

Appendix F-3

Paleontological Resources Technical Report

Paleontological Resources Report

San Diego State University Evolve Student Housing Project

NOVEMBER 2024

Prepared for:

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Acronyms and Abbreviations

Acronym	Definition
bgs	below ground surface
CEQA	California Environmental Quality Act
mya	million years ago
SDNHM	San Diego Natural History Museum
SDSU	San Diego State University
SVP	Society of Vertebrate Paleontology

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1 Introduction

This report documents the results of the paleontological resources inventory conducted by Dudek for the proposed San Diego State University (SDSU) Evolve Student Housing Project (Project or Proposed Project). The Project site consists of two components and is located on and adjacent to the western and southern portions of the main SDSU campus in San Diego, California. The Project site falls within Sections 15 and 22, Township 16 South, Range 2 West of the La Mesa Quadrangle, California, U.S. Geological Survey 7.5-minute topographic quadrangle map (Figure 1, Project Location).

The Project proposes the expansion of on-campus student housing facilities within the SDSU main campus and would involve demolition and development at two locations within campus to accommodate the two proposed student-housing complex components of the Project. These two components include the Peninsula Component and the University Towers East Component. The Peninsula Component would be located within an approximately 10.3-acre site adjacent to the northwest portion of campus at the end of 55th Street, just south of Interstate 8 and west of Canyon Crest Drive. Development of the Peninsula Component would include demolition of all 13 existing on-site buildings and the phased development of a 2-story amenities building, a 9-story student housing building, and five 13-story student housing buildings that would together contain a total of approximately 4,450 student beds. The proposed University Towers East Component would be developed on an approximately 1.1-acre site located immediately south of Montezuma Road that is currently utilized as a parking lot for University Towers located at 5505 Montezuma Road. The existing parking lot would be demolished to allow for redevelopment of the site to include a new 9-story student-housing building that would accommodate approximately 720 beds. Development of the Project would result in 5,170 new student beds, or 4,468 additional student beds over existing conditions.

To determine the paleontological sensitivity of the Project site, Dudek performed a paleontological resources inventory for the Project to comply with the California Environmental Quality Act (CEQA) and City of San Diego's (2022) thresholds of significance. The inventory consisted of a San Diego Natural History Museum (SDNHM) paleontological records search (Confidential Appendix A) and a review of geological mapping and geological and paleontological literature. The results of the paleontological records search were negative for paleontological resources within the Project site; however, the museum reported 26 fossil localities within 1 mile of the Project site.

1.1 Paleontological Resources

Paleontological resources are the remains or traces of plants and animals that are preserved in Earth's crust and, per the Society of Vertebrate Paleontology (SVP) guidelines, are older than written history or older than approximately 5,000 years (SVP 2010). They are limited, nonrenewable resources of scientific and educational value and are afforded protection under state laws and regulations. This study satisfies requirements in accordance with state guidelines (Title 13 of the California Public Resources Code, Section 21000 et seq.) and California Public Resources Code Section 5097.5. This analysis also complies with guidelines and significance criteria specified by SVP (2010). Table 1 provides definitions for high, moderate, low, marginal, and no paleontological resource potential or sensitivity, as set forth by the County of San Diego (2009); these definitions have also been assigned to geological units within the City of San Diego (2022).

Table 1. Paleontological Resources Sensitivity Criteria

Resource Sensitivity/Potential	Definition
High	High resource potential and high sensitivity are assigned to geologic formations known to contain paleontological localities with rare, well preserved, critical fossil materials for stratigraphic or paleoenvironmental interpretation and fossils providing important information about the paleoclimatic, paleobiological, and/or evolutionary history (phylogeny) of animal and plant groups. In general, formations with high resource potential are considered to have the highest potential to produce unique invertebrate fossil assemblages or unique vertebrate fossil remains and are, therefore, highly sensitive.
Moderate	Moderate resource potential and moderate sensitivity are assigned to geologic formations known to contain paleontological localities. These geologic formations are judged to have a strong, but often unproven, potential for producing unique fossil remains (Deméré and Walsh 1993).
Low	Low resource potential and low sensitivity are assigned to geologic formations that, based on their relatively young age and/or high-energy depositional history, are judged unlikely to produce unique fossil remains. Low resource potential formations rarely produce fossil remains of scientific significance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to our geologic understanding of the area.
Marginal	Marginal resource potential and marginal sensitivity are assigned to geologic formations that are composed either of volcanoclastic (derived from volcanic sources) or metasedimentary rocks, but that nevertheless have a limited probability for producing fossils from certain formations at localized outcrops. Volcanoclastic rock can contain organisms that were fossilized by being covered by ash, dust, mud, or other debris from volcanoes. Sedimentary rocks that have been metamorphosed by heat and/or pressure caused by volcanoes or plutons are called metasedimentary. If the sedimentary rocks had paleontological resources within them, those resources may have survived the metamorphism and still be identifiable within the metasedimentary rock, but since the probability of this occurring is so limited, these formations are considered marginally sensitive.
No Sensitivity	No resource potential is assigned to geologic formations that are composed entirely of volcanic or plutonic igneous rock, such as basalt or granite, and therefore do not have any potential for producing fossil remains. These formations have no paleontological resource potential (i.e., they are not sensitive).

Source: County of San Diego 2009.

2 Regulatory Framework

2.1 California Environmental Quality Act

CEQA and the CEQA Guidelines require that all private and public activities not specifically exempted be evaluated against the potential for environmental damage, including effects to paleontological resources. CEQA Guidelines, Appendix G, Geology and Soils section, provides the criterion against which a proposed project is to be analyzed for potential impacts related to earthquake fault, landslides, soil erosion, unstable soil or geologic units, expansive soils, and paleontological resources.

Paleontological resources, which are limited, nonrenewable resources of scientific, cultural, and educational value, are recognized as part of the environment under these state guidelines. This study satisfies project requirements in accordance with CEQA (Title 13 California Public Resources Code, Section 21000 et seq.).

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3 Methods

3.1 Geological Map, Literature, and Geotechnical Report Review

Published geological maps and published geological and paleontological reports were reviewed to identify geological units on the site and determine their paleontological sensitivity.

3.2 Paleontological Records Search

A paleontological records search request was sent to the SDNHM on August 23, 2024. The purpose of the records search was to determine whether there are any known fossil localities in or near the Project site and identify the geological units present within the Project site boundaries. The paleontological records search also aided in determining whether a paleontological mitigation program was warranted to avoid or minimize potential adverse effects of construction on paleontological resources during Project construction.

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4 Results

4.1 Geological Map Literature and Geotechnical Report Review

The Project site lies within the Peninsular Ranges Geomorphic Province (CGS 2002). This province extends from the tip of the Baja California Peninsula to the Transverse Ranges (e.g., the Santa Ynez, Santa Monica, San Gabriel and San Bernardino Mountains) and includes the Los Angeles Basin, offshore islands (Santa Catalina, Santa Barbara, San Nicholas, and San Clemente), and the continental shelf. The eastern boundary is the Colorado Desert Geomorphic Province (CGS 2002). The ancestral Peninsular Ranges were formed by uplift of plutonic igneous rock resulting from the subduction of the Farallon Plate underneath the North American Plate during the latter portion of the Mesozoic era (approximately 125 million years ago [mya] to 90 mya) (Abbott 1999).

According to the published geological mapping at a 1:100,000 scale by Kennedy and Tan (2008), the SDNHM records search results, and the chronostratigraphic chart (Cohen et al. 2023), the Project site is underlain by the middle Eocene (approximately 47.8 mya to 41.2 mya) (Confidential Appendix A) Mission Valley Formation (map unit Tmv), the middle Eocene (approximately 47.8 to 41.2 mya) Stadium Conglomerate (map unit Tst), and early Pleistocene (approximately 2.58 mya to 0.774 mya) very old paralic deposits (map unit Qvop7; equivalent to the Lindavista Formation). The Pleistocene deposits are possibly underlain by late Pliocene to early Pleistocene (approximately 3.6 to 2.58 mya) San Diego Formation (map unit Tsd) on the southern portion of the Project site along Montezuma Road (Confidential Appendix A).

The geotechnical study conducted for the Project by Group Delta Consultants Inc. recorded sandstone between 5 and 6 feet below ground surface (bgs) mapped as very old paralic deposits underlying the University Towers East Component. Geotechnical borings at the southern end of the Peninsula Component encountered very old paralic deposits/Mission Valley Formation from 6 inches to approximately 35 feet bgs, and the Stadium Conglomerate from 35 to 47 feet bgs (Group Delta Consultants Inc. 2024).

4.2 Paleontological Records Search

The SDNHM records search results letter was received on September 5, 2024. A total of 26 fossil localities were reported within a 1-mile radius of the Project site (Confidential Appendix A). Of these localities, 14 are from the San Diego Formation, 6 are from the Mission Valley Formation, and 1 is from the Stadium Conglomerate. The remaining localities are from the Friars Formation, which is not expected to be impacted by Project construction.

Quaternary very old paralic deposits (equivalent to the Lindavista Formation) deposited by shoreline estuary environments produced significant paleontological resources (marine invertebrates and sparse marine vertebrates) elsewhere in San Diego. The Lindavista Formation has a moderate paleontological resource sensitivity locally (Confidential Appendix A; City of San Diego 2007).

In its response to the search request, the SDNHM indicated that the San Diego Formation likely underlies the southern portion of the Project site at subsurface depths. This formation has yielded significant paleontological resources in and around the vicinity of the Project site (Confidential Appendix A). Fossilized specimens within the formation include trace fossils, marine invertebrates, marine vertebrates, and rare terrestrial vertebrate specimens

(Deméré and Walsh 1993). The San Diego Formation is assigned high paleontological sensitivity (Confidential Appendix A; City of San Diego 2007).

The Mission Valley Formation has yielded significant paleontological resources in and around the vicinity of the Project site (Confidential Appendix A). Fossilized specimens within the formation include trace fossils, marine invertebrates, marine vertebrates, and terrestrial vertebrate specimens (Deméré and Walsh 1993). Because of the significance of the previously discovered paleontological resources, the Mission Valley Formation is assigned high paleontological sensitivity (Confidential Appendix A; City of San Diego 2007).

The Stadium Conglomerate, composed of a cobble conglomerate in a muddy to sandy matrix lower assemblage and moderately sorted to well-sorted cobble to boulder conglomerate with occasional lenses of reddish tan cross-bedded sandstone upper assemblage, has yielded significant paleontological resources near the vicinity of the Project site including invertebrates (pulmonated snails) and an assemblage of terrestrial vertebrates. Therefore, the geological unit is assigned high paleontological sensitivity (Confidential Appendix A; City of San Diego 2007).

5 Summary and Management Recommendations

No significant paleontological resources were identified within the Project site as a result of the institutional records search and desktop geological review. However, 26 fossil localities are located within 1 mile of the Project site (Confidential Appendix A). Based on the SDNHM records search results, map, geotechnical report, and literature review, significant ground disturbing activities on the Proposed Project site have high potential to result in the discovery/uncovering of paleontological resources, as the Project site is immediately underlain by geological units with moderate to high paleontological resource sensitivity or potential. To reduce these potentially significant impacts, mitigation is recommended requiring that a qualified monitor be on site during significant ground disturbing activities. In the event that intact paleontological resources are discovered, ground disturbing activities in the impacted area that have the potential to destroy a unique paleontological resource or site would be suspended until appropriate safeguards are put in place. Without mitigation, the potential damage to paleontological resources during construction would result in a potentially significant impact. With implementation of the recommended mitigation measure (**MM-GEO-1**), impacts would be reduced to below a level of significance. Impacts of the Project would be **less than significant with mitigation incorporated** during construction.

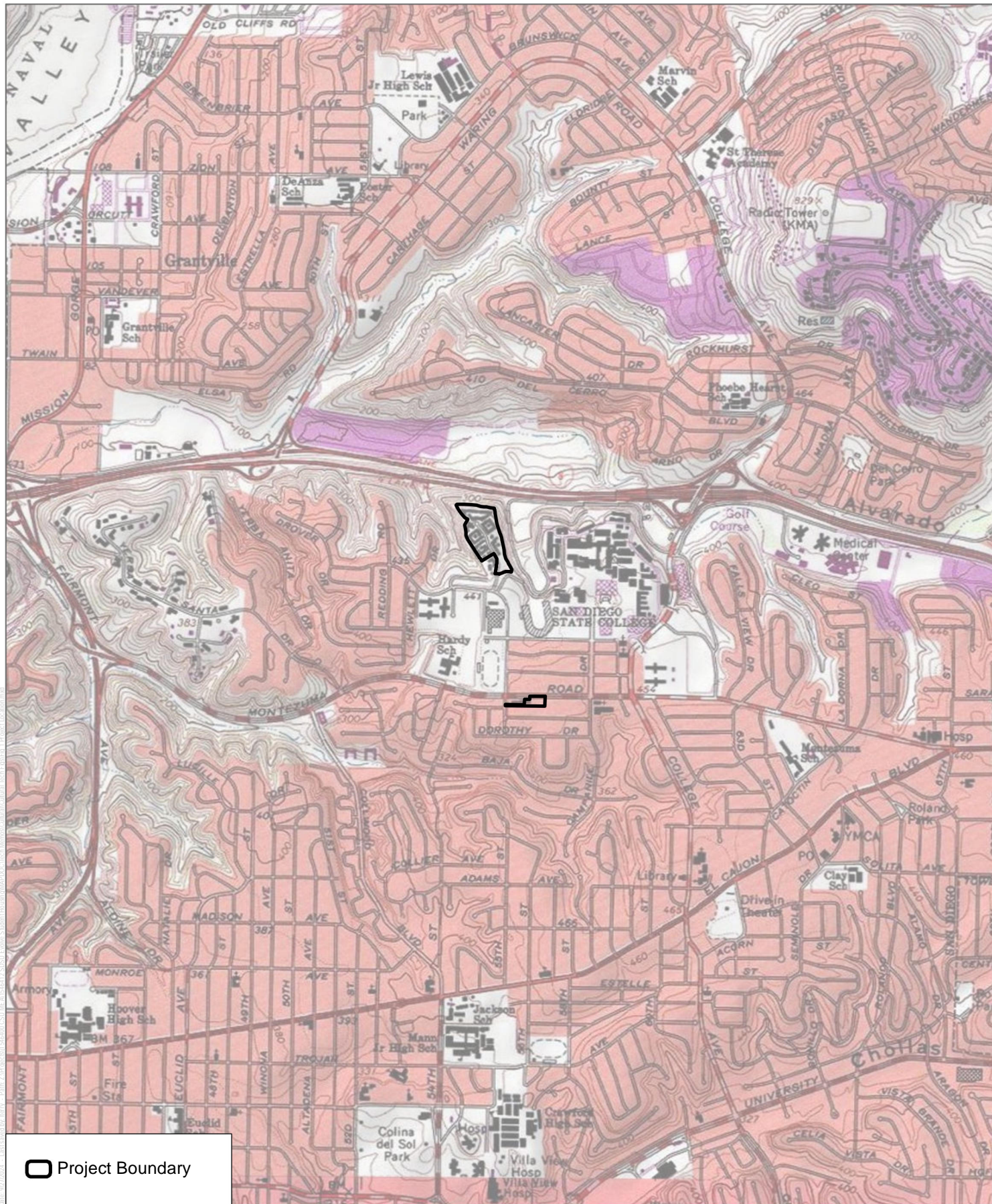
MM-GEO-1: Prior to commencement of any ground disturbing activity on-site, San Diego State University (SDSU) or their contractor shall retain a qualified paleontologist as defined by the 2010 Society of Vertebrate Paleontology guidelines, subject to the review and approval of SDSU. The qualified paleontologist shall attend the preconstruction meeting and be on site during all rough grading and other significant ground disturbing activities in previously undisturbed Eocene Mission Valley Formation and/or Stadium Conglomerate, late Pliocene to early Pleistocene San Diego Formation, or Pleistocene very old paralic deposits. In the event that paleontological resources (e.g., fossils) are unearthed during ground disturbing activities, the paleontological monitor will temporarily halt and/or divert grading activity in the impacted area to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow ground disturbing activities to recommence in the impacted area. Upon completion of the paleontological monitoring program, the qualified paleontologist shall prepare a final monitoring report documenting the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. Costs of laboratory processing and curation of any fossils recovered during the monitoring program are the responsibility of the Project applicant.

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SOURCE: USGS 7.5-Minute Series La Mesa Quadrangle; Township 16S; Range 2W; Sections 15 and 22

FIGURE 1
Project Location

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Appendix A

(Confidential) SDNHM Records Search Results

SAN DIEGO NATURAL HISTORY MUSEUM

August 5, 2024

Michael Williams
Dudek
605 3rd Street
Encinitas, CA 92024

RE: Paleontological Records Search – SDSU Evolve Housing Project

Dear Dr. Williams:

This letter presents the results of a paleontological records search conducted for the San Diego State University (SDSU) Evolve Housing Project (Project), located in the College West neighborhood within the College Area Community Planning Area of the City of San Diego, San Diego County, California. The Project site is located within existing sophomore and upper-division student housing along 55th Street and is bound to the south by Aztec Circle Drive, to the west by 55th Street and undeveloped land, and to the north and east by undeveloped land. The southern site is located along Montezuma Road and is bordered to the north by Montezuma Road and to the south, east, and west by residential development.

Methods

A review of published geological maps covering the Project site and surrounding area was conducted to determine the specific geologic units underlying the Project site. Each geologic unit was subsequently assigned a paleontological resource sensitivity (City of San Diego, 2022). In addition, a search of the paleontological collection records housed at the San Diego Natural History Museum (SDNHM) was conducted in order to determine if any documented fossil collection localities occur within or nearby the Project site.

Results

Published geological reports (e.g., Kennedy and Tan, 2008) covering the Project area indicate that the proposed Project has the potential to impact the early Pleistocene-age very old paralic deposits, Unit 7 (broadly equivalent to the Lindavista Formation), the middle Eocene-age Mission Valley Formation, and the middle Eocene-age Stadium Conglomerate. The late Pliocene- to early Pleistocene-age San Diego Formation likely also underlies the Lindavista Formation at unknown depths within the southern site along Montezuma Road. These geologic units and their paleontological resource sensitivity are summarized below.

The SDNHM has 26 recorded fossil localities that lie within one mile of the Project site. Of these recorded fossil localities, 14 are from the San Diego Formation, six are from the Mission Valley Formation, and one is from the Stadium Conglomerate; these localities are discussed in greater detail below. The remaining three localities are from the Friars Formation, which are not anticipated to be impacted by Project earthwork. A map (Figure 1) and list (Appendix A) of the fossil localities are attached at the end of this report.

Quaternary very old paralic deposits, Unit 7 (Lindavista Formation) – The entirety of the southern site along Montezuma Road and the majority of the northern Project site are underlain at the surface by Quaternary very old paralic deposits, Unit 7 of Kennedy and Tan (2008). More specifically, these deposits rest on the Mira Mesa terrace of Kern and Rockwell (1992) and are early Pleistocene in age (approximately 975,000 years old). These deposits are broadly equivalent to the Lindavista Formation of Kennedy (1975). The SDNHM does not have any recorded fossil localities from the Lindavista Formation within a one-mile radius of the Project site. Elsewhere in San Diego County, the Lindavista Formation has produced remains of nearshore marine invertebrates (e.g., clams, scallops, snails, barnacles, and sand dollars), as well as sparse remains of marine vertebrates (e.g., sharks and baleen whales). Fossils have primarily been recovered from localities in Tierrasanta and Mira Mesa; elsewhere in San Diego County, including in the vicinity of the Project site, the Lindavista Formation is assigned a moderate paleontological resource sensitivity.

San Diego Formation – Marine sedimentary deposits of the late Pliocene- to early Pleistocene-age (approximately 3.5 to 1.5 million years old) San Diego Formation are mapped at the surface approximately 650 feet from the southern Project site and likely underlie the site in the subsurface. The SDNHM has 14 fossil collection localities from the San Diego Formation within a one-mile radius of the Project site. These fossil collection localities produced trace fossils, (e.g., burrows and borings), as well as fossil impressions or remains of foraminifers, marine invertebrates (e.g., sponges, bryozoans, polychaete worms, clams, oysters, mussels, scallops, snails, sand dollars, barnacles, crabs, and hermit crabs), marine vertebrates (e.g., sharks, rays, skates, bony fish, toothed whales, auks, and grebes). Elsewhere in southwestern San Diego County, the San Diego Formation has produced diverse assemblages of marine clams, scallops, snails, crabs, barnacles, sand dollars, sharks, rays, bony fishes, sea birds, and marine mammals (e.g., walrus, fur seals, sea cows, dolphins, baleen whales) (Deméré and Walsh, 1993). Rare remains of terrestrial mammals, including cat, wolf, skunk, peccary, camel, antelope, deer, horse, and gomphothere, have also been recovered from the San Diego Formation, along with fossil wood and leaves of terrestrial plants (Deméré and Walsh, 1993). Based on the important fossil remains recovered from this geologic unit, the San Diego Formation has been assigned a high paleontological resource sensitivity.

Mission Valley Formation – The marine and fluvial deposits of the middle Eocene-age (approximately 43 million years old) Mission Valley Formation are mapped as underlying the margins of the northern Project site. The SDNHM has six recorded fossil collection localities from the Mission Valley Formation within a one-mile radius of the Project site. These localities produced fossil impressions and remains of foraminifers, marine invertebrates (e.g., clams, oysters, and snails), marine vertebrates (e.g., sharks and baleen whales), and terrestrial vertebrates (e.g., opossums, rodents, insectivores, bats, and primates). The marine strata of the Mission Valley Formation have produced abundant and well-preserved remains of marine microfossils (e.g., foraminifers), macroinvertebrates (e.g., clams, snails, crustaceans, and sea urchins), and vertebrates (e.g., sharks, rays, and bony fish) (Deméré and Walsh, 1993). The fluvial strata have produced well-preserved petrified wood and assemblages of fossil land mammals (e.g., opossums, insectivores, bats, primates, rodents, artiodactyls, and perissodactyls) (Deméré and Walsh, 1993). The Mission Valley Formation has, therefore, been assigned a high paleontological resource sensitivity.

Stadium Conglomerate – The western portion of the Project site is partially underlain at the surface by deposits of the middle Eocene-age (approximately 44 to 42 million years old) Stadium

Conglomerate. The Stadium Conglomerate contains two distinct members, a lower member and an upper member. The lower member is composed of light gray and pale greenish-gray, poorly sorted cobble conglomerate in a muddy to sandy matrix with lenses of greenish and bluish-gray siltstone and mudstone, while the upper member generally consists of reddish tan to brown, moderately-sorted to well-sorted cobble to boulder conglomerate with occasional lenses of reddish tan cross-bedded sandstone. The SDNHM has one recorded fossil collection locality from the lower member of the Stadium Conglomerate within a one-mile radius of the Project site. This locality produced opercula of pulmonate snails, as well as an assemblage of terrestrial vertebrates including the rodents *Microparamys minutus*, *Pauromys lillegraveni*, *Sciuravus* sp., and *Eohaplomys* sp.; the insectivore *Crypholestes vaughni*; the primate *Uintasorex* sp.; camelids from the family Protoceratidae; a bat; and a squamate reptile. The Stadium Conglomerate has produced limited but significant assemblages of fossils from a number of localities in the metropolitan San Diego area, and is therefore assigned a high paleontological resource sensitivity.

Summary and Recommendations

The high paleontological resource sensitivity of the San Diego Formation, Mission Valley Formation, and the Stadium Conglomerate, the moderate paleontological resource sensitivity of the Lindavista Formation, and the presence of documented fossil localities in the vicinity of the Project site suggest the potential for construction of the proposed Project to result in impacts to paleontological resources. Any proposed excavation activities that extend deep enough to encounter previously undisturbed deposits of these geologic units (i.e., below the depth of any previously imported artificial fill or disturbed sediments present at the Project site) have the potential to impact the paleontological resources preserved therein. If such excavation is required for Project construction, implementation of a complete paleontological resource mitigation program during ground-disturbing activities is recommended. The mitigation program must include, at a minimum, measures for construction monitoring, fossil salvage and data recovery, laboratory preparation and curation of the fossils into the permanent fossil collections of an appropriate regional repository, and production of a final paleontological mitigation report.

The fossil collection locality information contained within this paleontological record search should be considered private and is the sole property of the SDNHM. Any use or reprocessing of information contained within this document beyond the scope of the SDSU Evolve Housing Project is prohibited.

If you have any questions concerning these findings please feel free to contact me at kmueller@sdnhm.org.

Sincerely,



Kirstin Mueller
Assistant Report Writer
San Diego Natural History Museum

Enc: *Figure 1: Project map*

Appendix A: List of SDSNH fossil localities in the vicinity of the Project

Literature Cited

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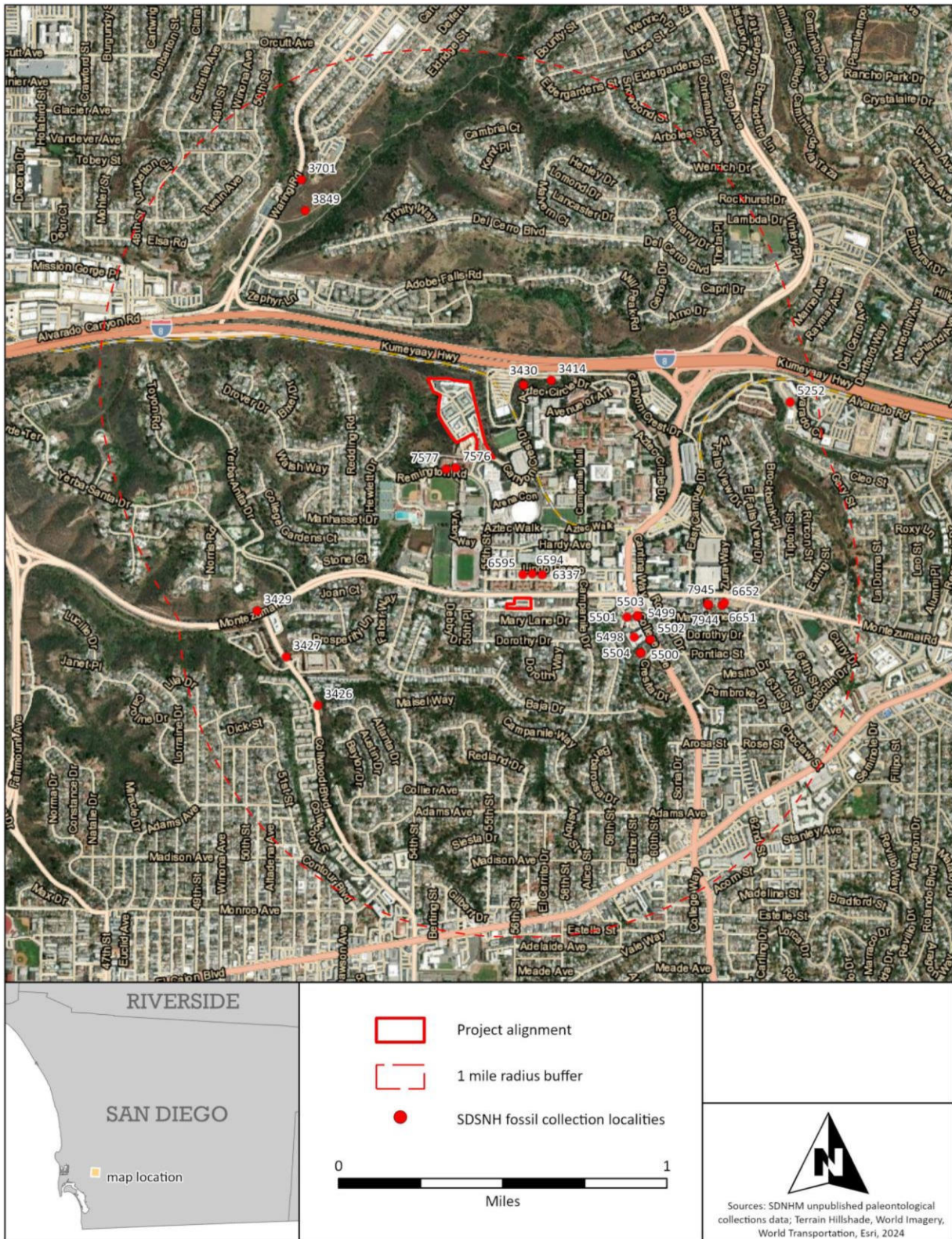


Figure 1: Map of the Project site and SDNHM Fossil Collection Localities

Appendix A: Locality List
San Diego Natural History Museum
Department of Paleontology

Locality Number	Locality Name	Location	Elevation (feet)	Geologic Unit	Era	Period	Epoch
5500	SDSU Sorority Row	City of San Diego, San Diego County, California	445	San Diego Formation	Cenozoic	Neogene	Pliocene
5504	SDSU Sorority Row	City of San Diego, San Diego County, California	439	San Diego Formation	Cenozoic	Neogene	Pliocene
5502	SDSU Sorority Row	City of San Diego, San Diego County, California	441	San Diego Formation	Cenozoic	Neogene	Pliocene
5498	SDSU Sorority Row	City of San Diego, San Diego County, California	439	San Diego Formation	Cenozoic	Neogene	Pliocene
5501	SDSU Sorority Row	City of San Diego, San Diego County, California	441	San Diego Formation	Cenozoic	Neogene	Pliocene
5499	SDSU Sorority Row	City of San Diego, San Diego County, California	445	San Diego Formation	Cenozoic	Neogene	Pliocene
5503	SDSU Sorority Row	City of San Diego, San Diego County, California	439	San Diego Formation	Cenozoic	Neogene	Pliocene
6651	Aztec Court Apartments	City of San Diego, San Diego County, California	440	San Diego Formation, upper member	Cenozoic	Neogene	Pliocene
7944	6195 Montezuma Apartments	City of San Diego, San Diego County, California	443	San Diego Formation, lower member	Cenozoic	Neogene	late Pliocene
7945	6195 Montezuma Apartments	City of San Diego, San Diego County, California	445	San Diego Formation, lower member	Cenozoic	Neogene	late Pliocene
6652	Aztec Court Apartments	City of San Diego, San Diego County, California	440	San Diego Formation, upper member	Cenozoic	Neogene	Pliocene
6337	Plaza Lindo Paseo	City of San Diego, San Diego County, California	439	San Diego Formation	Cenozoic	Neogene	late Pliocene
6595	Village Lindo Paseo Dormitories	City of San Diego, San Diego County, California	438	San Diego Formation	Cenozoic	Neogene	Pliocene
5252	SDSU Parking Lot D	City of San Diego, San Diego County, California	330	San Diego Formation	Cenozoic	Neogene	Pliocene
3426	Collwood South	City of San Diego, San Diego County, California	280	Mission Valley Formation	Cenozoic	Paleogene	middle Eocene
3427	Collwood and Montezuma	City of San Diego, San Diego County, California	270	Mission Valley Formation	Cenozoic	Paleogene	middle Eocene
3429	Cylindrocanthus Spot	City of San Diego, San Diego County, California	280	Mission Valley Formation	Cenozoic	Paleogene	middle Eocene
6594	Village Lindo Paseo Dormitories	City of San Diego, San Diego County, California	415	Mission Valley Formation	Cenozoic	Paleogene	middle Eocene
7577	SDSU New Student Residential Hall	City of San Diego, San Diego County, California	422	Mission Valley Formation	Cenozoic	Paleogene	middle Eocene
7576	SDSU New Student Residential Hall	City of San Diego, San Diego County, California	421	Mission Valley Formation	Cenozoic	Paleogene	middle Eocene
3701	Waring Road	City of San Diego, San Diego County, California	220	Stadium Conglomerate, lower member	Cenozoic	Paleogene	middle Eocene
3430	SDSU Parking Lot 2	City of San Diego, San Diego County, California	320	Friars Formation	Cenozoic	Paleogene	middle Eocene
3414	SDSU Parking Lot 1	City of San Diego, San Diego County, California	295	Friars Formation	Cenozoic	Paleogene	middle Eocene
3849	Waring Road Friars Hole	City of San Diego, San Diego County, California	180	Friars Formation	Cenozoic	Paleogene	middle Eocene

