

Paleontological Resources Assessment for Roseton Plant New Tank and Booster Station Project

February 16, 2022

Lindsay Liegler, Associate Environmental Planner
ECORP Consulting, Inc.
2861 Pullman Street
Santa Ana, CA 92705

Ms. Liegler:

This letter report documents the results of the paleontological resources assessment undertaken for the Roseton Plant New Tank and Booster Station Project (Project). (See Figure 1 Location and Vicinity Map).

The scope of work for this report included a paleontological records search through the Natural History Museum of Los Angeles County's Vertebrate Paleontology Section, a literature search, a review of geological maps, City of Artesia General Plan (2010), and impact analyses that are documented in the following text. A pedestrian survey was undertaken for this report.

Proposed Project and Location

The Proposed Project is located within the existing Golden State Water Company Roseton Plant site at 17456 Roseton Avenue in the City of Artesia (Figure 1). It lies on the Los Alamitos 7.5' quadrangle, specifically, in the northeast ¼ of section 36, T3S, R12W (Figure 2). The Project would construct a 750,000 gallon above-ground potable water storage tank, booster pump station, and associated fencing, lighting, control panels and appurtenant structures at the Roseton Plant well site (Figure 3). The water storage tank would measure approximately 70 feet in diameter and 30 feet high. Existing plant site piping would be modified as needed. The Proposed Project would also relocate the existing backwash tank and motor control center. No structure demolition is proposed. The facility would be unmanned, and no bathroom facilities would be built.

The 0.6-acre site is located on a flat parcel that has been entirely graded with two modern wells, a backwash tank, disinfection building, motor control center, and associated structures. The site is surrounded by residential development and an elementary school. The site is bordered by Roseton Avenue to the east, and single-family homes to the north, east, and west. The existing Project Site is bordered by a concrete block wall, with three trees located at the site frontage along Artesia Boulevard. The site's land use designation is Low Density Residential and zoning Single Family Residential.

The elevation of the project site is slightly over 60 feet above mean sea level (AMSL). The parcel slopes gently to the southeast. According to the capital engineer, ground disturbance would be 3 to 4 feet in depth.

The Project is in in the northeast $\frac{1}{4}$ of section 36, Township 3 South, Range 12 West, San Bernardino Baseline and Meridian on the Alamitos 7.5-minute US Geological Survey quadrangle.

Geological Setting

The project site is located in the Peninsular Range Geomorphic Province of California. The Project lies on the Santa Ana Block (the western most of the three constituent blocks), which is separated from the Perris Block by the Chino Fault and the Elsinore Trough.

The project site is in the San Gabriel River Valley, and lies to the east of the river. There is very little published geologic mapping of this area. That used here is taken from the CGS mapping of the Long Beach 30' x 60' sheet (Jennings, 1962). He maps the area around Artesia as Quaternary alluvium (Qal). His geologic column implies that this unit is of Holocene age. The Dibblee Foundation Geological Map series does not include the Los Alamitos 7.5' quadrangle, but the Project site occurs just south of the Whittier and La Habra quadrangles map (Dibblee and Ehrenspeck, 2001). The entire area is mapped as alluvial gravel, sand, and silt of valleys and floodplains (Qa). The chart on that map is ambiguous as to whether this unit is of Holocene or Pleistocene age, or both.

Multiple sites between 5 and 8 miles from the Project have produced Pleistocene mammals and other fossils, as discussed below.

Regulatory Setting

State

The California Environmental Quality Act (CEQA) provides protection for paleontological resources through environmental legislation. Direction regarding significant impacts on paleontological resources is found under Appendix G (part V) of the CEQA Guidelines. The guidelines state, "A project will normally result in a significant impact on the environment if it will ...disrupt or adversely affect a paleontological resource or site or unique geologic feature, except as part of a scientific study." Per section 5097.5 of the Public Resource Code, it is unlawful to remove paleontological remains without authorization and can result in a misdemeanor. In addition, Section 622.5 of the California Penal Code sets the penalties for damage or removal of paleontological resources.

County of Los Angeles

The County of Los Angeles' General Plan (2015) recognizes the CEQA Guidelines Section 15064.5 as a threshold for the identification and protection of historic resources, archaeological and paleontological resources as well as the determination of significant impacts on those resources. In addition the Conservation and Natural Resources Element of the general plan lists

significant fossil localities within the county. Furthermore, Goal C/NR 14 of the Historic, Cultural, and Paleontological Resources Section of the Conservation and Natural Resources Element includes four policies applicable to paleontological resources.

Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.

Policy C/NR 14.2: Support an inter-judicial collaborative system that protects and enhances historic, cultural, and paleontological resources.

Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.

Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

City of Artesia

The City of Artesia General Plan 2030 (2010) contains no references to paleontological resources. This is probably because the City of Artesia General Plan 2030 EIR (2010) concludes that there are no paleontological resources within the city.

Professional Standards

The Society of Vertebrate Paleontology (SVP) 2010 guidelines provided Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. These guidelines are recognized throughout the paleontological resource management community.

Scope of Study and Personnel

The paleontological resource assessment meets the requirements of the Society of Vertebrate Paleontology (SVP) 2010 guidelines Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. This Paleontological Resources Assessment was compiled by Dr. Joe Stewart, PhD. He is a qualified professional paleontologist under the criteria of SVP (2010).

Paleontological Resources

Records Search

ECORP requested a paleontological records search from the Natural History Museum of Los Angeles County (LACM). The report (Bell, 2022, Attachment 2) stated that the museum does not have any localities within the proposed project area (one mile of the Project boundaries). LACM does have a record of mammoth fossil in Lakewood (6 miles west of the Project), of marine invertebrate fossils at Signal Hill (6.5 miles southeast), and of camel fossils in Long Beach (8 miles southeast) (Bell, 2022).

Literature Search

No geotechnical investigation has been completed for this Project.

Miller (1971) and Jefferson (1991b) list a locality in Artesia (LACM 1285) where a horse fossil was found. Miller describes it as, “locality at Manville St. and P.C. railroad crossing at a depth of about 10 ft.” However, Manville Street is located in Compton on the west side of the Los Angeles River. Thus, this is not an unequivocal record.

The University of California Museum of Paleontology (UCMP) has a record of horse at Signal Hill, 6 miles southeast of the Project (Jefferson, 1991b).

Site Visit

Joe Stewart visited the Project site on January 25. No indications of the subsurface geology or paleontological resources were observed. It is essentially a large parking lot with buildings.

Conclusions

The paleontological records search recommended a full paleontological assessment which the present document fulfills. Although there may be fossil-bearing sediments at some depth below the Project, the very shallow depth of disturbance renders encountering fossils very unlikely. If construction plans change, the matter should be reconsidered. Otherwise, I conclude that there is no need for further paleontological investigation.

Sincerely,

Dr. Joe Stewart, PhD.
Paleontologist

References

City of Artesia. 2010. City of Artesia General Plan 2030.

Bell, A. 2022. Paleontological records search report, Natural History Museum of Los Angeles County. 2 p.

Dibblee, T. W., and H. E. Ehrenspeck. 2001. Geologic Map of the Whittier and La Habra Quadrangles. Dibblee Geology Center Map DF-74. Scale 1:24,000.

Jefferson, G.T. 1991. A catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals. Natural History Museum of Los Angeles County Technical Reports No. 7.

Jennings, C. W. 1962. Geologic Map of California: Long Beach Sheet GAM_007-Map-1962. Scale 1:250,000

County of Los Angeles. 2015. General Plan 2035.

Society of Vertebrate Paleontologists (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. 11 pp. Website: http://vertpaleo.org/The-Society/Governance-documents/SVP_Impact_Mitigation_Guidelines.aspx. Accessed February, 2022.

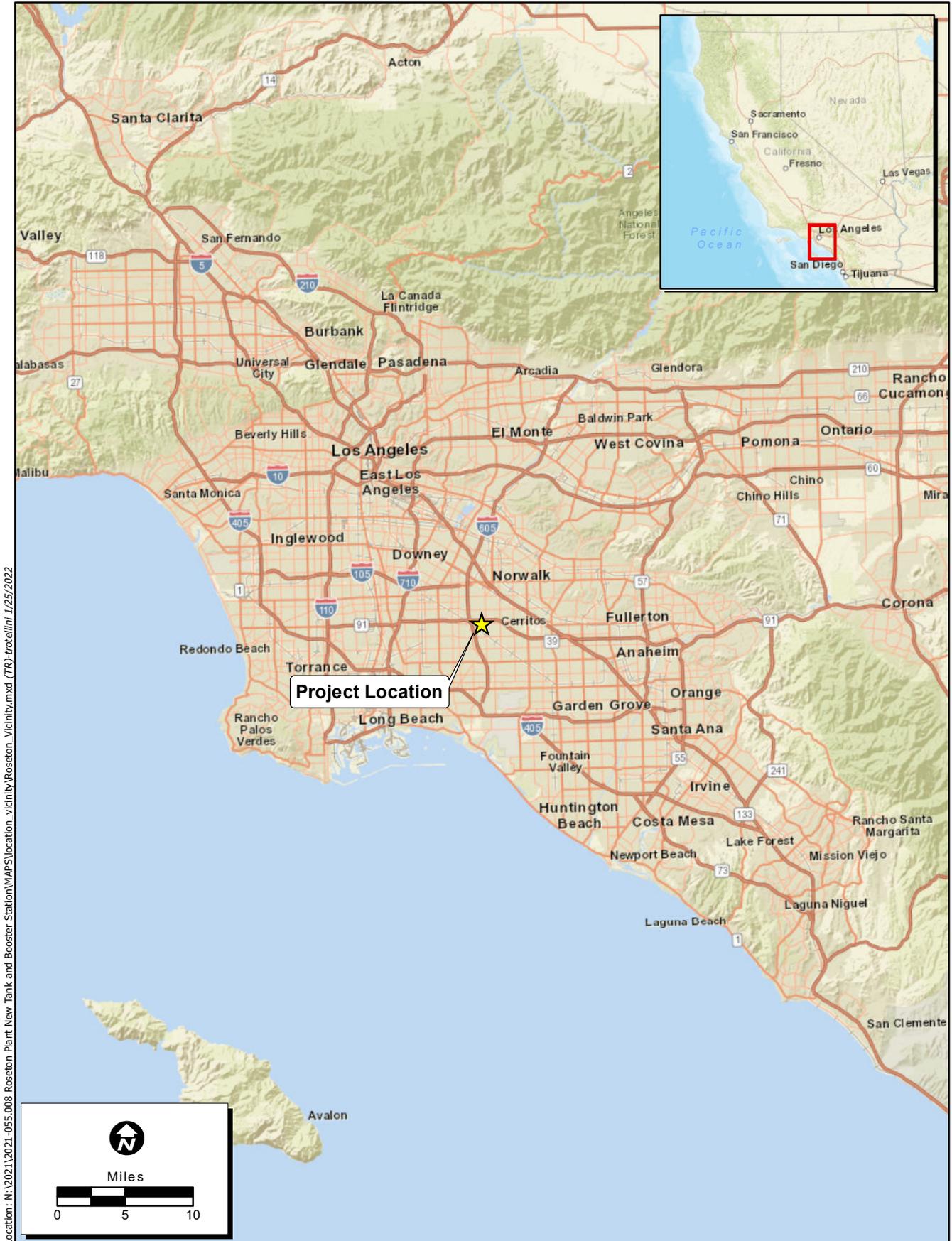


Figure 1. Project Vicinity

2021-055.008 Roseton Plant New Tank and Booster Station



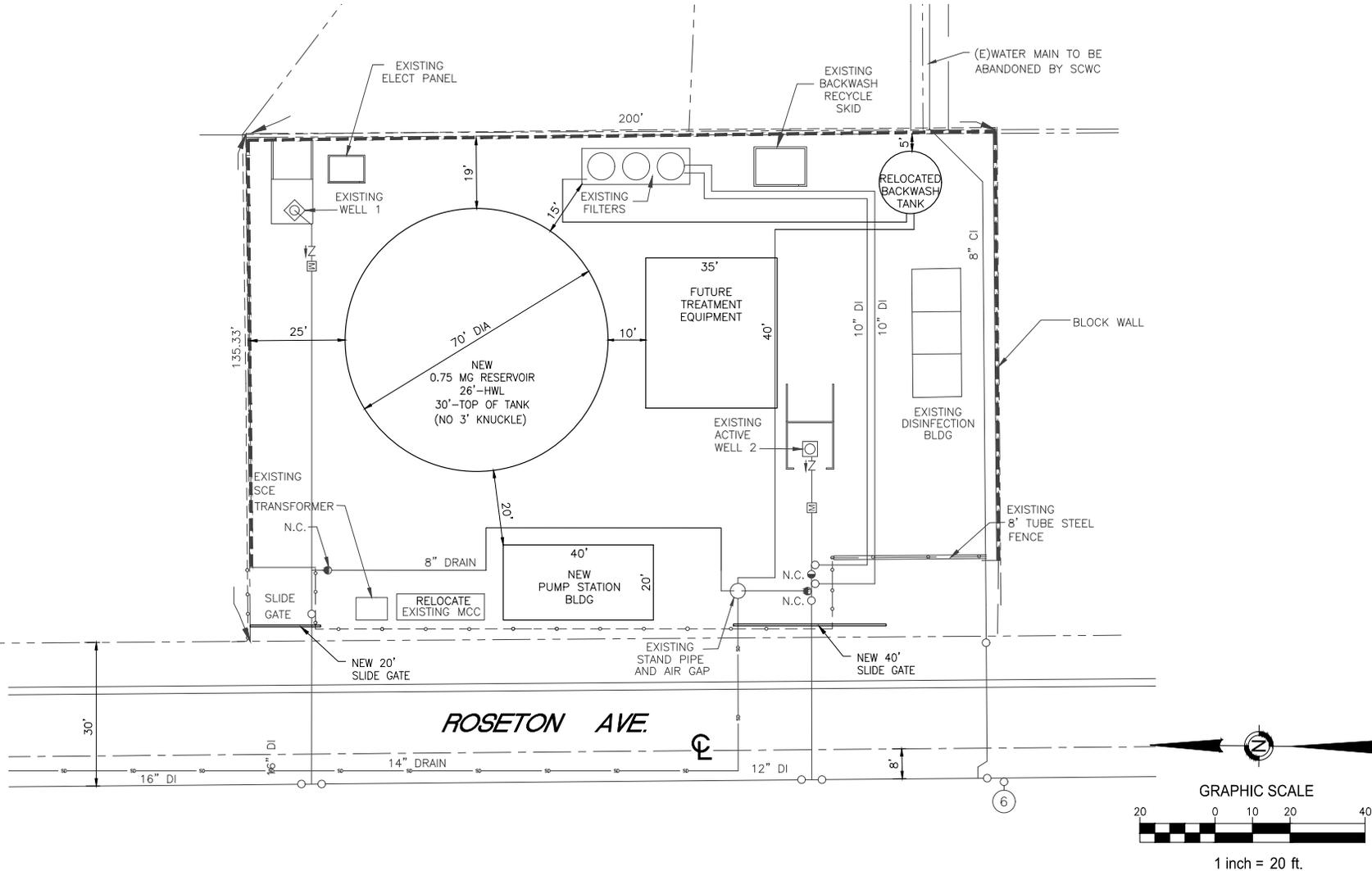
Location: N:\2021\2021-055.008 Roseton Plant New Tank and Booster Station\WAPS\location_vicinity\Roseton_Location.mxd (CR)-brodellini_1/25/2022

Map Date: 1/25/2022
 Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), IGN, CC, (c) OpenStreetMap contributors, and the GIS User Community Photo Source: N/AIP

Figure 2. Project Location

2021-055.008 Roseton Plant New Tank and Booster Station

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 Golden State Water Company A Subsidiary of American States Water Company	DISTRICT: CENTRAL	Roseton Plant 17426 S. Roseton Avenue Artesia CA.	1 of 1
	SYSTEM: ARTESIA		
	SBE:	CHECKED:	UPDATED: 12-02-21
	APN: 7035-017-800		

W.O. 21911357

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of Los Angeles County
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Los Angeles, CA 90007

tel 213.763.DINO
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Research & Collections

e-mail: paleorecords@nhm.org

January 22, 2022

ECORP Consulting, Inc.
Attn: Chelsie Brown

re: Paleontological resources for the Roseton Plant New Tank and Booster Station Project

Dear Chelsie:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the Roseton Plant New Tank and Booster Station Project area as outlined on the portion of the Los Alamitos USGS topographic quadrangle map that you sent to me via e-mail on January 10, 2022. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that 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.

Locality Number	Location	Formation	Taxa	Depth
LACM VP 7493	30 yards south of Pacific Coast Highway & 10 yards west of Grand Avenue; Long Beach	Lakewood Formation	Camel family (Camelidae)	8.5 ft bgs
LACM VP 3660	Cover St & Pixie Ave; Lakewood	Unknown formation (Pleistocene)	Mammoth (<i>Mammuthus</i>)	19 feet bgs
15 Localities	Signal Hill	Palos Verdes Sand	Invertebrates, including sponge traces (<i>Entobia</i>), echinoderms, crabs, clams (<i>Anomia</i> , <i>Cryptomya</i> , <i>Donax</i> , <i>Leukoma</i> , <i>Psammotreta</i> , <i>Tivela</i>), scaphopods (<i>Antalis</i>), gastropods (<i>Callianax</i>), and others	Unknown
LACM VP 3319	Intersection of Carson St. & Alameda St	Unnamed formation (Pleistocene)	Mammoth (<i>Mammuthus</i>)	30 feet bgs
LACM VP 3382	NE of the intersection of Artesia Blvd and Williams Ave., Compton	Unknown formation (Pleistocene; brown clay silt)	Mammoth (<i>Mammuthus</i>)	5 ft bgs
LACM VP 3347	11204 Bluefield; Whittier	La Habra Formation (lacustrine silt with caliche and plant detritus)	Horse (<i>Equus</i>)	2 feet bgs

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

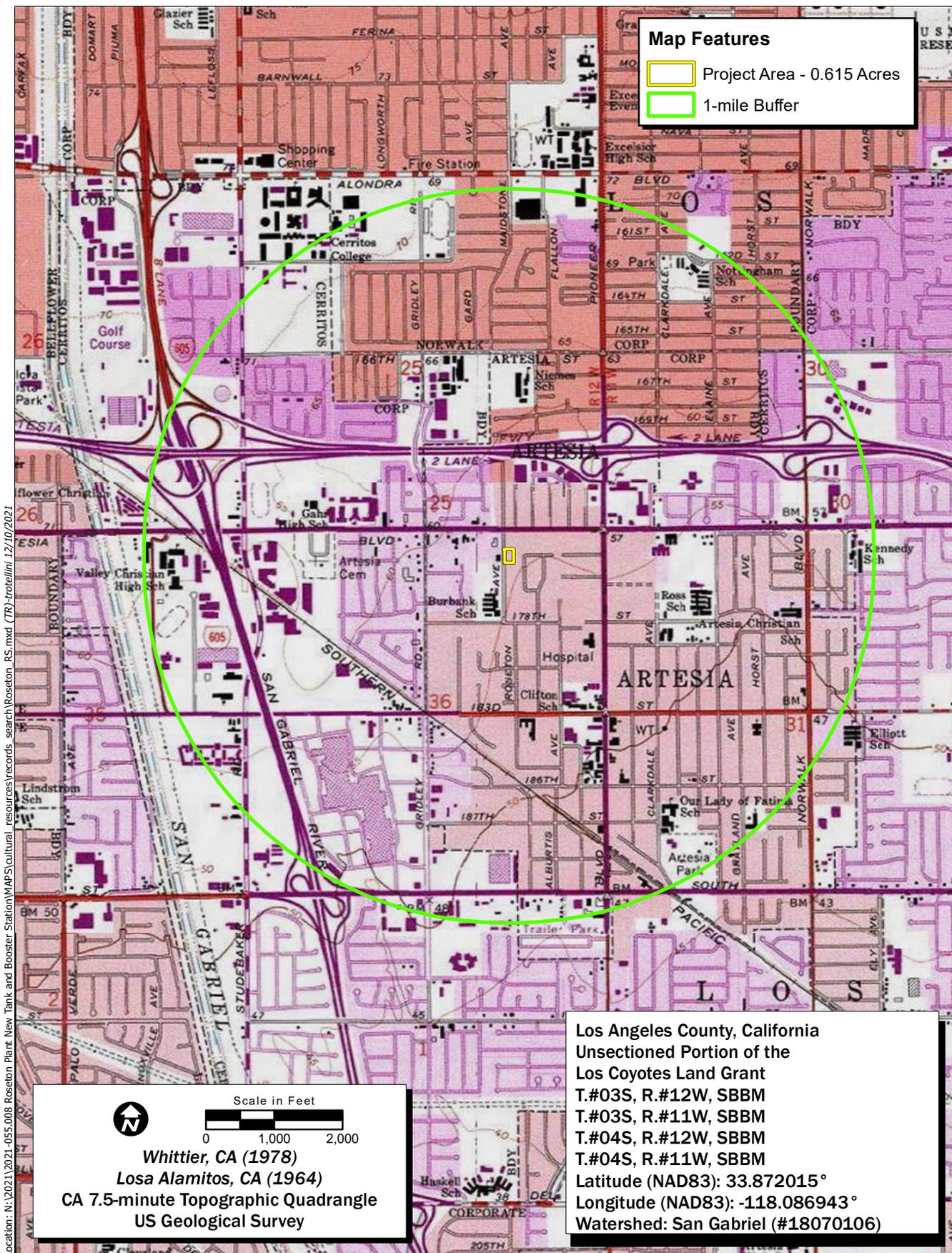
This records search covers only the records of the Natural History Museum of Los Angeles County (“NHMLA”). It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,

A handwritten signature in black ink that reads "Alyssa Bell". The signature is written in a cursive style and is centered within a light gray rectangular box.

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

enclosure: invoice



Map Features

- Project Area - 0.615 Acres
- 1-mile Buffer

Location: N:\2021\2021-055.008 Roseton Plant New Tank and Booster Station\WAPS\Cultural_resources\records_search\Roseton_RS.mxd (TR)-tr02ellini_12/10/2021

Scale in Feet
 0 1,000 2,000

Whittier, CA (1978)
Los Alamitos, CA (1964)
CA 7.5-minute Topographic Quadrangle
US Geological Survey

Los Angeles County, California
 Unsectioned Portion of the
 Los Coyotes Land Grant
 T.#03S, R.#12W, SBBM
 T.#03S, R.#11W, SBBM
 T.#04S, R.#12W, SBBM
 T.#04S, R.#11W, SBBM
 Latitude (NAD83): 33.872015°
 Longitude (NAD83): -118.086943°
 Watershed: San Gabriel (#18070106)

Map Date: 12/10/2021
 iService Layer Credits: Copyright: © 2013 National Geographic Society, i-cubed