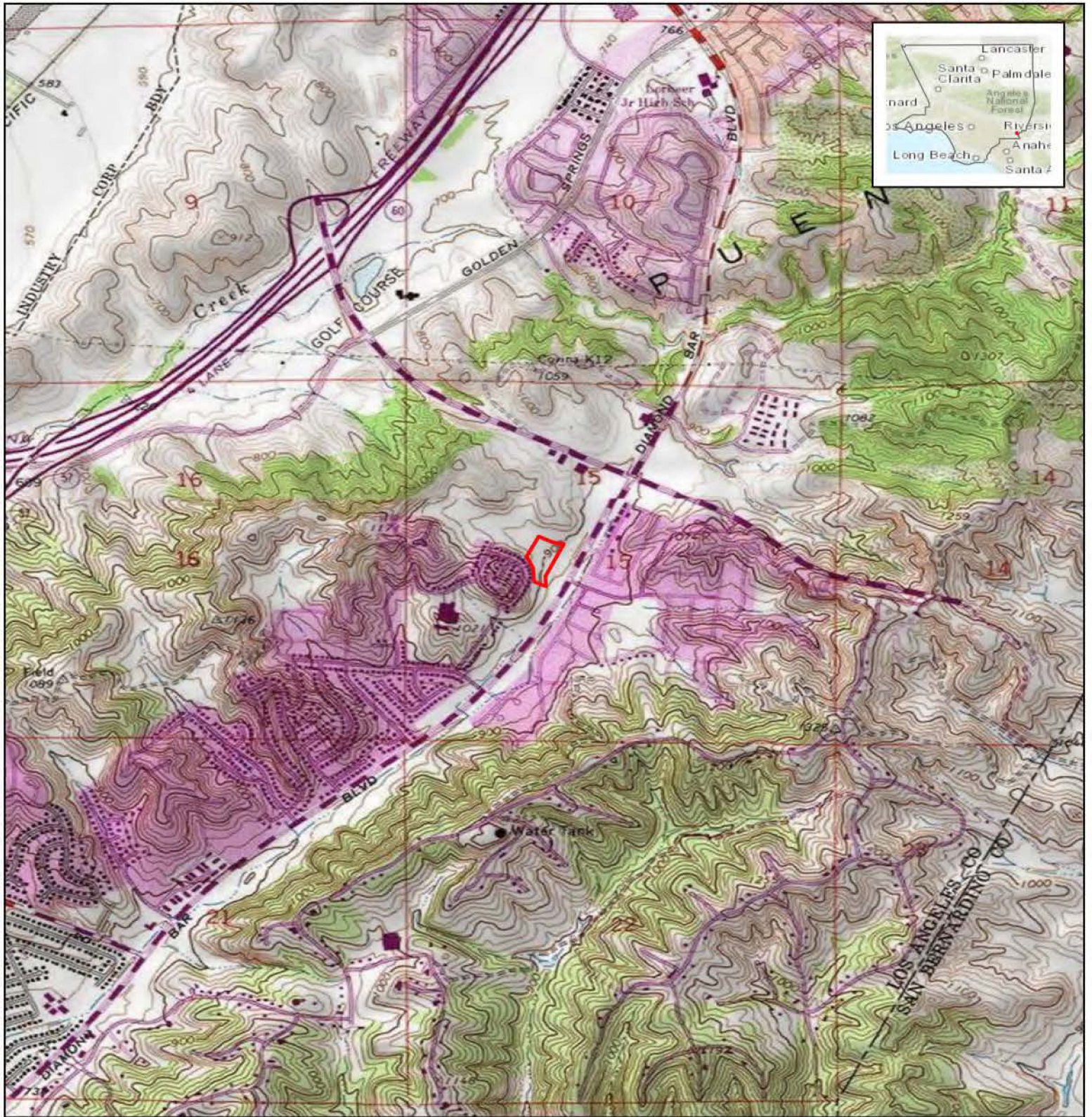
1.2 Project Description

The project site is currently fully developed, with a two-story office building, paved parking lot, and landscaped frontage and perimeter planters. The surrounding area is a mix of residential and retail areas. The project proposes demolishing the existing office building and associated improvements and developing a for-sale residential community of 49 units in a mix of detached and attached three-story condominiums, together with private drives, parking, landscaping, and utilities. The average plan size of the homes would be approximately 1,950 square feet across three home styles, ranging in size from approximately 1,940 to 1,988 square feet, for a total residential floor area of approximately 95,585 square feet. Primary on-site improvements would include new private drives, sidewalks, landscaping, lighting, utilities, and localized retaining walls, with the existing perimeter retaining walls largely remaining in place.

Vehicular access would be provided by a single unsignalized driveway on Montefino Avenue, which would be reconstructed at the location of the existing northern driveway to meet City standards. Internal vehicular circulation would be provided by three private drives. A total of 120 automobile parking spaces would be provided. Of these, 98 spaces would be accommodated within private two-

car garages integrated into the dwellings, with 22 spaces provided as uncovered guest parking distributed along the private drives.

The proposed project requires approval of a General Plan Amendment, Zone Change, Tentative Tract Map, Development Review, and a Conditional Use Permit (Case No. PL2025-29) to allow redevelopment.



Source: ESRI USA Topo Maps and World Topo Map 2025

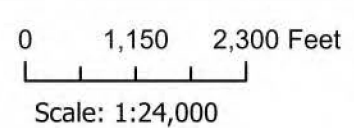
1400 Montefino Avenue Residential Project

Figure 1. Project Location Map

Project Site

Project Location is within Diamond Bar, California, in Los Angeles County on the USGS Yorba Linda 7.5-minute quadrangle map in Section 15 of Township 02 South and Range 09 West

Center Coordinate (Decimal Degrees):
Latitude: 33.9975124N Longitude: -117.8145828W



1.3 Regulatory Setting

Paleontological resources are generally considered non-renewable scientific resources because they cannot be replaced once damaged or destroyed, and considerable scientific information can be lost should they be disturbed or displaced from their original location and geologic context without a proper record of their original placement and arrangement in their natural sediments. For this reason, fossils are typically protected under a variety of federal, state, and local laws and regulations to ensure that these basic scientific considerations are made and carried out whenever paleontological resources are going to be disturbed. The pertinent laws and regulations governing paleontological resources are discussed in this section.

1.3.1 State

California Environmental Quality Act (CEQA)

CEQA requires that public agencies and private interests identify the potential environmental impacts of their projects on any object or site of significance to the scientific annals of California (Division I, California Public Resources Code [PRC] Section 5020.1 [j]). Appendix G in California Code of Regulations (CCR) Section 15023 provides an Environmental Checklist (Section 15023, Appendix G, Section XIV, Part A) that includes the following: "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?"

California Public Resources Code (PRC)

Section 5097.5 of the PRC states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this PRC section, 'public lands' means lands owned by, or under the jurisdiction of, the state or any city, county, district, authority, or public corporation, or any agency thereof.

Therefore, public agencies are required to comply with PRC Section 5097.5 for their activities including construction and maintenance as well as for permit actions (e.g., encroachment permits) undertaken by others.

1.3.2 Local

City of Diamond Bar General Plan

Paleontological Resources: Resource Conservation Policy 47

Establish a procedure for the management of paleontological materials found on-site during a development, including the following provisions:

- a. If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource, and makes a recommendation for the preservation in place or recovery of the resource.
- b. If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material.
- c. Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within Los Angeles County if feasible.

Resource Conservation Policy 47 is also captured in the City of Diamond Bar Municipal Code.

1.3.3 Paleontological Resource Definitions

SVP Paleontological Resource Significance Determination

Toward the goal of providing guidance to federal, state, and local agencies in carrying out environmental assessments, the Society of Vertebrate Paleontology (SVP) has created a set of definitions to determine the significance of paleontological resources. Significant paleontological resources are defined as follows:

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

By this definition, significant paleontological resources are fossils (or fossil assemblages) that are unique, unusual, rare, diagnostically important, or even common with the potential to provide additional scientific information about evolutionary patterns or the paleoenvironmental conditions of a site. This includes fossils that may enhance our understanding of depositional histories, evolutionary trends and patterns within lineages, information regarding palaeoecological environments, that can be used to identify the sedimentary rock units that they are within, or fossils that are unique to a

particular geologic region. For this reason, even common or unidentifiable invertebrate and vertebrate fossil remains may be considered scientifically significant, particularly within the larger context of a geologic area from which many specimens have previously been collected and examined.

Because CEQA does not define a “unique paleontological resource or site”, the definitions set forth by the SVP are used for all paleontological projects that are subject to CEQA.

For additional information relating to the determination of the potential significance of paleontological resources based on SVP guidelines, please see Appendix A: Paleontological Resource Potential Classifications. These definitions have been used to determine the potential paleontological sensitivity of the project site.

2 Paleontological Sensitivity Determination Methods

To assess the paleontological sensitivity of the project site and determine its placement within the definitions provided by the SVP, several sources of recorded data were examined:

- 1) Published geologic maps of the project site and surrounding vicinity.
- 2) A collections record search was performed by the Natural History Museum of Los Angeles County (NHMLA) to identify previously identified localities within one mile of the project site.
- 3) Searches of the following on-line databases were performed to determine additional fossil sites recorded within one mile of the project site and within similar rocks in the vicinity:
 - a. University of California Museum of Paleontology (UCMP) Collections
 - b. The Paleobiology Database
 - c. iDigBio
- 4) Additional published and unpublished paleontological literature pertaining to the project site and the surrounding vicinity.
- 5) A geotechnical investigation of the site conducted by Calland Engineering, Inc. (Calland, 2023).

2.1.1 Geologic Context

Geologic Setting

The project site is at the northern end of the Peninsular Ranges geomorphic province, characterized by northwest-southeast trending mountain ranges and valleys (Norris and Webb, 1990; California Geological Survey, 2002; Morton and Miller 2006; Kennedy and Tan, 2008). The region is influenced by complex tectonic activity along multiple faults and is broken into blocks by several northwest-striking faults (Morton and Miller 2006). This province is a westward-leaning plateau bound by the Pacific Ocean and Salton Trough and extends from Los Angeles to Baja California (Sylvester and Gans 2016).

Due to the intersection of the Peninsular Ranges and Transverse Ranges, Diamond Bar's geological setting is significantly influenced by the faults that surround the area, including the Whittier Fault Zone to the south, the San Jose Fault to the north, and Chino Fault to the east along with numerous unnamed minor faults throughout the area. These faults are within the greater San Andreas Fault system that extends from the Mexican border into the Santa Monica Mountains before extending north (Morton and Miller 2006; Sylvester and Gans 2016). The faults dictate the local topography and influence the location of water flow (e.g., groundwater, streams, and rivers) (Sylvester and Gans 2016:194). Diamond Bar is located within the Puente Hills Formation, mainly consisting of marine sedimentary rock actively deformed and uplifted by compression along the adjacent strike-slip faults (e.g., Whittier Fault)

(Morton and Miller 2006). This uplift separates the Los Angeles Basin to the southwest from the San Gabriel Valley to the north.

Site Specific Geology and Paleontology

The geology of the northern half of the project site has been mapped as Holocene-age alluvial fan deposits (Qyf3) (Morton and Miller, 2006) consisting of Holocene-age alluvial gravel, sand and silt that is largely derived from the adjacent eroding sedimentary formations. The southern half of the project site consists of Miocene-age (23–5 million years ago) Soquel member of the Puente formation consisting of sandstone and siltstone marine sedimentary rocks.

A geotechnical investigation performed on the project site found that artificial fill extends to a depth of between 5.5 and 15.5 feet and was laid in 1982 during preconstruction grading for the current office building. Below the artificial fill, there are Quaternary-age young alluvial fan deposits (Qyf) to a depth of up to 35 feet. The bedrock unit is composed of the Puente Formation (Roe and Delgadillo, 2025).

Holocene-age sediments are typically considered to be of Low potential for scientifically significant paleontological resources, while Miocene-age deposits are well known to contain scientifically significant vertebrate fossils (Miller, 1971) and are of High potential to contain paleontological resources.

The following table lists the geologic units that have been mapped within the project site as well as those found in the immediate vicinity.

Summary of Geologic Units in the Vicinity of the Project Site and their Sensitivity

Geologic Units	Map Abbr. ¹	Age	Fossils ²	Sensitivity	In Project Site?
Alluvium (gravel, sand, silt)	Qyf3	Holocene	None	Low	Yes
Puente Formation (Soquel Canyon)	Tpsq	Miocene	Collection of marine vertebrates, mostly fish (<i>Ganolytes</i> , <i>Etringus</i> , Scombridae, and others)	High	Unknown

Morton and Miller 2006;

²Bell, 2025; iDigBio, 2025; PBDB, 2025; UCMP, 2025

Records Search Results

The NHMLA conducted a search of its paleontological records (Bell, 2025) for all fossil localities recorded within one mile of the project site, finding 18 within its records including 15 scientifically significant localities. South Environmental also performed a records search for all fossil localities recorded within one mile of the project site on the Paleobiology Database (PBDB) and iDigBio database, and for all fossils found in similar deposits within the county recorded in the University of California Museum of Paleontology (UCMP) collections. The results of the records and online database searches are summarized below:

Source	Localities	Age/Formation	Taxa	Depth	Distance
NHMLA	LACM VP 7190	Puente Formation	Lanternfish (Myctophidae)	Unknown	Not specified
	LACM IP 17598-17600	Puente Formation	Invertebrates	Unknown	
	LACM VP 7490 - 7492	Puente Formation (lower silt)	Fish (Bathylagidae; <i>Ganolytes</i> ; <i>Etringus</i> ; Clupeidae; <i>Thyrsoles</i> ; <i>Lompoquia</i> ; <i>Decapterus</i>)	Unrecorded	
	LACM VP 6166, 6167, 6172, 6173, 7471	Puente Formation	Sturgeonfish (<i>Prionurus</i>), Mako shark (<i>Isurus planus</i>), extinct bony fish (<i>Etringus</i>), Mola (Molidae), fish (Osteichthyes)	Surface	
	LACM VP 6337	Puente Formation (Soquel Member)	Collection of marine vertebrates, mostly fish (<i>Ganolytes</i> , <i>Etringus</i> , Scombridae, and others)	Unrecorded	
	LACM VP 7009	Puente Formation	Fish (<i>Thyrsoles kriegeri</i>)	Unknown	
	LACM VP 1728	Unknown (light brown shale with interbeds of very coarse brown sand; Pleistocene)	Horse (<i>Equus</i>), camel (<i>Camelops</i>)	15-20 feet bgs	
	LACM VP 7508	Unknown formation (Pleistocene)	Ground sloth (<i>Nothrotheriops</i>); elephant family (Proboscidea); horse (<i>Equus</i>)	Unknown	
	LACM VP 7268, 7271	Unknown formation (Pleistocene)	Horse (<i>Equus</i>)	Unknown	
PBDB	None	-	-	-	-
iDigBio	None	-	-	-	-
UCMP	MF7452; 12678	Puente Formation	5 invertebrate (Foraminifera)	Not specified	Not specified

*NHMLA=Natural History Museum of Los Angeles County; UCMP = University of California Museum of Paleontology Collections Online Database; PBDB = Paleobiology Online Database; iDigBio = iDigBio Online Database

3 Findings and Recommendations

3.1 Findings

No scientifically significant fossil materials have been discovered within the project site based on the records searches of previously recorded fossil localities completed by the NHMLA and South Environmental. The geology exposed at the surface of the project site is Holocene-aged alluvium that has originated from recent erosion of the adjacent sedimentary hills. A geotechnical investigation in the area was performed and found that that Artificial Fill extends to a depth of between 5.5 and 15.5 feet and was laid in 1982 during preconstruction grading for the current office building. Below this, young alluvial deposits extend to a depth of up to 35 feet below ground surface (Roe and Delgadillo, 2025). Below this is the Miocene Puente formation. The project's conceptual grading plan indicates that the project site will be over-excavated to a depth of six feet before existing sediments and imported fill are recompacted to elevate the project site (Huitt Zollar, 2025).

Geological maps of the area (Kennedy and Tan, 2007; Morton and Miller, 2006) indicate that geologic units found at depth within the project site and adjacent areas are Miocene-age deposits of the Puente Formation and have considerable potential to contain paleontological resources. Sediments that compose the Puente Formation have a High sensitivity for paleontological resources with identified invertebrate and vertebrate fossil occurrences. Significant fossils recorded include multiple species of marine organisms such as fish and sharks, as well as terrestrial vertebrate occurrences of prehistoric horses, camels, ground sloths, and elephants. Vertebrate fossil remains are recorded in the range of the stratigraphic section of the Puente Formation from the surface to 20 feet subsurface. Although no fossil localities are recorded within the project site, all construction activities in the project site that disturb previously non-eroded and undisturbed Puente Formation sediments would likely result in a potential impact on significant paleontological resources.

Based on the current project grading plan (Huitt Zollar, 2025), it is unlikely that construction activities will exceed six feet in depth and thus will not impact Puente Formation geologic units with a High potential to contain scientifically significant fossils. Therefore, the potential to impact scientifically significant fossil resources is low, and the project would have a less than significant impact on paleontological resources. No further action to meet the requirements of CEQA and the guidelines of the SVP.

3.2 Recommendations

No further action is needed based on the current development plans as the project is unlikely to impact sediments with a High potential to contain scientifically significant fossil resources. Should construction plans change, and excavations take place at a depth greater than 15-20 feet below ground surface, a Qualified Paleontologist should be contacted to perform a spot check of the excavated


materials retrieved from below 11 feet of depth to confirm that sediments with High potential are not being impacted.

3.2.1 Unanticipated Fossil Discoveries

Should unanticipated fossil materials be discovered by the construction crew during the course of project development, construction activity should be halted in a 50-foot radius around the discovery. A Qualified Paleontologist should be contacted and retained to evaluate the discovery, determine its significance, and decide if additional mitigation or treatment is required. Work in the area can resume once the find is properly documented and authorization is given to continue with construction. Any scientifically significant paleontological resources found, including the initial unanticipated find (if it proves to be significant), should be prepared, identified, analyzed, and permanently curated in an approved repository (typically the NHMLA). The cost of curation would be determined by the repository, and the costs of preparation and curation would be the responsibility of the project proponent.

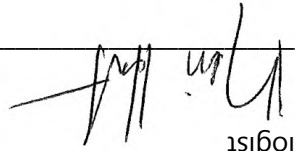
4 Certification

I hereby certify that the statements furnished above and in the attachments present the data and information required for this paleontological resources assessment, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed:  _____
Date: November 18, 2025

Nicolas Oliver, MS

Paleontologist

Signed:  _____
Date: November 18, 2025

Kevin Hunt, BA

Principal Archaeologist

Attachments:

Attachment A. Paleontological Resource Potential Classifications

Attachment B. Natural History Museum of Los Angeles County Records Search

Attachment C. Preparer's Qualifications



5 References

- Bell, A., 2025. Paleontological Resources Records Search for the 1400 Montefino Avenue Residential Project letter. Natural History Museum of Los Angeles County, Los Angeles, California. On file at South Environmental, Pasadena, California.
- California Geological Survey, 2002. CGS Note 36: California Geomorphic Provinces, Electronic document, <https://www.conservation.ca.gov/cgs/documents/publications/cgs-notes/CGS-Note-36.pdf> (accessed November 2025).
- iDigBio, 2025. iDigBio: Integrated Digitized Biocollections: iDigBio Specimen Portal, <http://portal.idigbio.org/portal> (accessed November 2025).
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- Morton, Douglas M and Fred K. Miller, 2006. Geologic Map of the San Bernardino and Santa Ana 30' x 60' quadrangles, California. *United States Geological Survey Open-File Report 2006-1217*. United States Geological Survey. Electronic document: <https://pubs.usgs.gov/of/2006/1217/>, accessed September 24, 2025.
- Miller, W.E., 1971. Pleistocene Vertebrates of the Los Angeles Basin and Vicinity (Exclusive of Rancho La Brea): *Bulletin of the Los Angeles County Museum of Natural History* No. 10, p. 43-47.
- Norris, Robert M. and Robert W. Webb. 1990. *Geology of California, Second Edition*. John Wiley & Sons, New York.
- Paleobiology Database (PBDB), 2025. The Paleobiology Database: About the PBDB, <https://paleobiodb.org/#/> (accessed November 2025).
- Roe, Joe A. and Christian Delgadillo, 2025. *Geotechnical Diligence Exploration Report, August 1, 2025*. Leighton and Associates. On file at South Environmental office in Pasadena, California.
- Society of Vertebrate Paleontology (SVP), 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources: Society of Vertebrate Paleontology, Impact Mitigation Guidelines Revision Committee, <https://vertpaleo.org/wp->

content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf (accessed November 2025).

Sylvester, Arthur G. and Elizabeth O. Gans. 2016. *Roadside Geology of Southern California*. Mountain Press Publishing, Missoula, Montana.

University of California Museum of Paleontology (UCMP), 2025. UCMP Specimen Search: University of California Museum of Paleontology, <https://ucmpdb.berkeley.edu/> (accessed November 2025).

Appendix A: Paleontological Resource Potential Classifications

Paleontological Resource Potential Classifications

When specific agency guidelines are not provided regarding the protection and preservation of paleontological resources, professional paleontologists in California will refer to the guidelines set forth by the Society of Vertebrate Paleontology (SVP) in order to determine the level of mitigation activities necessary for a particular project. These assessments are made by examining the geologic units in the area, known paleontological sites and localities recorded in the vicinity, and references made to the area by published literature. Based on the results of these analyses, the paleontological resource potential of the geology in the area can be classified into one of four categories: High Potential, Low Potential, Undetermined Potential, and No Potential.

Although these guidelines were created specifically for vertebrate fossil remains, they have generally been adopted for use in all fields of paleontology. The definitions for these categories are listed below:

High Potential

Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcanoclastic formations (e. g., ashes or tephra), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

Low Potential

Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e. g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

Undetermined Potential

Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

No Potential

Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

Reference:

Society of Vertebrate Paleontology [SVP], 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources: Society of Vertebrate Paleontology, Impact Mitigation Guidelines Revision Committee, https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf (accessed May 2024).

Appendix B: Natural History Museum of Los Angeles County Museum Records Search

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

September 28, 2025

South Environmental
Attn: Samantha Jovanovic

re: Paleontological resources records search for the 1400 Montefino Avenue Residential Project

Dear Samantha:

I have conducted a search of our paleontology collection records for the proposed development at the 1400 Montefino Avenue Residential Project area as outlined on the portion of the Yorba Linda USGS topographic quadrangle map that you sent to me via e-mail on September 24, 2025. We do not have fossil localities that have been recorded or georeferenced directly within the proposed project area, but we do have fossil localities nearby from similar sedimentary deposits that may 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 (NHMLA).

Locality Number	Location	Formation	Taxa	Depth
LACM VP 7190	Eagle Nest Drive, Diamond Bar	Puente Formation	Lanternfish (Myctophidae)	Unknown
LACM IP 17598-17600	Olinda Landfill, Puente Hills	Puente Formation	Invertebrates	Unknown
LACM VP 7490 - 7492	Chino Hills	Puente Formation (lower siltstone)	Fish (Bathylagidae; <i>Ganolytes</i> ; <i>Etringus</i> ; Clupeidae; <i>Thyrsoctes</i> ; <i>Lompoquia</i> ; <i>Decapterus</i>)	Unrecorded; found during grading
LACM VP 6166, 6167, 6172, 6173, 7471	Puddingstone Reservoir, San Jose Hills	Puente Formation	Sturgeonfish (<i>Prionurus</i>), Mako shark (<i>Isurus planus</i>), extinct bony fish (<i>Etringus</i>), Mola (Molidae), other fish (Osteichthyes)	Surface
LACM VP 6337	Chino Hills	Puente Formation (Soquel Member)	Collection of marine vertebrates, mostly fish (<i>Ganolytes</i> , <i>Etringus</i> , Scombridae, and others)	Unrecorded; found during grading
LACM VP 7009	La Puente Dump, Puente Hills	Puente Formation	Fish (<i>Thyrsoctes kriegeri</i>)	Unknown
LACM VP 1728	Near intersection of English Rd &	Unknown (light brown shale with	Horse (<i>Equus</i>), camel (<i>Camelops</i>)	15-20 feet bgs

Locality Number	Location	Formation	Taxa	Depth
	Peyton Dr, Chino	interbeds of very coarse brown sand; Pleistocene)		
LACM VP 7508	Oakcrest Development; Chino Hills	Unknown formation (Pleistocene)	Ground sloth (<i>Nothrotheriops</i>); elephant family (Proboscidea); horse (<i>Equus</i>)	Unknown
LACM VP 7268, 7271	Near Los Serranos Golf Course	Unknown (Pleistocene)	Horse (<i>Equus</i>)	Unknown

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search is limited to the records of the NHMLA. It is not intended as a paleontological assessment of the project for the purposes of California Environmental Quality Act (CEQA) or National Environmental Policy Act (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 paleontological assessment be conducted by a paleontologist meeting Federal (43 Code of Federal Regulations Part 49.110) or Society of Vertebrate Paleontology standards for compliance with applicable regulations, such as CEQA or NEPA.

Sincerely,



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

Appendix C: Preparer's Qualifications

EDUCATION

Masters candidate in
Geology – Geochemistry and
Vertebrate Paleontology, San
Diego State University

B.S., Geology – Earth and
Environmental Sciences, San
Diego State University, 2025

A.S., Geology, emphasis on
Paleontology, San Diego
Mesa College, 2021

PROFESSIONAL AFFILIATIONS

Society of Vertebrate
Paleontology

Geological Society of
America

Paleontological Society

San Diego Association of
Geologists

Southern California
Paleontological Society

San Diego State University

AWARDS

San Diego Association of
Geologists Scholarship for
Outstanding Students in
Research

San Diego Gem & Mineral
Society Student Standout
Award

Baylor Brookes Geological
Sciences Scholarship
(Honors)

Gordon Gastil Endowed
Geology Scholarship
(Honors)

John W. & Diane D.
Robinson Endowed
Scholarship (Honors)

San Diego State University
Earth and Environmental
Sciences: Outstanding
Undergraduate Student
Researcher

Nicolas Oliver, B.S.

PALEONTOLOGIST

Nicolas Oliver is a paleontological resources professional with more than eight years of experience in the fields of paleontology and geology. He meets the Society of Vertebrate Paleontology's definition of a Qualified Professional Paleontologist. Mr. Oliver has spent a great deal of time in the field on projects in Southern California as well as across the contiguous United States, and even abroad. In the state of California, he has performed extensive paleontological resource monitoring, fossil specimen discovery and salvaging in San Diego, Valley Center, Ocotillo, Blythe, Palm Desert, San Bernardino, Fresno, Bakersfield, San Bruno and San Francisco. In Southern California he has led and directed excavation and recovery efforts of significant in situ fossil specimens. He has also led paleontological laboratory preparation of significant fossil specimens for museum curation.

Mr. Oliver has specific expertise in the paleontological resources requirements of the California Environmental Quality Act (CEQA), Paleontological Resources Preservation Act of 2009 (PRPA), and National Environmental Policy Act (NEPA). His responsibilities include the management and reporting of paleontological resource survey, salvage, and monitoring programs, as well as training paleontological monitors on proper recording, excavation, and handling of fossil materials.

Mr. Oliver has museum experience at the Smithsonian Natural History Museum in Washington D.C, Harvard University Museum of Comparative Zoology, and New Brunswick Museum of Natural History in Saint John's Canada. This experience illustrates his skills and dexterity using tools and equipment for fossil specimen salvage, removal from matrix, and preparation, as well as cataloging specific specimen measurements and characteristics for scientific recording and publication.

EXPERTISE

- CEQA, PRPA, and NEPA compliance documentation in consideration of impacts to paleontological resources.
- The identification of rock materials, interpretation of geologic events, and collection, preparation, and preservation of fossil materials.
- Fossil preparation, curation, and conservation processes in accordance with museum and federal repository standards.

SELECT RECENT PROJECT EXPERIENCE

Coachella Technology Campus Project, City of Coachella, Riverside County, California (2025). Mr. Oliver co-authored a paleontological resources assessment for this 260-acre electronic data storage project. The study included a paleontological resources records search at the Western Science Center, pedestrian survey of the project site, and a paleontological assessment in compliance with CEQA. Role: Paleontologist.

Menifee Project, City of Menifee, Riverside County, California (2025). Mr. Oliver prepared a paleontological resources assessment for this 5.5-acre commercial development project. The study included a paleontological resources records search at the Western Science Center and preparation of a paleontological assessment in compliance with CEQA and City of Menifee requirements. Role: Paleontologist.

EVMWD Highway 74 16-Inch Sewer Extension from Wassan Canyon Road to Ethanac Road Project, Lake Elsinore, Riverside County, California (2025-present). Mr. Oliver is preparing the final paleontological resources monitoring report for this Elsinore Valley Municipal Water District (EVMWD) sewer construction project subject to CEQA. Role: Paleontologist.

Motte Country Plaza Project, Menifee, Riverside County, California (2023). Mr. Oliver led paleontological resource monitoring during all activities which involved disturbance of native paleontological sensitive sediments. He coordinated with project management, construction supervisors and superintendents and safely and attentively monitored ground disturbance of known fossil bearing sediments with reference to GIS maps. The project was subject to CEQA and the City of Menifee was the lead agency. Role: Associate Paleontologist.

Oberon Geotech Solar Project, Desert Center, Riverside County, California (2021-2023). for Paleowest (Jan.2021 – July. 2023) Under previous employment Mr. Oliver conducted paleontological resource monitoring during excavation activities, navigated to and monitored sites for paleontological resources while preparing daily monitoring reports detailing scope of project activities. He detailed relative geological and paleontological resource data, and worked closely with contracted construction crews. He discovered, salvaged, documented, and described paleontological specimens. He ensured that all pre-construction and construction activities were in accordance with CEQA guidelines and PRPA guidelines for portions of the project site on lands managed by the U.S. Bureau of Land Management. Role: Associate Paleontologist.

SELECT PUBLICATIONS

Malinky, J.M., Geyer,G., Landing E., **Oliver, N.**, (2025) 'Hyaloliths from the Manuels River Formation, middle middle cambrian (Miaolingian, Upper Wuliuan–drumian) of Avalonian Southeastern Newfoundland', *Zeitschrift der Deutschen Gesellschaft für Geowissenschaften* [Preprint]. doi:10.1127/zdgg/2025/0470.

Malinky, J.M. & Geyer, G., 6 March 2019. Cambrian Hyolitha of Siberian, Baltican and Avalonian aspect in east Laurentian North America: taxonomy and palaeobiogeography. *Alcheringa* 43, 171–203. ISSN 0311-5518.

Spain Gutiérrez, J.C -Marco, Marek, L., & Malinky J.M., August 2021. New Middle Ordovician hyoliths from the Ossa Morena Zone, southwestern Spain. *The Paleontological Society* 0022-3360/21/1937-2337.

