



100% Employee Owned

CULTURAL RESOURCE MANAGEMENT
ARCHAEOLOGY
ARCHITECTURAL HISTORY
PALEONTOLOGY
GEOGRAPHIC INFORMATION SYSTEMS

Statement of Qualifications 2022



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ABOUT US

More than 25 years bringing progress and preservation together



At Applied EarthWorks, we are committed to effective and affordable cultural resource management strategies that make it possible to achieve progress and preservation . . . together.

FIRM PROFILE

Since 1995 Applied EarthWorks, Inc. (Æ) has conducted more than 4,000 projects on behalf of over 1,200 public- and private-sector clients throughout the western United States. Our in-house staff includes specialists in prehistoric and historical archaeology, architectural history, cultural resource management, paleontology, geospatial data management, and all related subdisciplines.

Through subcontracts and teaming arrangements, we can complement this staff with additional technical expertise as necessary to meet project needs. Æ maintains very positive working relationships with federal and state agencies, local governments, local tribal representatives, and other groups throughout our service area. Our staff has worked on projects of modest size as well as some of the largest and most complex cultural resource projects ever undertaken in the western United States, requiring the coordinated efforts of multiple specialists.

Æ's highest priority is to ensure client satisfaction through skilled consultation and the timely delivery of high-quality documentation that satisfies regulatory requirements. We have particular expertise in compliance with the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), and Section 106 of the National Historic Preservation Act (NHPA) as well as other federal, state and local laws and regulations.

We have prepared numerous Historic Properties Management Plans, Memoranda of Agreement (MOA), Programmatic Agreements (PA), Findings of Effect, and similar compliance documents. Æ also regularly prepares cultural resource sections of Environmental Impact Reports (EIR), Environmental Impact Statement (EIS), Initial Studies/Environmental Assessments (IS/EA), and other documentation. Thus, our expertise extends beyond the basic technical studies to include licensing and permitting procedures and related issues.

MARKET SECTORS

Æ has successfully completed projects for state and federal agencies; city and county governments; architectural and engineering firms; gas, water, and electric utility companies; and private developers throughout the western United States. The scope of these projects has been varied, from small research and identification efforts to large, complex, multi-year studies. Our extensive project history demonstrates that our staff can select and implement the appropriate management strategies for each project and that these measures satisfy the associated regulatory requirements. Æ's ability to address the often diverse concerns of all involved parties has resulted in timely and successful completion of projects across these numerous market sectors.

WATER RESOURCES

From the development of large reservoirs and associated pipelines to the expansion of existing community and regional water supply systems, Æ works closely with public agencies and private firms to identify and manage cultural resources.

In this way we enable water resource managers to complete their projects, which in turn facilitates conservation of and distribution of this vital commodity.

PUBLIC LAND MANAGEMENT

Æ has completed numerous cultural resource investigations related to development on military installations, national and state parks, national forests, and other land managed by federal and state agencies.

We hold statewide permits with the Bureau of Land Management and are consistently granted project-specific federal and state permits for archaeological studies. Additionally, Æ is a GSA contract holder for professional consulting services.

ENERGY GENERATION AND TRANSMISSION

Long-standing relationships with public utilities have provided Æ with numerous opportunities to assist in cultural resource management for power generation and transmission facilities.

The development of renewable energy projects has afforded Æ the chance to be involved in the cultural resource management aspect of the rapidly developing fields of solar, wind, and geothermal energy generation throughout the western United States.

MARKET SECTORS *continued***COMMUNITY
INFRASTRUCTURE**

Population density continues to increase and communities need to develop and expand to meet the needs of their citizens. Æ provides services to cities, counties, and private developers to facilitate growth that is sensitive to cultural resources. As part of the planning process, the company has assisted in the preparation of general plans, conducted historic building surveys, and performed studies in support of Environmental Impact Reports.

TRANSPORTATION

As existing highway systems age and require upgrades and new routes become necessary, Æ provides assistance to federal, state, and local transportation departments for the management of cultural resources that may be affected by these improvements. Our staff is well-versed in the federal and state requirements associated with transportation projects.

**URBAN
REDEVELOPMENT**

Population density continues to increase and communities need to develop and expand to meet the needs of their citizens. Æ provides services to cities, counties, and private developers to facilitate growth that is sensitive to cultural resources. As part of the planning process, the company has assisted in the preparation of general plans, conducted historic building surveys, and performed studies in support of Environmental Impact Reports.

**ENVIRONMENTAL
REMEDICATION**

Æ has completed research and identification efforts as well as excavation at sites associated with former manufactured gas plants and oil refinery and distribution facilities. Archaeologists on staff maintain the necessary Hazardous Waste Operations and Emergency Response (HAZWOPER) certifications to perform on-the-ground studies in these areas.

ARCHAEOLOGY

Unparalleled programs in prehistoric archaeology, historical archaeology, and geoarchaeology

OVERVIEW

Our professional archaeologists, diverse technical specialists, subcontractors, and Native American consultants are involved in all phases of archaeological resource management. Feasibility studies, archival research, and predictive modeling help to inform project planning. Archaeological field surveys and site testing support evaluations of site significance and eligibility for inclusion in national, state, and local historic registers. Data recovery excavation and associated laboratory processing, data analysis, and technical reporting along with construction monitoring and emergency archaeological treatment of sites discovered during construction help to avoid, minimize, and mitigate project effects/impacts on prehistoric and historical archaeological resources.

Æ's experience at prehistoric sites encompasses large sites with diverse artifacts and earth ovens in the Northwest; sites rich in shell beads and stone tools along the ancient lake shorelines of interior California; complex village sites and plant processing locales important to Native American tribes in the San Joaquin watersheds; grinding rocks, pictographs, and granaries in the Sierra Nevada; ancient coastal shell mounds; and Indian settlements associated with early California missions.

Our historical archaeologists have completed large-scale testing/data recovery programs at sites in urban settings as well as expansive rural homesteads, which required landscape assessments, material culture analysis, and artifact conservation.

Services

- Records searches and literature reviews; archival and historical research
- Geographic Information System (GIS) mapping of cultural resources
- Field surveys, archaeological inventories, and assessments
- Preparation of evaluation proposals, research designs, cultural resource treatment plans, cultural resource management plans, programmatic agreements, and memoranda of agreements
- Archaeological data recovery investigations
- Testing and evaluation of eligibility for the National Register of Historic Places, California Register of Historical Resources, and various local registers
- Construction monitoring and emergency archaeology
- Analysis of prehistoric and historical artifacts
- Native American consultation and coordination
- Collections management
- Recovery and analysis of human remains
- Identification of cultural landscapes, traditional cultural properties, and tribal cultural resources

ARCHAEOLOGY



ARCHITECTURAL HISTORY

Comprehensive historic built environment resource management services

OVERVIEW

The Æ architectural history team possesses a thorough understanding of regulatory requirements and compliance procedures and has successfully guided clients in identifying and redesigning project alternatives that minimize or eliminate impacts to the historic built environment. We also provide expert historic preservation planning guidance to assist private developers, municipalities, and agencies at the local, state, and federal levels. Our senior staff determines specific client needs, formulates appropriate management strategies for each project, and follows through with well-managed implementation and high-quality deliverables.

Our dedicated staff of professional architectural historians, historic preservation specialists, and historical researchers routinely documents and evaluates rural and urban historical buildings, structures, sites, districts, and landscapes throughout the western United States. We have extensive experience working with the Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties, as well as local design guidelines, historic preservation zoning overlays and policies, and ordinances.

Our architectural historians are equally well-versed in architecture, engineered structures, and designed landscapes. We provide clear and consistent guidance for preservation, rehabilitation, and other proposed treatments to historic properties and historical resources to ensure compliance with those requirements.

Services

- Archival and historical research
- Oral history interviews
- Historic context development
- Property histories
- Historic built environment inventory surveys
- City, state, and national register eligibility evaluations and nominations
- Historic American Buildings Survey/Historic American Engineering Record/Historic American Landscapes Survey (HABS/HAER/HALS) documentation
- Condition assessments
- Assessment of impacts/findings of effects
- Design review and historic building rehabilitation guidance
- Historic property management plans
- Historic property tax credit application assistance
- Expert testimony
- In-house technical staff support for local government and state agencies

ARCHITECTURAL HISTORY



PALEONTOLOGY

Preserving and documenting paleontological resources

OVERVIEW

Æ's paleontology team has a robust track record of providing high-quality paleontological resource management services for a broad variety of clients. For more than a decade, our paleontology program has been providing a full range of services for the successful completion paleontological inventory, evaluation, and monitoring projects throughout California and the western United States. Principal and senior staff are trained, experienced, and equipped to deal with vertebrate, invertebrate, macro- and micro-botanical fossils, and paleoenvironments.

In addition to their breadth of technical expertise, our paleontologists have practical knowledge of CEQA, NEPA, and other laws and regulations governing paleontological resources. Æ's paleontology program coordinates extensively with federal and state agencies as well as numerous city and county planning and public works departments. Our company holds paleontological resource permits issued by federal and state agencies and is also approved by many counties throughout California for paleontological resource investigations.

Our paleontology staff maintains excellent working relationships with major museum repositories across California. Staff members adhere to industry-wide Society of Vertebrate Paleontology standards, publish and present regularly as active members of the scientific community, and participate in public outreach events several times each year.

Services

- Museum records searches and literature reviews
- Desktop geological and paleontological research
- Field surveys and assessments
- GIS mapping of areas of paleontological sensitivity
- Fossil locality documentation and recordation
- Construction monitoring
- Macrofossil and microfossil data recovery or salvage
- Bulk sediment and matrix sampling and screening
- Specimen identification, cataloging, and museum curation
- Paleontological mitigation, monitoring, and discovery plans
- Environmental awareness training for construction workers
- Paleontological resource inventory, evaluation, and monitoring reports
- Preparation of paleontological sections of environmental planning documents and peer reviews

PALEONTOLOGY



GIS & 3D MODELING

Enhancing preservation and interpretation of archaeological, built environment, and paleontological features

OVERVIEW

Æ offers a variety of Geographic Information System (GIS) services that include spatial data collection; GIS database development; mapping and spatial analysis, and 3D modeling. We utilize the latest GIS and Global Positioning System (GPS) technology and techniques to streamline work flow and efficiently produce accurate cartographic products to support our cultural investigations. GIS is used as a project management tool from field data collection to final products.

Our experienced GIS staff provides efficient, accurate, and timely GIS products and services to meet clients' needs. We can also provide GIS training for clients from basic to more advanced ArcGIS software utilization.

Services

- GIS mapping, analysis, and spatial modeling
- Data management and integration
- Processing data with both vector and raster data models

Areas of GIS Expertise

- Project management
- Cultural resource management
- Paleontological resource management
- Photogrammetry
- Three-dimensional (3D) mapping
- Virtual tour/ virtual reality


Resources

- ESRI Products and Applications:
 - ArcPro 2.X with Spatial Analyst Extensions
 - ArcGIS Online
 - Dashboards
 - Survey123
 - Field Map
- EOS Arrow 100 and Arrow Gold GPS/GNSS Receivers
- AGRISOFT Metashape Professional
- Pano2NR
- QGIS

Products

- Feasibility studies
- Alternative analyses
- Geoarchaeology
- Viewshed development and modeling
- Google Earth 2D/ 3D maps and visualization
- Virtual site tours
- Cost surface modeling and least-cost path analysis
- GIS database development
- GPS field data collection and post processing

GIS & 3D MODELING

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Daily Work Record

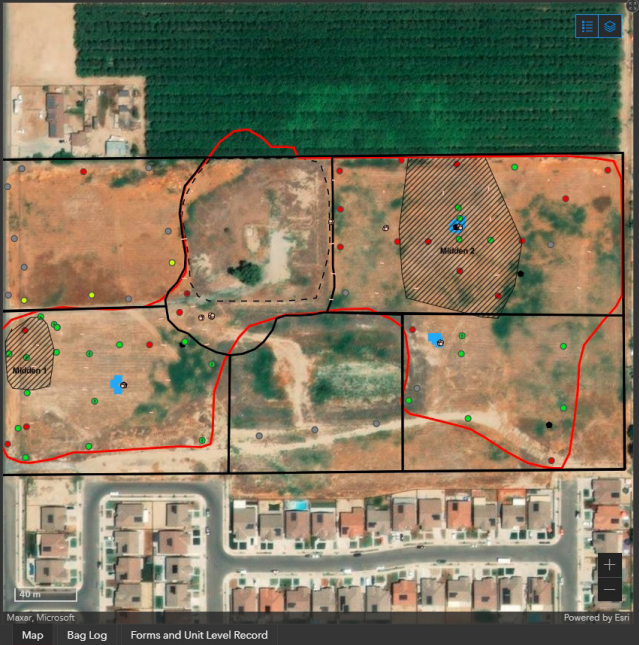
March 23, 2022 - Wes Stanley
 March 23, 2022 - Wes Stanley
 March 22, 2022 - Wes Stanley
 March 21, 2022 - Emma Cook
 March 3, 2022 - Emma Cook
 February 25, 2022 - Emma Cook
 February 25, 2022 - Emma Cook
 February 22, 2022 - Emma Cook
 February 17, 2022 - Emma Cook
 February 16, 2022 - Emma Cook
 February 15, 2022 - Emma Cook
 February 14, 2022 - Emma Cook
 February 10, 2022 - Emma Cook
 February 9, 2022 - Emma Cook
 February 7, 2022 - Emma Frances Cook
 February 7, 2022 - Emma Frances Cook
 February 1, 2022 - Emma Cook

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Unit - Levels Excavated

Unit List

- Unit 01 - 10 to 20 - Positive
- Unit 01 - 0 to - Positive
- Unit 01 - 40 to 51 - Positive
- Unit 01 - 41 to 63 - Positive
- Unit 01 - 90 to 100 - Negative
- Unit 01 - 80 to 90 - Positive
- Unit 01 - 70 to 80 - Positive
- Unit 01 - 60 to 70 - Negative



1

Column Samples

No data

20

Flotation Form

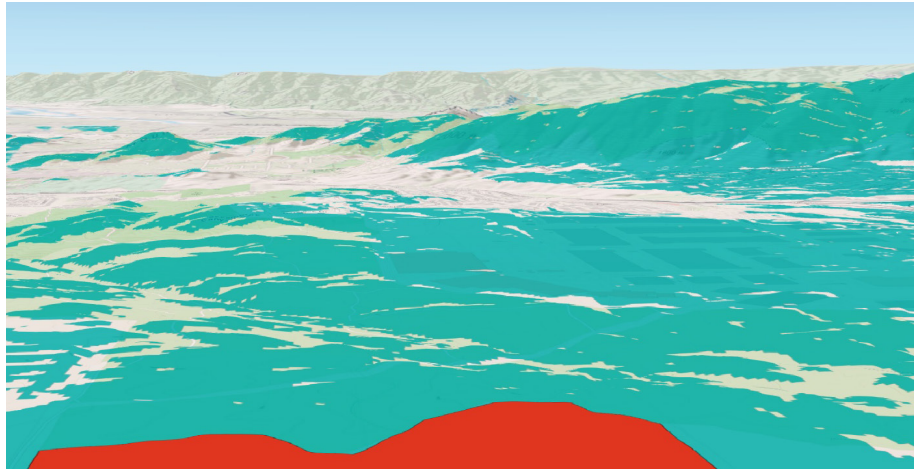
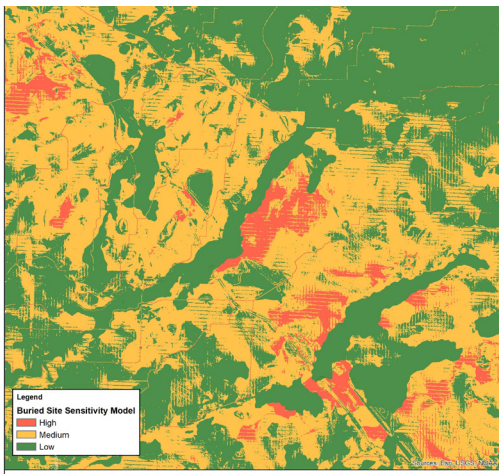
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Column Sample

No data

Flotation Sample

No data



TRIBAL RELATIONS

Fostering constructive and meaningful communications with Native American tribes and organizations

OVERVIEW

Æ has demonstrated a unique ability to work with Native American groups including the many federally recognized tribal governments located throughout the West. Our staff has a rich history in forging productive working relationships with Native Americans, including building relations beneficial for our clients.

Æ facilitates tribal relations while performing prehistoric and historical cultural resource management and paleontological services. This ability to combine services results in time and cost savings for our clients and provides timely and meaningful inclusion of Native American interests in the project review processes. Æ employs specialists in historic preservation law and Native American consultation who have extensive experience with compliance issues and working directly with tribes. Our senior personnel have also taught Native American monitor training classes and consulted with tribes on behalf of government agencies.

Æ's staff maintains excellent working relationships with State Historic Preservation Officers (SHPOs), various federal and state land management agencies, and Native American commissions and organizations.

Services

- Outreach to Native American tribes and organizations
- Identifying Culturally-Sensitive Locations, Areas, and Landscapes of Value including traditional cultural properties (TCP) and tribal cultural resources (TCR)
- Facilitating compliance with the Native American Graves Protection and Repatriation Act (NAGPRA)
- Expert testimony
- Condition assessments
- Oral history interviews, archival and ethnohistorical research
- National, state, and local eligibility evaluations and nominations
- Facilitating tribal participation in projects as members of Æ field survey, excavation, and monitoring crews
- Assessment of impacts/findings of effects
- Heritage resource management plans



TRIBAL RELATIONS



Applied EarthWorks Locations & Offices:

FRESNO, CA/HEADQUARTERS

1391 W. Shaw Ave., Suite C
Fresno, CA 93711
(559) 229-1856

HEMET, CA

3550 E. Florida Ave., Suite H
Hemet, CA 92544
(951) 766-2000

LOMPOC, CA

515 E. Ocean Ave., Suite G
Lompoc, CA 93436
(805) 737-4119

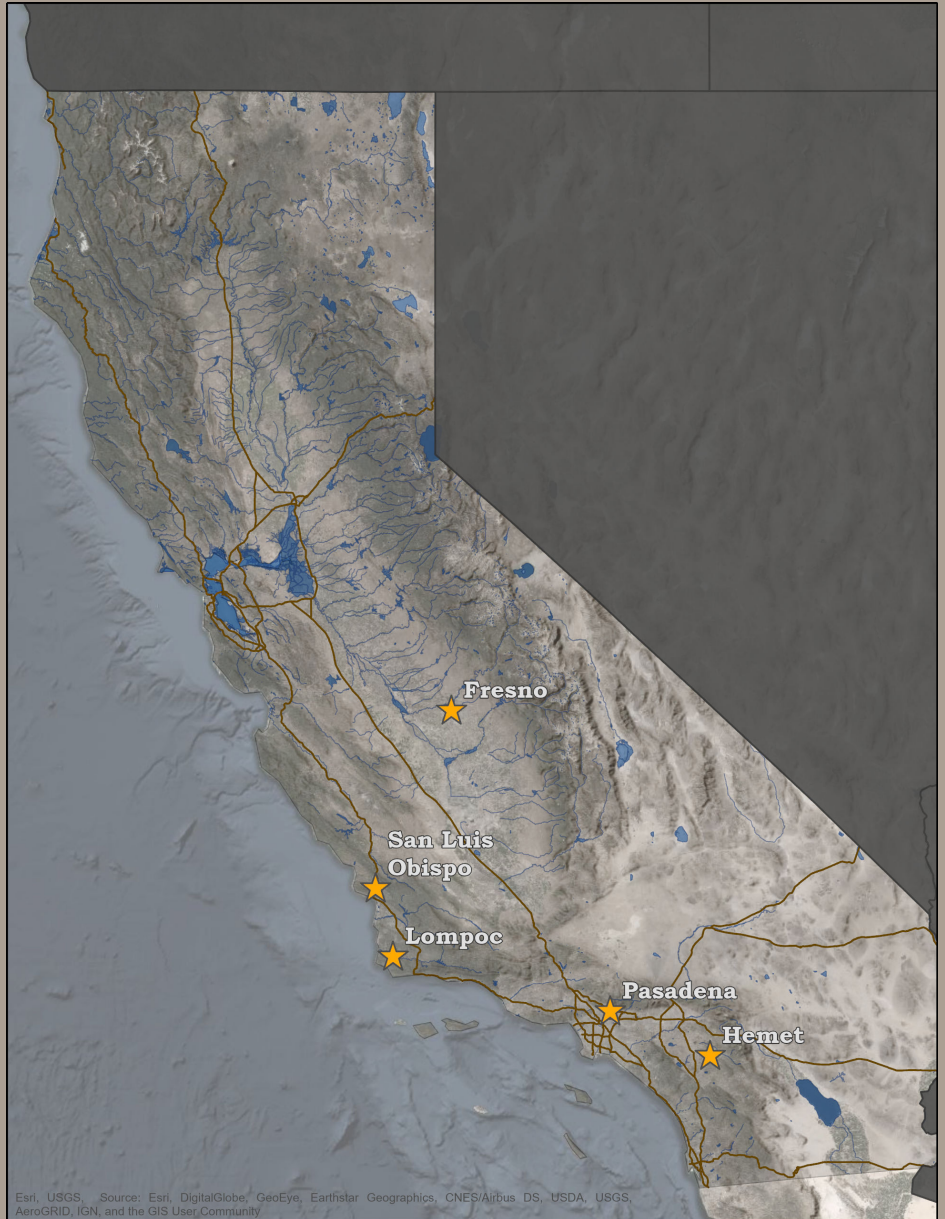
PASADENA, CA

133 N. San Gabriel Blvd., Suite 201
Pasadena, CA 91107
(626) 578-0119

SAN LUIS OBISPO, CA

811 El Capitan Way, Suite 100
San Luis Obispo, CA 93401
(805) 594-1590

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www.appliedearthworks.com,

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