Appendix K

Paleontological Resources Review

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MEMORANDUM

To:	Jeff Phair, Green Phair Scripps Partners LLC
From:	Sarah Siren, MSc and Michael Williams, PhD, Paleontologists, Dudek
Subject:	Paleontological Resources Review – Renzulli Estates Project
Date:	12/15/21, Revised 9/5/2024
cc:	Iulia Roman, Dudek
Attachment(s):	Figure 1 and Confidential Paleontological Resources Records Search Results Letter

Dudek is providing this memorandum (memo) after completing a review of the potential for impacts to paleontological resources during construction activities for the Renzulli Estates Project (Project) located on approximately 40.6 acres (Assessor's Parcel Number 319-020-04-00) in the City of San Diego, California (Figure 1). The Project involves the construction of a 100 single-family homes and 12 multi-family affordable income rental units (multi-family units) . This memo was prepared by Sarah Siren, MSc, with editorial comments provided by Michael Williams, PhD, who are both qualified as Principal Investigators for Paleontology, in accordance with the California Environmental Quality Act (CEQA) guidelines and Society of Vertebrate Paleontology (SVP) standards (2010). Ages of geological units discussed herein are based on the International Chronostratigraphic Chart of Cohen et al. (2021).

The Project area is located within the Peninsular Ranges Geomorphic Province, in the Cypress Canyon area of northern San Diego (Harden, 2004; Kennedy and Tan, 2008). The Project area is generally underlain by Quaternary alluvium (map unit Qal) and Eocene bedrock (e.g., Pomerado Conglomerate [map unit Tp], Mission Valley Formation [map unit Tmv], and Friars Formation [map unit Tf]), as mapped by Kennedy (1975) and Kennedy and Tan (2008) and as indicated in the records search results received from the San Diego Natural History Museum ([SDNHM], 2021; see attached). The geotechnical report prepared for the project (Advanced Geotechnical Solutions [AGS] 2023) indicated the Project area is underlain by variable thicknesses of artificial fill (up to 98 feet thick), topsoil, colluvium, the Stadium Conglomerate, and the Mission Valley Formation. Although no paleontological localities are documented within the Project boundaries, the SDNHM reported it has 24 fossil localities within a one-mile radius buffer of the Project area. These localities were from the Eocene Pomerado Conglomerate, Mission Valley Formation, and Friars Formation.

Localities from the Pomerado Conglomerate range in age from middle to late Eocene (approximately 37-42 million years ago) and consist of fluvial (river-laid) and nearshore marine deposits that underlie the central portion of the Project area (SDNHM, 2021). A large, composite assemblage, including SDNHM localities 855, 874, 927, 949, and 951, yielded invertebrates (e.g., marine snails and clams), and vertebrates (e.g., reptiles and mammals). The Pomerado Conglomerate has high paleontological resources sensitivity (Deméré and Walsh, 1993).

The middle Eocene Mission Valley Formation (approximately 43 million years ago) consists of marine and fluvial deposits that underlie the Pomerado Conglomerate locally, and may represent, at least in part, the upper tongue of

the Friars Formation (SDNHM, 2021). The SDNHM has five fossil localities from the Mission Valley Formation within a one-mile radius of the Project area. These localities include fossil invertebrates (e.g., land snails and freshwater clams) vertebrates (e.g., birds, reptiles, and mammals), and trace fossils (e.g., coprolites). The Mission Valley Formation has high paleontological resources sensitivity (Deméré and Walsh, 1993).

The Stadium Conglomerate (approximately 43-45 million years ago) encountered at depth during project geotechnical borings has produced significant paleontological resources in the area (e.g., tapir, rhinoceros, primates, and small mammals). The Stadium Conglomerate has high paleontological resources sensitivity.

The majority of the fossil localities in this area are from the middle Eocene Friars Formation (approximately 46-47 million years ago) which consist of fluvial deposits that stratigraphically underlie the Mission Valley Formation and / or the Pomerado Conglomerate in the Project area (SDNHM, 2021). The SDNHM has 14 fossil localities from the Friars Formation within a one-mile radius of the Project area. These localities produced land snails, birds, reptiles, and mammals (e.g., small opossums, apatotheres, insectivores, bats, primates, rodents, perissodactyls, and artiodactyls). The Friars Formation has high paleontological resources sensitivity (Deméré and Walsh, 1993).

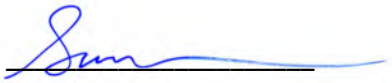
Holocene age, or Recent (less than approximately 11,700 years ago) alluvial deposits have low paleontological resource sensitivity and do not require monitoring (Deméré and Walsh, 1993). However, given the previously recorded fossil localities and the high sensitivity of the bedrock (e.g., Pomerado Conglomerate, Mission Valley Formation, and Friars Formation) mapped within the Project area, a monitoring program is recommended during grading within previously undisturbed sedimentary deposits within the Project area (Deméré and Walsh, 1993; SDNHM, 2021). Dudek recommends implementation of GEO-1, to avoid impacts to subsurface paleontological resources. With implementation of GEO-1, impacts of the proposed project are considered less than significant.

MM-GEO-1 Paleontological Resources

Prior to commencement of any grading activity in areas of moderate to high paleontological sensitivity, the applicant shall retain a qualified paleontologist per the Society of Vertebrate Paleontology (SVP) (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project. The PRIMP shall be consistent with the SVP (2010) guidelines and should outline requirements for preconstruction meeting attendance and worker environmental awareness training, where monitoring is required within the project area based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods (including sediment sampling for microvertebrate fossils), reporting, and collections management. The qualified paleontologist shall attend the preconstruction meeting and a paleontological monitor shall be on-site during rough grading and other significant ground-disturbing activities in areas of previously undisturbed, moderate and/or high paleontological resources sensitivity. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity 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 grading to recommence in the area of the find.

If you have any questions regarding this technical report, please feel free to contact me (760.846.9326 or ssiren@dudek.com) or Michael Williams (225.892.7622 or mwilliams@dudek.com).

Sincerely,



Sarah A. Siren, MSc

Paleontologist, Dudek

Att. Figure 1 and Confidential Paleontological Resources Records Search Results Letter

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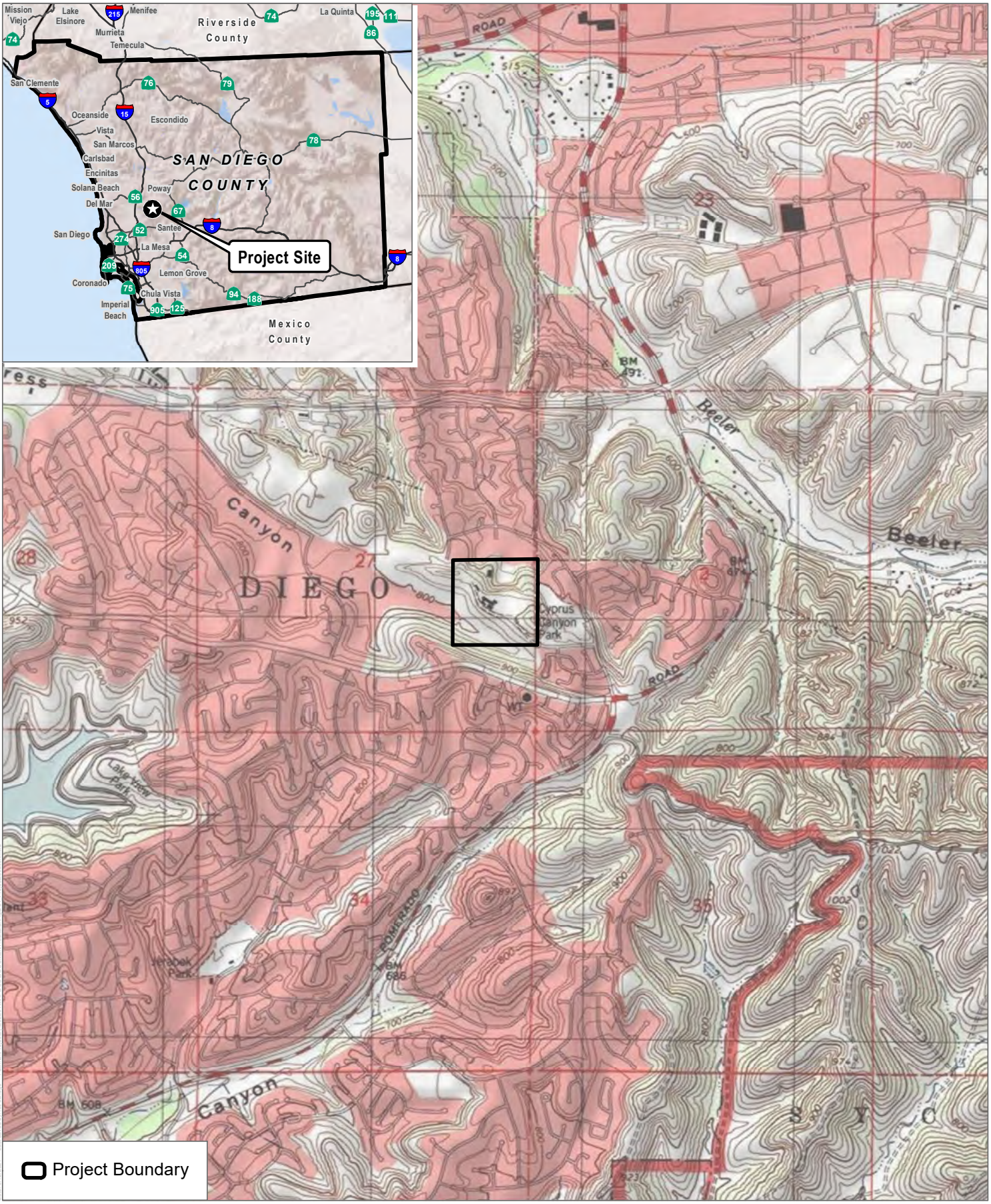

SOURCE: USGS 7.5-Minute Series Poway Quadrangle

0 1,000 2,000 Feet
0 250 500 Meters
1:24,000

DUDEK

FIGURE 1

Project Location

Renzulli Estates Project, City of San Diego, California