PALEONTOLOGICAL ASSESSMENT FOR THE RUBIDOUX COMMERCE CENTER PROJECT

CITY OF JURUPA VALLEY, RIVERSIDE COUNTY, CALIFORNIA

APNs 178-030-001, -002, -003, -006, -008, -009, -010, 178-060-013, 178-070-001, -002, -003, 178-080-011, and 178-090-010

Prepared for:

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Submitted to:

City of Jurupa Valley
8930 Limonite Avenue
Jurupa Valley, California 92509

Prepared by:

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February 4, 2020

Paleontological Database Information

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Report Date:	February 4, 2020
Report Title:	Paleontological Assessment for the Rubidoux Commerce Center Project, City of Jurupa Valley, Riverside County, California (APNs 178-030-001, -002, -003, -006, -008, -009, and -010, 178-060-013, 178-070-001, -002, and -003, 178-080-011, and 178-090-010)
Prepared for:	Proficiency Rubidoux, LLC 11777 San Vicente Boulevard, Suite 780 Los Angeles, California 90049
Submitted to:	City of Jurupa Valley 8930 Limonite Avenue Jurupa Valley, California 92509
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USGS Quadrangle:	*Fontana, California* (7.5 minute)
Study Area:	Approximately 81 acres
Key Words*:*	Paleontological assessment; Quaternary alluvial fan deposits; High sensitivity; County of Riverside; City of Jurupa Valley.

I. INTRODUCTION AND LOCATION

A paleontological resource assessment has been completed for the Rubidoux Commerce Center Project (Assessor's Parcel Numbers 178-030-001, -002, -003, -006, -008, -009, and -010; 178-060-013; 178-070-001, -002, and -003; 178-080-011; and 178-090-010), located between the eastern side of the Jurupa Mountains and the Santa Ana River.. The project can be found generally south of the intersection of 25th Street and Van Dell Road and west of Avalon Street in the Rubidoux neighborhood of the city of Jurupa Valley, Riverside County, California (Figures 1 and 2). On the U.S. Geological Survey 7.5-minute, 1:24,000-scale *Fontana, California* topographic quadrangle map, the project is located within the former Rancho Jurupa (Rubidoux) Land Grant in parts of projected Sections 9 and 10 in Township 2 South, Range 5 West, San Bernardino Base and Meridian. The project proposes to construct several warehouse and industrial buildings with associated infrastructure. The flat areas of the project were previously disked for agricultural purposes and used as storage, while the granitic outcrops on the eastern part of the project were prospected as minor quarries (Freeman and Van Horn 1988, Irish et al. 2003).

II. REGULATORY SETTING

The California Environmental Quality Act (CEQA), patterned after the National Environmental Policy Act (NEPA), is the overriding environmental document that sets the requirement for protecting California's cultural and paleontological resources. The document does not establish specific rules that must be followed, but mandates that governing permitting agencies (lead agencies) set their own guidelines for the protection of nonrenewable paleontological resources under their jurisdiction.

State of California

Under Guidelines for the Implementation of CEQA, as amended March 29, 1999 (Title 1, Chapter 3, California Code of Regulations: 15000 et seq.), procedures define the type of activities, persons, and public agencies required to comply with CEQA. In the Environmental Checklist, one of the questions to answer is, "Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (Section 15023, Appendix G, Section XIV, Part a). The California Public Resources Code (PRC) Section 5097.5 states:

a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation

of this section is a misdemeanor.

b) As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

County of Riverside

An online, interactive, paleontological sensitivity mapping database is maintained by the County of Riverside as a research tool to access the County's assignment of levels of paleontological sensitivity to the various geologic formations within the county (County of Riverside Land Information System n.d.). This is specifically addressed in Section V.

Paleontological resources are addressed under the 2008 Multipurpose Open Space Element of the Riverside County General Plan, Policy OS 19.9, which states:

> This policy requires that when existing information indicates that a site proposed for development may contain paleontological resources, a paleontologist shall monitor site grading activities, with the authority to halt grading to collect uncovered paleontological resources, curate any resources collected with an appropriate repository, and file a report with the Planning Department. (County of Riverside 2008)

The "SABER Policy" (Safeguard Artifacts Being Excavated in Riverside County), enacted in October 2011 by the Riverside County Board of Supervisors, requires that any paleontological resources found or unearthed in the county of Riverside be curated at the Western Science Center Museum on Searl Parkway in the city of Hemet.

City of Jurupa Valley

The General Plan of the City of Jurupa Valley (Jurupa Valley 2017a) presents general, non-specific policies for preserving cultural and paleontological resources. The General Plan includes a map delineating degrees of paleontological sensitivity of the geologic formations within the city limits, given as Low, High B, or High A (Jurupa Valley 2017a, p. 4-36). The General Plan explains "This [paleontological sensitivity] map is used in the environmental assessment of development proposals and the determination of required impact mitigation." It should be noted that the City's General Plan map is an exact replica of the County of Riverside's interactive paleontological sensitivity mapping tool discussed above, when zoomed to focus on the Jurupa Valley city limits (County of Riverside Land Information System n.d.). In addition, the same values used to describe the degree paleontological sensitivity are borrowed as well, but only the County's webpage provides definitions of the values.

The appendices of the General Plan of the City of Jurupa Valley provide mitigation and monitoring guidelines for paleontological resources. Mitigation Measure 4.5.5.3A states:

> Prior to issuance of a grading permit, a project applicant must demonstrate if the proposed project grading will impact underlying soil units or geologic formations that have a moderate to high potential to yield fossiliferous materials. If the potential for fossil discovery is low, no pre-grading monitoring needs to be established. If the potential for fossil discovery is moderate to high, the applicant must provide a paleontological monitor during rough grading of the project. If a paleontologist is not onsite and possible fossil materials are found, work shall be halted in that area until the material can be assessed by a qualified professional. If materials are found onsite during grading, a qualified professional shall evaluate the find and determine if it represents a significant paleontological resource. If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material. This measure shall be implemented to the satisfaction of the City Planning Department. (Jurupa Valley 2017b, p. 115)

III. GEOLOGY

The most recent geologic map of the Jurupa Valley area (Figure 3, after Morton 2003) shows the project area located on surface exposures of older Quaternary (middle to late Pleistocene) alluvial fan sediments (areas colored mustard and labeled "Qof1"). The alluvial fan deposits lap around and onto the Cretaceous granitic rocks (pink hills labeled "Kt" on Figure 3) of the Jurupa Mountains in the hills north of the project. The alluvial fan sediments are composed of the erosional debris derived from these mountains. A small hill composed of granitic rocks is also present within the project, and was reportedly quarried for the large minerals the outcrop contained (Freeman and Van Horn 1988, Irish et al. 2003). Adjacent to the project on the north, artificial fill deposits are shown in brown on Figure 3.

IV. PALEONTOLOGICAL RESOURCES

Definition

Paleontological resources are the remains of prehistoric life that have been preserved in geologic strata. These remains are called fossils and include bones, shells, teeth, and plant remains (including their impressions, casts, and molds) in the sedimentary matrix, as well as trace fossils such as footprints and burrows. Fossils are considered older than 5,000 years of age (Society of Vertebrate Paleontology [SVP] 2010), but may include younger remains (subfossils) when viewed in the context of local extinction of the organism or habitat, for example. Fossils are considered a nonrenewable resource under state, county, and local guidelines (Section II of this report).

Fossil Records Search

A records search conducted by the Vertebrate Paleontology Department of the Natural History Museum of Los Angeles (McLeod 2005, attached) for a nearby project in Jurupa Valley did not reveal any nearby localities either. The closest vertebrate fossil locality cited in that report was north of the city of Corona and located about ten miles west-southwest of the current project. The single Quaternary locality yielded a specimen of deer (*Odocoileus* sp.). McLeod (2005) indicated that any subsurface excavations in older Quaternary sedimentary deposits in the lower lying portions of the proposed project area have a good chance of encountering significant vertebrate fossil remains.

To the west, the closest terrestrial vertebrate fossils (extinct camel, *Camelops hesternus*, and extant bighorn sheep, *Ovis canadensis*) were recovered from ancient floodplain deposits of the ancestral Santa Ana River approximately seven to ten miles due west during monitoring of the Riverside County Line Channel project of the Riverside County Flood Control and Water Conservation District Project No. 2-0-0300 (Kennedy et al. 2005).

V. PALEONTOLOGICAL SENSITIVITY

Overview

The degree of paleontological sensitivity of any particular area is based on a number of factors, including the documented presence of fossiliferous resources on a site or in nearby areas, the presence of documented fossils within a particular geologic formation or lithostratigraphic unit, and whether or not the original depositional environment of the sediments is one that might have been conducive to the accumulation of organic remains that might have become fossilized over time. Late Quaternary (Holocene, or "modern") alluvium is generally considered to be geologically too young to contain significant nonrenewable paleontological resources (i.e., fossils) and is thus typically assigned a low paleontological sensitivity. Old, Pleistocene (> 11,700 year old) alluvial and alluvial fan deposits in the Inland Empire, however, often yield important Ice Age terrestrial vertebrate fossils, such as extinct mammoths, mastodons, giant ground sloths, extinct species of horse, bison, and camel, saber-toothed cats, and others. These Pleistocene sediments are thus accorded a High paleontological resource sensitivity.

Professional Standards

The Society of Vertebrate Paleontology (SVP) drafted guidelines outlining procedures that include:

> [E]valuating the potential for impacts of a proposed action on paleontological resources and for mitigating those impacts. Impact mitigation includes pre-project survey and salvage, monitoring and screen washing during excavation to salvage fossils, conservation and inventory, and final reports and specimen curation. The

objective of these procedures is to offer standard methods for assessing potential impacts to fossils and mitigating these impacts. (SVP 2010)

The guidelines include four categories of paleontological sensitivity for geologic units (formations) that might be impacted by a proposed project, as listed below:

- *High Potential:* Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.
- *Undetermined Potential:* Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment, and that further study is needed to determine the potential of the rock unit.
- *Low Potential:* Rock units that are poorly represented by fossil specimens in institutional collections or based upon a general scientific consensus that only preserve fossils in rare circumstances.
- *No Potential:* Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks.

County Assessment

The regulatory agency reviewing this document is the City of Jurupa Valley, however the City's paleontological sensitivity criteria is based on the County of Riverside's interactive online database (County of Riverside Land Information System n.d.). The results of this analysis are discussed below.

City Assessment

The paleontological sensitivity map found in the Jurupa Valley General Plan (Jurupa Valley 2017a) is apparently a duplication of Riverside County's interactive online database (County of Riverside Land Information System n.d.). When plotted over the City's map of paleontological sensitivity (Figure 4), the project appears not to be aligned with the local geology as shown on the geologic map of the area (Figure 3), probably due to differences in scale when the resource sensitivity database was originally compiled by Riverside County for their website. Although the intent of the original paleontological resource sensitivity database was undoubtedly to assign a "Low" sensitivity to the granitic and metamorphic rocks of the Jurupa Mountains and associated smaller outcrops, and to assign a "High (High A)" sensitivity to the surrounding Quaternary older alluvial fan sediments (Qof1), the sensitivity boundaries do not coincide with the mapped geologic contacts shown on Figure 3. We are therefore making our resource assessment and monitoring and mitigation recommendations based on the locations of the mapped geologic contacts between the granitic and sedimentary rock types (Figure 3) rather than as shown on the Jurupa Valley's paleontological sensitivity map (Figure 4).

As expected, the granitic rocks in the adjacent Jurupa Mountains and on-site granitic

outcrops are assigned a Low paleontological sensitivity and are shown (or meant to be shown) in blue on Figure 4. The County of Riverside has designated areas assigned a "Low potential" for yielding paleontological resources subject to confirmation by a literature search and records check by a qualified paleontologist. Granitic rocks, by their nature, do not have any paleontological resource potential, and thus, the paleontological sensitivity is nil.

Conversely, the older Pleistocene sediments underlying the majority of the site are accorded a "High (High A)" paleontological sensitivity and are shown (or meant to be shown) in tan on Figure 4. Riverside County defines a "High A" ranking as "Based on geologic formations or mappable rock units that are rocks that contain fossilized body elements, and trace fossils such as tracks, nests and eggs. These fossils occur on or below the surface" (County of Riverside Land Information System n.d.). The category "High A" indicates that fossils are likely to be encountered at the surface and may be impacted during excavation by construction activities.

VI. RECOMMENDATIONS

The existence of older Quaternary (middle to late Pleistocene) alluvial fan sediments (Qof1) beneath the project site, along with the High paleontological resource sensitivity assigned to these sediments locally (City of Jurupa Valley 2017a; McLeod 2005), support the recommendation that full-time paleontological monitoring be required starting at the surface during surficial grading, excavation, or utility trenching activities concomitant with the site preparation phase of the Rubidoux Commerce Center Project. Outcrops and exposures of the Cretaceous granitic bedrock in the project do not require paleontological mitigation monitoring. A drafted Mitigation Monitoring and Reporting Program (MMRP) is proposed and must be consistent with the provisions of CEQA and the City of Jurupa Valley (2017a, 2017b), and those of the guidelines of the SVP (2010). If implemented, the MMRP report would mitigate any adverse impacts (loss or destruction) to potential nonrenewable paleontological resources (fossils), if present, to a level below significant. Paleontological monitoring may be reduced if, based upon the observations and recommendations of the professional-level project paleontologist, the excavations are only occurring in, for example, coarse-grained sediments that are unlikely to yield paleontological resources. The proposed MMRP is outlined below.

1) Monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources by a qualified paleontologist or paleontological monitor. Full time monitoring of grading or excavation activities should be performed starting from the surface in undisturbed areas of older Quaternary (middle to late Pleistocene) alluvial fan deposits within the project boundary, as mapped by Morton (2003; Qof1 on Figure 3). Paleontological monitoring of onsite outcrops and exposures of Cretaceous granitic bedrock is not warranted. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments that

are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert equipment to allow for the removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by qualified paleontological personnel to have a low potential to contain or yield fossil resources.

2) Paleontological salvage during trenching and boring activities is typically from the generated spoils and does not delay the trenching or drilling activities. Fossils are collected and placed in cardboard flats or plastic buckets and identified by field number, collector, and date collected. Notes are taken on the map location and stratigraphy of the site, and the site is photographed before it is vacated and the fossils are removed to a safe place. On mass grading projects, any discovered fossil site is protected by red flagging to prevent it from being overrun by earthmovers (scrapers) before salvage begins. Fossils are collected in a similar manner, with notes and photographs being taken before removing the fossils. Precise location of the site is determined with the use of handheld GPS units. If the site involves a large terrestrial vertebrate, such as large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, BFSA will send a fossil recovery crew in to excavate around the find, encase the find within a plaster jacket, and remove it after the plaster is set. For large fossils, use of the contractor's construction equipment is solicited to help remove the jacket to a safe location before it is returned to our laboratory facility for preparation.
3) Particularly small invertebrate fossils typically represent multiple specimens of a limited number of organisms, and a scientifically suitable sample can be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry screen the sediment in the field, a concentrated sample may consist of one or two buckets of material. For vertebrate fossils, the test is usually the observed presence of small pieces of bones within the sediments. If present, as many as 20 to 40 five-gallon buckets of sediment can be collected and returned to a separate facility to wet-screen the sediment. In the laboratory, individual fossils are cleaned of extraneous matrix, any breaks are repaired, and the specimen, if needed, is stabilized by soaking in an archivally approved acrylic hardener (e.g., a solution of acetone and Paraloid B-72).
4) Preparation of recovered specimens to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Preparation of individual vertebrate fossils is often more time-consuming than for accumulations of invertebrate fossils.
5) Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage (*e.g.*, the Western Science Center Museum, 2345 Searl Parkway, Hemet, California 92543). The paleontological program should include a written repository agreement prior

to the initiation of mitigation activities.

6) Preparation of a final monitoring and mitigation report of findings and significance, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location. The report, when submitted to the appropriate lead agency (City of Jurupa Valley), will signify satisfactory completion of the project program to mitigate impacts to any paleontological resources.

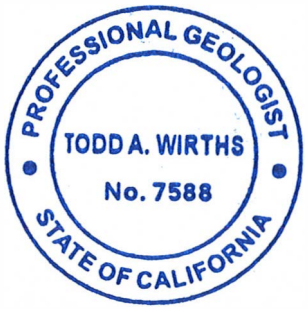
VII. CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this paleontological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief, and have been compiled in accordance with CEQA criteria.

February 4, 2020

Todd A. Wirths
Senior Paleontologist
California Professional Geologist No. 7588

Date



VIII. ATTACHMENT A

References
Resumes

REFERENCES

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Irish, L.N., Blevins, K.R., and Hoover, A.M. 2003. A Phase I archeological survey report on Avalon Mine, APNs 178-030-001, -003, and -006, Rubidoux, County of Riverside, California. Unpublished consulting report for Yeager Skanska Inc., Riverside, California, by L & L Environmental, Inc., Corona, California.

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McLeod, S.A. 2005. Paleontological resources for the proposed Pedley Hills area of Riverside County (E 1/2 Sect. 13, T2S, R6W & Sect. 18, T2S, R5W) project area. Paleontological collections and records search report prepared for McKenna et al., Whittier, California, by the Section of Vertebrate Paleontology, Natural History Museum of Los Angeles County, Los Angeles, California (attached).

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Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources; by the SVP Impact

Mitigation Guidelines Revision Committee: http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx.

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Education

Master of Science, Geological Sciences, San Diego State University, California **1995**

Bachelor of Arts, Earth Sciences, University of California, Santa Cruz **1993**

Associate of Arts, Geological Sciences, Santa Barbara City College **1992**

Professional Certifications

Professional Geologist, California (#7588), 2003
Riverside County Approved Paleontologist
San Diego County Qualified Paleontologist
Orange County Certified Paleontologist (applied, 2019)
OSHA HAZWOPER 40-hour trained; current 8-hour annual refresher

Professional Memberships

Board member, San Diego Geological Society
San Diego Association of Geologists (President, 2012; Vice President, 2011)
South Coast Geological Society

Publications

Picacho and the Cargo Muchachos: Guns, Gold, and Geology of Eastern Imperial County, California: San Diego Associations of Geologists/Sunbelt Publications, 2012 (1st ed.), 2014 (2nd ed.).
"*Picacho, the Golden Road*," Dezert Magazine, Winter, 2013.

Experience

Senior Paleontologist **October 2012–Present**
Brian F. Smith and Associates, Inc. **Poway, California**

Mr. Wirths serves as the director of the paleontology department at BFSA. Mr. Wirths oversees all phases of project-related paleontology, including management of field and junior staff, planning, organizing, and implementing monitoring projects, research, report drafting, regulatory compliance, and laboratory oversight. Mr. Wirths directs or performs resource mitigation monitoring of construction sites, fossil salvage activities, paleontological field surveys and assessments, laboratory fossil preparation and curation. He has drafted dozens of technical reports, including paleontological assessments, site reports, and paleontological resource impact mitigation program (PRIMP) reports. Mr. Wirths created and implemented BFSA-specific fossil-recovery data sheets for field use by monitoring staff. The field

experience of Mr. Wirths includes the use of Trimble GPS data recording, burlap and plaster techniques, collection of microfossils, and wet and dry-screening techniques. Mr. Wirths provides expert identification of fossil marine invertebrates.

Lead Geological/Paleontological Consultant **November 2011–February 2009**
Cogstone Resource Management **San Diego and Orange, California**

Mr. Wirths conducted on-site paleontological monitoring, drafted/evaluated RFP responses, work plans, and reports; planned, organized, and implemented projects, and trained and supervised junior staff. Field localities include projects in Calaveras, Merced, Tulare, San Joaquin, Kern, San Bernardino, Los Angeles, and Riverside Counties. At the Highway 99 Caltrans expansion project near Merced, Mr. Wirths recovered dozens of Rancholabrean-age vertebrate fossils using plaster and burlap casting techniques.

Paleontological/Geological Monitor **February 2011–November 2011**
San Diego Natural History Museum **San Diego, California**

Oversaw construction and development sites for fossil resources and logged and interpreted geology during drilling and trenching activities/recovery of fossils. Monitoring projects include the SDG&E Sunrise Powerlink, several SDG&E Wood to Steel projects, San Diego City College expansion, The Bishops School, and the Prebys Cardiovascular Institute.

Project Manager/Geologist **March 2010–February 2011**
Wirths Consulting **San Diego, California**

Provided environmental consulting services for Apex Companies, H.M. Pitt Labs, Ninyo & Moore, and TRC Solutions, providing project management, reporting, and certified professional field oversight, designing/budgeting an *in situ* chemical oxidation project, and obtaining a City of San Diego business license.

Senior Project Manager **April 2007–August 2009**
ETIC Engineering, Inc. **Santa Diego, California**

Operated as senior project manager for 10 ExxonMobil retail sites, designed and implemented assessment and remediation projects (including project forecasting/budgeting, managing subcontractors, and composing work plans), composed work plans, assessment reports, and corrective action plans, and managed/mentored staff-level associates.

Project Manager **January 2000–April 2007**
TRC Solution, Inc./TRC Alton Geoscience **San Diego and Imperial Counties, California**

Operated as project manager for various projects throughout San Diego County, including ExxonMobil Oil Corporation and Unocal Corporation remediation activities, BNSF Railway Company groundwater assessment and remediation, and Ultramar/Valero, Inc., which involved supervising/managing on-site personnel, collecting/managing soils, groundwater, and wood samples, writing reports, and conducting remediation feasibility testing and remedial planning.

Staff Geologist **May 1997–September 2000**
IT Corp./Pacific Environmental Group **San Diego, Orange, and Los Angeles Counties, California**

Tracked progress of excavation and delineation of impact, sampled/managed soil, and conducted drilling and groundwater monitoring/well installation activities.

Selected Technical Reports

Glover, Amy, Todd **Wirths**, and Sherri Gust

2012 *Paleontological assessment for the Paradise Creek Housing Development, National City, San Diego County, California.* Prepared for The Related Companies of California, Irvine, CA, by Cogstone Resource Mgt., Inc.

Gust, Sherri, Kim Scott, and Todd **Wirths**

2012 *Paleontological resources assessment for the WECC Path 42 Project in Riverside County, California.* Prepared for Southern California Edison, Monrovia, CA, by Cogstone Resource Mgt., Inc.

Horne, Melinda, Todd **Wirths**, and Amy Glover

2012 *Paleontological and cultural resources assessment for the town of Yucca Valley General Plan update, San Bernardino County, California.* Prepared for The Planning Center – DC&E, Santa Ana, CA, by Cogstone Resource Mgt., Inc.

Wirths, Todd A., and Sherri Gust

2012 *Paleontological resources assessment for the Truckhaven geothermal expansion project, Imperial County, California.* Prepared for NGP Truckhaven, LLC, Reno, NV, by Cogstone Resource Mgt., Inc.

Kennedy, George L., and Todd A. **Wirths**

2013 *Paleontological Monitoring Report, Aztec Court Apartments, 6237 Montezuma Road, San Diego, San Diego County, California.* Prepared for Warmington Residential California, Inc., Southern California Division. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2013 *Paleontological Monitoring Report, Citywide Sewer Pump Station Upgrades, Group II, Pump Station 60A, Scripps Ranch neighborhood, City of San Diego, San Diego County, California (PTS No. 31233 and WBS No. S-00304).* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2013 *Paleontological Resource Impact Mitigation Program (PRIMP), Rancho Paseo de Valencia, City of Corona and unincorporated Riverside County, California (Tentative Tract Map 34760; APNs 114-040-019, 114-040-020, 275-100-003, and 275-100-004).* Prepared for Rancho Paseo de Valencia. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2013 *Paleontological monitoring report, Casa Aldea Phase II, University City Village Apartments, 6112, 6122, and 6132 Gullstrand Street, University City, San Diego, San Diego County (LDR No. 98-0408, PTS No. 303550).* Prepared for Wise River Builders, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2013 *Paleontological Resource Assessment, Ballpark Village Development, East Village, San Diego, San Diego County, California.* Prepared for Ballpark Village, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2013 *An Updated Phase I Paleontological Resources Assessment for Tentative Tract Maps 36484 and 36485, Audie Murphy Ranch, City of Menifee, County of Riverside, California.* Prepared for Brookfield Residential. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2013 *Paleontological Resource Impact Mitigation Program (PRIMP), Ridge Park project, city of Temecula, Riverside County, California (APNs 922-210-049; 940-310-013, 940-310-015, and 940-310-016; 940-310-044 through 940-310-048; and 940-320-001 through 940-320-007).* Prepared for Ambient Communities. Report on file at Brian F. Smith and Associates, Inc., Poway, CA.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Monitoring Report, Chino Desalter Phase III Expansion Project, 11301 Harrel Street, City of Jurupa Valley, Riverside County, California.* Prepared for W.M. Lyles Co. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological resource and monitoring assessment, proposed Avanti North housing development, Lancaster, Los Angeles County, California (Tentative Tract Map No. 53229).* Prepared for Avanti North, LP. Report on file at Brian F. Smith and Associates, Inc., Poway, CA.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological monitoring report for the Montezuma Trunk Sewer project, College and Mid-Cities Community Plan Areas, San Diego, San Diego County, California (Project No. 240104).* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological resource impact assessment for the Lake Ranch project site, unincorporated Riverside County, California (APNs 270-060-010, 270-160-001, 270-170-010, 270-170-011, and 270-180-010; TR 36730).* Prepared for Christopher Development Group. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Resource Impact Mitigation Program (PRIMP) for the Menifee Heights Development, City of Menifee, Riverside County, California (Tract No. 32277).* Prepared for CV Communities, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Resource Assessment, Shoshone Valley Road solar array project, Twentynine Palms, San Bernardino County, California (APNs 613-233-01, -02, -03, -04, -27, -28, -29, and -30).* Prepared for Ecos Energy, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, CA.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Resource Assessment, Utah Trail solar array project, Twentynine Palms, San Bernardino County, California (APNs 621-281-22 through 621-281-25).* Prepared for Ecos Energy, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Monitoring Report, San Diego Community College District, César Chávez Campus, Barrio Logan, San Diego, California.* Prepared for San Diego Community College District. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Monitoring Report, Sewer and Water Group 761, Uptown Community Plan Area, San Diego, San Diego County, California.* Prepared for Burtech Pipeline. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Resource Impact Mitigation Program (PRIMP) for the Blessed Teresa of Calcutta Catholic Parish project site, French Valley, unincorporated Riverside County, California (APN 480-040-044; Project No. PP24903).* Prepared for Blessed Teresa of Calcutta Catholic Parish, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Resource Impact Mitigation Program (PRIMP), Salton City Landfill Expansion Project, unincorporated Imperial County, California (SCH No. 2010071072).* Prepared for Burrtec Waste Industries, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Resource Impact Mitigation Program (PRIMP) for the Yates Road housing development site, Tract Map TR 36437, northeast of Murrieta, unincorporated Riverside County, California (APNs 467-390-001 through 467-390-016).* Prepared for CV Communities, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Monitoring Report, Construction of the Park and G Project, East Village, Downtown San Diego, San Diego County, California.* Prepared for Oliver McMillan. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2014 *Paleontological Monitoring Report, Construction of Pinnacle 15th & Island Project, East Village, Downtown San Diego, San Diego County, California.* Prepared for Pinnacle International Development, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

2012 *Paleontological Monitoring Report, Construction of 13th & Market Project, East Village, Downtown San Diego, San Diego County, California.* Prepared for The Hanover Company. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

2013 *Paleontological Monitoring Report, Ariel Suites, Little Italy, City of San Diego, San Diego County, California.* Prepared for Ariel Suites, LP. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

2013 *Paleontological Monitoring Report, Village Lindo Paseo Dormitories, SDSU College Area, City of San Diego, San Diego County, California.* Prepared for Village Lindo Paseo, L.P. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

2013 *Paleontological Monitoring Report, Grit Processing Improvements Project, Point Loma Wastewater Treatment Plant, San Diego, San Diego County, California (Sewer WO No. 176001; WBS No. S-00315).* Prepared for Archer Western Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., N. Scott Rugh, and Todd A. **Wirths**

2013 *Paleontological Monitoring Report, Harbor Drive Trunk Sewer, City of San Diego, San Diego County, California (Project No. 38789).* Prepared for Burtech Pipeline. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths,** and Brian F. Smith

2013 *Paleontological and Archaeological Monitoring and Mitigation Report, Lake Forest Sports Park, City of Lake Forest, Orange County, California.* Prepared for Road Builders, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2013 *Negative Paleontological Monitoring and Mitigation Report, San Clemente Senior Housing Project, 2350 South El Camino Real, City of San Clemente, Orange County, California (CUP No. 06-065; APN 060-032-04)*. Prepared for Primus Building Solutions. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

2014 *Paleontological Monitoring Report, Sewer Main Replacement Group Job 685 (Part of Sewer and Water Group Job 685 (Part of Sewer and Water Group 3014), City Heights Neighborhood of the City of San Diego, San Diego County, California (Project No. 131446; Sewer WBS No. B-00333).* Prepared for Ortiz Corporation General Engineering Contractors. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

2015 *Paleontological Monitoring Report, 951 South Beach Boulevard Project, La Habra, Orange County, California (MND No. 14-01).* Prepared for Fairfield 951 Beach, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2015 *Paleontological Monitoring Report, Casa Aldea Lots 4 & 6, Fairbanks Ranch-Santaluz Area, Northern San Diego, California.* Prepared for Wise River Builders, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**

2015 *Paleontological Monitoring Report, Pendry Hotel San Diego, Gaslamp Quarter, Downtown San Diego, California.* Prepared for The Robert Green Company. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy

2016 *Paleontological Monitoring Report, The Rey Project, 840 B Street, Downtown San Diego, San Diego County, California.* Prepared for Blue/WP San Diego, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**
2016 *Paleontological Monitoring Report, Atmosphere Affordable Housing Project, 1453 Fourth Avenue, Downtown San Diego, San Diego County, California.* Prepared for Wakeland Housing & Development Corp. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy
2017 *Paleontological Monitoring Report, Ballpark Village, Lower East Village, Downtown San Diego, California.* Prepared for Ballpark Village, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy
2017 *Paleontological Monitoring Report, 460 16th Street, East Village, Downtown San Diego, San Diego County, California.* Prepared for Lennar Multifamily Communities, LLC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy
2017 *Paleontological Resource Impact Mitigation Program (PRIMP) for the La Habra North Project, La Habra, Orange County, California (Tract Map 17809).* Prepared for City Ventures. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**
2017 *Paleontological Monitoring Report, Imagine Coachella project at the Jordan Christian Academy, West of Coachella in Unincorporated Riverside County, California.* Prepared for M-13 Construction, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., and Todd A. **Wirths**
2017 *Paleontological Monitoring Report, Kettner and Ash Condominiums Project, Columbia District of Downtown San Diego, San Diego County, California.* Prepared for Bosa Development California, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths,** and N. Scott Rugh
2018 *Paleontological Monitoring Report, Manning Canyon Sewer and Water Replacement Project, Linda Vista, City of San Diego, San Diego County, California.* Prepared for Red Tail Monitoring & Research, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths,** and N. Scott Rugh
2018 *Paleontological Monitoring Report, Westfield University Towne Center Expansion Project, Phase 2A, La Jolla Village Drive, San Diego, San Diego County, California.* Prepared for Westfield UTC. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Wirths, Todd A., and George L. Kennedy
2018 *Negative Paleontological Monitoring Report, Verizon Capistrano Depot Project, 32400 Paseo Adelanto, San Juan Capistrano, Orange County, California (CUP No. 16-003; APN 668-10-023).* Prepared for Trileaf Environmental and Property Consultants. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

Kennedy, George L., Todd A. **Wirths,** and N. Scott Rugh
2019 *Paleontological Monitoring Report, Saint Demiana Coptic Orthodox Church, Santaluz-Torrey Highlands Neighborhood, San Diego, San Diego County, California.* Prepared for Barnhart-Reese Construction, Inc. Report on file at Brian F. Smith and Associates, Inc., Poway, California.

IX. ATTACHMENT B

Project Maps:
General Location Map
USGS Project Location Map
Geologic Map
Paleontological Sensitivity Map

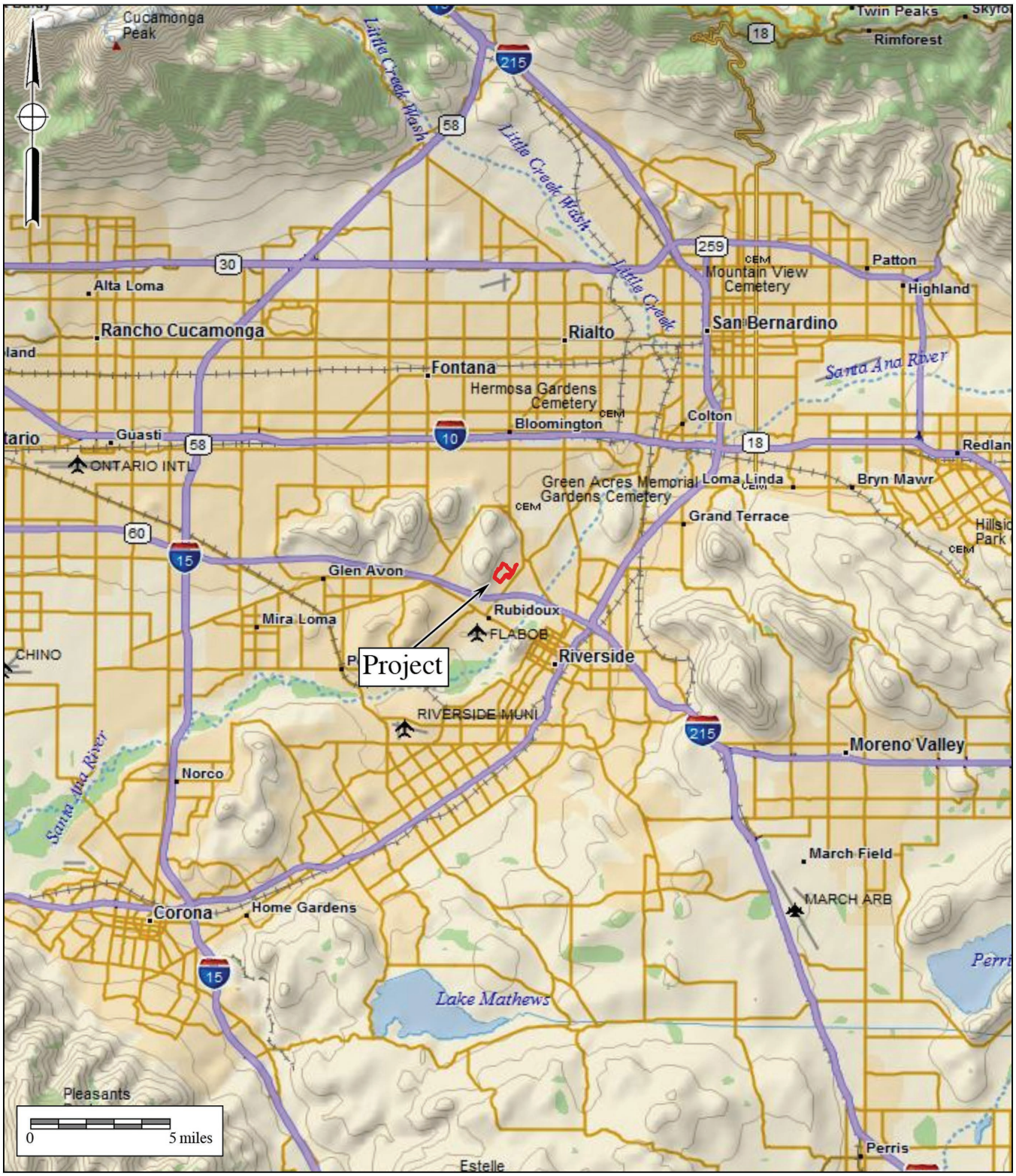

Figure 1

General Location Map

The Rubidoux Commerce Center Project

DeLorme (1:250,000)

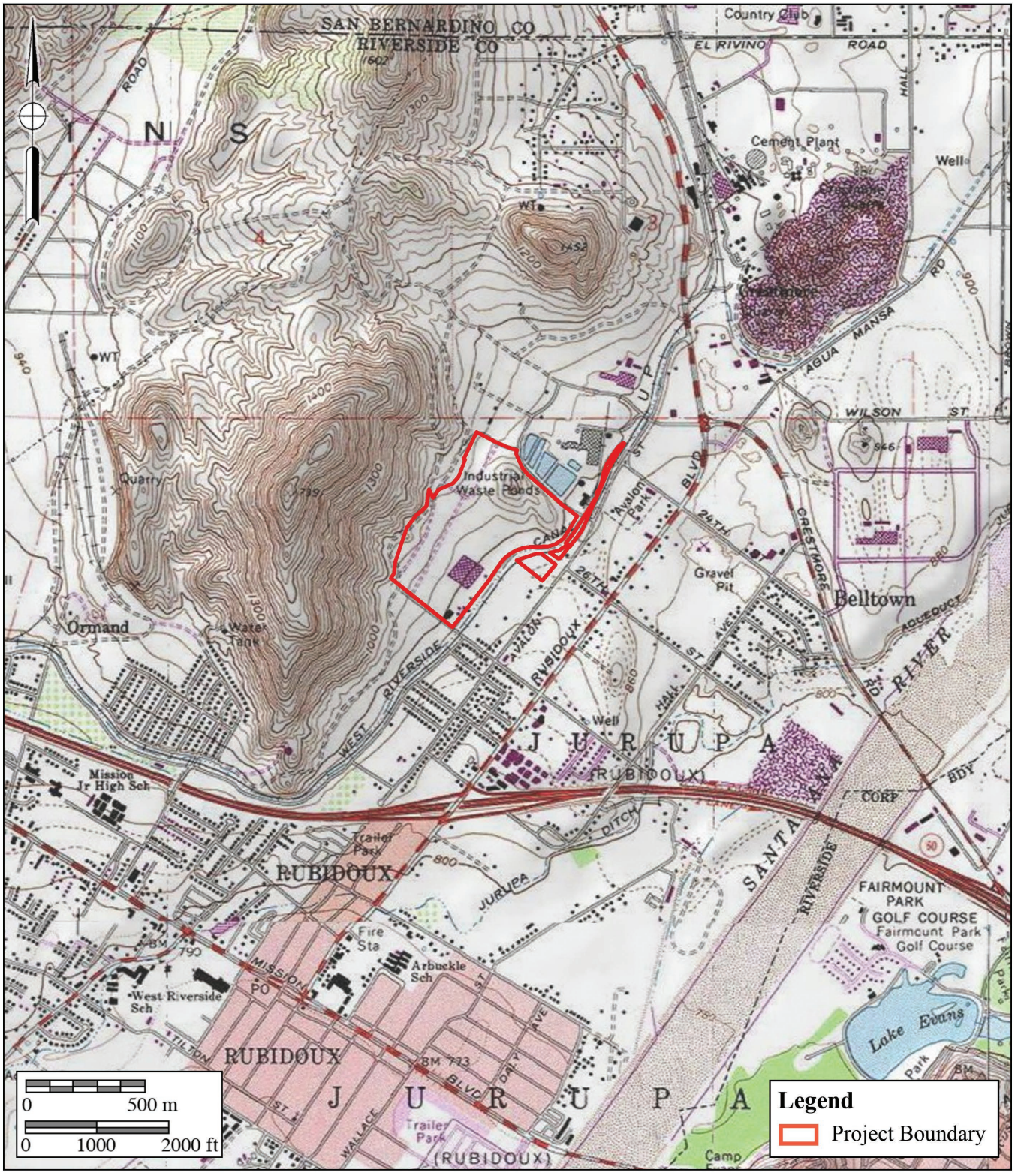

Figure 2

Project Location Map

The Rubidoux Commerce Center Project

USGS *Fontana* and *Riverside West* Quadrangles (7.5-minute series)

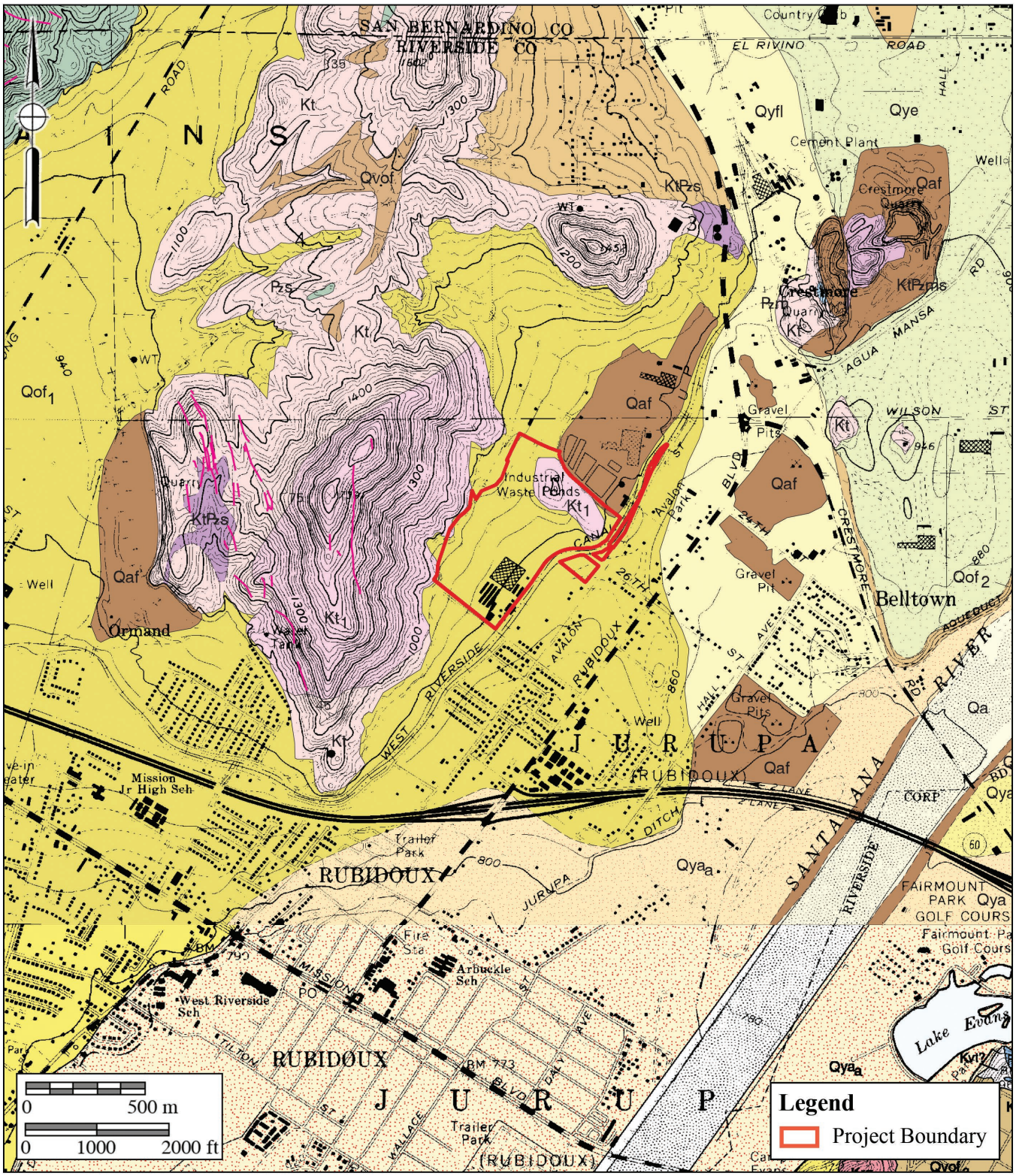

Figure 3

Geologic Map

The Rubidoux Commerce Center Project

Geology after Morton (2003) and Morton and Cox (2001)

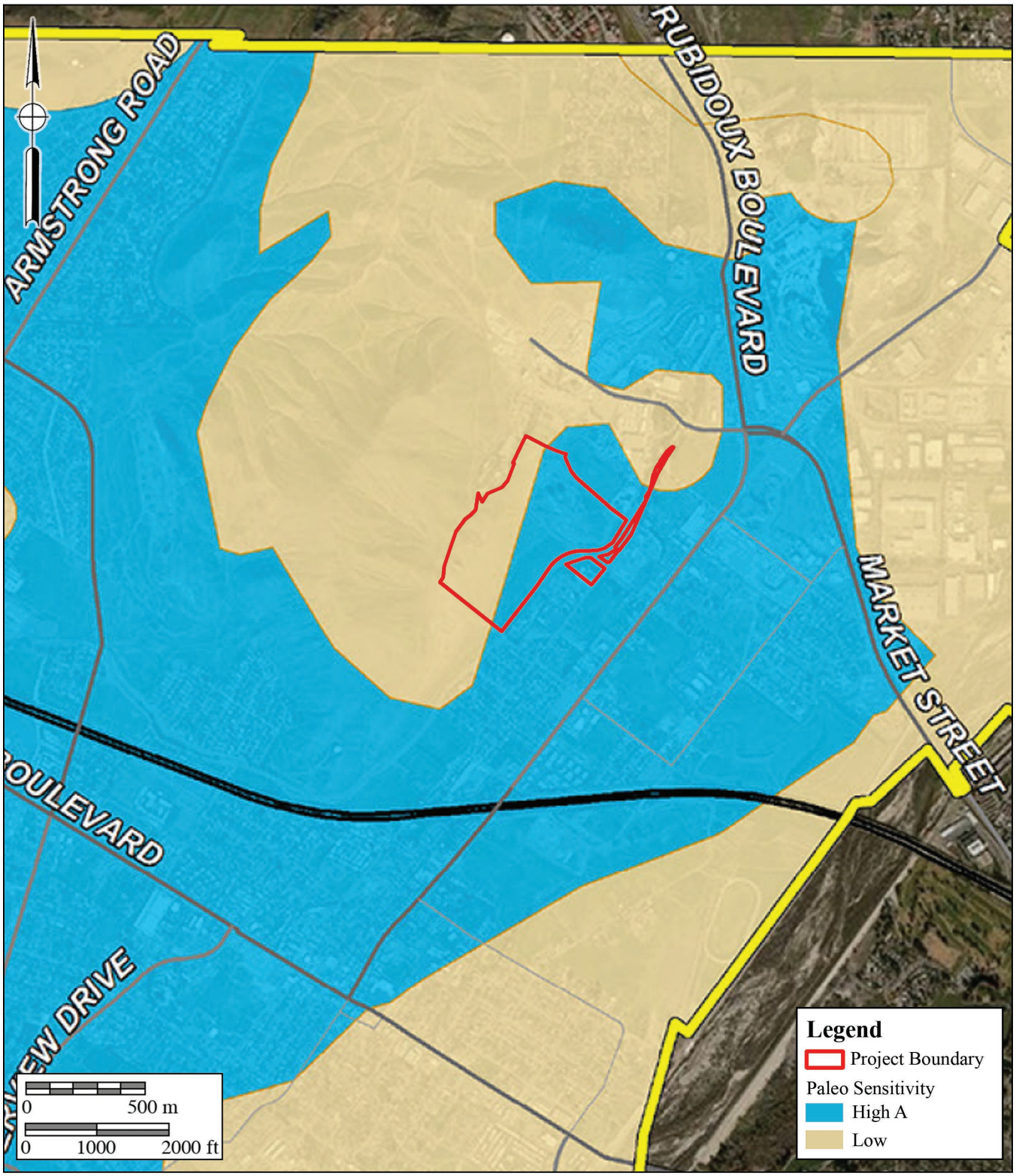

Figure 4

Paleontological Sensitivity Map

The Rubidoux Commerce Center Project

After City of Jurupa Valley General Plan

X. ATTACHMENT C

Paleontological Records Search Results

NATURAL HISTORY MUSEUM
OF LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325
FAX: (213) 746-7431
e-mail: smcleod@nhm.org

14 January 2005

McKenna et al.
6008 Friends Avenue
Whittier, California 90601-3724

Attn: Jeanette A. McKenna

re: Paleontological resources for the proposed Pedley Hills area of Riverside County (E ½ Sect. 13, T 2 S, R 6 W & Sect. 18, T 2 S, R 5 W) project area

Dear Jeanette:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Pedley Hills area of Riverside County (E ½ Sect. 13, T 2 S, R 6 W & Sect. 18, T 2 S, R 5 W) project area as outlined on the sections of the Fontana and Riverside West USGS topographic quadrangle maps that you sent to me on 11 January 2005. We do not have any vertebrate fossil localities that lie directly within the proposed project boundaries, but we do have a locality somewhat nearby that occurs in sedimentary deposits similar to those that occur in the proposed project area.

Bedrock in the elevated Pedley Hills, occupying most of the southeastern one-half of the proposed project area, consists of granitic and other plutonic rocks that, of course, will be devoid of fossils. Surficial deposits in the remainder of the proposed project area, the less elevated areas of northwestern one-half and around the development in the south-central portion, consist of Quaternary Alluvium deposits with younger deposits occurring at the surface in the more northwestern part. We do not have any vertebrate fossil localities in the immediate vicinity from these deposits. Our closest fossil vertebrate locality in the Quaternary sediments is LACM 1207, directly southwest of the proposed project area just north of the city of Corona, where a specimen of a fossil deer, *Odocoileus*, was found.

Excavations in the plutonic bedrock in the Pedley Hills portion of the proposed project area will not uncover any vertebrate fossils. Any subsurface excavations in older Quaternary sedimentary deposits in the lower lying portions of the proposed project area have a good chance of encountering significant vertebrate fossil remains. Therefore, any substantial subsurface excavation in the lower lying portions of the proposed project area should be closely monitored to quickly and professionally collect any fossils discovered. The University of California at Riverside [collections and records

now at the University of California at Berkeley Museum of Paleontology] may have additional fossil vertebrate locality information for the area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice