# Appendix C-2

Due Diligence Paleontological Resources Study, San Bernardino County Valley Communications Center Project

CRM Tech

January 9, 2023

**CRM TECH**
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

January 9, 2023

Julie Gilbert, President
Compass Consulting Enterprises, Inc.
PO Box 2627
Avalon, CA 90704

Re: Due Diligence Paleontological Resources Study
San Bernardino County Valley Communications Center Project
City of San Bernardino, San Bernardino County, California
CRM TECH Project No. 3896P

Dear Ms. Gilbert:

At your request, CRM TECH has completed a due-diligence-level paleontological resources study for the proposed project referenced above. The project area consists of Assessor's Parcel Numbers (APN) 0279-271-19 and -20 and portions of APN 0279-261-17 and 0279-271-16 and -17, located on the southeast corner of the intersection of Lena Road and Rialto Avenue, in a portion of the San Bernardino land grant lying within Township 1 South, Range 4 West, San Bernardino Baseline and Meridian (Figs. 1, 2).

The study is part of the environmental review process for the project, which entails primarily the construction of a 74,000-square-foot building to be occupied by various local emergency services agencies. The County of San Bernardino, as the lead agency for the project, requires the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to assess the sensitivity of the project location for significant, nonrenewable paleontological resources. The scope of the study includes a geological/paleontological literature review and an intensive-level field survey of the project area. This letter represents a summary of the methods and results of the study.

**Literature Review**

CRM TECH paleontologist Ben Kerridge conducted the geological/paleontological literature review under the direction of principal paleontologist Ron Schmidtling. Sources consulted during the review include primarily topographic, geological, and soils maps of the San Bernardino area, published literature on regional geology, and other materials in the CRM TECH library, including unpublished reports produced during similar studies in the surrounding area.

The surface geology within the project area has been mapped by Rogers (1967) as *Qal*, namely recent alluvium. Jennings et al. (1977) show the soils to be *Q*, which they define as unconsolidated to semi-consolidated nonmarine alluvium, lake, playa, and terrace deposits. Their chronology places these soils in the late Pleistocene. Morton (1978) identifies surface sediments in the project area as $Qya_1$, Holocene alluvium in the form of unconsolidated grayish sand and pebbles that bear evidence of being recently shaped by stream flow. Bortugno and Spittler (1986) map the surface soils of the

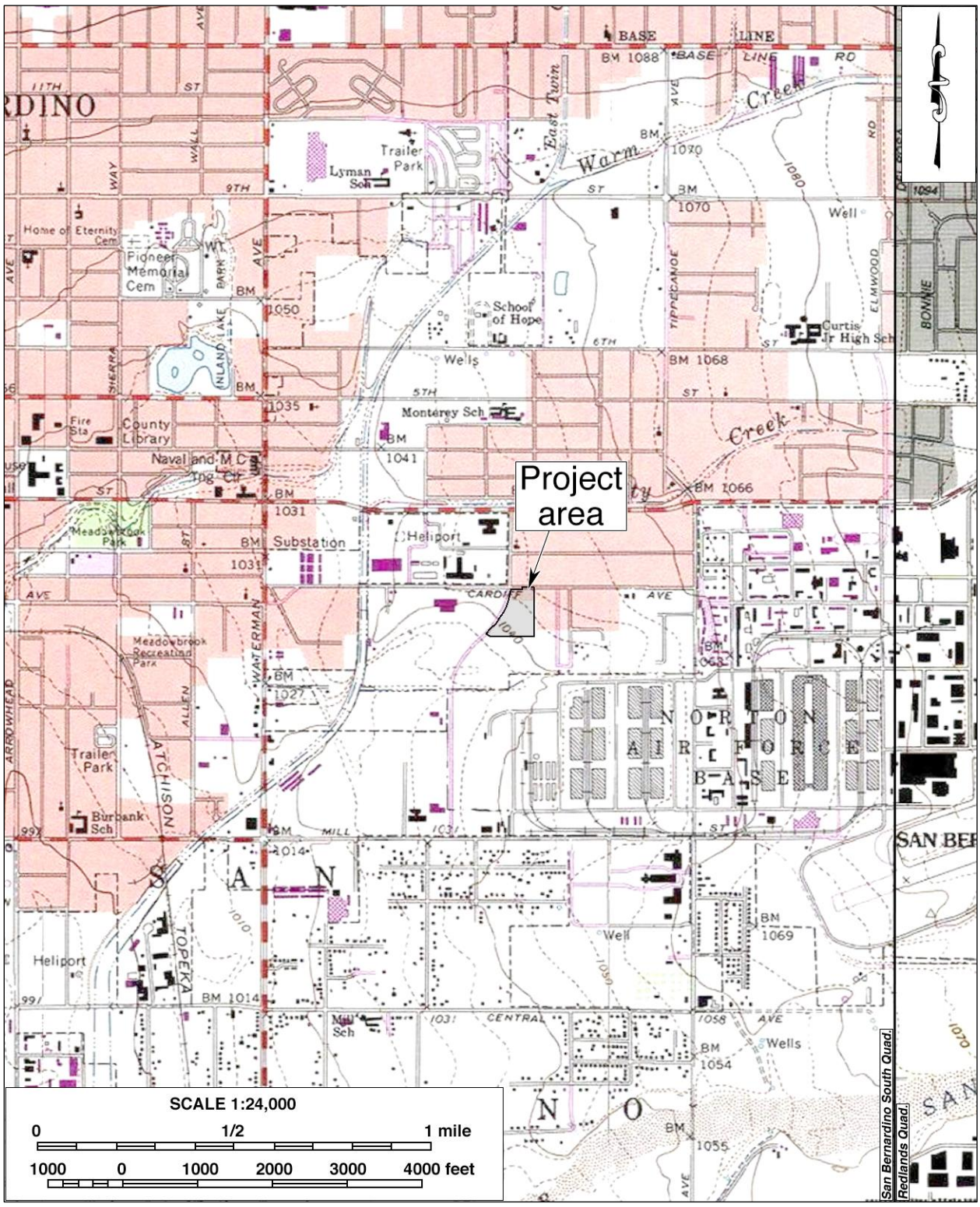


Figure 1. Location and configuration of the project area (based on USGS Redlands and San Bernardino South, Calif., 7.5' quadrangles)


Figure 2. Recent satellite image of the project area (based on Google Earth imagery).

project area as *Qw* or "wash deposits" of Holocene deposition, defined as alluvial deposits in fans as well as washes and floodplains of rivers and streams.

Morton and Miller (2006) show the project area as mostly $Qya_5$ with a small strip of $Qya_4$ on the northern edge (Fig. 3). The *Qya* series is described generally as young axial-channel deposits of slightly to moderately consolidated silt, sand, and gravel of Holocene to late Pleistocene age. $Qya_5$ is identified as late Holocene, very fine to medium sand that varies from white to pale brown and forms in thin to thick beds. $Qya_4$, in contrast, is described as forming thin veneers and low terrace risers above active washes. These soils are pale brown to very pale brown fine to coarse sand, sandy pebbles, and small-cobble gravels, which locally form benches along the Santa Ana River and City Creek.

**Field Survey**

On June 30, 2022, CRM TECH paleontological surveyors Salvadore Z. Boites and Nina Gallardo carried out the intensive-level field survey of the project area under Schmidtling's direction. The survey was completed by walking a series of parallel east-west transects at 15-meter (approximately 50-foot) intervals. In this way, the ground surface of the project area was systematically examined to determine soil types, verify geological formations, and search for surface manifestations of paleontological remains.

Throughout the course of the field survey, no surface manifestation of any paleontological remains was observed within the project area. Ground visibility was generally fair (50 percent) due to the presence of dense grasses and clusters of puncturevine plants (*Tribulus terrestris*) rooted in loosely packed silty-sand soil that contains small granitic angular, subrounded, and rounded rocks of varying size (Fig. 4).

**Conclusion**

In summary, existing geological and paleontological literature suggest that the paleontological sensitivity of the surface sediments in the project area is relatively low. All but one of the sources consulted for this study agree as to the age and depositional context of the surface soils. Based on its proximity to the Santa Ana River as well as Warm Springs Creek and City Creek, the project area sits on a floodplain of Holocene alluvial deposition. However, excavations of significant depth at this location may reach paleontologically sensitive Pleistocene or earlier soils subsurface. A full evaluation of the paleontological sensitivity of the project area for regulatory compliance purposes will requires additional research procedures, such as a records search at the appropriate repositories.

Thank you for this opportunity to be of service. If you have any questions or need further information regarding the research results presented above, please do not hesitate to contact our office.

Sincerely,

Bai "Tom" Tang, M.A.
Principal, CRM TECH

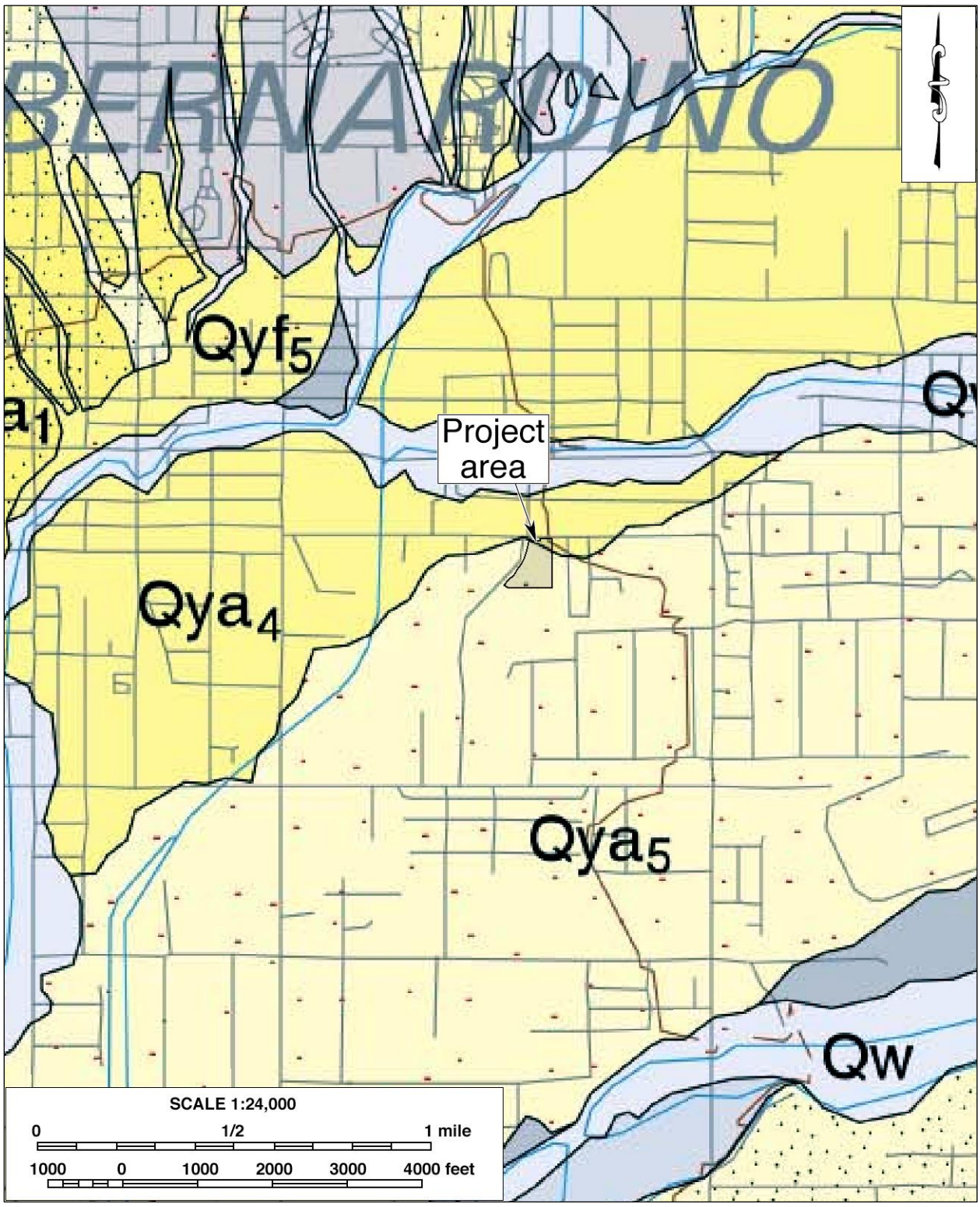


Figure 3. Geological map of the project area (source: Morton and Miller 2006).

Figure 4. Current natural setting of the project area, view to the northwest (photograph taken on June 30, 2022).

**References Cited:**


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