APPENDIX G: PALEONTOLOGICAL LETTER REPORT

August 8, 2025

Plumas Lake Elementary School District
2743 Plumas School Road
Plumas Lake, CA 95961

RE: Paleontological Assessment Letter Report for the Plumas Lake Elementary School District Project, Yuba County, California

To Whom it May Concern:

ECORP Consulting, Inc. (ECORP) completed a thorough investigation of the potential to directly affect paleontological resources during construction of the Plumas Lake Elementary School District Project (Project). This investigation included a paleontological record search through the Sierra College Natural History Museum in Rocklin, California; an online record search through the University of California Museum of Paleontology (UCMP), Berkeley, California; and a desktop study of the geology and paleontology of the Project Area.

The Project Area consists of approximately 27 acres of land located in the southwestern quarter of the southwestern quarter of Section 5 of Township 13 North, Range 4 East, Mount Diablo Base and Meridian, as depicted on the 1952 U.S. Geological Survey (USGS) Olivehurst, California and 1992 USGS Nicolaus, California 7.5-minute topographic quadrangles. The Project Area comprises one parcel: Assessor's Parcel Number 0163-5002-1000. The Project Area is bordered by active residential construction to the north, River Oaks Boulevard to the east, a gravel reclamation district to the west, and agricultural fields to the south (Figure 1).

The Proposed Project entails the construction of a new middle school on agricultural land adjacent to new housing developments. The new school would include classrooms, a gym, athletic fields, student pick-up and drop-off lanes, parking, landscaping, and associated utilities and infrastructure.

GEOLOGIC UNITS

Plumas Lake is located in the Sierra Nevada geomorphic province, on the western edge of the Sierra Nevada foothills and the Sacramento Valley. The geology of the Plumas Lake area consists primarily of Mesozoic granitic rocks overlain by Cenozoic volcanic and sedimentary deposits. The area has experienced uplift, erosion, and localized volcanism, which resulted in deep valleys and granitic outcrops. Pleistocene glaciation has contributed to the formation of sedimentary deposits, including glacial outwash and lakebed sediments (California State Water Resources Control Board 2014).

According to Saucedo and Wagner (1992) and Wagner et al. (1981), the underlying geology of the Project Area consists of:

- *Basin Deposits (Qb),* which consists of fine-grained deposits of silt and clay in flood basins between modern water courses deposited during the Holocene (12 thousand years ago to present);

- *Riverbank Formation (Qr),* which consists of weathered silt and gravel deposited during the middle Pleistocene (130 to 450 thousand years ago); and
- *Modesto-Riverbank Formation, Undifferentiated (Qmr),* which consists of weathered and slightly weathered gravel, sand, silt, and clay deposited during the Pleistocene (130 to 450 thousand years ago).

These Holocene and Pleistocene deposits are collectively referred to as *Quaternary (Q)* in age, as depicted in Figure 2.

RECORD SEARCH RESULTS

Most professional paleontologists in California adhere to the Society of Vertebrate Paleontology (SVP) guidelines to determine the mitigation protocols (SVP 2010). These guidelines are used to assess the paleontological resource potential of the underlying geologic units. The potential of the geologic units can be assigned to one of four categories defined by the SVP (2010): high, undetermined, low, and no potential. Holocene sediment is known to have a low potential or sensitivity due to its more recent age. Pleistocene, on the other hand, can have a higher potential based on the numerous fossil discoveries made in Pleistocene deposits in other parts of California.

ECORP conducted a paleontological record search through the Sierra College Natural History Museum in Rocklin, California. No paleontological resources are located within the Project Area and a 1-mile radius (Bromm 2025).

ECORP also conducted a search of the UCMP database. The database produced three fossils from Yuba County—more specifically, at the Tuba River. The fossils included the pelvis, sacrum, and a single post-sacral vertebra from a mammoth (*Mammuthus* sp.) (V86139); a radius-ulna from a horse (*Equus* sp.) (V86139); and an associated postcrania from a Bison (*Bison* sp.) (V86139).

ECORP conducted a literature search, which did not produce any fossil findings.

RECOMMENDATIONS

Based on the literature reviews, the paleontological sensitivity of the Project Area and vicinity was determined in accordance with the SVP's sensitivity scale (SVP 2010). The younger Quaternary deposits (Holocene in age) have a low paleontological resource potential, whereas older Quaternary deposits (Pleistocene in age), if encountered with depth, have a high paleontological resource potential. An on-call paleontologist should be retained in case of any unanticipated discoveries. No full-time monitoring will be required unless a paleontological resource is found. Nonetheless, all construction workers and onsite personnel should receive environmental awareness training regarding paleontological resources in case an unanticipated discovery is made. If an unanticipated discovery is made, the following mitigation measure will apply:

GEO-1 **Unanticipated Discovery – Paleontological Resource.** Although full-time monitoring is not warranted, a Worker's Environmental Awareness Program should be given to all personnel associated with the Project prior to ground disturbance in case any unanticipated paleontological resources are discovered during excavation activities. If an unanticipated discovery is made, the contractor will notify the City and cease excavation within 50 feet of the find until a qualified paleontological professional can provide an evaluation of the site. The qualified paleontological professional will evaluate the significance of the find and recommend appropriate measures for the disposition of the site (e.g., fossil recovery, curation, data recovery, and/or monitoring). Construction activities may continue on other parts of the construction site while evaluation and treatment of the paleontological resource takes place.

Sincerely,

NKottachchi

Niranjala Kottachchi
Paleontological Resources Manager

REFERENCES

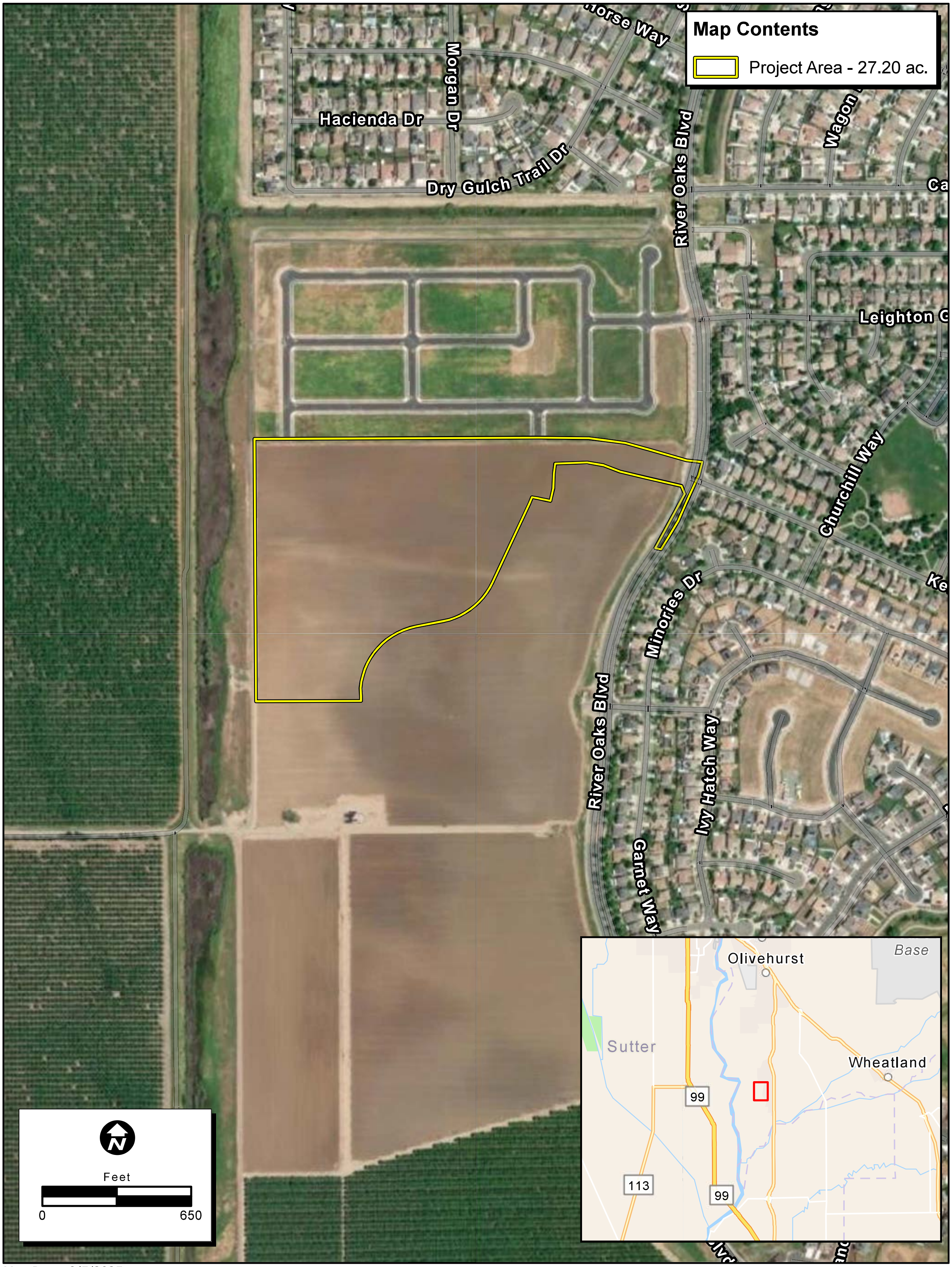
Bromm, George. 2025. *Paleontological Record Search Sierra College Natural History Museum.* Personal Communication via Email on April 21.

Saucedo, G. J. and D. L. Wagner. 1992. *Geologic Map of the Chico Quadrangle, California (1:250,000 scale).*

Society of Vertebrate Paleontologists (SVP). 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.* 11 pp. https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf.

State Water Resources Control Board 2014. *Upper North Fork Feather River Hydroelectric Project*. Draft Environmental Impact Report, Section 6.3 Geology, Geomorphology, and Soils, 20p.

Wagner, D. L., C. W. Jennings, T. L. Bedrossian, and E. J. Bortugno. 1981. *Geologic Map of the Sacramento Quadrangle, California (1:250,000 scale).*



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Map Date: 8/5/2025

Sources: Esri, Maxar (2024)

Figure 1. Project and Vicinity Map

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Map Contents

Project Area - 27.20 ac.

Geologic Units within Project Area

Q - Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated

Sources: Maxar (2024), Esri, CA Department of Conservation Geology

Other Related Info if Needed

Location: N:\2025\2025-082 Plumas Lake Middle School EIR\MAPS\Paleo\PLMS Paleo.aprx - PLMS Geologic Unit 20250804 (lgalvez - 8/5/2025)

Map Date: 8/5/2025

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Scale in Feet
0 300

N

Figure 2. Geology Map

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