

### **MEMORANDUM**

To: Television City Studios, LLC

From: Sarah Siren, Paleontologist, Dudek

Subject: Paleontological Resources Review – TVC 2050 Project

Date: 8/9/21

cc: Adam Giacinto, Archaeologist, Dudek

Attachment(s): Qualifications

Dudek is providing this memo after completing a review of the potential for impacts to paleontological resources during construction activities for the TVC 2050 Project (Project, or Project Site) located at the southeast corner of Beverly Boulevard and Fairfax Avenue in Los Angeles (City), California. The Project includes the development of an approximately 25-acre property in the Wilshire Community Plan area of the City. 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 (Attachment A).

The Project would establish the TVC 2050 Specific Plan (Specific Plan) to allow for the modernization and expansion of media production facilities within the approximately 25-acre Television City Studio located at 7716-7860 West Beverly Boulevard in Los Angeles, California (Project Site). The proposed Specific Plan would permit a total of up to approximately 1,874,000 square feet of sound stage, production support, production office, general office, and retail uses within the Project Site upon buildout, as well as associated circulation improvements, parking, landscaping, and open space. More specifically, the Specific Plan would permit approximately 1,626,180 square feet of new development, the retention of an estimated 247,820 square feet of existing uses, and the demolition of up to approximately 495,860 square feet of existing media production facilities. The designated Historic-Cultural Monument (HCM; CHC-2018-476-HCM) located on-site would be retained. In addition, a Sign District would be established to permit studio-specific on-site signs.

The Project Site is mapped as being underlain by older, elevated Quaternary alluvial deposits that are late Pleistocene in age (approximately 129,000 to 11,700 years old; map unit Qae) (Dibblee and Ehrenspeck, 1991; Cohen et al., 2021). These Pleistocene age alluvial deposits have moderate to high potential to yield paleontological resources. A records search results letter from the Natural History Museum of Los Angeles County (LACM) dated May 26, 2021, indicates that these Pleistocene age alluvial deposits have the potential to produce paleontological resources.

According to the records search conducted at the LACM (2021), no paleontological localities are documented within the Project boundaries. However, localities are documented elsewhere in the City of Los Angeles from the same geological units that occur beneath portions of the Project Site, and several of these localities are located within



2,000 feet of the Project Site. These sedimentary deposits have the potential to yield scientifically significant vertebrate fossils, as discussed below.

Previously discovered fossils in the area have been in older Quaternary age sedimentary deposits known as Pleistocene alluvium and the Palos Verdes Sand. Less than approximately 2,000 feet of the Project Site, near the intersection of Fairfax Avenue and Third Street, a Pleistocene age assemblage (LACM 7495) consisting of micro vertebrates (e.g., turtle, rabbit, and rodent) and megafaunal (e.g., horse, bison, camel, and mammoth) remains were recovered at 10 feet below the ground surface (bgs), with a second locality (LACM 7478) yielding additional rodent specimens (e.g., pocket gopher) at a depth of 46 feet bgs. Also, less than approximately 2,000 feet from the Project Site, near the intersection of Third Street and Edinburgh Avenue, locality LACM 1268 yielded a specimen of undetermined elephant (e.g., Proboscidea, the family which includes mammoths and mastodons) at a depth of 20 feet bgs. Approximately 4,000 feet south of the Project Site, localities LACM 7513-7516 from Park La Brea included fossil specimens of snake, sloth, rabbit, rodent, skunk, horse, and camel at an unstated depth. Numerous additional localities are known from the Rancho La Brea asphalt deposits located in Hancock Park approximately 4,000 feet south of the Project Site, a National Natural Landmark that has yielded millions of Pleistocene fossil plant, insect, and animal specimens. Fossil locality LACM 3261, located near the intersection of Beverly Boulevard and Kilkea Drive, less than approximately 2,000 feet west of the Project Site, yielded specimens of undetermined elephant (e.g., Proboscidea, which includes mastodons and mammoths) at an unknown depth. LACM 3371, located near the intersection of Sierra Bonita Avenue and Oakwood Avenue, less than approximately 2,000 feet from the Project Site, produced specimens of prehistoric bison at a depth of 12 feet bgs. It is possible that at least some fossilized remains may be encountered during grading within the Project Site.

Although no vertebrate fossils are documented within the Project Site, previously undisturbed Pleistocene age alluvial deposits would be conducive to preserve such remains. According to the preliminary geotechnical engineering investigation (Geotechnologies, Inc., 2021), construction excavation is anticipated to extend to approximately 15 to 45 feet below the existing Project Site grade. Paleontological monitoring is required during construction excavation within Pleistocene age older alluvial deposits and the Palos Verdes Sand. No monitoring is required during excavation within artificial fill, as these deposits do not contain paleontological resources in their original stratigraphic context and thus have a low sensitivity.

A paleontological resources program is recommended for excavation within moderate to high sensitivity geological units (e.g., Pleistocene age alluvial deposits and the Palos Verdes Sand) and should be implemented in accordance with the City's conditions or mitigation measures for paleontological resources. Excavation within lower sensitivity units (e.g, artificial fill) does not require mitigation. The program should follow guidelines outlined by the Society of Vertebrate Paleontology (SVP, 2010) and include sediment sampling protocols for microfossil recovery. Pursuant to Section 12.32 of the Los Angeles Municipal Code, the City's condition of approval for inadvertent discovery of paleontological resources is as follows:

"In the event that any prehistoric subsurface cultural resources are encountered at the project site during construction or the course of any ground disturbance activities, all such activities shall halt immediately, at which time the applicant shall notify the City and consult with a qualified paleontologist to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology



standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted."

Based on the condition of approval for inadvertent discovery referenced above, impacts to paleontological resources would be less than significant.

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

Sincerely,

Sarah A. Siren, MSc

Paleontologist, Dudek

Att. A: Qualifications

### References Cited:

Cohen, K.M., S.C. Finney, P.L. Gibbard, and J.-X. Fan. 2021. "The ICS International Chronostratigraphic Chart." Episodes 36: 199–204. 2013; updated. Available at: https://stratigraphy.org/ICSchart/ChronostratChart2021-05.jpg.

- Dibblee, T.W. and H.E. Ehrenspeck. 1991. Geologic map of the Hollywood and Burbank (south 1/2) quadrangles, Los Angeles, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-30, scale 1:24,000.
- Geotechnologies, Inc., 2021. Preliminary Geotechnical Engineering Investigation, Television City 2050 Specific Plan, 7800 West Beverly Boulevard, Los Angeles, California (including 7716 7860 West Beverly Boulevard, Los Angeles, California). Submitted to Television City Studios, LLC. File Number 21699. Revised April 22, 2021.
- Natural History Museum of Los Angeles County (LACM). 2021. Paleontological Resources for the TVC 2050 Project, in the City of Los Angeles, Los Angeles County, Project Area. Unpublished Records Search Results Letter from A. Bell of the Natural History Museum of Los Angeles County, Los Angeles, California.
- Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. 11 p. Available at: <a href="http://vertpaleo.org/The-Society/Governance-Documents/SVP">http://vertpaleo.org/The-Society/Governance-Documents/SVP</a> Impact Mitigation Guidelines.aspx.



# Attachment A

Qualifications

# Sarah Siren, PG, GISP

# Senior Paleontologist

Sarah Siren is a senior paleontologist with 22 years' experience as a paleontological resources consultant. Ms. Siren has served as paleontologist for numerous projects throughout California, with extensive experience in Imperial, Orange, Riverside, Los Angeles, San Bernardino, and San Diego Counties. These projects involved multiple agencies, public and private sector clients, a variety of resources, and multidisciplinary staff supervision. She specializes in California Environmental Quality Act (CEQA) and Bureau of Land Management (BLM) compliance standards. She taught at Saddleback Community College in Mission Viejo, California as an associate geology professor, and worked as a curatorial assistant with the Natural History Museum of Los Angeles County and, more recently, as a field manager with the San Diego Natural History Museum.

Ms. Siren has conducted studies at both the Smithsonian Institution and Badlands National Park, and supervised as lead research scientist for various field activities, curation projects, and laboratory preparations. Her diverse experience includes recovering, identifying, mapping, and preparing fossils. Ms. Siren is able to effectively manage projects and complete deliverables from assessments to final technical reports in a timely manner.

# Project Experience

# Development

Kettner Lofts Project, Citymark Development, City of San Diego, California. As project manager and principal investigator, responsible for cultural resources construction monitoring during construction of this residential complex located in Little Italy.

**Poinsettia 61 Project, Lennar, City of Carlsbad, California.** As project manager and paleontologist, provided paleontological resources mitigation services for this residential project.



Sarah Siren

### Education

South Dakota School of Mines and Technology MS, Paleontology, 2002 George Washington University BS, Geology, 1999 BA, French Language and Literature, 1999

### Certifications

Professional Geologist (PG), CA, No. 9831, issued 4/2020, exp. 4/30/23

Certified GIS Professional (GISP), No. 58370

OSHA 40-hour HAZWOPER

Qualified Paleontologist, City of San Diego and Counties of Kern, Los Angeles, Orange, Riverside, San Diego, and San Luis Obispo

#### **Affiliations**

Natural History Museum of Los Angeles County Society of Vertebrate Paleontology

**Hotel Coronado Project, BRE Hotels, City of Coronado, California.** As cultural and paleontological resources project manager, provided paleontological resources mitigation services for this commercial project.

**Double D Mine, County of Riverside, California.** Responsible for cultural and paleontological resources management of surveys and reporting on this 611-acre mine near Blythe. Deliverables were accepted and approved by the County of Riverside.

**Tejon Mountain Village, Tejon Mountain Village, LLC, County of Kern, California.** Responsible for paleontological resources monitoring during geotechnical drilling within a portion of this 28,000-acre master planned community.



Trampas Dam and Reservoir Project, Santa Margarita Water District, Orange County, California. Provided paleontological and cultural resources management during this multi-year mitigation monitoring project.

**Kaiser Permanente Project, City of Murrieta, California.** Provided paleontological and cultural resources management during this multi-year mitigation monitoring project.

Patton State Hospital Project, California Department of General Services, County of San Bernardino, California. As project manager and principal investigator, supervised the cultural and paleontological resources mitigation program during construction improvements to the facility in accordance with the mitigation measures and treatment plan for the project.

Heather Lane Corti Residence, City of Del Mar, California. As project manager and principal investigator, responsible for cultural and paleontological resources construction monitoring for residential development located in the City of Del Mar.

**1902 Grandview Street, City of Oceanside, California.** Provided a paleontological resources review for the tentative tract map location, including management considerations and recommendations.

**Winchester 1800 Project, City of Temecula, California.** Project manager and principal investigator responsible for a paleontological resources survey and report prepared for this development located in the City of Temecula. Also provided editorial comments on the cultural resources report for the same project.

Mira Loma Commerce Center, County of Riverside, California. Project manager and principal investigator, responsible for cultural and paleontological resources monitoring during the construction of two commercial buildings on 31 acres and completion of a final technical report.

Otay Ranch, Parcels B (Village 8 West) and C (Village 9), Otay Land Company, City of Chula Vista, California. As field manager and co-principal investigator, conducted the pedestrian field survey of an approximately 600 acre site in the City of Chula Vista. Also co-authored the paleontological assessment for the project.

Olympic Pointe (East and West) Project, Alta Geotechnical Inc., City of Chula Vista, California. As field manager and co-principal investigator, responsible for oversight of field studies conducted as part of the paleontological mitigation program for the project. The findings of this paleontological mitigation program were included in a final technical report co-authored by Ms. Siren.

San Diego Zoo, City of San Diego, California. As field manager and co-principal investigator, recovered a relatively complete fossil skeleton of a juvenile baleen whale that was discovered during construction for a tank site within the park, due east of State Route 163 in Balboa Park.

Pelican Hill, The Irvine Company, City of Newport Beach, California. Managed the on-site paleontological mitigation program operated by Stantec for the Pelican Hill Project in Newport Beach, Orange County, California. In accordance with local and state guidelines, supervised the recovery of over 200 fish fossils from the middle to late Miocene marine Monterey Formation, and both terrestrial and marine specimens from the overlying Pleistocene age terrace deposits.

### Education

San Ysidro School District (SYSD) Vista Del Mar School, RBF, County of San Diego, California. As field manager and co-principal investigator, responsible for preconstruction WEAP training and supervision of paleontological monitoring program for the project. A series of fossil producing strata were discovered and collected from approximately 2–3 million year old San Diego Formation consisted of significant fossil remains of marine invertebrates.



Fullerton College Master Plan Program EIR, North Orange County Community College District, Cypress, California.

Paleontologist for the Facilities Master Plan Program EIR. Issues include historic building preservation, traffic, and parking, and adjacent neighbor concerns associated with noise, traffic, parking, and growth inducement.

Thomas Jefferson School of Law Project, Thomas Jefferson School of Law, City of San Diego, California. As field manager, conducted multiple fossil salvages for this East Village project site. A mammoth skull, tusks, and partial skeleton were recovered and are currently awaiting preparation. In addition, a partial gray whale (*Eschrichtius robustus*) skeleton was discovered at the site and is housed at the museum's storage facility.

Coast Community College District, County of Orange, California. As project manager and co-principal investigator, conducted the field surveys and prepared the paleontological resources assessments for Orange Coast College, Golden West College, and Coastline Community College.

# Energy

**Jacumba Solar, County of San Diego, California.** Served as senior paleontologist. Provided paleontological resources recommendations and guidelines during the design phase, and oversite during mitigation monitoring.

North Gila-Imperial Valley #2 Transmission Project, U.S. Department of the Interior Bureau of Land Management (BLM), Arizona and California. Dudek conducted a paleontological resources pedestrian survey within high sensitivity geological units along the project alignment and prepared a draft assessment for the BLM for this project located between the Imperial Valley Substation in California and the City of Yuma, Arizona. Permits were obtained through the lead agency prior to mobilization.

California Flats Solar Project, First Solar/NextEra Energy Resources LLC, Counties of Monterey and San Luis Obispo, California. As project manager and principal investigator, supervised the cultural and paleontological resources mitigation program in accordance with the mitigation measures and treatment plan for the project.

California Valley Solar Ranch Project, NRG/Sun Power, County of San Luis Obispo, California. As field manager and co-principal investigator, supervised the paleontological mitigation program in accordance with the paleontological monitoring and treatment plan for the project.

**Crimson Solar Project, CDFW, County of Riverside, California.** Responsible for peer review of the paleontological resource assessment for this 350-megawatt (MW) solar photovoltaic facility located in eastern Riverside County.

**McCoy Solar Project, First Solar, County of Riverside, California.** Managed cultural and paleontological resource staff during construction of this 250-megawatt (MW) solar photovoltaic facility located in easternmost Riverside County. As the BLM-permit holder, served as principal investigator for paleontology and paleontological resources compliance manager.

Stateline Solar Farm Project, First Solar, County of San Bernardino, California. As project manager and co-principal investigator, prepared the paleontological resources plan and provided technical review and editorial comments on the field survey report for this project located on BLM-managed land.

Antelope Valley Solar Ranch Project, Sun Power, Counties of Los Angeles and Kern, California. As field manager and co-principal investigator, supervised the paleontological mitigation program in accordance with the paleontological monitoring and treatment plan for the project.

Sunrise Powerlink, SDG&E, Counties of San Diego and Imperial, California. As field manager and co-principal investigator, responsible for implementation of the field mitigation program for the project. Additionally, aided in the preparation of the SDG&E Sunrise Powerlink Paleontological Records Search, Monitoring and Treatment Plan, and co-authored Final Technical Report on paleontological resources for submittal to the BLM.



Paleontological Services On-Call Contract, SDG&E, Counties of San Diego and Imperial, California. As field manager investigator, responsible for oversight of paleontological monitoring being conducted as part of several work orders for SDG&E. Over thirty work orders ongoing or completed under the on-call contract. Also responsible for co-authoring final project reports (both mitigation and assessment).

Imperial Irrigation District (IID) Imperial to Dixieland 230 kilovolt Transmission Line and Expansion of Dixieland Substation, AECOM, County of Imperial County, California. As field manager and co-principal investigator, responsible for field studies oversight and preparation of the paleontological assessment report. The paleontological assessment program included completion of a paleontological records search and literature review, completion of a field survey, and preparation of a final report summarizing findings and proposing appropriate mitigation measures to reduce potential adverse impacts to a level below significance. The findings of this paleontological assessment report indicated that the potential adverse impacts to a variety of marine and non-marine sedimentary rocks could be avoided.

SCG Imperial Valley Loop, Insignia Environmental, City of Brawley, California. As field manager, responsible for oversight of monitoring and fossil salvage being conducted on site by another consultant. Mitigation efforts consisted of monitoring during mass grading activities, recovery of fossils discovered, laboratory preparation and curation of fossils, and preparation of the final report. A series of fossil producing strata were discovered and collected from ~14,000 to 7,000 year old lacustrine sedimentary rocks ancient Lake Cahuilla. Recovered fossils consisted of significant fossil remains of late Pleistocene- to early Holocene-age marine invertebrates.

## Municipal

Block 4N (North Encanto) Project, City of San Diego, California. As project manager and principal investigator, responsible for archaeological and paleontological monitoring for underground conduit system installation by San Diego Gas and Electric (SDG&E) for the City of San Diego in the neighborhood of Encanto. A marine mollusk and vertebrate assemblage was recovered from the San Diego Formation. Served as the primary author of the report. Specimens were prepared and curated according to the City of San Diego and the San Diego Natural History Museum's guidelines for paleontology.

Palm Springs Waste Water Treatment Plant, City of Palm Springs, California. Project manager and principal investigator, responsible for preparation of a field survey report, paleontological resources monitoring program, and final report for this construction project.

# Transportation

California High-Speed Rail Project Construction Package 2-3, Fresno to Bakersfield, Dragados/Flatiron Joint Venture, Fresno to Bakersfield, California. Managed cultural and paleontological resource staff on the Fresno to Bakersfield Section of the project. Responsible for Worker Environmental Awareness Program (WEAP) training and Paleontological Resources Mitigation and Monitoring Plan (PRMMP) consistent with the Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) created for the project.

Mid-Coast Corridor Transit Project, City of San Diego, California. As project manager and principal investigator, responsible for cultural and paleontological resources construction monitoring during excavation for this San Diego Association of Governments (SANDAG) project.

Pelandale Avenue Alternative Infiltration Trench Structure (SITS) Pilot Study Project, County of Stanislaus, California. Co-authored the paleontological identification report for the Caltrans District 6. Consulted with Caltrans on the field survey results and made recommendations for future mitigation monitoring in accordance with the Standard Environmental Reference for Paleontology.



San Elijo Lagoon Double Track Project, AECOM, City of Encinitas, California. As project manager and principal investigator, responsible for cultural and paleontological resources construction monitoring during excavation on this SANDAG project.

Old Otay Mesa Road Improvement Project, City of San Diego, California. As project manager and principal investigator, responsible for cultural and paleontological resources construction monitoring during excavation on this City of San Diego project.

Keller Road and I-215 Interchange Project, Jacobs Engineering and California Department of Transportation (Caltrans), City of Murrieta, California. As project manager and principal investigator for cultural and paleontological resources on this interchange project for the City of Murrieta, conducted the field survey and drafted a report in accordance with the Caltrans Standard Environmental Reference.

Mid-City Bus Rapid Transit Project, City of San Diego, California. Co-authored the paleontological evaluation report for the Caltrans District 11. Completed the field survey for the study, and made recommendations for future mitigation monitoring in accordance with the Standard Environmental Reference for Paleontology. Responsible for WEAP training preconstruction and paleontological resources monitoring during excavation by Granite Construction on this SANDAG project.

Paleontological Services On-Call Contract, Caltrans, Counties of San Diego and Imperial, California. As field manager investigator, responsible for oversight of paleontological monitoring being conducted as part of Caltrans road improvement projects along the SR-52, SR-76, SR-78, SR-94, SR-805, SR-905, and I-15 freeways. Numerous concurrent work orders were issued and completed under the on-call contract. Also responsible for coauthoring final project reports (both mitigation and assessment).

SR-210 Mixed Flow Lane Addition from Highland Avenue to San Bernardino Avenue, County of San Bernardino, California. Conducted field survey and co-authored the Paleontological Identification and Evaluation Report for submittal to Caltrans District 8.

I-15/Limonite Avenue Interchange Improvements Project, County of Riverside, California. Conducted field survey and co-authored the Paleontological Identification and Evaluation Report for submittal to the California Department of Transportation (Caltrans) District 8.

SR-76/I-15 Interchange Improvement Project, Caltrans, City of San Diego, California. During grading by Flatiron Construction for the Caltrans District 11 roadway improvements to the SR-76/I-15 interchange, field manager responsible for recovery of a nearly complete skull and postcrania of a long-horned bison (*Bison latifrons*).

### Water/Wastewater

Carlsbad Desalination Plant and Pipeline, Poseidon Water LLC, County of San Diego, California. As field manager and co-principal investigator for paleontological resources, managed field personnel and fossil recovery efforts during construction of this multi-year project.

Otay Water Treatment Plant, ICF International Inc., County of San Diego, California. As field manager and coprincipal investigator, Ms. Siren co-authored the paleontological resources final technical report which was accepted by the Otay Water District. She was also responsible for supervising the paleontological monitoring on this project located in eastern San Diego County, California.

North City Pure Water Conveyance Project, City of San Diego, California. Served as project manager and principal investigator on this public works project. Responsible for managing cultural and paleontological resources studies for a new underground pipeline with improvements to existing infrastructure.



Cultural Resources Support for Master Stormwater System Maintenance Program (MSWSMP), County of San Bernardino, California. As project manager and principal investigator for paleontology, responsible for the review and edit of the paleontological resources assessment of approximately 500 flood control facilities within San Bernardino County. The scope of services included providing a mitigation monitoring plan should monitoring and collection of paleontological resources be necessary.

Little Lake Line B Town Drain System Construction Project, Riverside County Flood Control and Water Conservation District, California. Served as project manager and principal investigator on this public works project. Responsible for managing cultural and paleontological resources monitoring for a new underground pipeline.

**North Broadway Pipeline, City of Escondido, California.** Served as principal investigator and paleontologist on this project. Managed mitigation monitoring project for this water pipeline project traversing Quaternary older alluvial deposits within the City of Escondido.

Los Angeles Department of Power and Water (LADWP) Path 46 Transmission Line Project, Environmental Science Associates (ESA), San Bernardino County, California, and Clark County, Nevada. As project manager and principal investigator, reviewed the final survey report for submittal to the client. Co-authored annual report for submittal to the BLM.

Tehachapi Renewable Transmission Project (TRTP), Pacific Legacy, Counties of Kern, Los Angeles, and San Bernardino County, California. As project manager and principal investigator, evaluated paleontological resource discoveries during construction for this multiyear Southern California Edison (SCE) project. Excavation activities within the Miocene-age Puente Formation in Los Angeles and San Bernardino counties had the potential to yield scientifically significant fossils during construction on this large-scale project.

San Vicente Dam Raise Project, San Diego County Water Authority (SDCWA), County of San Diego, California. As field manager and co-principal investigator, Ms. Siren conducted the field survey and co-authored the paleontological resources assessment report.

South Orange County Water Authority (SOCWA) Coastal Treatment Plant, County of Orange, California. As field manager and co-principal investigator, conducted the field survey and co-authored the paleontological resources assessment report.

Holly Hills Storm Drain Project, Los Angeles Department of Public Works, Los Angeles County, California. As project manager and paleontologist, responsible for providing on-call paleontological monitoring. The scope of services included providing on-site monitoring and collection of archaeological or paleontological resources found. Evaluated and prepared salvaged fossils in compliance with CEQA guidelines. Wrote quarterly reports on the findings.

# Specialized Training

- Geology field course, Lehigh University, 1999.
- Society of Malacologists, Conference Leader, 2016.

# **Publications**

- Black, S.A., C.L. Herbel, and R.C. Benton. 2001. "Bone Beds in the Lower Scenic Member, Brule Formation (*Oligocene*), Badlands National Park, South Dakota." Abstract. Poster presentation at the Sixty-First Annual Society of Vertebrate Paleontology Meeting, Bozeman, Montana.
- Deering, M.R., L.G. Barnes, S.A. Siren, S.A. McLeod, M.O. Walsh, and K.R. Rice. 2007. "A Fossil Ziphiid Whale (Cetacea: Odontoceti) from the Latest Miocene Capistrano Formation in Southern Orange County, California." Los Angeles, California: Southern California Academy of Sciences.
- Deering, M.R., M.L. Kearin, S.A. Black, and L.G. Barnes. 2004. "An Archaic Baleen-Bearing Mysticete Whale Resembling Eomysticetus from the Lower Miocene Vaqueros Formation in Southern California." Abstract. Western Association of Vertebrate Paleontologists, Annual Meeting, Occidental College. February 14, 2004.
- Deméré, T.A., K.A. Randall, B.O. Riney, and S.A. Siren.1 2013. Forthcoming. "Discovery of remains of an extinct giant bison (*Bison latifrons*) in Upper Pleistocene (Rancholabrean) fluvial strata in the San Luis Rey River Valley, San Diego County, California, USA." In Alternative Rocks: The Geology and Natural Resources Above and Below the San Luis Rey River Valley, Northern Dan Diego County, California, edited by B. Olson. San Diego, California: San Diego Association of Geologists Field Trip Guide.
- Herbel, C.L., R.C. Benton, and S.A. Black. 2002. "Bone Bed Surveys: Making Use of the Data." Abstract. Geological Society of America Annual Meeting, Abstracts with Programs 34, no. 6, paper no. 237–5.
- Santos, Comer, K. S. Siren, A. Nouri, T. Deméré, and Randall, K. 2010. "Paleontological Sensitivity Map for San Diego County: A Categorical Risk Analysis." ESRI Users Conference, Map Gallery Poster.
- Siren, S.A. 2006. "Site Analysis of the Buffalo Alley Bone Bed Located in the Lower Scenic Member of the Brule Formation (Oligocene), Badlands National Park, South Dakota." Abstract. Poster presentation at the Sixty-Sixth Annual Society of Vertebrate Paleontology Meeting, Ottawa, Ontario, Canada.

### **Awards**

San Diego Natural History Museum Staff Appreciation Award, 2012.

South Dakota School of Mines and Technology Award for Outstanding Contributions to Campus Leadership, April 2001 and 2002.

# Michael Williams, PhD

# Senior Paleontologist

Michael Williams is a paleontologist and crossed-trained archaeological field technician with over 18 years' experience with fieldwork, fossil vertebrate specimen processing, and writing of reports for the U.S. Army Corps of Engineers (ACOE) and private and public entities. Dr. Williams has project experience in all aspects of paleontological mitigation, including Phase I preconstruction surveys and report preparation and writing paleontological mitigation plans, initial studies (ISs)/mitigated negative declarations, and environmental impact reports (EIRs). He also has experience attending pre-grade meetings; preparing and presenting onsite Worker Environmental Awareness Programs (WEAPs); monitoring for paleontological resources and supervising paleontological monitoring; coordinating spot checks and monitoring with construction superintendents and foremen; collecting and processing sediments for vertebrate microfossils, writing final monitoring reports; and accessioning fossils to the Natural History Museum of Los Angeles County, San Bernardino County Museum and the Cooper Center in Orange County. Dr. Williams has California Department of Transportation (Caltrans), Bureau of Land Management (BLM) and private company paleontological mitigation experience in San Diego, Imperial, Orange, Los Angeles, Riverside, San Bernardino, Ventura, Kern, Inyo, Fresno, San Francisco, and Alameda counties. In addition, he has worked as a crosstrained archaeological surveyor and monitor on several field projects.



Michael Williams

### Education

Louisiana State University PhD, Geology and Geophysics, 2009

BS, Zoology, 2002

#### Certifications

Qualified Paleontologist, City of San Diego and Counties of Kern, Orange, Riverside, and San Diego

BLM California Paleontological Resource Use Permit

### Professional Affiliations

Society of Vertebrate Paleontology

# Project Experience

# Development

**Undisclosed Project, ESA, Nevada.** Performed constraints analysis to evaluate potential for impacts to paleontological resources for a project site located in Nevada.

**Sunbow Chula Vista Project, Lennar Homes.** Served as senior paleontologist. Requested the paleontological records search from the San Diego Natural History Museum and wrote the paleontological resources sections of the combined cultural and paleontological resources report.

Hollywood & Cahuenga Project, Onni Contracting (California) Inc., Los Angeles, California. As senior paleontologist, provided senior QA/QC for the paleontological resources technical memorandum.

Willow Avenue Warehouse Project, Cabout Properties, Inc., Rialto, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and co-wrote the cultural and paleontological resources technical report.



Vineyard II Curci Project, Scott-215, L.P./Lambda, LLC, Murrieta, California. As senior paleontologist, drafted the paleontological resources section of the Environmental Impact Report.

Vista Del Sol Care Center, Archaeological & Paleontological Resources Study Project, Independence HCM, Culver City, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and co-wrote the cultural and paleontological resources technical report.

Village 14 and Planning Area 16/19 Project, Jackson Pendo Development, Jamul, California. As senior paleontologist, provided senior QA/QC of paleontological technical report.

Villa Storia Monitoring Project, Beazer Homes Holding Corporation, Oceanside, California. As paleontologist and archaeologist, conducted archaeological and paleontological monitoring and co-wrote the final monitoring report.

Victoria Links Golf Course EIR Project, Plenitude Holdings, LLC, Carson, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and drafted the paleontological resources portion of the EIR.

Trump National Golf Club Project, VH Property Corporation, Rancho Palos Verdes, California. As senior paleontologist, evaluated potential significant paleontological resources discovered during archaeological monitoring and provided senior paleontological support.

**Tehachapi Walmart Project, Gresham Savage Nolan & Tilden.** As senior paleontologist, drafted the letter of retention for the project.

Sterling Ranch Estates Project, Sterling Ranch Estates, Castaic, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and co-wrote the cultural and paleontological resources technical report.

Steadfast Carlsbad Al/Mc Project, Steadfast Development Holdings, Inc., Carlsbad, California. Served as senior paleontologist for the project. Supervised paleontological monitors, evaluated fossil discoveries, and conducted and supervised laboratory and curatorial work on fossils collected during project excavations,

St. John Garabed Church Project, St. John Garabed Armenian Apostolic Church Trust, San Diego, California.

Served as paleontological manager for the project. Supervised paleontological monitors, conducted paleontological monitoring, evaluated fossil discoveries, and conducted and supervised laboratory and curatorial work on fossils collected during project excavations.

Sienna (Vista 27 And Formerly 729 Emerald Vista) Project, Vista, California. Served as senior paleontologist. Provided senior paleontological support, conducted paleontological spot-checking, and co-wrote the final monitoring report.

**Roblar Road Quarry Project, John Barella, Cotati, California.** Served as senior paleontologist. Provided senior paleontological support for the paleontological survey team.

**Rialto Baseline/Alder Warehouse Project, Pacific Industrial, Inc.** Served as senior paleontologist. Field trained an archaeological/paleontological monitor.

**Poinsettia Due Diligence Project, Lennar Homes, Carlsbad, California.** Served as paleontological manager on the project. Supervised paleontological monitors, conducted paleontological monitoring, evaluated fossil discoveries, and conducted and supervised laboratory and curatorial work on fossils collected during project excavations.



Hotel Del Coronado North Parking Garage Project, Hdc South Beach Development, LLC, Coronado, California. Served as paleontological manager on the project. Supervised paleontological monitors, conducted paleontological monitoring, evaluated fossil discoveries, and conducted and supervised laboratory and curatorial work on fossils collected during project excavations.

Hotel Del Coronado South Beach Development Project, Hdc South Beach Development, LLC, Coronado, California. As co-manager of the project, presented the archaeological and paleontological Workers Environmental Awareness Program, and provided senior support to field monitors.

Northside Specific Plan EIR Project, Rick Engineering Company, Riverside, California. As senior paleontologist, provided QA/QC for the paleontological resources section of the Environmental Impact Report.

Oakmont Assisted Living-Memory Care Facility And Zoning Code Update MND Project, City of Covina, Covina, California. Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and co-wrote the paleontological resources section of the Mitigated Negative Declaration.

Morrison Project, Sheppard Mullin Richter & Hampton LLP, Los Angeles, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and cowrote the cultural and paleontological resources technical report.

Monteverde LLC Project, Gibson, Dunn, and Crutcher LLP, Los Angeles, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and cowrote the cultural and paleontological resources technical report.

**Modelo Project EIR, Comstock Realty Partners, LLC, Commerce, California.** As senior paleontologist, provided QA/QC for the paleontological resources section of the Environmental Impact Report.

Meridian South Campus Specific Plan EIR Project, Lewis Retail Centers, Riverside, California. As senior paleontologist, provided QA/QC for the paleontological resources section of the Environmental Impact Report.

Mariner's Cove Redevelopment Project, Aimco, San Diego, California. As senior paleontologist, reviewed geological mapping and the geotechnical report and provided a geological write-up for the constraints analysis.

Lone Oak Monitoring Project, CWC Lone Oak 24, LLC, San Diego, California. As senior paleontologist, presented the paleontological Workers Environmental Awareness Program to the construction crew, provided senior paleontological support of paleontological monitors, conducted paleontological monitoring spot-checks, and wrote the final monitoring report.

Juanita Avenue Project, Flexible PSH Solutions, Inc., Los Angeles, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and co-wrote the cultural and paleontological resources technical report.

**K4 CEQA Services Project, Lewis Retail Services, Riverside, California.** As senior paleontologist, wrote the paleontological resources section of the Environmental Impact Report.

**Jones Ranch Project, Realm, Oceanside, California.** As senior paleontologist, drafted the paleontological resources section of the Mitigated Negative Declaration.

Hillside Meadows Project, Lakeside Investment, L.p., Santee, California. As senior paleontologist requested the paleontological records search from the San Diego Natural History Museum and wrote the paleontological resources section of the Mitigated Negative Declaration.



Five Lagunas Addendum Project, Merione Geirer Partners, Laguna Hills, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the environmental impact report.

Fire Station 50 Project, Habitat Restoration Services, Inc., San Diego, California. Served as paleontological project manager on the project. Supervised paleontological monitors, evaluated fossil discoveries, and conducted/supervised laboratory and curatorial work on fossils collected during construction.

El Monte Sand Mine Project, Horizon Hill El Monte Investors, Gp, LLC, Lakeside, California. As senior paleontologist, co-wrote the paleontological resources section.

Costco La Mesa Project, Costco Wholesale, La Mesa, California. Served as senior paleontologist. Requested the paleontological records search from the San Diego Natural History Museum and wrote the paleontological resources section of the Mitigated Negative Declaration.

**Costco Murrieta Project, Costco Wholesale, Murrieta California.** Served as senior paleontologist, Requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the environmental impact report.

ARB Southern California Consolidation Project, California Department of General Services, Riverside, California. As senior paleontologist, co-wrote the Paleontological Resources Impact Mitigation Program, Provided senior paleontological support for the project and field monitors, and conducted paleontological monitoring.

Auburn Interfaith Food Closet Project, Auburn Interfaith Food Closet, Auburn, California. Served as senior paleontologist. Requested the paleontological records search from the University of California, Berkeley Museum of Paleontology and co-wrote the cultural and paleontological resources inventory report.

**Arcadia Hotel and Annex MND Project.** Provided senior QA/QC for the paleontological resources section of the Mitigated Negative Declaration.

**1000 Oriole Project, Tag Front, Laguna Beach, California.** As paleontological principal investigator, requested the paleontological records search from the Natural History Museum of Los Angeles County, conducted the archaeological and paleontological survey, and co-wrote the cultural and paleontological resources inventory report.

**1225** Cliff Drive – Archaeological and Paleontological Resources Study, Morris Skenderian and Associates, A.I.A., Laguna Beach, California. As paleontological principal investigator, requested the paleontological records search from the Natural History Museum of Los Angeles County and co-wrote the cultural and paleontological resources inventory report.

**20<sup>TH</sup> Street Wellness Center EIR Project, City of Santa Monica, Santa Monica, California.** As senior paleontologist requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the environmental impact report.

**2149 Edison Street Project, Central Coast Land Group, LLC, Santa Ynez, California.** Provided senior QA/QC for the Phase I archaeological and paleontological survey report.

**2761 Cebada Canyon Project, Avo Vista Farms, LLC, Lompoc, California.** Co-wrote the Phase I archaeological and paleontological survey report.



**650 Bennett Avenue Project, Moorehoward Investments, LLC., San Diego, California.** Provided senior paleontological support to paleontological monitors. Co-wrote the final combined archaeological and paleontological monitoring report.

**702** Matsumoto Lane Project, Partner Engineering And Science, Inc., Winters California. As senior paleontologist, requested the paleontological records search from the University of California, Berkeley Museum of Paleontology and co-wrote the cultural and paleontological resources inventory report.

740 – 790 East Green Street Mixed-Use Project Sustainable Community Environmental Assessment, City of Pasadena, Pasadena, California. Provided senior QA/QC for the paleontological resources section of the EIR.

**8850 Sunset Boulevard EIR Project, City of West Hollywood, West Hollywood, California.** As senior paleontologist requested paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the environmental impact report.

**Alta Mixed Use Development, PRII/Wood Oceanside, LLC, Oceanside, California.** Drafted the paleontological resources section of the Geology and Soils chapter for the environmental impact report.

**Double D Mine Project, Mitchell Chadwick, Blythe, California.** As paleontologist, co-wrote the paleontological resources survey report and paleontological resources impact mitigation program.

Pacific Palisades Village 1 CAH Acquisitions Co. LLC, Los Angeles, California. As senior paleontologist, presented the paleontological Workers Environmental Awareness Program, provided senior paleontological support of paleontological monitors, and assisted in writing the final monitoring report.

**Vista Del Mar Project, VD Pacific Terrace LLC, Oceanside, California.** Co-wrote the Paleontological Resources Impact Mitigation Program and spot-checked project site for paleontological resources.

Interim Ranch-Wide Management Plan, Tejon Ranch Corporation, Kern County, California. Presented the Workers Environmental Awareness Program and provided senior paleontological support to field monitors.

Entitlement Contract, LLJ Orion PacificVista LLC, Vista, California. As paleontologist, drafted paleontological resources EIR section.

Kettner Lofts, CVCM Kettner 106 LLC, San Diego, California. As paleontologist, provided paleontological monitoring.

Solana Highlands Multifamily Development, City of Solana Beach, California. As paleontologist, provided information for Draft Environmental Impact Report.

### Education

**Willows School Project, Willows Community School, Culver City, California.** As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote paleontological resources technical report.

SF State Master Plan EIR Project, San Francisco State University, California. Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and wrote the paleontological resources section of the Environmental Impact Report.

Norco College Veteran Resource Center MND Project, Riverside Community College District, Riverside, California. Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and co-wrote the paleontological resources section of the Mitigated Negative Declaration.



New Student Union Building, California State University, Fresno, Fresno, California. Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and wrote the paleontological resources section of the Mitigated Negative Declaration.

Moreno Valley College Welcome Center, Riverside Community College District, Moreno Valley, California. Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and wrote the paleontological resources section of the Mitigated Negative Declaration.

MCCCD MMRP Implementation – Track and Field Project, MiraCosta Community College District, Oceanside California. Served as senior paleontologist. Drafted the Paleontological Resources Impact Mitigation Program, attended the preconstruction meeting and present the Workers Environmental Awareness Training to the construction crew, managed paleontological monitors, provided paleontological monitoring spot-checks, and collected and curated fossil invertebrates from the project site.

MCCCD MMRP Implementation – North Storm Drain Project, MiraCosta Community College District, Oceanside California. Served as senior paleontologist. Drafted the Paleontological Resources Impact Mitigation Program, attended the preconstruction meeting and present the Workers Environmental Awareness Training to the construction crew, managed paleontological monitors, and drafted the negative findings paleontological resources final monitoring memorandum.

Housing Expansion – Phase I Project, California State University, Long Beach, Long Beach, California. Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and wrote the paleontological resources section of the archaeological and paleontological resources memorandum.

Kennedy High School Campus Improvements MND Project, Los Angeles Unified School District, Granada Hills, California. As senior paleontologist, provided QA/QC for the geology and soils chapter of the Mitigated Negative Declaration.

Hillsdale Middle School Field Lighting Project, Cajon Valley Union School District, El Cajon, California. Requested the paleontological records search from the San Diego Natural History Museum and wrote the paleontological resources section of the Mitigated Negative Declaration.

Fullerton College Instruction Building and Central Plant Paleontological Monitoring Project, North Orange County Community College District, Fullerton, California. As project manager and senior paleontologist, presented the workers environmental awareness training and conducted paleontological monitoring.

**CSUMB Master Plan EIR Project, California State University, Monterey Bay, Seaside, California.** Requested the Natural History Museum of Los Angeles County paleontological records search and wrote the paleontological resources section for the Environmental Impact Report.

San Diego State University New Student Housing Expansion, Gatzke, Dillon and Balance, California. Served as paleontologist. Wrote the paleontological resources section of the technical report.

Fullerton College Master Plan Program EIR, North Orange County Community College District, Fullerton, California. Served as paleontologist. Conducted paleontological resources survey and wrote the paleontological resources survey report.

Chapman University Packinghouse EIR, Orange County, California. Served as paleontologist. equested the paleontological records search from the Natural History Museum of Los Angeles County and drafted paleontological resources section for the EIR.



# Energy

Brave Solar Project, Samsung Solar Energy 2, LLC, Almendra, California. As senior paleontologist, conducted desktop geological and paleontological research and provided a paleontological critical issues analysis for the project.

Windhub Solar Project, First Solar, Inc., Mojave, California. As paleontological principal investigator, coordinated and supervised paleontological monitoring.

**Willow Springs Solar Project, First Solar, Inc., California.** As paleontological principal investigator, conducted paleontological monitoring and supervised paleontological monitors, drafted a paleontological monitoring reduction letter and final monitoring report.

Valley Generation Station Demolition Project, Los Angeles Department of Water and Power (LADWP), Sun Valley, California. Served as senior paleontologist. Requested the paleontological records search from the Natural History Museum of Los Angeles County, and co-wrote the combined archaeological and paleontological technical report.

Tres Amigos-Environmental Tech Studies, Terra-Gen Development Company, LLC, Los Banos, California. Served as paleontologist. Requested the University of California Berkeley, Museum of Paleontology records search and co-wrote the report.

**Torrey Wind, Terra-Gen Development Company, LLC, San Diego County, California.** As senior paleontologist, provided QA/QC for the paleontological resources section of the Environmental Impact Report.

Strauss Wind Energy Project, Strauss Wind, LLC., Santa Barbara County, California. As paleontological principal investigator, coordinated and led the paleontological survey of the project site, requested the paleontological records search from the Natural History Museum of Los Angeles County, and co-wrote the Paleontological Resources Mitigation and Monitoring Plan.

Sanborn Solar Energy Project, Sanborn Solar, LLC, Mojave, California. Served as senior paleontologist. Requested the paleontological records search from the Natural History Museum of Los Angeles County, surveyed the project area for paleontological resources, and drafted paleontological resources technical report.

Russell No. SSE2-C12-190312-CIA-Russell Project, Samsung Solar Energy 2, LLC, Fresno County, California. As senior paleontologist, conducted desktop geological and paleontological research and provided paleontological critical issues analyses for a potential project site.

**Rosamond (PV-11) Project, First Solar, Inc., California.** As paleontological principal investigator, conducted paleontological monitoring and supervised paleontological monitors, drafted a paleontological monitoring reduction letter and final monitoring report.

Pomerado Energy Storage Project, Sovereign Energy Storage, Poway, California. As senior paleontologist, requested the paleontological records search from the San Diego Natural History Museum and wrote the paleontological resources section of the Environmental Impact Report.

Polvadero Solar Project, Samsung Solar Energy 2, LLC, Almendra, California. As senior paleontologist, conducted desktop geological and paleontological research and provided a paleontological critical issues analysis for the project.

Painted Hills Wind Permits & Environmental Studies Project, Terra-Gen Development Company, LLC, Riverside County, California. Served as senior paleontologist. Requested the paleontological records search from the Natural History Museum of Los Angeles County and drafted paleontological resources inventory report.



Oatfield Solar, Carbonera Solar No. SSE2-C12-190329-CIA Project, Samsung Solar Energy 2, LLC, Fresno County, California. As senior paleontologist, conducted desktop geological and paleontological research and provided paleontological critical issues analyses for two potential project sites.

North Gila - Imperial Valley # 2 Transmission Line Project, County of Imperial, Imperial County, California. As paleontological principal investigator, coordinated and led the paleontological survey.

Little Bear Environmental Compliance Services (TO#001), Longroad Energy Management, LLC, Fresno County, California. As senior paleontologist, managed paleontological field monitors and conducted paleontological monitoring.

Liberty No. SSE2-C12-190314-CIA-Liberty Ranch Project, Samsung Solar Energy 2, LLC, Fresno County, California. As senior paleontologist, conducted desktop geological and paleontological research and provided a paleontological critical issues analysis for the project.

Hyder Hay No. SSE2-C12-190312-CIA-HyderHay Project, Samsung Solar Energy 2, LLC, Fresno County, California. As senior paleontologist, conducted desktop geological and paleontological research and provided a paleontological critical issues analysis for the project.

Hyder Ducor No. SSE2-C12-190312-CIA-Hyder Ducor Project, Samsung Solar Energy 2, LLC, Fresno County, California. As senior paleontologist, conducted desktop geological and paleontological research and provided a paleontological critical issues analysis for the project.

Horizon West – Round Mountain Environmental Survey Project, NEET West, LLC, Tehama County, California. As senior paleontologist, conducted desktop geological and paleontological research and wrote paleontological critical issues analyses for three potential project sites.

**Edwards Solar Project, Terra-Gen Development Company, LLC.** Served as senior paleontologist. Co-wrote the paleontological resources impact mitigation program.

Critical Issues Analysis – Valley Center Energy Storage, Terra-Gen Development Company, LLC, Valley Center, California. Served as senior paleontologist. Conducted desktop geological and paleontological research and wrote the paleontological critical issues analysis.

Coachella Flats I and II Wind Project, Terra-Gen Development Company, LLC, Palm Springs, California. Served as senior paleontologist. Requested the paleontological records search from the Natural History Museum of Los Angeles County and drafted paleontological resources inventory report for BLM approval.

Blythe Solar Power Project, NextEra Energy, Inc., Blythe, California. Served as senior paleontologist. Provided senior paleontological support for the project, and conducted paleontological monitoring.

**Arlington Solar Project, NextEra Energy, Inc., Blythe, California.** Served as senior paleontologist. Provided senior paleontological support to field monitors.

American Kings Solar Project, First Solar Development, LLC, Lemoore, California. Served as senior paleontologist. Co-wrote the Paleontological Resources Impact Mitigation Program.

Almendra Solar Project, Samsung Solar Energy, LLC, Almendra, California. Served as senior paleontologist. Conducted desktop geological and paleontological research and wrote the paleontological constraints analysis.



California Flats Solar Project, McCarthy Building Companies Inc., San Luis Obispo County, California. Served as paleontologist. Conducted archaeological and paleontological monitoring, assisted in fossil evaluation, and wrote the final paleontological monitoring report

California Flats High Voltage, First Solar Electric Inc., San Luis Obispo County, California. Served as paleontologists. Conducted archaeological and paleontological monitoring, assisted in fossil evaluation, and wrote the final paleontological monitoring report.

**ISEC West Paleontological Services, Tenaska Inc., Imperial County, California.** Served as paleontologist. Curated fossil invertebrate fauna, accessioned fossil invertebrates to the Natural History Museum of Los Angeles County, and co-wrote the final paleontological resources final report.

FTHL Habitat Management Lands, Tenaska Inc., Imperial County, California. Served as paleontologist. Curated fossil invertebrate fauna, accessioned fossil invertebrates to the Natural History Museum of Los Angeles County, and co-wrote the final paleontological resources final report.

### Healthcare

San Marcos Medical Center Project, Kaiser Foundation Hospital, California. Served as senior paleontologist. Requested the San Diego Natural History Museum paleontological records search and wrote the paleontological resources section of the archaeological and paleontological resources technical report.

Encompass Health Outpatient Rehabilitation Facility Project, Encompass Health, Chula Vista, California. As senior paleontologist, requested the paleontological records search from the San Diego Natural History Museum and wrote the paleontological resources inventory report.

Cuyama Valley Medical Cannabis Farm Phase I Project, Andrew James Jeknavorian, Cuyama Valley, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and co-wrote the Phase I Archaeological and Paleontological Survey Report.

Kaiser Permanente Moreno Valley Medical Center Master Plan EIR Project, Kaiser Foundation Hospital, Moreno Valley, California. Served as senior paleontologist. Requested the paleontological records search from the Natural History Museum of Los Angeles County and drafted the paleontological technical report and paleontological resources section for the Environmental Impact Report.

LA Medical Center Master Plan Environmental Impact Report, Kaiser Foundation Health Plan Inc., Los Angeles, California. As senior paleontologist, provided QA/QC for the paleontological resources section of the Environmental Impact Report and draft the impacts analysis section.

Covina Kaiser Medical Office Building MND Project, City of Covina, Covina, California. Served as senior paleontologist. Requested the paleontological records search from the Natural History Museum of Los Angeles County and drafted paleontological resources section for the Mitigated Negative Declaration.

Kaiser Permanente, Murrieta Valley Medical Center Project, Kaiser Permanente, Murrieta, California. Served as paleontologist. Co-wrote the final monitoring report.

Specialty Medical Office Building, Kaiser Foundation Health Plan Inc., Irwindale, California. Served as paleontological field lead. Co-wrote the Paleontological Resources Impact Mitigation Program, performed spotcheck monitoring, supervision of paleontological monitors, and co-wrote the final paleontological monitoring report.



Biology and Cultural Resource Review for Mapleton Park Centre Site Land Purchase, Kaiser Foundation Health Plan Inc., Murrieta, California. Wrote the final paleontological monitoring report.

## Municipal

SB Police Station Technical Studies (Cota Commuter Lot), City of Santa Barbara. As senior paleontologist, requested the Natural History Museum of Los Angeles County paleontological records search and drafted the paleontological resources technical memorandum.

West LA District Yard Project, Los Angeles Department of Water and Power (LADWP), Los Angeles, California. As paleontologist, wrote the paleontological resources portions of the technical report.

The Villages At Alhambra EIR Review, City of Alhambra, California. As senior paleontologist, provided a third party review of the paleontological technical report

**Stonetree Golf Club Project, City of Novato, California.** As senior paleontologist, provided QA/QC for the paleontological resources section of the Mitigated Negative Declaration.

Silverrock Park Venue Project, City of La Quinta, California. Served as project manager and senior paleontologist. Managed the project, presented the paleontological Workers Environmental Awareness Program, provided senior support to field monitors and conducted paleontological monitoring, and analyzed and collected fossil resources from the project.

Sand Canyon Resort EIR Project, City of Santa Clarita, California, Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and provided senior technical editing of the paleontological resources section of the Environmental Impact Report.

River Walk Mixed Use Project Initial Study Project, City of Santa Clarita, California. As senior paleontologist, wrote the paleontological resources section of the Initial Study.

Protea Memory Care Facility Project, City of San Juan Capistrano, San Juan Capistrano, California. Served as senior paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and wrote the paleontological resources section of the archaeological and paleontological resources technical report.

Palm Villas EIR Project, City of Saratoga, Saratoga, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Environmental Impact Report.

Newell Creek Dam Inlet/Outlet Pipeline Project, City of Santa Cruz, Santa Cruz, California. As senior paleontologist, researched project geology and provided paleontological monitoring recommendations.

Monterey Bay Square MND Peer Review, City of Alhambra, Alhambra, California. As senior paleontologist, provided a peer review of the Mitigated Negative Declaration.

**Modern Pacific Residential Project, City of Colton, Colton, California.** As senior paleontologist, provided QA/QC for the paleontological resources section of the Mitigated Negative Declaration.

Keck Science Center Expansion Project MND Project, City of Claremont, Claremont, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Mitigated Negative Declaration.



Jefferson at Avalon Specific Plan Project, City of Carson, Carson, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Environmental Impact Report.

**Alipaz Street Monitoring Project, The Fishel Company, San Juan Capistrano, California.** Provided senior archaeological/paleontological support to archaeological/paleontological monitors.

Aliso Viejo Ranch 100 Park Avenue Project, City of Aliso Viejo, Aliso Viejo, California. Provided senior archaeological support to archaeological monitors.

Machado Lake Pipeline Project, City of Los Angeles, California. Served as paleontological field lead. Monitored and supervised monitoring for archaeological and paleontological resources and co-wrote the final monitoring report.

Van Norman Reservoir Well Drilling Project, City of Los Angeles, California. Served as paleontological field lead. Monitored and supervised monitoring for archaeological and paleontological resources and co-wrote the final monitoring report.

City Truck Line South-Unit 4, City of Los Angeles, California. Served as paleontological field lead. Monitored and supervised monitoring for paleontological resources.

**Dairy Fork Wetlands, City of Aliso Viejo, California.** Served as archaeological field technician. conducted archaeological resources monitoring.

**As-Needed Environmental Services, City of San Diego, California.** Served as paleontologist. Conducted paleontological monitoring and wrote the final paleontological monitoring report.

San Diego Association of Governments (SANDAG) Continuing Services Agreement, AECOM Technical Services, California. Served as paleontologist. Assisted with review of monitoring field logs.

**As-Needed Environmental Services, Department of General Services, Southern California.** Served as paleontologist. Co-wrote the paleontological resources final monitoring report.

Public Utilities Department As-Needed Environmental Services, City of San Diego, California. Served as paleontologist. Edited the paleontological resources table for the Environmental Impact Report/Environmental Impact Statement (EIS).

**SANDAG General On-Call Environmental Compliance, California.** As paleontologist, co-wrote the final paleontological resources monitoring report.

# Resource Management

As-Needed Projects, Habitat Restoration Sciences Inc., San Diego County, California. Provided archaeological monitoring.

San Jacinto Wildlife Area EIR, California Wildlife Foundation, Riverside County, California. As paleontologist, reviewed the paleontological resources section of the Environmental Impact Report.

# Transportation

The Boring Company Project, SpaceX, Hawthorne, California. As paleontologist, drafted the paleontological technical memorandum for the project.



Reedley DMV Field Office Replacement Project, California Department of General Services (DGS), Reedley, California. As senior paleontologist, provided QA/QC for the paleontological resources section

Old Road Bridge Over Castaic Creek MND Project, County of Los Angeles, Val Verde, California, As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and drafted the paleontological resources section of the Mitigated Negative Declaration.

High Speed Rail Compliance Monitoring, Dragados-Flatiron Joint Venture, Sacramento, California, Provided senior paleontological support to paleontological monitors and evaluated fossil resources.

Del Obispo Street Widening Project, City of San Juan Capistrano, San Juan Capistrano, California. Co-managed the project including coordination with the City and Native American monitoring company and supervision of archaeological and paleontological monitors. Drafted the final monitoring report.

Construction Management Services for the Mid-Coast Corridor Projects, PGH Wong Engineering Inc., San Diego, California. Conducted archaeological and paleontological resources monitoring.

Gilman Drive Bridge Environmental Compliance, PGH Wong Engineering Inc., San Diego, California. Provided paleontological resources monitoring, assisted with managing paleontological resources monitors, and evaluated fossil discoveries

**Confidential Transportation Project, San Pedro, California.** Reviewed project geology, wrote a paleontological records search summary, and assisted in drafting mitigation measures.

### Water/Wastewater

WIFIA Loan Environmental Review Project, Coachella Valley Water District, Palm Desert, California. Served as senior paleontologist. Drafted the paleontological resources sections of the combined cultural and paleontological resources Section 106 Memorandum.

Van Norman Complex Routine Ops & Maintenance Project, Los Angeles Department of Water and Power (LADWP), Los Angeles, California. As senior paleontologist and archaeologist, requested the Natural History Museum of Los Angeles County paleontological records search, coordinated and conducted the archaeological and paleontological survey, and wrote combined archaeological and paleontological survey report.

Trampas Dam And Reservoir Archaeo And Paleo Services, Santa Margarita Water District, San Juan Capistrano, California. As archaeological and paleontological project manager and senior paleontologist, prepared and administered the Workers Environmental Awareness Training for paleontology and archaeology and coordinated and conducted archaeological and paleontological resources monitoring.

**TO-O2:** MT FRS II Construction Monitoring, San Diego County Water Authority, San Diego, California. Served as senior paleontologist, drafted the Paleontological Resources Mitigation and Monitoring Plan and coordinated the paleontological survey.

Temescal Valley Water Reclamation Facility Expansion, Temescal Valley Water District, California. Served as paleontologist. Requested the Natural History Museum of Los Angeles County paleontological records search and wrote the paleontological resources section of the archaeological and paleontological resources technical report.

TAF #3: Paleontological and Biological Monitoring for the Stormwater Collection System Project, Sanitation Districts of Los Angeles County, Puente Hills, California. As senior paleontologist, prepared and administered the Workers Environmental Awareness Training for paleontology, drafted the Paleontological Resources Impact



Mitigation Plan, coordinated and conducted paleontological monitoring, and wrote the final paleontological monitoring report.

Taf No.5 Gardena Pumping Plant Upgrades Project, Sanitation Districts of Los Angeles County. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Mitigated Negative Declaration.

TAF No.8 San Jose Creek Interceptor Sewer Rehabilitation Phase 2 Project, Sanitation Districts of Los Angeles County, San Gabriel, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Mitigated Negative Declaration.

Socwa Trail Bridge Etm Crossing Protection Project, Tetratech, Aliso Viejo, California. Served as senior paleontologist. Provided QA/QC for the paleontological resources section of the report.

River Supply Conduit Unit 7 Archaeo Monitoring Support Project. Served as senior paleontologist. Attended the preconstruction meeting and presented the Workers Environmental Awareness Training to the construction crew, field trained an archaeological/paleontological monitors, coordinated monitoring, and analyzed, prepared, and curated fossils collected during monitoring,

Reservoir 10 & 6 Water Line Project, City of San Clemente, California. Served as senior paleontologist/archaeologist and project manager. Attended the preconstruction meeting and presented the Workers Environmental Awareness Training to the construction crew, managed archaeological and paleontological monitors, and provided paleontological monitoring spot-checks. Wrote and submitted the final monitoring report to the City of San Clemente.

Plan Check Services-222097 Project, Riverside County Flood Control & Water Conservation District, Riverside, California. As senior paleontologist, reviewed the paleontological assessment report and provided suggestions.

Oso Sewage Lift Station Replacement MND Project, El Toro Water District, Laguna Beach, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Mitigated Negative Declaration.

Olympic Well Field Restoration and Arcadia Water Treatment Plan Expansion Project, City of Santa Monica, Los Angeles, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Environmental Impact Report.

**MWD** Emergency Permitting Services, Montecito Water District, Montecito, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County, wrote the paleontological resources impact mitigation plan, provided senior paleontological support for field monitoring staff, evaluated fossil resources discovered on the project, and spot-checked excavations.

MWD Upper Newport Backbay Project, Metropolitan Water District of Southern California, Newport Beach, California. As senior paleontologist, reviewed the archaeological and paleontological treatment plan.

Mockingbird Canyon Wash Restoration Project, Riverside County Flood Control & Water Conservation District, Woodcrest, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County, coordinated the paleontological survey, and drafted the paleontological technical report.



Monterey Bay Regional Water Project EIR/EIS, California State Lands Commission, Monterey County, California. As senior paleontologist, provide QA/QC for the paleontological resources section of the Environmental Impact Report.

Las Flores Enhanced Water Reliability Project, Santa Margarita Water District, Las Flores, California. As senior paleontologist, requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Environmental Impact Report. As archaeologist, conducted the archaeological survey and Native American correspondence and drafted the Section 106 archaeological resources survey report.

Ls 1269 Sewer Forcemain Replacement Project, Western Municipal Water District, Riverside, California. As senior paleontologist, provided QA/QC for the paleontological resources section of the Environmental Impact Report.

North Indio Flood Control Channel – WIFIA Loan Application Project, Coachella Valley Water District, Indio, California. Co-wrote the cultural resources update memorandum.

Coronado Trunk Line, Los Angeles Department of Water and Power, Los Angeles, California. Requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the Mitigated Negative Declaration.

Chatsworth Reservoir Mitigation Feasibility Study, Los Angeles Department of Water and Power, Chatsworth, California. Requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the feasibility study.

Castaic Lake Stabilization and Management Project, Tejon Ranch Company, Castaic, California. Provided senior paleontological support of paleontological monitors and conducted paleontological monitoring,

**Arroyo Seco Canyon EIR Project, City of Pasadena, Pasadena, California.** Requested the paleontological records search from the Natural History Museum of Los Angeles County and wrote the paleontological resources section of the EIR.

Interlake Tunnel and Spillway Modification Project, Horizon Water and Environment LLC, San Luis Obispo County, California. Served as paleontologist. Conducted the paleontological resources survey, assisted in the archaeological resources survey and drafted the paleontological resources section of the EIR.

Sewer Master Plan, Rincon del Diablo Municipal Water District, Escondido, California. As paleontologist, drafted paleontological resources section of EIR.

Palm Springs Wastewater Treatment Plant Expansion, W.M. Lyles Co. Southern District, California. Conducted paleontological resources monitoring, wrote the final monitoring report, and accessioned a fossil into the Western Science Center.

Zone E Recycled Water System Expansion Archaeological and Native American Monitoring, Santa Margarita Water District, Orange County, California. Served as senior paleontologist. Co-managed the project and provided archaeological monitoring.

Capital Project Funding and Environmental Clearance Assistance, San Elijo Joint Powers Authority, San Diego County, California. Co-wrote the geological context section.



# Relevant Previous Experience

# Development

Palatino Little Italy Apartments Project, Kirkham Road and McMillin, San Diego, California. Served as principal paleontologist and provided oversight for paleontological monitoring.

South Pointe West Project, JCCL-South Pointe West LLC, Diamond Bar, California. Served as principal paleontologist and paleontological monitor. Managed monitoring of excavations for paleontological resources, stabilized and prepared fossils, and processed sediments for vertebrate microfossils.

Sixth and Virgil (Next on Sixth) Streets Multifamily Residential Development Projects, Century West Partners, Los Angeles, California. Served as principal paleontologist. Coordinated and conducted paleontological monitoring and collected, stabilized, and prepared fossil fishes.

Northwest Village Creek Phase 2 Project, Jacobs Center for Neighborhood Innovation, San Diego, California. Served as principal paleontologist. Provided senior paleontological oversight for paleontological monitoring.

Treasure Island and Yerba Buena Island Major Phase 1, City and County of San Francisco, California. Served as principal paleontologist. Wrote the paleontological resources mitigation monitoring and reporting program.

**Altair Development Project, Ambient Communities, Temecula, California.** Served as principal paleontologist and wrote the paleontological resources section of the EIR.

Berendo and New Hampshire Streets Multifamily Residential Development Projects, Fifield Companies, Los Angeles, California. Served as principal paleontologist. Supervised paleontological monitoring, collected and processed sediment samples for microvertebrates, and accessioned fossils into the Natural History Museum of Los Angeles County.

San Juan Capistrano Medical Office, Edward Almanza and Associates, San Juan Capistrano, California. Served as principal paleontologist and supervised paleontological monitoring.

Lifetime Fitness Construction Project, Lifetime Fitness Inc., Laguna Niguel, California. Served as principal paleontologist. Monitored excavations for paleontological resources; accessioned fossils into the Cooper Center at California State University, Fullerton; and wrote the final monitoring report.

Orange County Great Park Paleontological Monitoring, City of Irvine, California. Served as staff paleontologist. Developed and presented the WEAP. Monitored construction activities for former underground storage tank 240b and pond excavations for paleontological resources, accessioned fossils into the Natural History Museum of Los Angeles County, and wrote the final monitoring reports.

Anaheim Henning View Terrace Home Construction Project, KTK Construction Inc., Anaheim Hills, California. Served as principal paleontologist. Supervised paleontological monitoring and co-wrote the final monitoring report.

College Park Home Construction Project, Lennar Corporation, Chino, California. Served as principal paleontologist and supervised paleontological monitoring.

Whisler Ridge Home Construction Project, KB Homes, Lake Forest, California. Served as principal paleontologist. Surveyed construction site for paleontological resources. Monitored and supervised monitoring of grading activities.

**Cahuilla Gold Project, Consolidated Goldfields Corporation, Imperial County, California.** Served as staff paleontologist and participated in survey for paleontological resources.



### Education

Rancho Campana High School, Oxnard Union High School District, Camarillo, California. Served as principal paleontologist. Supervised paleontological monitoring, collected and processed sediments for microfossils, and contributed to the final monitoring report.

Browning High School, Long Beach Unified School District, Signal Hill, California. Served as principal paleontologist. Spot-checked paleontological monitoring; collected and processed sediments for microfossils; accessioned fossils to the Natural History Museum of Los Angeles County, Invertebrate Paleontology Division; and contributed to the final monitoring report.

Long Beach Unified School District Project, Long Beach, California. Conducted an inventory of paleontological resources within the Long Beach Unified School District for use in the formulation of preservation guidelines and during future development and redevelopment of multiple school sites.

# Energy

Scattergood Transmission Line Project, Los Angeles Department of Water and Power (LADWP), Los Angeles County, California. Served as paleontological and archaeological monitor. Monitored excavations for paleontological and archaeological resources.

Path 46 Clearances Project, LADWP, San Bernardino County, California. Served as principal paleontologist and archaeological surveyor. Surveyed for paleontological and archaeological resources and wrote the paleontological resources assessment.

**Haskell Canyon Substation, LADWP, Santa Clarita, California.** Served as principal paleontologist. Monitored excavations for paleontological resources and reviewed the final paleontological monitoring report.

**Glenarm Power Plant Project, City of Pasadena, California.** Served as paleontological and archaeological monitor. Coordinated and monitored excavations for paleontological and archaeological resources.

Marsh Landing Generating Station, California Energy Commission (CEC), Contra Costa County, California. Served as staff paleontologist. Assisted in managing daily monitoring activities, writing monthly reports, and writing the final report.

**Plains Exploration and Production Company Project, Kern County, California.** Served as staff paleontologist. Surveyed for paleontological resources and co-wrote the paleontological resource assessments.

**Rio Mesa Solar Project, BrightSource Energy Inc., Blythe, California.** Served as staff paleontologist. Participated in paleontological survey on both BLM and private lands. Assisted with writing the paleontological resources section for the Application for Certification and final report.

**Sonoran West Solar Project, BrightSource Energy Inc., Blythe, California.** Served as staff paleontologist. Participated in paleontological survey on both BLM and private lands. Assisted with writing the final report.

Proposed Oasis Date Gardens Development, Golden Sands Properties, Thermal, California. Served as principal paleontologist. Conducted paleontological survey and wrote paleontological resources assessment.

Proposed Cascade Solar Project, Cascade Solar LLC/Axio Power Holdings LLC, San Bernardino County, California. Served as principal paleontologist. Conducted paleontological survey and co-wrote the paleontological resources assessment.



**Pio Pico Energy Center, CEC, Otay Mesa, California.** Served as staff paleontologist and participated in survey for paleontological resources.

Calico Solar Project, San Bernardino County, California. Served as staff paleontologist and participated in survey for paleontological resources.

## Military

Legislative EIS for Renewal of the Chocolate Mountain Aerial Gunnery Range Land Withdrawal, U.S. Department of the Navy (DON), California. Served as staff paleontologist. Contributed to paleontological resource sections of Legislative EIS for extension of the DON aerial munitions gunnery range and test ground.

Sites TVOR SE and TVOR S Paleofaunal and Paleoenvironmental Research, ACOE/Prewitt and Associates Inc., Fort Polk, Louisiana. Served as paleontological technician. Participated in field and laboratory work, research, and writing of final report.

Site TVOR SE Paleofaunal and Paleoenvironmental Research, ACOE/Prewitt and Associates Inc., Fort Polk, Louisiana. Served as paleontological technician. Participated in field and laboratory work, research, and writing of report.

# Municipal

**Proboscidean Recovery Effort, LADWP, Lone Pine, California.** Served as principal paleontologist. Organized and led the field crew in the recovery of a proboscidean tusk found in a borrow pit at the Lone Pine Landfill and wrote the final report.

Calabasas Landfill Project, County of Los Angeles, California. Served as principal paleontologist and wrote the paleontological resources technical report.

Mountain View Acres Drainage Improvement Project, San Bernardino Associated Governments (SANBAG), Victorville, California. Served as principal paleontologist and paleontological monitor. Monitored excavations for paleontological resources and wrote the final monitoring report.

# Transportation

Mid Coast Rail Project, PGH Wong Engineering, San Diego, California. Served as archaeological and paleontological monitor and supervisor during extension of the trolley service to University City. Daily activities included working closely with biologists, Native American monitors, and construction personnel to complete the project in compliance with all mitigation measures and state and federal regulations. In addition, salvaged, collected associated data, and curated fossils discovered during construction.

**Livermore Extension Project, Bay Area Rapid Transit, Alameda County, California.** Served as principal paleontologist. Contributed to the paleontological resources section of the EIR.

Merced to Fresno Project, California High Speed Rail Authority (CHSRA), Fresno County, California. Served as principal paleontologist. Administered the WEAP and monitored for paleontological resources.

SR-91 Corridor Improvement Project, Riverside County Transportation Commission/Caltrans, Corona, California. Served as paleontological monitor. Monitored geotechnical drilling for paleontological resources, collected and processed sediment samples for microvertebrates, and assisted in the recovery of a fossil bison.

I-15/I-215 Interchange Improvement Project, Caltrans, Devore, California. Served as paleontological monitor and monitored excavations for paleontological resources.



Palmdale to Los Angeles Union Station Project, CHSRA, Los Angeles County, California. Served as staff paleontologist. Participated in survey for paleontological resources and writing of EIR/EIS and technical report.

**I-10/Cherry Avenue Interchange Improvement Project, SANBAG/Caltrans, Fontana, California.** Served as principal paleontologist. Supervised paleontological monitoring, processed sediment samples, and participated in writing the final monitoring report.

**I-10/Citrus Avenue Interchange Improvement Project, SANBAG/Caltrans, Fontana, California.** Served as principal paleontologist and supervised the paleontological monitor. Collected and processed sediment samples for vertebrate microfossils, and co-wrote the final paleontological mitigation report.

**I-215** Murrieta Hot Springs Road to Scott Road, Caltrans, Murrieta, California. Served as staff paleontologist. Participated in survey for paleontological resources, monitored excavations for paleontological resources, and wrote the final monitoring report.

**I-215 Scott Road to Nuevo Road, Caltrans, Riverside County, California.** Served as staff paleontologist and wrote the paleontological mitigation plan.

I-215 Newport Overcrossing Bridge Reconstruction Project, Caltrans, Grand Terrace, California. Served as principal paleontologist. Conducted paleontological survey and wrote combined Paleontological Identification Report (PIR)/Paleontological Evaluation Report (PER).

I-405 from SR-73 to I-605 Improvement Project PIR/PER, Parsons/Caltrans, Orange County, California. Served as staff paleontologist and participated in survey for paleontological resources.

## Water/Wastewater

**Eastern Recycled Water System Project, Escondido, California.** Served as archaeological surveyor and participated in a survey for archaeological resources.

Peters Canyon Water Capture and Reuse Project, Irvine Ranch Water District, Irvine and Tustin, California. Served as principal paleontologist. Coordinated and conducted paleontological monitoring, and collected and processed sediments for microfossil recovery.

Cadiz Valley Water Conservation Recovery and Storage Project, Cadiz Inc./Santa Margarita Water District, Cadiz, California. Served as principal paleontologist. Conducted paleontological monitoring and wrote the paleontological mitigation and monitoring plan.

**Hauled Water Project, County of Los Angeles, California.** Served as principal paleontologist and geologist. Wrote the geology and soils IS, the technical report, and the paleontological section of the EIR.

Enhanced Watershed Management Programmatic EIR, County of Los Angeles, California. Served as principal paleontologist. Wrote the paleontological section of the programmatic EIR.

# **Publications**

- Bonett, R.M., A.L. Trujano-Alvarez, M.J. Williams, and E.K. Timpe. 2013. "Biogeography and Body Size Shuffling of Aquatic Salamander Communities on a Shifting Refuge." *Proceedings of the Royal Society.* B: 1–8.
- Stewart, J. D., M. Williams, M. Hakel, and S. Musick. 2012. "Was it Washed In? New Evidence for the Genesis of Pleistocene Fossil Vertebrate Remains in the Mojave Desert of Southern California." 2012 Desert Symposium Field Guide and Proceedings: 140–143.



- Williams, M.J. 2009. "Miocene Herpetofaunas from the Central Gulf Coast, USA: Their Paleoecology, Biogeography, and Biostratigraphy." http://etd.lsu.edu/docs/available/etd-11132009 034120/.
- Williams, M.J. 2009. "Neogene Herpetofaunas from Louisiana, USA and their Biogeographical and Paleoenvironmental Significance." *Bulletin, Southern California Academy of Sciences.* 108, 89–136, Abstract No. 97.
- Schiebout, J.A., Wrenn, J.H., Ting, S., Hill, J.L., Hagge, M.D., Williams, M.J., Boardman, G.S., and Ellwood, B.B. 2006. "Miocene Vertebrate Fossils Recovered from the Pascagoula Formation in Southeastern Louisiana." *Gulf Coast Association of Geological Societies Transactions*. 56, 745–760.
- Schiebout, J.A. S. Ting, J. L. Hill, M. D. Hagge, M. J. Williams, and G. S. Boardman. 2006. "Quarrying in the Pascagoula Formation: First Miocene (Hemphillian) Fauna of Terrestrial Mammals from the Central Gulf Coast East of the Mississippi." *Journal of Vertebrate Paleontology, Abstracts of Papers*. 26, supplement to No. 3.
- Williams, M.J. 2005. "A New Late Miocene (Late Barstovian) Herpetofauna from Fort Polk, Louisiana." *Journal of Vertebrate Paleontology, Abstracts of Papers*. 25, supplement to No. 3
- Schiebout, J. A., S. Ting, Williams, M.J., Boardman, G., Wulf Gose, Wilhite, D. R., White, P.D., and Kilbourne, B. 2004. "Paleofaunal and Environmental Research on Miocene Fossil Sites TVOR SE and TVOR S on Fort Polk, Louisiana, With Continued Survey, Collection, Processing, and Documentation of other Miocene Localities." ACOE, Fort Worth District. Open-File Report.
- Williams, M.J. and Schiebout, J.A., 2003. "Miocene Lower Vertebrates from Fort Polk, Louisiana: A Preliminary Report:" *Transactions, Gulf Coast Association of Geological Societies and Gulf Coast Section of SEPM.* 53, 856–863.
- Williams, M.J., Boardman, G., Schiebout, J.A., Kilbourne, B., Nguyen, H., 2003. "Miocene of Fort Polk, Western Louisiana." *Journal of Vertebrate Paleontology, Abstracts of Papers*. 23. Supplement to No. 3.

# Conference Presentations

"Miocene Amphibians and Reptiles from Fort Polk, Louisiana: Evaluating their Usefulness in Paleoenvironmental Reconstruction and Biostratigraphy." 2011. Presented at Geological Society of America South Central Section 45th Annual Meeting. New Orleans, Louisiana.