

APPENDIX F
Cultural Resources Report



**CULTURAL RESOURCES ASSESSMENT
FOR THE CAMBRIA EMERGENCY WATER
PROJECT, SAN LUIS OBISPO COUNTY, CALIFORNIA**

CONFIDENTIAL MAP INCLUDED; NOT FOR PUBLIC DISTRIBUTION

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Project Number: 3017

Type of Study: Cultural and Paleontological Resources Assessment (Phase I including survey)

USGS 7.5' Quadrangles: Cambria

Sites: P-40-000187, P-40-000221, P-40-000378, P-40-001373, P-40-001374

Area: 25 acres

Key Words: Holocene alluvium, Pleistocene marine terrace deposits, Salinan, Chumash, positive survey

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MANAGEMENT SUMMARY

This purpose of this study was to determine the potential effects on paleontological, archaeological, and historic resources of the proposed Emergency Water Supply Project in an unincorporated area of San Luis Obispo County, California. The Cambria Emergency Water Supply Project will involve the construction and operation of emergency water supply facilities at the District's existing San Simeon Well Field and Effluent Percolation Ponds. The project construction activities will include grading, trenching and excavation as well as installation of equipment on structural footings and concrete housekeeping pads. The project will be constructed within existing CCSD boundaries. Ground disturbance activities for the construction of wells include drilling between 40 and 100 feet in depth. Additionally, installation of the impermeable liner at Van Gordon Reservoir will require removal of vegetation. Nominal excavation will be necessary for the proposed AWTP, since it will be within a container. Yard piping will be installed below ground, under the AWTP. Additionally, no excavation will be necessary for the proposed conveyance pipelines, since they will be above ground. The surface of the Project site is mapped as Holocene alluvium and Pleistocene marine terrace deposits. Jurassic to Cretaceous Franciscan Assemblage is located immediately north of the Project site and may be encountered at depth. A search for paleontological records was performed on behalf of Cogstone by the University of California Museum of Paleontology. Cogstone staff conducted additional searches in the Paleobiology Database and literature. No fossils are recorded within or in the immediate vicinity of the Project site. However, fossils have been recovered from similar sediments in other areas of the County from the Franciscan Assemblage and Pleistocene marine terrace deposits. The Holocene alluvium is too young to contain fossil material, but may be underlain by older, paleontologically sensitive sediments at depth.

A search for archaeological and historical records was completed by the Central Coast Information Center (CCIC) of the California Historic Resources Inventory System (CHRIS) on April 28, 2014. The records search covered the entire Project site plus a half mile radius. The results indicate there are five cultural resources within the Project site. These include three prehistoric sites and two multi-component sites. A total of 15 cultural resources have been previously documented outside the Project site within the half-mile search radius.

A Sacred Lands File search was requested from the Native American Heritage Commission (NAHC) on April 24, 2014. On April 29th, the Commission replied that there are no known sacred lands in the immediate project site. Cogstone sent letters to the seven Native American contacts on April 30, 2014 requesting any information related to cultural resource or heritage sites within or adjacent to the Project site. Ms. Patti Dunton of the Salinan Tribe of Monterey and San Luis Obispo County responded on May 13, 2014, stating that the Tribe has concerns that the project has the potential to impact known cultural resources within the project site around San Simeon Creek. Ms. Dunton requests a monitor be present during any ground disturbance activities. No additional responses have been received.

Cogstone performed the intensive pedestrian survey of the Project site on May 9, 2014. The survey consisted of walking in parallel transects spaced at approximately 15-meter intervals over the Project site wherever possible, while closely inspecting the ground surface. The majority of

the ground visibility in the Project was poor (0 to 25%) and thus a partially effective survey was possible on only some of the Project site. Cultural resources were observed in five locations within the boundaries of four previously recorded sites within the project site. Nothing was collected.

While the well excavations could encounter fossil bones or other materials from any of the sensitive sediments identified in the Project site, due to the method of excavation, the specimens will lack context that is critical to scientific significance. These types of unprovenanced fossils will only be significant if they result in identification of new species that are currently not known in the area. If they are identified as already-known species, they will be suitable for educational uses. Excavation for the proposed AWTP is not anticipated to be deep enough to impact paleontological sensitive sediments.

Based on the results of this study, this project is anticipated to have a negligible impact on paleontological resources.

Cultural resources are known within the Project and the immediate vicinity. It is recommended that a qualified archaeologist and Native American monitor be present for drilling, grading, trenching, excavation and any other subsurface impacts within the boundaries of the previously recorded sites (CA-SLO-378, CA-SLO-187, CA-SLO-1373, and CA-SLO-221) in the areas of the AWTP and LIW. The project is anticipated to have a negligible impact on cultural resources outside of these areas.

Prior to the start of construction, earthmoving personnel should receive a cultural and paleontological sensitivity training detailing the types of artifacts and fossils that may be encountered and procedures to follow if finds occur. In the event that unanticipated cultural or paleontological resources are discovered during project construction activities, all work should immediately be halted within 50 feet of the find until it can be evaluated by a qualified archaeologist or paleontologist (County of San Luis Obispo LCP Policy 6, Sections 23.05.140 and 23.07.104 of the CZLUO).

INTRODUCTION

PURPOSE OF STUDY

The purpose of this study was to determine the potential effects on paleontological, archaeological, and historic resources of the proposed Cambria Emergency Water Project in an unincorporated area of San Luis Obispo County, California (Figure 1). This study was requested by the Cambria Community Services District (CCSD) to meet their responsibility as the lead agency under the California Environmental Quality Act (CEQA).

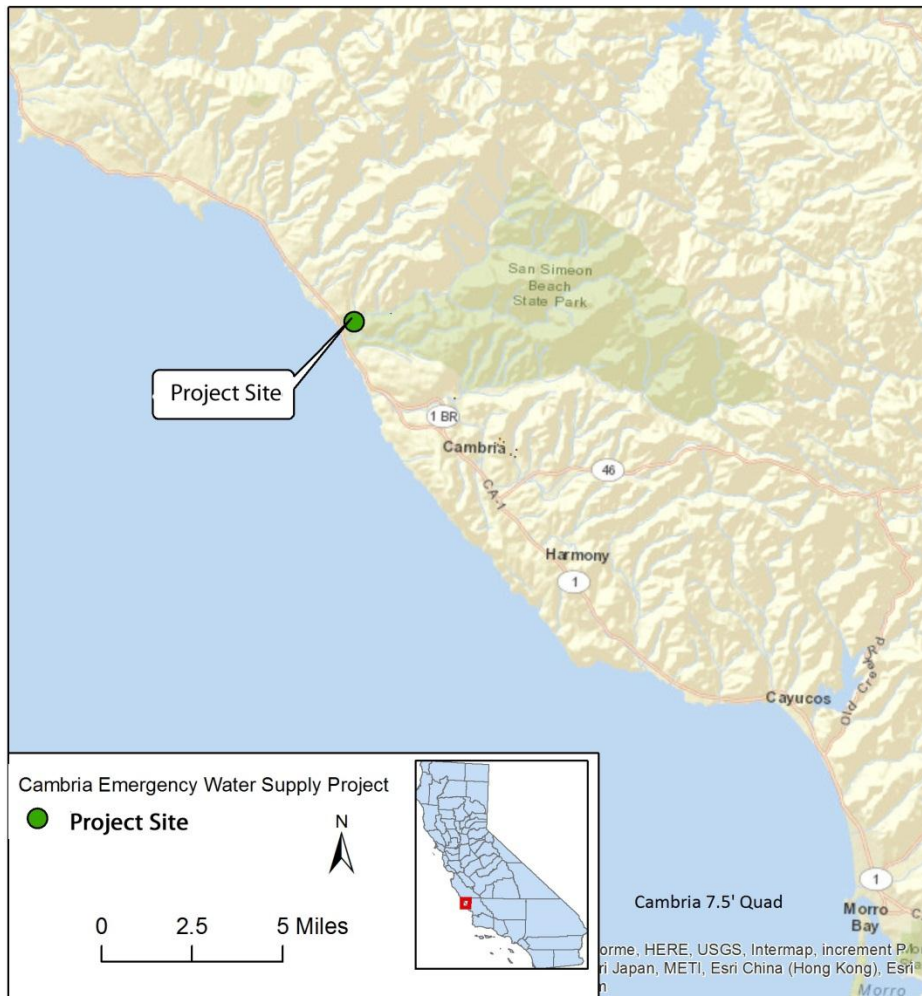


Figure 1. Project vicinity

PROJECT LOCATION AND DESCRIPTION

The proposed Project is located in central California's coastal region, the northwest portion of San Luis Obispo County. Cambria lies within the Santa Rosa Creek Valley, south of San Simeon. The Project site is located southeast of the San Simeon Monterey Creek Road/Van Gordon Creek Road intersection, at 990 San Simeon-Monterey Creek Road, Cambria. The approximately 96-acre Project site involves two parcels of land, APNs 013-051-024 and 013-051-008, which are owned by CCSD. The Project site is located on the Cambria 7.5' quadrangle in Township 27 South, Range 08 East, Section 09 (Figure 2).

In response to the ongoing severe drought emergency, and in combination with very stringent water conservation measures, CCSD is proposing the Cambria Emergency Water Supply Project to construct and operate emergency water supply facilities at the District's existing San Simeon Well Field and Effluent Percolation Ponds. The Project would be used to treat reclaimed water to fully recharge one of the two coastal stream aquifers with advance treated water. The Project goals are to: avoid projected water supply shortages by the end of summer 2014; prevent seawater intrusion into groundwater aquifer and possible subsidence; and protect well pumps from losing suction. CCSD projects continued water shortages and drought conditions over the course of the next 20 years, as a result of climate change impacts, and the likely need for use of the emergency water supply facilities in 8 to 10 years of the next 20 years

Emergency Water Supply Project Facilities

The emergency water supply project facilities include the following components (see also Figure 3):

Existing Well 9P7 – The Project's source water is the San Simeon Creek aquifer from existing Well 9P7, which would provide reclaimed water to the AWTP.

Pipelines – An existing eight-inch pipeline and a new extension to this pipeline are proposed to transport the brackish water between Well 9P7 and the AWTP. A product water pipeline is proposed to transport the product water between the proposed AWTP and proposed Well RIW. A filtrate pipeline is proposed to transport the filtrate (product water) between the proposed AWTP and proposed LIW Wells). A brine disposal pipeline is proposed to transport the brine between the proposed AWTP and the existing Van Gordon Reservoir (evaporation pond).

Advanced water treatment plant (AWTP) – An AWTP is proposed to treat reclaimed water to advance treated water quality suitable for injection into the groundwater basin to augment the potable water supply. The AWTP's main treatment process would include membrane filtration

(MF), reverse osmosis (RO), and advanced oxidation process (AOP) utilizing ultraviolet (UV) light and hydrogen peroxide.

Recharge Injection Well (RIW) – To meet California Department of Public Health and Regional Water Quality Control Board regulations, the treated AWTP product water would be re-introduced/pumped for injection into the groundwater basin, and subsequently pumped by the existing San Simeon well field. Well RIW is proposed to inject advance treated water to the groundwater basin at the San Simeon well field. Monitoring Well MIW-1 is proposed immediately east of Well RIW.

Existing Van Gordon Brine Evaporation Pond – The AWTP generated waste stream (brine) would be disposed for evaporation in the existing Van Gordon Reservoir. The Reservoir would be modified/ rehabilitated as a brine evaporation pond with a new liner. The liner would provide containment of brine to protect soil and groundwater beneath. The brine evaporation would be aided with five mechanical spray evaporators. Monitoring Wells MIW-2, MIW-3, and MIW-4 are proposed around the evaporation pond.

Lagoon Injection Well (LIW) – AWTP product water would be pumped for discharge into the San Simeon Creek via three LIWs to maintain and improve fresh water conditions. As an alternative to the three LIWs, the existing Well 9P7 discharge pipeline and discharge structure may be utilized to discharge to Van Gordon Creek adjacent to the AWTP.

Monitoring Wells – A new monitoring well is proposed at the San Simeon well field in the vicinity of RIW, and three monitoring wells are proposed near Van Gordon evaporation pond.

The project construction activities would include construction and installation of the proposed facilities described above. Construction activities include grading, trenching and excavation as well as installation of equipment on structural footings and concrete housekeeping pads. The project would be constructed within existing CCSD boundaries.

Ground disturbance activities for the construction of wells include drilling between 40 and 100 feet in depth. Additionally, installation of the impermeable liner at Van Gordon Reservoir would require removal of vegetation. Nominal excavation would be necessary for the proposed AWTP, since it would be within a container. Yard piping would be installed below ground, under the AWTP. Additionally, no excavation would be necessary for the proposed conveyance pipelines, since they would be above ground.

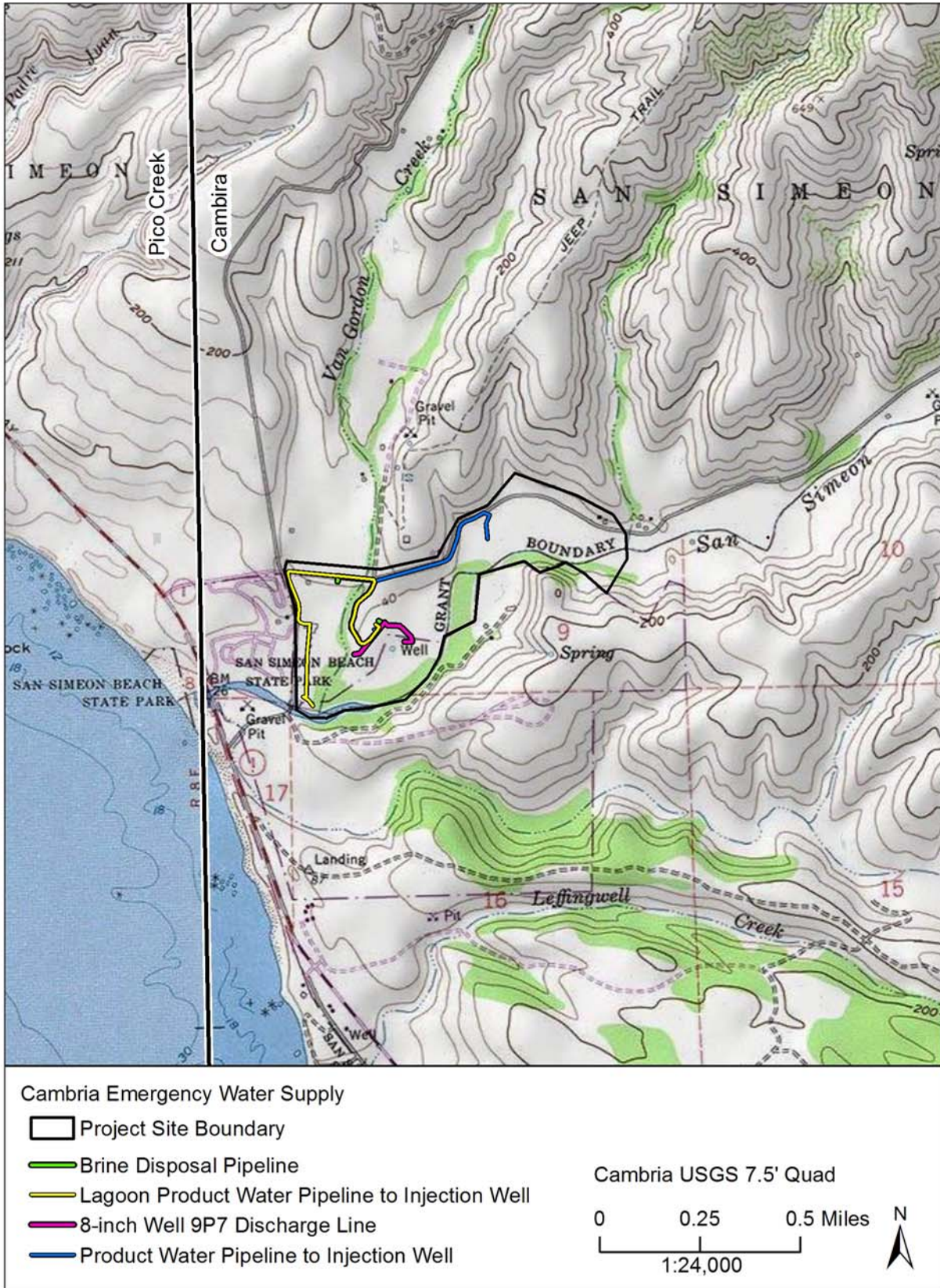


Figure 2. Project site

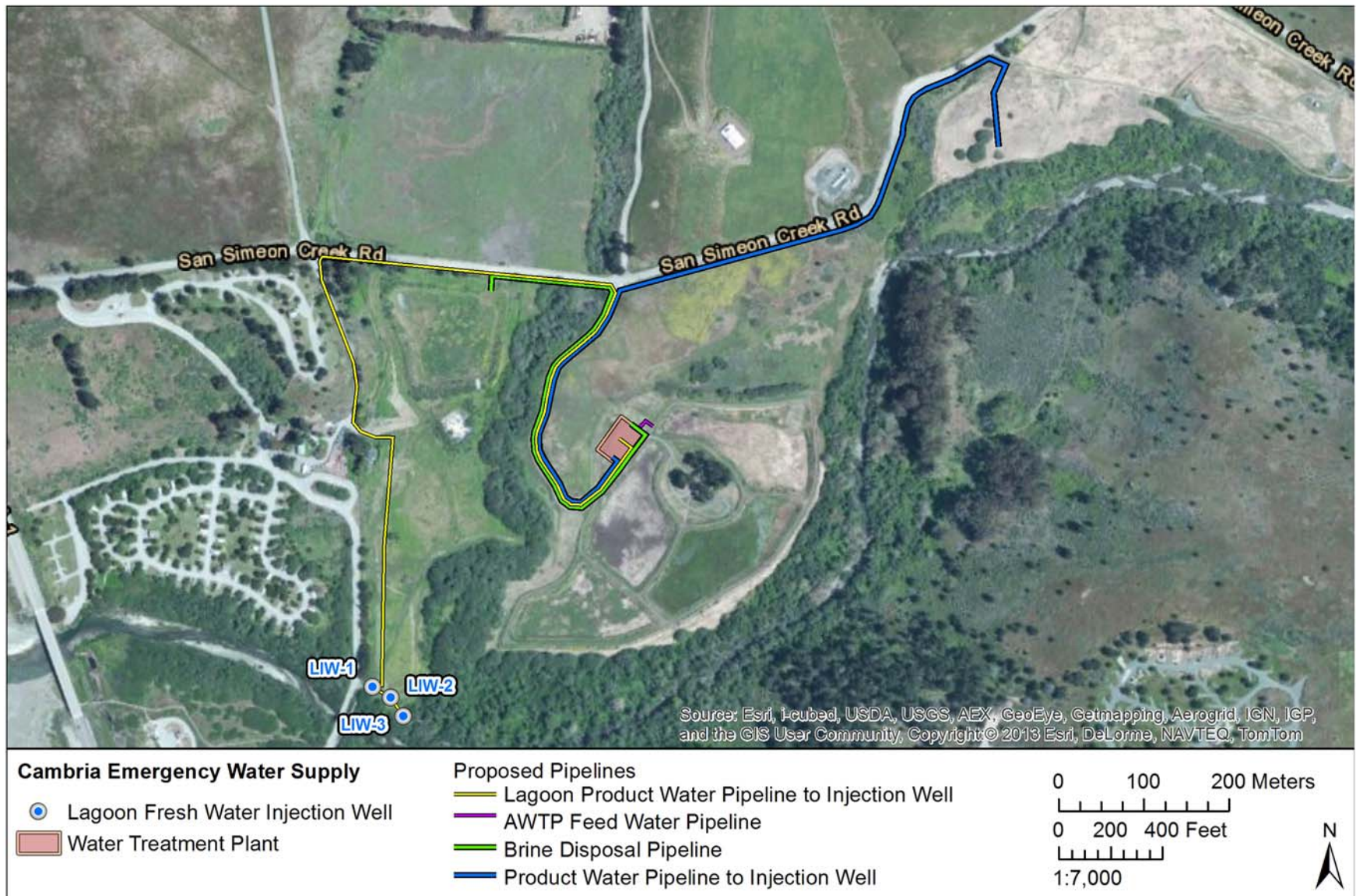


Figure 3. Project aerial

PROJECT PERSONNEL

Cogstone Resource Management Inc. (Cogstone) conducted this study. Sherri Gust served as Principal Investigator for the Project, supervised all work, wrote portions of and edited this report. Gust is a San Luis Obispo County Qualified Archaeologist. She has a M.S. in Anatomy (Evolutionary Morphology) from the University of Southern California, a B.S. in Anthropology from the University of California at Davis, and over 35 years of experience in California.

Dustin Keeler prepared the GIS maps and cultural resources sections of the report. Keeler is a RPA and has a Ph.D. and M.A. in Anthropology from State University of New York at Buffalo, a B.A. in Anthropology from Arizona State University, cross-training in paleontology, and over 12 years of experience. Courtney Richards prepared portions of this report pertaining to geology and paleontology. Richards has a M.S. in Biological Sciences with an emphasis in Paleontology from Marshall University, a B.S. in Earth and Space Sciences from the University of Washington, and two years of experience in California. Chad Jackson performed the pedestrian survey. Jackson has a BS in Earth Science with a concentration in geology and archaeology, a minor in anthropology, and nine years of experience.

REGULATORY ENVIRONMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA declares that it is state policy to "take all action necessary to provide the people of this state with...historic environmental qualities." It further states that public or private projects financed or approved by the state are subject to environmental review by the state. All such projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental effects of a proposed project. In the event that a project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered.

CEQA includes historic and archaeological resources as integral features of the environment. If paleontological resources are identified as being within the proposed project site, the sponsoring agency must take those resources into consideration when evaluating project effects. The level of consideration may vary with the importance of the resource.

PUBLIC RESOURCES CODE

Public Resources Code (PRC) Section 5097.5 states that no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups and citizens to identify, evaluate, register and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archeological resources.

The California Register program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act.

To be eligible for listing in the California Register, a resource must meet at least one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States
2. Associated with the lives of persons important to local, California or national history
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or

changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

COUNTY OF SAN LUIS OBISPO

LCP Policies 1,3,5, and 6: Archaeological Resources

LCP 1 Protection of Archaeological Resources. The county shall provide for the protection of both known and potential archaeological resources. All available measures, including purchase, tax relief, purchase of development rights, etc., shall be explored at the time of a development proposal to avoid development on important archaeological sites. Where these measures are not feasible and development will adversely affect identified archaeological or paleontological resources, adequate mitigation shall be required. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]

LCP 3 Identification of Archaeological Sites. Development within an archaeological sensitive areas shall not occur until a preliminary site survey is conducted for the site, and if necessary, mitigation measures implemented. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.104 OF THE COASTAL ZONE LAND USE ORDINANCE.]

LCP 5 Mitigation Techniques for Preliminary Site Survey Before Construction. Where substantial archaeological resources are found as a result of a preliminary site survey before construction, the county shall require a mitigation plan to protect the site. Some examples of specific mitigation techniques include:

- a. Project redesign could reduce adverse impacts of the project through relocation of open space, landscaping or parking facilities.
- b. Preservation of an archaeological site can sometimes be accomplished by covering the site with a layer of fill sufficiently thick to insulate it from impact. This surface can then be used for building that does not require extensive foundations or removal of all topsoil.
- c. When a project impact cannot be avoided, it may be necessary to conduct a salvage operation. This is usually a last resort alternative because excavation, even under the best conditions, is limited by time, costs and technology. Where the chosen mitigation measure necessitates removal of archaeological resources, the county shall require the evaluation and proper deposition of the findings based on consultation with a qualified archaeologist knowledgeable in the Chumash culture.

d. A qualified archaeologist knowledgeable in the Chumash culture may need to be on-site during initial grading and utility trenching for projects within sensitive areas. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.104 OF THE CZLUO.]

LCP 6 Archaeological Resources Discovered during Construction or through Other Activities. Where substantial archaeological resources are discovered during construction of new development, or through non-permit related activities (such as repair and maintenance of public works projects) all activities shall cease until a qualified archaeologist knowledgeable in the Chumash culture can determine the significance of the resource and submit alternative mitigation measures. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.05.140 AND 23.07.104 OF THE CZLUO.]

CZLUO Sections

23.04.200 - Protection of Archaeological Resources Not Within the Archaeologically Sensitive Areas Combining Designation. All development applications that propose development that is not located within the Archaeologically Sensitive Areas combining designation and that meets the following location criteria shall be subject to the standards for the Archaeologically Sensitive Areas Combining Designation in Chapter 23.07: development that is either within 100 feet of the bank of a coastal stream (as defined in the Coastal Zone Land Use Ordinance), or development that is within 300 feet of such stream where the slope of the site is less than 10 percent. [NOTE: Project is within 100 feet of stream; therefore subject to Chapter 23.07).

23.05.140 - Archeological Resources Discovery. In the event archeological resources are unearthed or discovered during any construction activities, the following standards apply:

a. Construction activities shall cease, and the Environmental Coordinator and Planning Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

b. In the event archeological resources are found to include human remains, or in any other case when human remains are discovered during construction, the County Coroner is to be notified in addition to the Planning Department and Environmental Coordinator so that proper disposition may be accomplished.

23.07.104 - Archaeologically Sensitive Areas. To protect and preserve archaeological resources, the following procedures and requirements apply to development within areas of the coastal zone identified as archaeologically sensitive.

a. Archaeologically sensitive areas. The following areas are defined as archaeologically sensitive:

(1) Any parcel within a rural area which is identified on the rural parcel number list prepared by

the California Archaeological Site Survey Office on file with the county Planning Department.

(2) Any parcel within an urban or village area which is located within an archaeologically sensitive area as delineated by the official maps (Part III) of the Land Use Element.

(3) Any other parcel containing a known archaeological site recorded by the California Archaeological Site Survey Office.

b. Preliminary site survey required. Before issuance of a land use or construction permit for development within an archaeologically sensitive area, a preliminary site survey shall be required. The survey shall be conducted by a qualified archaeologist knowledgeable in local Native American culture and approved by the Environmental Coordinator. The County will provide pertinent project information to the Native American tribe(s).

c. When a mitigation plan is required. If the preliminary site survey determines that proposed development may have significant effects on existing, known or suspected archaeological resources, a plan for mitigation shall be prepared by a qualified archaeologist. The County will provide pertinent project information to the Native American tribe(s) as appropriate. The purpose of the plan is to protect the resource. The plan may recommend the need for further study, subsurface testing, monitoring during construction activities, project redesign, or other actions to mitigate the impacts on the resource. Highest priority shall be given to avoiding disturbance of sensitive resources. Lower priority mitigation measures may include use of fill to cap the sensitive resources. As a last resort, the review authority may permit excavation and recovery of those resources. The mitigation plan shall be submitted to and approved by the Environmental Coordinator, and considered in the evaluation of the development request by the Review Authority.

d. Archeological resources discovery. In the event archeological resources are unearthed or discovered during any construction activities, the standards of Section 23.05.140 of this title shall apply. Construction activities shall not commence until a mitigation plan, prepared by a qualified professional archaeologist reviewed and approved by the Environmental Coordinator, is completed and implemented. The County will provide pertinent project information to the affected Native American tribe(s) and consider comments prior to approval of the mitigation plan. The mitigation plan shall include measures to avoid the resources to the maximum degree feasible and shall provide mitigation for unavoidable impacts. A report verifying that the approved mitigation plan has been completed shall be submitted to the Environmental Coordinator prior to occupancy or final inspection, whichever occurs first.

CDP CONDITIONS 10 & 11

10. The applicant shall retain a qualified archaeological monitor, approved by the County Environmental Coordinator, to be present during all site disturbance activities. Monitoring reports shall be retained by the applicant and shared with the Environmental Coordinator's Office upon request.

11. In the event archaeological resources are unearthed or discovered during any site disturbance activities, the applicant, or the applicant's successor, shall be responsible to follow protocol and procedures described in Section 22.10.040 of the Land Use Ordinance.

DEFINITION OF SIGNIFICANCE FOR PALEONTOLOGICAL RESOURCES

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations (Scott and Springer 2003).

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy.

Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003).

BACKGROUND

GEOLOGICAL SETTING

The Project site is situated in the southern area of the Coast Range Province. The province consists of northwest-trending mountain ranges and valleys that run subparallel to the San Andreas Fault. A depression containing the San Francisco Bay separates the northern Coast Range from the southern. The Southern Coast Range is bounded by the Pacific Ocean to the west, Transverse Ranges to the south, Great Valley to the East, and Northern Coast Ranges to the north (Wagner 2002).

STRATIGRAPHY

The surface of the Project site is mapped as Holocene alluvium and Pleistocene marine terrace deposits. The Jurassic to Cretaceous Franciscan Assemblage is located immediately north of the Project site and may be encountered at depth (Figure 4; Dibblee 2007).

Jurassic to Cretaceous Franciscan Assemblage

Outcrops of late Jurassic and Cretaceous (161.2 - 65.5 million years old) Franciscan Assemblage in the vicinity of the Project site consist of a mélangé of sheared rocks. Graywacke and sheared argillite are the most prevalent rock types. Tectonic fragments of chert, greenstone, serpentine, and blueschist are also present (Dibblee 2007).

Pleistocene Marine Terrace Deposits

The Pleistocene (2.59 million to 11.7 thousand years ago) marine terrace deposits consist of unconsolidated cobble-pebble gravel (Dibblee 2007).

Holocene Alluvium

These alluvial sediments were deposited during the Holocene epoch (11,700 years ago to present). Deposits are characterized by unconsolidated, undissected sand, silt, clay, and gravel (Dibblee 2007).

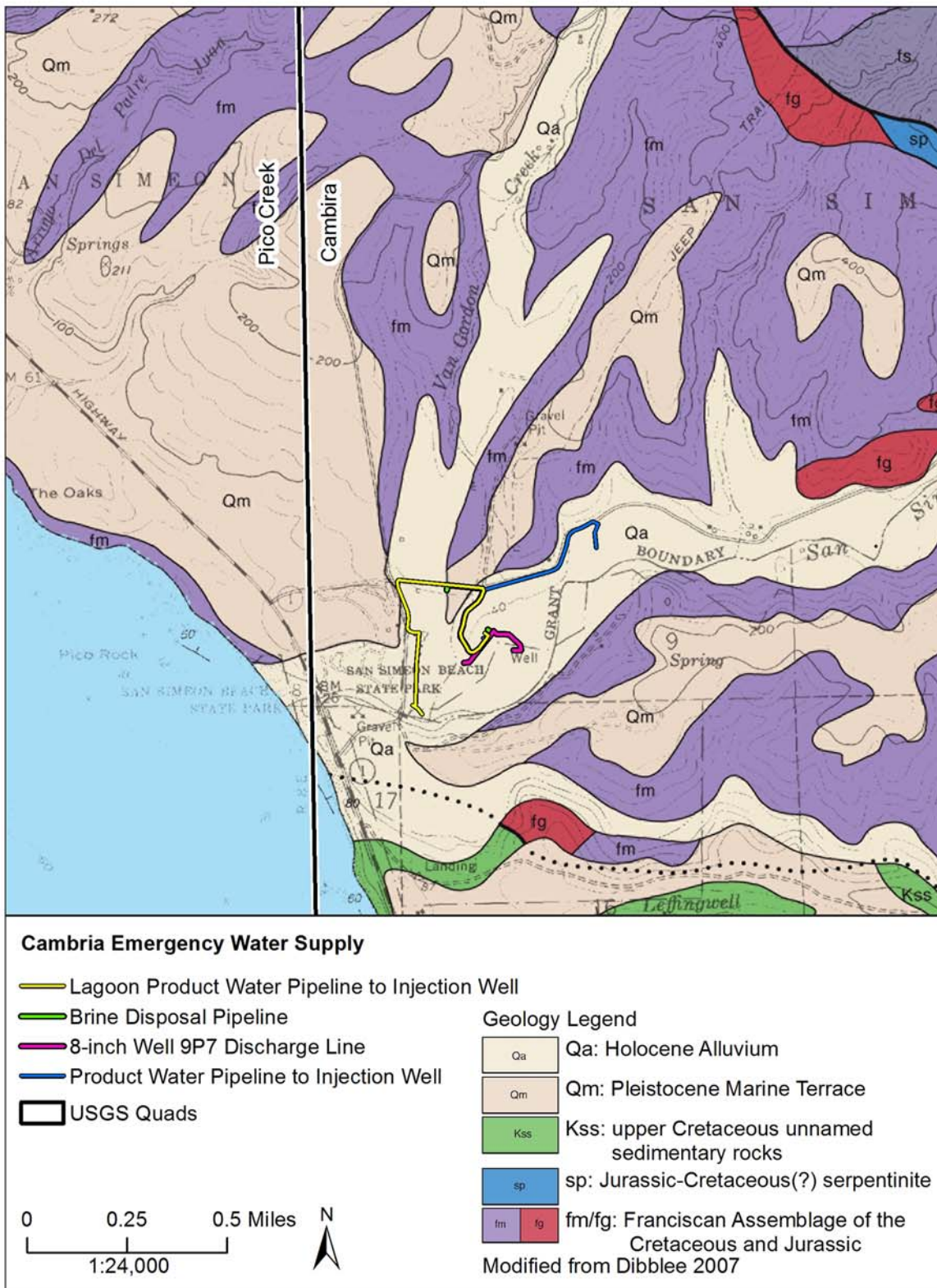


Figure 4. Geology of Project Site

NATURAL SETTING

The Project is situated in north of the San Simon Creek east of the San Simon Creek Lagoon. The climate of the general area falls within the Mediterranean regime, with hot dry summers and cool wet winters. The marine layer plays a mediating role in daily temperature fluctuation.

The Central Coast is dominated by an exposed shoreline with a mixture of rocky and sandy substrates that shifted in expanse through the Holocene (this section excerpted and summarized from Jones et al 2007). Lagoons and estuaries developed as the products of sea level rise and the drowning of river valleys during the Late Pleistocene through Middle Holocene that provided significant shelter from the open ocean. Archaeological findings from the Pismo Beach and Arroyo Grande areas indicate the presence of an extensive paleoestuary called Halcyon Bay, that had largely disappeared by Late Holocene as a result of rising sea levels and infilling of sediments.

The terrestrial environment of the Central Coast is marked by a series of relatively low (600–1,500 meters) northwest-southeast trending mountain ranges with the precipitous Santa Lucia Range causing a rain shadow effect on the interior ranges (Gabilan, Diablo, La Panza, and Temblor) and making them progressively more xeric to the east. Climate is solidly Mediterranean with rainfall coming almost exclusively between late fall and spring. Regional rainfall totals are heavily influenced by the El Niño–Southern Oscillation. El Niño events of moderate, strong, and very strong intensity occur every five to fifteen years and are generally associated with warm sea surface temperatures and increased storm activity. For the most part, Central Coast rivers provided little in the way of important aquatic resources.

Owing to its mid-latitude location, the Central Coast is marked by a complex mosaic of hardwood and relict closed-cone pine forests near the coast, blue oak–gray pine forest, valley oak savanna and chaparral in the interior valleys, and California prairie in the most xeric areas. Grassland and coastal sagebrush are more abundant in the south while resource-poor redwood forest occurs at moderate elevations in the north. Overall, the vegetative mosaic is slightly less complex than that to the south because of the linear patterning caused by parallel mountain ranges. Marshes comprised a significant proportion of the precontact landscape in the vicinity of estuaries and small inland lakes.

PREHISTORIC SETTING

Prehistoric Chronology and Culture History

The latest synthesis of information on Central Coast chronology and culture history presented here is excerpted and summarized from Jones, et al. (2007). Six cultural periods have been defined with representative and time-diagnostic artifacts (Figure 4). From oldest to youngest these are Paleo-Indian, Millingstone, Early, Middle, Middle/Late Transition and Late.

Paleo-Indian

Broader patterns in the regional prehistory, first recognized at Diablo Canyon, are reflected in three major cultural divisions marked by highly distinctive tool assemblages: the Millingstone Culture, the Hunting Culture and Late Period. This progression of three distinctive complexes can be readily detected over the whole Central Coast region. Earlier human presence in the area is suggested but no substantive components of this age have yet been identified.

Millingstone Culture

Millingstone is consistently marked by large numbers of well-made handstones and/or millingslabs, crude core and cobble-core tools and less abundant flake tools and large side-notched projectile points. In the Central Coast region few Millingstone components have been found farther than 25 kilometers inland from the shore and most interior Millingstone sites have produced marine shells indicating that site inhabitants also exploited coastal environments.

Faunal remains indicate that Millingstone peoples practiced broad-spectrum hunting and gathering, exploiting shellfish, fish, birds and mammals, although robust faunal assemblages are not common. In an extremely important study of Millingstone age burials, stable isotope analyses have revealed a diet composed of 70 to 84 percent marine food. Given the low frequency of fish and pinniped bones in most Millingstone assemblages, this suggests heavy use of shellfish, which is supported by dense concentrations of shells in many deposits and dietary reconstructions based on these and other faunal remains.

Hunting Culture

Hunting Culture was defined by the same basic yet striking pattern in which large projectile points become extremely abundant after ca. cal b.c. 3500/3000. Hunting Culture sites are often marked by highly visible accumulations of biface derived debitage and a range of site types has been recognized including middens, flaked and ground stone scatters and scatters of flaked stone only that include lithic procurement stations/quarries.

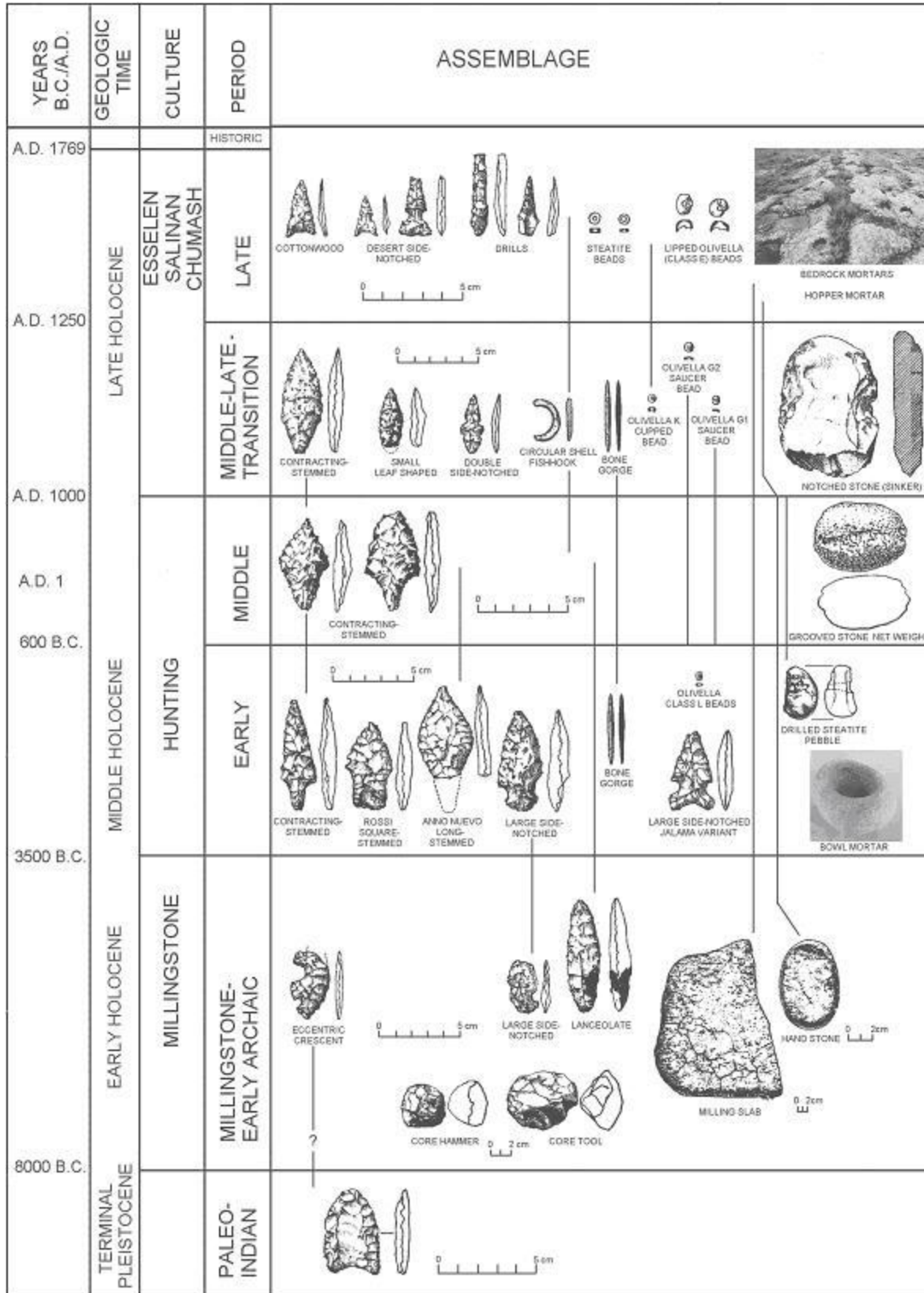


Figure 5. Prehistoric culture chronology (Jones, et al. 2007)

The Early Period of the Hunting Culture is marked by co-occurrence of contracting-stemmed and Rossi square-stemmed (Central Coast Stemmed Series) points and large side-notched variants (as a holdover from Millingstone). Cobble-core tools occur in lower frequencies than in earlier times. Line fishing implements are limited to bi-pointed bone gorges. Early Period burials show a preference for flexed position and grave associations that commonly included Rossi square-stemmed projectile points, fish gorges and Class L beads. Hunting Culture faunal assemblages show variability; while most Early Period components emphasize deer, some show focus on rabbits or sea otters. Fish remains from the Early Period components show increases over the Millingstone Culture. Shellfish were part of the diet at all coastal sites.

Middle Period expressions of the Hunting Culture show retention of contracting-stemmed points and disappearance of square-stemmed and large side-notched variants. Beads are dominated by G2 saucers, replacing L2 thick rectangles and ground stone assemblages show continued use of both slabs/handstones and portable mortars/pestles. Circular shell fishhooks appear for the first time but bone gorges persist. Pitted stones are often the most abundant artifacts in Middle Period sites. Grooved stone net sinkers are common as well. Well-made bone flutes are occasionally found as burial accompaniments. Graves from all of these sites show continued preference for the flexed burial position. Other common Middle Period burial accompaniments include bone tubes and large quantities of *Olivella* G2 beads.

Toward the end of the Middle Period the appearance of small leaf-shaped projectile points marks the arrival of bows and arrows, although this new weapon seems to have been relatively unimportant at first. Animal resources exploited are similar to those of the Early Period although there is a change of emphasis with more fish and less shellfish. Radiocarbon-dated acorn remains from Morro Bay suggest that this important resource was exploited to some unknown degree by Hunting Culture people.

Salinan and Chumash Cultures

The Middle/Late Transition or terminal phases of the Hunting Culture represent dramatic changes in assemblages and settlement sometime after ca. cal a.d. 1000, highlighted by the appearance of large numbers of arrow points, disappearance of most stemmed points and changes in bead types.

Late Period assemblages are easily distinguished from the Hunting Culture throughout the region by profusions of Desert Side-notched and Cottonwood arrow points, small bifacial bead drills, bedrock mortars, hopper mortars, Class E (lipped) and K (cupped) *Olivella* beads and steatite disk beads. Most Late Period sites produce a few bead drills and small amounts of *Olivella* bead manufacturing debris, suggesting that low-level bead production was common and widespread. This contrasts significantly with the Santa Barbara Channel, where bead industries were profuse.

Circular shell fishhooks were still used and there is some evidence for persistence of contracting-stemmed points in low frequencies.

The Late Period is marked by a profusion of single-component sites in the interior and on the coast with a decided focus on the former. Typical Late Period occupations are marked by small middens with associated or nearby bedrock mortars. As with earlier periods, residential features are uncommon, but circular house floors roughly three to four meters in diameter are known. While expansive sites have been documented at some locations, Late Period middens are often fairly small (30 to 40 meters in diameter) with several discrete deposits clustered in one area. For the most part, the Late Period shows strong if not remarkable consistency in assemblages, site types and settlement patterns across the region despite linguistic variability.

NATIVE AMERICANS AT CONTACT

While Spanish seafarers made brief stops on the Central Coast as early as 1542, long-term contact was initiated in 1769 by the Portolá overland expedition (this section excerpted and summarized from Jones et al 2007). At that time most of the central California coast was occupied by a large number of small, autonomous tribelets. Actual ethnographic observations of these societies were afforded only to the earliest Spanish explorers and missionaries, and the documentation resulting from these early contacts is woefully incomplete. Attempts at more systematic anthropological description were not initiated until early in the twentieth century following at least 150 years of precipitous population decline. Speakers of Native languages were still present in the early 1900s, and the earliest salvage ethnographies emphasized documentation of dying languages.

Analysis of records from the Spanish missions has provided the names of tribelets and other communities for the areas in which the Salinan and Northern Chumash (Obispeño) languages were spoken. Actual village locations and tribelet boundaries remain poorly documented, and there are remarkably few firm associations between named villages and archaeological sites, and even fewer cases where village sites have been excavated.

The manner in which subsistence was accomplished within tribelet communities in terms of systems of seasonality and settlement is frustratingly unclear, but the accounts of the earliest Spanish explorers consistently allude to relatively small groups that moved seasonally and exploited a wide range of terrestrial and marine resources. Early observers noted that the local inhabitants “do not have fixed places for their villages, but wander here and there wherever they can find provisions at hand.” This type of description is common in early Spanish accounts throughout the region. These sources repeatedly mention the use of tule balsas and bows and arrows, and the exploitation of acorns, pine nuts, buckeye nuts, seeds, strawberries, blackberries,

sardines and other fish, shellfish, deer, antelope, rabbits, and quail. Early accounts also refer to regular controlled burning.

While the early historic accounts imply band like mobility and subsistence, certain aspects of the ethnohistoric record suggest a higher level of sociopolitical complexity. The greatest conundrum in Central Coast ethnohistory is reconciling apparent bandlike subsistence practices with early accounts of ascribed political power, highly formalized leadership statuses, economic redistribution, and widespread warfare. Most historic accounts allude to groups of 40 to 60 people, which is a typical size for mobile bands. However, one early encounter at Avila Beach near San Luis Obispo suggested as many as 300 people aggregated in one place, while another in the Nacimiento Valley by the Portolá expedition suggested as many as 600 people harvesting pine nuts.

More intriguing signs of complexity include suggestions of significant concentrations of political power and prestige especially among the Obispeño (Northern Chumash), where early accounts repeatedly describe one exceptionally prestigious chief, Buchon, who traveled with an entourage, directed attacks on other groups, and was able to command tribute even after his death. The repeated references to Buchon's power and influence have been commonly interpreted as an ethnically based (Chumash) sociopolitical system more complex than that of the Salinan, Esselen, or Ohlone tribelets. There are, however, clear suggestions of formal leadership status, hereditary chiefly power, and accumulation of wealth by chiefs among the Ohlone and Salinan as well. Other hallmarks of significant complexity represented in the Santa Barbara Channel (e.g., craft specialization in the form of bead and canoe manufacture, full sedentism, and an intensive maritime economy) were absent from the Central Coast.

HISTORIC SETTING

The earliest European explorers to land in San Luis Obispo County were Pedro de Unamuno in 1587 and Rodríguez Cermeño in 1595. After Sebastián Vizcaíno charted the Central Coast in 1602 and 1603, there were no explorations of the area until 1769, when the overland expedition of Gaspar de Portolá and the Franciscan Father Crespí traveled through the area. Portolá's group camped on the banks of Santa Rosa Creek near present day Coast Union High School in Cambria (Krieger 1990:20). Mission San Luis Obispo de Tolosa, the fifth in California's chain of missions, was established by Father Junípero Serra on September 1, 1772. The mission prospered, with an *assistancia*, or assistant mission rancho established at Santa Margarita in the 1790s. Another granary and chapel were constructed near present-day Avila Beach in 1808. Twenty-five years later, on July 25, 1797, Mission San Miguel Arcángel was founded. Cambria was part of mission grazing lands during these years.

After California's annexation by Mexico in 1822, Mexican government officials and retired Army officers, with their eyes on the huge tracts of Mission lands, pushed for secularization of the missions. Cambria is within the 13,184 acre Santa Rosa Rancho granted to Julian Estrada in 1841 by Mexican Governor Juan Alvarado (Krieger 1990:43). The Great Drought of 1862-65 killed most of the livestock (sheep and cattle) in the area and most Rancho owners were forced to sell their lands.

Fledgling Cambria began near Leffingwell Cove but was later moved to the present location and was a center for lumber, ranching and mining. By 1870 dairy interests were developing with a strong Portuguese and Swiss Italian presence (Krieger 1990:67-74). Modern day Cambria is community known for tourism and its artistic community.

RECORDS SEARCHES

PALEONTOLOGICAL RESOURCES

A search for paleontological records was performed on behalf of Cogstone by the University of California Museum of Paleontology (UCMP). Cogstone staff conducted additional searches in the Paleobiology Database (PBDB) and literature. No fossils are recorded within or in the immediate vicinity of the Project site (Finger 2014, UCMP 2014). However, fossils have been recovered from similar sediments in other areas of the County. While the majority of the Franciscan Assemblage is unfossiliferous, it has produce rare, scientifically significant fossils. An example is the type specimen of an extinct marine reptile, *Plesiosaurus hesternus*, which was collected from the Franciscan Assemblage in San Luis Obispo County (UCMP 2014; Scott and Gust 2006). Ice age taxa known from Pleistocene marine sediments in the County include dolphin (Delphinidae), whale (Cetacea), sea cow (*Hydrodamalis* sp.), sea otter (*Latax lutris*), mammoth (*Mammuthus* sp.), Western horse (*Equus* cf. *occidentalis*), ancient bison (*Bison antiquus*), extinct camel (*Camelops* cf. *hesternus*), and ground sloth (*Paramylodon harlani*) (PBDB 2014). Holocene alluvium is too young to contain fossilized material.

ARCHAEOLOGICAL AND HISTORICAL RECORDS SEARCH

California Historic Resources Inventory System

A search for archaeological and historical records was completed by the Central Coast Information Center (CCIC) of the California Historic Resources Inventory System (CHRIS) on

April 28, 2014. The records search covered the entire Project site plus a half mile radius. The record search indicates a total of eight cultural resources investigations have been completely previously within parts of the Project Site (Table 1).

The results of these studies indicate there are five cultural resources within the Project site. These include three prehistoric sites and two multi-component sites. A total of 15 cultural resources have been previously documented outside the Project site within the half-mile search radius (Table 2). These include ten prehistoric sites, two historic sites, two multi-components sites, and one historic built environment resource (Table 2).

Table 1. Previous studies

Author	Doc No. (E-)	Title	Date	Quad	Distance from Project
Hoover, R.	45	Archaeological Component for the Cambria Wastewater and Sewage Disposal Project Environmental Impact Report	1974	Cambria	Within project site
Greenwood, R.	76	Culture Resource Management Study for the Hearst Ranch	1976	Pico Creek, Cambria	Within project site
Gibson, R.	171	Archaeological investigations at SLO-187B; A Mitigation for Cambria Water Transmission Facilities at San Simeon Creek/Van Gordon Road, San Luis Obispo County, CA	1979	Cambria	Within project site
Gibson, R.	732	Archaeological investigations at SLO-187B, a mitigation project for Cambria water transmission facilities at San Simeon Creek/Can Gordon Road, San Luis Obispo County	1983	Cambria	Within project site
Gibson, R.	2183	Results of the Archaeological Subsurface Testing at SLO-221 and SLO-1373, San Simeon Creek, San Luis Obispo County	1992	Cambria	Within project site
Breschini, G.	2305	Impact Assesment of Expanded Waste Water Facilities Adjacent to San Simeon Creek, San Luis Obispo County, CA. Subsurface Testing: Cambria Community Services District Waste Water Treatment Facility	1991	Cambria	Within project site
Gibson, R.	3722	Archaeological Resources Inventory for the Cambria Community Services District Effluent Disposal Field Improvements, San Simeon Creek, San Luis Obsipo County, California	1994	Cambria	Within project site
Jones, D. et al.	4753	San Simeon State Park Archaeological Site Assessment:2001	2002	Pico Creek, Cambria	Within project site

Table 2. Archaeological and historical resources

Trinomial (CA-SLO-)	Primary No. (P-40-)	Description	Quad	Distance from Project
72	72	Prehistoric shallow midden with sparse shell, temporary camp area	Pico Creek, Cambria	Within ½ mile
185	185	Prehistoric bedrock mortars and small midden deposit	Cambria	Within ½ mile
186	186	Prehistoric midden deposit (village site)	Cambria	Within ½ mile
187	187	Prehistoric open village site as indicated by midden deposit	Cambria	Within project site
188	188	Prehistoric bedrock mortar on outcrop of hard metamorphic rock	Cambria	Within ½ mile
221	221	Multi-component agricultural area showing surface indications of roofing tile fragments, and many lithic artifacts (Mission San Miguel Estancia?)	Cambria	Within project site
229	229	Prehistoric large occupation site	Pico Creek, Cambria	Within ½ mile
378	378	Prehistoric large permanent camp site	Cambria	Within project site
383	383	Prehistoric sparse lithic scatter	Pico Creek, Cambria	Within ½ mile
799	799	Prehistoric bedrock mortar	Cambria	Within ½ mile
800	800	Multi-components foundation with historic and prehistoric artifact scatters	Cambria	Within ½ mile
966	966	Historic cabin foundation and associated retaining walls	Cambria	Within ½ mile
967H	967	Historic foundation, trail markers and historic scatter (Whitaker Ranch complex)	Cambria	Within ½ mile
1373	1373	Multi-components extensive midden deposit with shellfish remains, lithics, groundstone and bone. Proto-Historic adobe and Historic scatters	Cambria	Within project site
1374	1374	Prehistoric bedrock mortars and shell fragments	Cambria	Within project site
1551	1551	Multi-component sparse historic and prehistoric scatter of shell, glass, porcelain, brick and few lithics	Cambria	Within ½ mile
1554	15534	Prehistoric sparse lithic scatter	Cambria	Within ½ mile
2197	2197	Prehistoric lithic and groundstone scatter including one steatite pendant	Cambria	Within ½ mile
	38036	Prehistoric unifacially worked cobble, core tool	Cambria	Within ½ mile
	40842	Historic steel bridge	Cambria	Within ½ mile

NATIVE AMERICAN CONSULTATION

A Sacred Lands File search was requested from the Native American Heritage Commission (NAHC) on April 24, 2014. On April 29th, the Commission replied that there are no known sacred lands within half a mile of the Project site. and the NAHC provided a list of seven Native

American tribes or individuals to contact for further information regarding the general Project vicinity (Appendix B).

Cogstone sent letters to the seven Native American contactson April 30, 2014 requesting any information related to cultural resource or heritage sites within or adjacent to the Project site. Ms. Patti Dunton of the Salinan Tribe of Monterey and San Luis Obispo County responded on on May 13, 2014, stating that the Tribe has concerns that the project has the potential to impact known cultural resources within the project site around San Simeon Creek. Ms. Dunton requests a monitor be present during any ground disturbance activities (Appendix B). No additional responses have been received.

SURVEY

SURVEY METHODS

The reconnaissance stage is important to verify the exact location of each cultural resource, the condition or integrity of the resource, and the proximity of the resource to areas of sensitivity. Chad Jackson, Cogstone Staff Archeologist, completed an intensive-level pedestrian survey of the Project site on May 9, 2014. The survey consisted of walking in parallel transects spaced at approximately 15-meter intervals over the Project wherever possible, while closely inspecting the ground surface.

SURVEY RESULTS

Ground surface visibility was nonexistent to poor in portions of the Project site due to dense vegetation (Figure 6). Locating previously recorded sites within these areas was impossible. In areas of fair ground surface visibility, cultural materials were observed at the surface at archaeological sites CA-SLO-187, CA-SLO-221, CA-SLO-378, and CA-SLO-1373.

Ground surface visibility at CA-SLO-187 was poor due to extremely dense vegetation. A small number of flakes were observed at the surface. Previous site records describe the site as a prehistoric open village site as indicated by midden deposit. The Water Pipeline to Injection Wells and the AWTP Feed Water Pipeline to the LIW Well will both pass through the site from north to south.

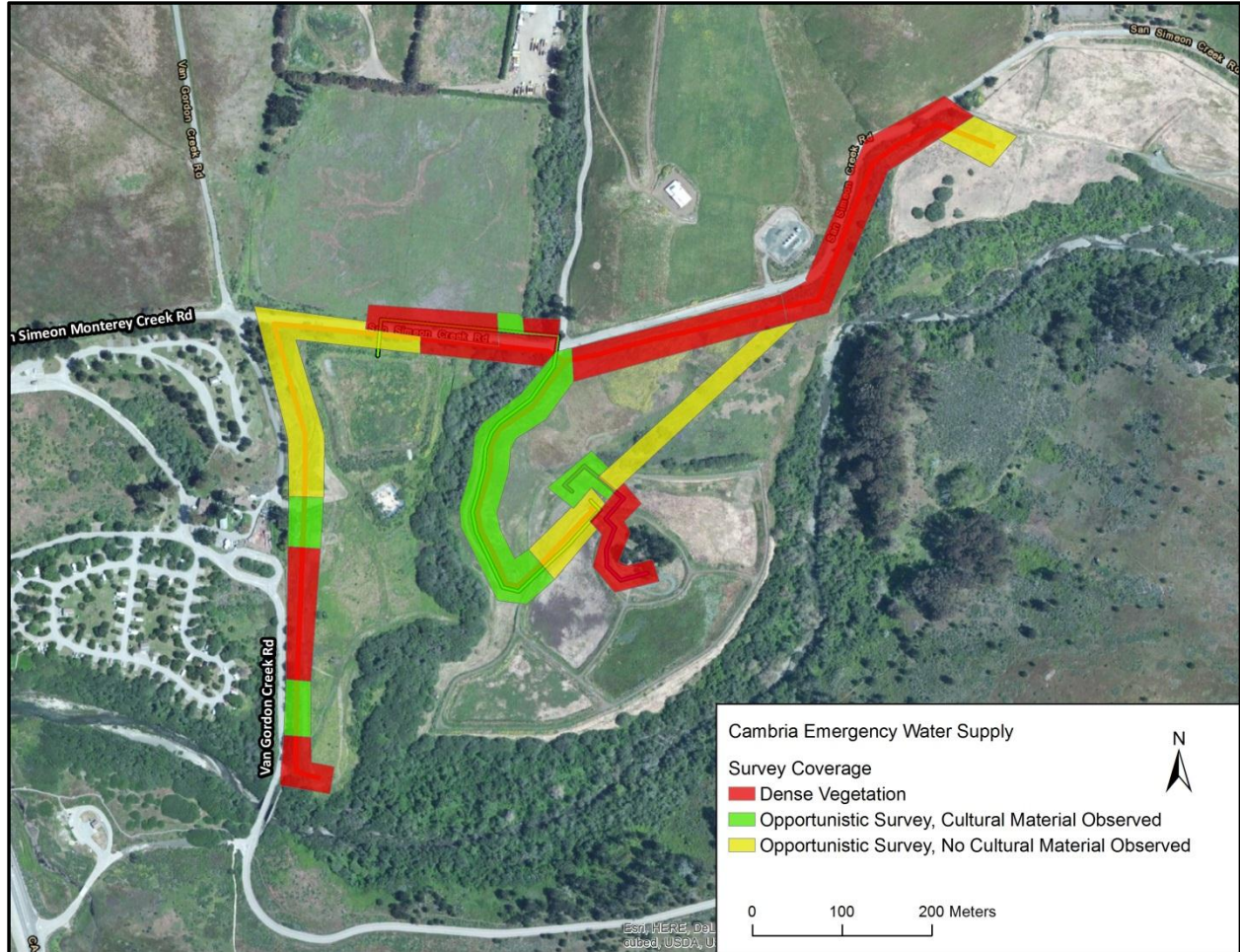


Figure 6. Survey coverage

Ground surface visibility at CA-SLO-221 was poor due to extremely dense vegetation. One adobe brick fragment was found within the site boundary adjacent to the AWTP Feed Water Pipeline. Previous site records describe CA-SLO-221 as a protohistoric site with an outpost from Mission San Miguel. The site has been disturbed by roads, levees, and artificial ponds or basins. The AWTP Feed Water Pipeline will pass through the site from northwest to southeast.

Ground surface visibility at CA-SLO-378 was poor due to extremely dense vegetation. A small number of flakes were observed at the surface along the Product Water Pipeline to Injection Wells and the AWTP Feed Water Pipeline to the LIW Well. CA-SLO-378 is a large permanent prehistoric campsite. A large amount of material including choppers, scrapers, broken bowls, and manos have previously been recovered from the site but no subsurface testing has been conducted. The area has been previously disturbed by roads, a house and the Van Gordon Reservoir.

Ground surface visibility at CA-SLO-1373 was fair and the site appears to be relatively intact. A small amount of ceramic, glass, clams and faunal bone was visible at the surface (Figure 9). Previous site records describe the site as a multi-component site with an extensive midden deposit containing lithics, marine shell, Fire Affect Rock, soapstone, and olivella shells. Other site components include a Proto-Historic adobe and Historic artifact scatters. The Brine Disposal pipeline will pass directly through the site from north to south.

Ground surface visibility at CA-SLO-1374 was fair but no cultural materials were observed. Previous site records describe the site as a Prehistoric site consisting of bedrock mortars and shell fragments. The site will not be impacted by the proposed Project facilities.



Figure 7. View of CA-SLO-1373 from western edge of CA-SLO-221



Figure 8. Limited surface visibility along two-track going through CA-SLO-187



Figure 9. Midden soil at site CA-SLO-1373 with lithic debitage and shell remains

IMPACT ANALYSIS

The Holocene alluvial deposits are not sensitive for fossil resources due to their young age and are given a PFYC sensitivity ranking of 2 or low. Vertebrate fossils are known to occur intermittently but with low predictability in the Franciscan Assemblage and Pleistocene marine terrace deposits resulting in a PFYC ranking of 3a or moderate sensitivity.

Ground disturbance activities for the construction of wells include drilling between 40 and 100 feet in depth. Additionally, installation of the impermeable liner at Van Gordon Reservoir would require removal of vegetation. Nominal excavation would be necessary for the proposed AWTP, since it would be within a container. Yard piping would be installed below ground, under the AWTP. Additionally, no excavation would be necessary for the proposed conveyance pipelines, since they would be above ground.

While the well excavations could encounter fossil bones or other materials from any of the sensitive sediments identified in the Project site, due to the method of excavation, the specimens will lack context that is critical to scientific significance. These types of unprovenanced fossils will only be significant if they result in identification of new species that are currently not known in the area. If they are identified as already-known species, they will be suitable for educational uses. Excavation for the proposed AWTP is not anticipated to be deep enough to impact paleontologically sensitive sediments.

Archaeological and historical resources are considered to be significant if they possess integrity and may contribute information important in prehistory or history. Based on the prior research and survey results, the potential to impact resources is discussed below.

There are five previously recorded archaeological resources within the Project site. The construction of the above ground pipelines is not anticipated to substantively impact these cultural resources. The Advanced water treatment plant (AWTP) is at the northern edge of CA-SLO-221 and the western portion of the AWTP is within the boundary of site CA-SLO-1373. The proposed location of the Lagoon Fresh Water Injection Well (LIW) is within the boundary of site CA-SLO-378 and is expected have an impact on this site. The construction access road to the LIW area passes through sites CA-SLO-187 and CA-SLO-378. The construction access road to the AWTP passes through sites CA-SLO-1373 and CA-SLO-221 (Figure 10). Grading, trenching and excavations in these areas may adversely impact the sites. Site SLO-1374 is located adjacent to the existing CCSD Water Supply Pipeline and is not expected to be impacted.

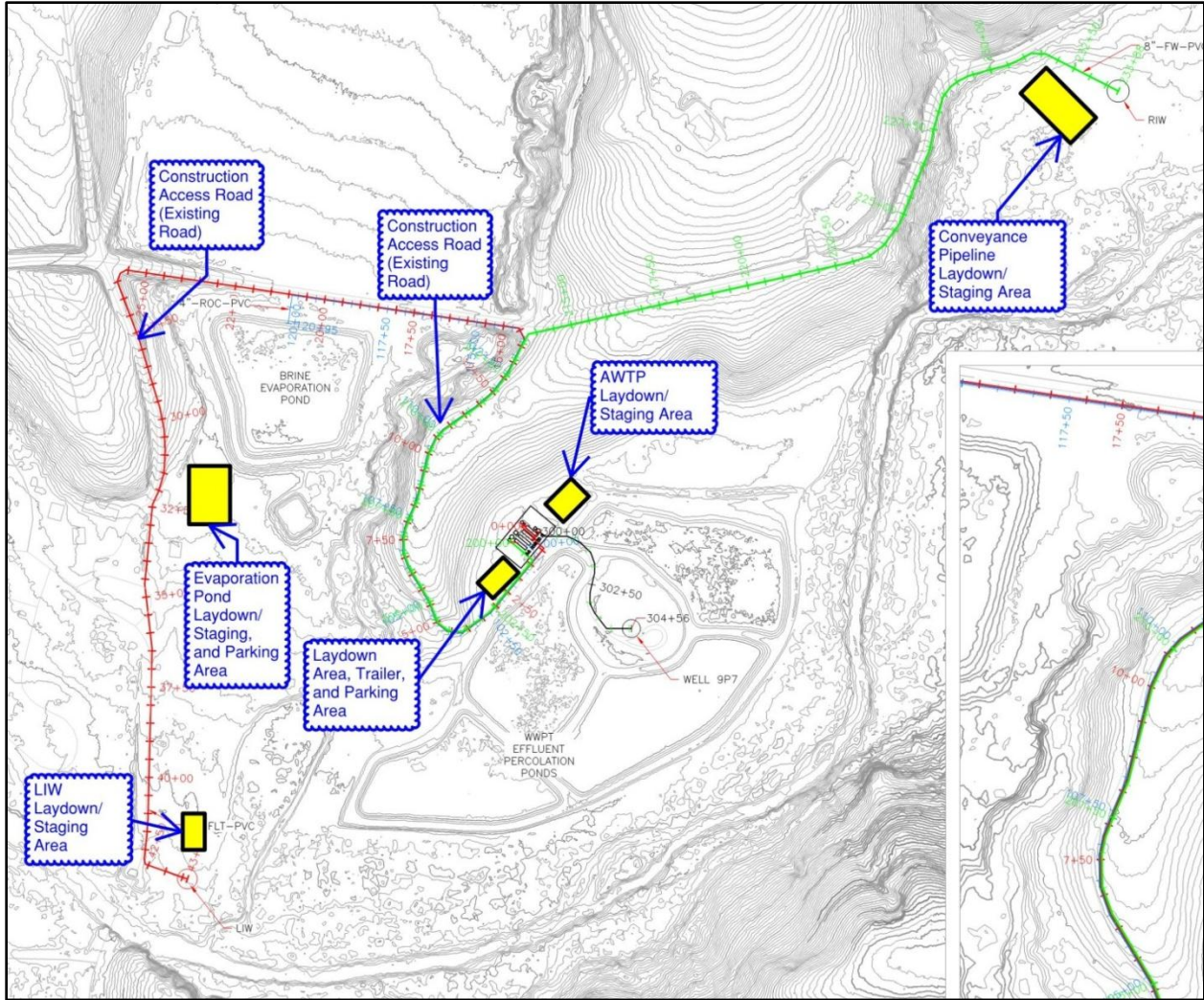


Figure 10. Access road and laydown/staging areas for construction

RECOMMENDATIONS

No paleontological resources are known within the Project or the immediate vicinity. However, the Franciscan Assemblage, which may be encountered at depth, and Pleistocene marine deposits similar to those within the Project site have produced significant paleontological resources within San Luis Obispo County. The Holocene alluvium is not sensitive for fossils, but may be underlain by older, paleontologically sensitive sediments at depth. No fossils meeting significance criteria are anticipated from the deep well excavations due to lack of context of any recovered material. All other excavations are anticipated to be shallow and will not impact paleontologically sensitive sediments. Based on the results of this study, this project is anticipated to have a negligible impact on paleontological resources.

Cultural resources are known within the Project and the immediate vicinity. It is recommended that a qualified archaeologist and Native American monitor be present for drilling, grading, trenching, excavation and any other subsurface impacts within the boundaries of the previously recorded sites (CA-SLO-378, CA-SLO-187, CA-SLO-1373, and CA-SLO-221) in the areas of the AWTP and LIW (County of San Luis Obispo LCP Policy 5d, Section 23.07.104 of the CZLUO). The project is anticipated to have a negligible impact on cultural resources outside of these areas.

Prior to the start of construction, earthmoving personnel should receive a cultural and paleontological sensitivity training detailing the types of artifacts and fossils that may be encountered and procedures to follow if finds occur. In the event that unanticipated cultural or paleontological resources are discovered during project construction activities, all work should immediately be halted within 50 feet of the find until it can be evaluated by a qualified archaeologist or paleontologist (County of San Luis Obispo LCP Policy 6, Sections 23.05.140 and 23.07.104 of the CZLUO).

REFERENCES CITED

BLM

- 2007 Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Lands.
http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/20080/im_2008-009.html

Dibblee, T.W. Jr.

- 2007 Geologic Map of the Cambria Quadrangle, San Luis Obispo County, California. Edited by John A. Minch. Dibblee Geology Center Map #DF 364. Scale 1:24000.

Finger, K.

- 2014 Cambria Emergency Water Supply Project paleontological record search. Email dated 5/6/2014.

Jones, T., N. Stevens, D. Jones, R. Fitzgerald and M. Hylkema

- 2007 The Central Coast: a midlatitude milieu. In *California Prehistory: Colonization, Culture and Complexity*, T. Jones and K. Klar (eds), Altamira Press, Lanham, pages 125-146.

San Luis Obispo Historical Museum

- 2003 History of San Luis Obispo County. Available online: <http://www.ci.san-luis-obispo.ca.us/history.asp>, accessed November 4, 2009.

Scott, E. and K. Springer

- 2003 CEQA and fossil preservation in southern California. *The Environmental Monitor*, Winter 4-10, 17.

Scott, K. and S. Gust

- 2006 Paleontological Survey and Evaluation of Camp Roberts and Camp San Luis Obispo, California Army National Guard Facilities, Central California. Prepared by Cogstone Resource Management. Prepared for the California Army National Guard Environmental Office, Camp Roberts. On file at Cogstone, Orange, CA.

UCMP

- 2014 Online database search of the University of California, Museum of Paleontology.

Wagner, D.L.

- 2002 California geomorphic provinces. California Geological Survey note 36. Website: <http://www.consrv.ca.gov/cgs/information/>

APPENDIX A: QUALIFICATIONS



SHERRI GUST

Principal Investigator for Archaeology and Paleontology

EDUCATION

1994 M. S., Anatomy (Evolutionary Morphology), University of Southern California, Los Angeles
1979 B. S., Anthropology (Physical), University of California, Davis

SUMMARY QUALIFICATIONS

Ms. Gust has 35 years of experience in California, acknowledged credentials for meeting national standards, and is a certified/qualified principal archaeologist and paleontologist in the County of San Luis Obispo. Ms. Gust is an Associate of the Natural History Museum of Los Angeles County in the Vertebrate Paleontology and Rancho La Brea Sections. She is a Member of the Society of Vertebrate Paleontology, Society for Archaeological Sciences, Society for Historical Archaeology, and the Society for California Archaeology.

SELECTED PROJECTS

3807 Broad Street, SESLOC FCU, San Luis Obispo, San Luis Obispo County. Archaeological and Native American monitoring during ground disturbing activities for construction of a new administrative building for the credit union. Provided final compliance report. Principal Archaeologist. 2013

Montclair Place Subdivision, Arroyo Grande, San Luis Obispo County. Paleontological and cultural resources assessment of the proposed 5-acre site. Records search, pedestrian survey, and assessment report. Principal Archaeologist. 2013

Paso Robles Gateway Project, unincorporated San Luis Obispo County. Conducted a technical study to determine the potential effects on paleontological, archaeological and historic resources of the proposed project. Principal Investigator. 2012

Cantinas Camp, Cayucos, San Luis Obispo County. Determined the potential effects on archaeological and paleontological resources within the proposed project site. The proposed project is located off Lynch Canyon Road on the north shore of Nacimiento Reservoir. It consists of the construction of a faith-based performing arts camp. Principal Investigator. 2010

Cayucos Bluff, Cayucos, San Luis Obispo County. Performed archaeological record search, background research, phase I survey, Native American consultation, and prepared final assessment report to the City under contract to the developer. 2009-2010

Updated Cultural Resource Assessment and Mitigation Plan for La Quinta Ranch, plus Testing of Site CA-SLO-2066, San Luis Obispo County. Performed archaeological and paleontological record searches and pedestrian survey, testing of previously-recorded site, collection and identification of several prehistoric artifacts, evaluation of resources, and prepared final assessment report for the County under contract to Kirk Consulting. Principal Archaeologist. 2007

Cold Canyon Landfill 12-Acre Expansion EIR, Arroyo Grande, San Luis Obispo County. Archaeological and paleontological evaluation of expansion plans. Performed paleontological and archaeological record searches, Native American consultation, research, survey and prepared assessment, impact analysis and EIR section for the County. Principal Investigator. 2006-2009

Cultural Resources Testing at 345 to 367 Stimson Avenue (APN 005-133-009), Pismo Beach, San Luis Obispo County. Performed field assessment, excavation of testing trenches, shovel test probes, recovery of artifacts, identification and analysis of historic and prehistoric artifacts, evaluation of resources and prepared final testing report for the City under contract to the developer. Principal Archaeologist. 2007

DUSTIN KEELERArchaeologist and Cross-Trained Paleontologist/GIS Specialist**EDUCATION**

2010 Ph.D., Anthropology (Archaeology), State University of New York at Buffalo
 2003 M.A., Anthropology (Archaeology), State University of New York at Buffalo
 2001 B.A., *magna cum laude*, Anthropology, Arizona State University

SUMMARY QUALIFICATIONS

Dr. Keeler is a qualified archaeologist and cross-trained paleontologist with more than 12 years of experience in cultural resources management. He has experience excavating Pleistocene fossils on Paleolithic sites in France and Belgium and five years of experience working on projects in California and adjacent areas. Keeler has more than 8 hours of paleontology training and experience as a paleontological monitor. He regularly serves as a dual archaeological/paleontological monitor. His background includes field surveys and GIS mapping.

SELECTED PROJECTS

3807 Broad Street, SESLOC FCU, San Luis Obispo, San Luis Obispo County, CA. Archaeological monitoring and coordination with Native American monitor during ground disturbing activities for construction of a new administrative building for the credit union. Archaeological Monitor. 2013

Chuckwalla Valley Emergency Response, Southern California Edison, Desert Center, Riverside County, CA. Cultural resources survey and monitoring to support the emergency removal, replacement and repair of poles damaged or destroyed by a flash flood located on land administered by the BLM and on private land. Assessed the potential for adverse effect to historic properties, per Section 106 of the NHPA, and impacts to cultural resources under CEQA. Archaeological Field Technician. 2013

Eldorado-Ivanpah Transmission Project, Southern California Edison, Eldorado, NV to Ivanpah, CA. Performed archaeological and paleontological monitoring for a project that involves construction of 195 miles of new transmission lines and associated fiber optic lines across BLM and private lands connecting the Ivanpah Solar Project. Archaeological/ Paleontological Monitor. 2012-2013

Cascade Renewable Interconnection Project, Southern California Edison, Sunfair, San Bernardino County, CA. Conducted archaeological and paleontological awareness training for SCE crew. Performed monitoring during ground disturbing activities for installation of new poles, removing and replacing poles, and transferring conductor and facilities to new poles. Archaeological/ Paleontological Monitor. 2013

Supporting Studies for Renewable Energy Development Environmental Assessment (EA), U.S. Army, Yuma Proving Grounds, Archaeological Survey, Yuma AZ. Completed a pedestrian survey of approximately 3,200 acres for a proposed solar renewable energy development project. Field Crew Chief. 2012

Metropole Vault Replacements, Southern California Edison, Avalon, Catalina Island, Los Angeles County, CA. Archaeological monitoring and coordinating with Native American monitors during ground disturbing activities of a 30,000 s.f. APE for replacement of two underground electrical vaults. The site is located in proximity to the original Tongva tribal village on the island. Archaeological/ Paleontological Monitor. 2014

SR 178 at Morning Drive Widening Project, Caltrans District 6, Bakersfield, Kern County, CA. Conducted paleontological mitigation monitoring in compliance with the Preliminary Paleontological Mitigation Plan (PMP) prepared by Cogstone. Sub to TY Lin. Paleontological Monitor. 2012-13

Fulbright Scholar Fellowship, Northeastern State University, Magadan, Russia. Personally created a complete Geographic Information Systems database of archaeological sites in Far Eastern Russia. January-April 2013



COURTNEY RICHARDS

Paleontologist and Assistant Field Director

EDUCATION

2011 M.S., Biological Sciences, Marshall University
 2006 B.S., Earth and Space Science, University of Washington

SUMMARY QUALIFICATIONS

Ms. Richards is a qualified paleontologist with extensive research, field, and laboratory experience. She serves as Paleontology Supervisor and Assistant Field Director at Cogstone. She supervises field crews, performs paleontological surveys, mapping, monitoring, and sample processing in accordance with project-related paleontological mitigation plans. Ms. Richards has personal expertise in fossil salvage, stratigraphy, fossil preparation, database analysis and identification. She has published papers on dinosaur and marine reptile paleontology research. She is a member of the Society of Vertebrate Paleontology.

SELECTED PROJECTS

Montclair Place Subdivision, Arroyo Grande, San Luis Obispo County, CA. Paleontological and cultural resources assessment of the proposed 5-acre site. Records search, pedestrian survey, and assessment report. Co-Author and Paleontologist. 2013

Integrated Facilities Master Plan Update, Camrosa Water District, Ventura County, CA. Prepared paleontology sections of a technical study in support of an Environmental Impact Report (EIR) that involved evaluation of potential impact, sensitivity mapping and mitigation measures for 19,300-acre district. Proposed projects include potable water reservoirs, pump stations, pipelines and recharge ponds; non-potable water reservoirs, pump stations, pressure regulating stations, and pipelines; and sanitary service facilities including pipelines and a water reclamation facility. Paleontology Technician. 2011-2012

Sunpower Interconnection, Southern California Edison, Rosamond, Kern County, CA. Provided paleontological monitoring, sensitivity training for construction personnel and prepared compliance report. The project involved removal of old power poles and excavation of holes for new power poles for transmission lines that will provide connection to the Antelope Valley Solar Project. Paleontologist/Report Author. 2013

SR 99, Arboleda Drive Freeway Project, Caltrans District 10, Merced, Merced County, CA. Conducted and supervised paleontological monitoring, fossil recovery, fossil preparation, and prepared portions of the monitoring compliance report for the 5-mile long SR 99 expansion project. Some 128 localities and 1667 fossils were recovered in five months of excavation for detention basins. Assistant Field Director. 2012

Regional Express Lanes Network Phase I Project Approval/Environmental Document, Metropolitan Transportation Commission and Caltrans District 4, Alameda, Contra Costa, and Santa Clara Counties, CA Prepared portions of a Paleontological Identification Report (PIR) for a 2,472-acre HOV lane to toll lane conversion project along portions of Interstates 580/ 680/ 880. Report Contributor. 2012-present

Caltrans Fossil Sensitivity Mapping for Central California. Performed geology research for an extensive project to map paleontological sensitivity characteristics for over 3000 miles of proposed construction activities along major freeways in 15 Counties. Paleontology Technician. 2011-2012

California High Speed Rail Project, Bakersfield to Palmdale Segment, Kern and Los Angeles Counties, CA. Participated in five-day paleontological survey of project study area that was determined sensitive for fossils. Paleontology Technician. 2011

State Route 41 Rehabilitation Project, Kettleman City, Kings County, CA. Prepared and identified fossils recovered from construction monitoring project. Paleontology Technician. 2011-2012



CHAD KAIMANU JACKSON

Archaeological Monitor

EDUCATION

2005 B.S., Earth Science (concentration in geology/archaeology), Cal Poly State University, San Luis Obispo

SUMMARY QUALIFICATIONS

Mr. Jackson is a qualified archaeologist and crew chief with nine years of experience. He conducts compliance monitoring, performs surveys, mapping, data recovery, testing, excavations, cataloguing, and site recording. He coordinates monitoring activities with Chumash and Salinan Native American monitors, among others. His experience includes surveys and monitoring for energy, water, and park projects along the Central and Southern California coastal region and the Central Valley.

SELECTED PROJECTS

Cambria Emergency Water Supply, Cambria, San Luis Obispo County, CA. Conducted a field survey, including a surface inspection and the relocating of five sites within the project site. The project involves construction of four underground pipelines and three new wells. Ground disturbance for well construction is 40-100 feet in depth in an area sensitive for cultural resources. Archaeologist. 2014

Los Osos Wastewater Project, San Luis Obispo County, CA. Performed data recovery during construction of a new wastewater treatment system including pipelines, appurtenances, pump stations and a water recycling facility. Archaeologist. 2012-1014

Paso Robles WWTP Renovation, Paso Robles, San Luis Obispo County, CA. Conducted monitoring during ground disturbing activities. Archaeological Monitor. 2013

Camp Roberts. California National Guard, Monterey and San Luis Obispo counties, CA. Conducted archaeological data recovery and excavations during ground disturbing activities. Archaeologist. 2012

Residential Development, Pismo Beach, San Luis Obispo County, CA. Conducted monitoring during ground disturbing activities. Archaeological Monitor. 2013

Pacific Gas & Electric, Mendocino and Sonoma Counties, CA. Conducted an archaeological survey and performed monitoring for a transmission line project. Archaeologist. 2012- 2013

North Sky River Wind Energy Project, Tehachapi, Kern County, CA. Performed data recovery during construction activities. Archaeologist. 2012

Twitchell Dam Reservoir Project, Santa Maria, Santa Barbara County, CA. Performed monitoring, mapping, new site identification and recording for this Bureau of Reclamation project that was transferred to the Santa Maria Valley Water Conservation District after construction. The dam captures seasonal floodwaters used to recharge regional groundwater. Senior Archaeological Monitor. 2010-2011

California Department of Parks and Recreation San Luis Obispo Coast District, San Luis Obispo County, CA. Performed surveys, assessments, monitoring, excavations, GIS mapping, site recording, cataloguing for various projects along the Coast district from Oceano north to San Simeon and Lime Kiln including construction of pipelines, trail work, historical restoration, and landscaping; GIS mapmaking for Morro Bay and San Simeon Natural Resource Inventory; GPS data collection, GIS analysis of resources and habitat, working with Chumash and Salinan Tribal members and site conservation management. Archaeological Project Leader and Crew Chief. 2006-2009

APPENDIX B: NATIVE AMERICAN HERITAGE COMMISSION

Received Time Apr. 29. 2014 3:59PM No. 1244

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471



April 29, 2014

Sherrri Gust
Cogstone
1518 W. Taft Ave.
Orange, CA 92865

Sent by Fax: (714) 974-8303
Number of Pages: 2

Re: Cambria Emergency Water Supply Project, San Luis Obispo County.

Dear Ms. Gust,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

A handwritten signature in cursive script that reads "Katy Sanchez".

Katy Sanchez
Associate Government Program Analyst

Native American Contact
San Luis Obispo County
April 28, 2014

Judith Bomar Grindstaff
63161 Argyle Road
King City, CA 93930
(831) 385-3759-home

Salinan

Salinan Nation Cultural Preservation Association
Gregg Castro, Administrator
5225 Roeder Road
San Jose, CA 95111
gicastro@pacbell.net
(408) 219-2754

Salinan

Salinan Tribe of Monterey, San Luis Obispo Counties
Patty Dunton, Tribal Administrator
7070 Morro Road, Suite A
Atascadero, CA 93422
salinantribe@aol.com
805-460-9202
805 235-2730 Cell
805-460-9204

Salinan
Chumash

Salinan-Chumash Nation
Xielolixii
3901 Q Street, Suite 31B
Bakersfield, CA 93301
408-966-8807 - cell

Salinan
Chumash

Xolon-Salinan Tribe
Johnny Eddy, Council Chairperson
950 Coral Ridge Circle
Rodeo, CA 94572
831-210-9771

Salinan

Salinan Nation Cultural Preservation Association
Cultural Resources Coordinator
PO Box 56
Lockwood, CA 93932
fabdq2000@earthlink.net

Salinan

Salinan Nation Cultural Preservation Association
Robert Duckworth, Environmental Coordinator
4777 Driver Rd.
Valley Springs, CA 95252
dirobduck@thegrid.net
831-578-1852

Salinan

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Cambria Emergency Water Supply Project, Project # 3017, San Luis Obispo County.

From: info@salinantribe.com
To: [Dustin Keeler](#)
Subject: Comments concerning Cogstone Project No. 3017-001, Cambria emergency Water supply Project.
Date: Tuesday, May 13, 2014 4:37:33 PM

Dear Dustin, We have much concern that the proposed project has the potential to impact cultural resources. I personally monitored work near San Simeon Creek a few years ago for the Cambria Community Services District. They should have a copy of my report with the findings. I am sending you a copy of Gibson's 1994 report prepared for the CCSD many of his recommendations were to avoid or mitigate the sites there. We have also included information we have located on the project area, which explains the Salinan connection to the location as an out post for Mission San Miguel which is Salinan. San Simeon is the Playano Salinan village of Tsilakak where the Salinan have worked and lived for thousands of years not he Chumash. We would request that there be a Salinan monitor on site during all ground disturbing activities in undisturbed and previously disturbed areas.

Xayatspanikan (Thank You),
Patti Dunton, Tribal Administrator for John Burch, Traditional Lead

APPENDIX C: PFYC

FEDERAL POTENTIAL FOSSIL YIELD CLASSIFICATION SYSTEM

The PFYC System was developed by the United States Department of Agriculture (USDA) Forest Service and refined by the BLM (2007). Occurrences of paleontological resources are closely tied to the geologic units (i.e., formations, members, or beds) that contain them. The probability for finding paleontological resources can be broadly predicted from the geologic units present at or near the surface. Therefore, geologic mapping can be used for assessing the potential for the occurrence of paleontological resources.

Using the PFYC system, geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential. This classification is applied to the geologic formation, member, or other distinguishable unit, preferably at the most detailed mapable level. It is not intended to be applied to specific paleontological localities or small areas within units. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher class; instead, the relative abundance of significant localities is intended to be the major determinant for the class assignment.

The PFYC system is meant to provide baseline guidance for predicting, assessing, and mitigating paleontological resources. The classification should be considered at an intermediate point in the analysis, and should be used to assist in determining the need for further mitigation assessment or actions.

The descriptions for the classes below are written to serve as guidelines rather than as strict definitions. Knowledge of the geology and the paleontological potential for individual units or preservational conditions should be considered when determining the appropriate class assignment. Assignments are best made by collaboration between land managers and knowledgeable researchers.

CLASS 1 – VERY LOW. Geologic units that are not likely to contain recognizable fossil remains. The probability for impacting any fossils is negligible. Assessment or mitigation of paleontological resources is usually unnecessary. The occurrence of significant fossils is non-existent or extremely rare. This class includes:

- Units that are igneous or metamorphic, excluding reworked volcanic ash units.
- Units that are Precambrian in age or older.

Class 1 Management notes:

- 1) Management concern for paleontological resources in Class 1 units is usually negligible or not applicable.
- 2) Assessment or mitigation is usually unnecessary except in very rare or isolated circumstances.

CLASS 2 – LOW. Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils. The probability for impacting vertebrate fossils or scientifically significant invertebrate or plant fossils is low. Assessment or mitigation of paleontological resources is not likely to be necessary. Localities containing important resources may exist, but would be

rare and would not influence the classification. These important localities would be managed on a case-by-case basis. This class includes:

- Vertebrate or significant invertebrate or plant fossils not present or very rare.
- Units that are generally younger than 10,000 years before present.
- Recent aeolian deposits.
- Sediments that exhibit significant physical and chemical changes (i.e., diagenetic alteration).

Class 2 Management notes:

- (1) Management concern for paleontological resources is generally low.
- (2) Assessment or mitigation is usually unnecessary except in rare or isolated circumstances.

CLASS 3 – MODERATE OR UNKNOWN. Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential. This classification includes a broad range of paleontological potential. It includes geologic units of unknown potential, as well as units of moderate or infrequent occurrence of significant fossils. Management considerations cover a broad range of options as well, and could include pre-disturbance surveys, monitoring, or avoidance. Surface-disturbing activities will require sufficient assessment to determine whether significant paleontological resources occur in the area of a proposed action, and whether the action could affect the paleontological resources. These units may contain areas that would be appropriate to designate as hobby collection areas due to the higher occurrence of common fossils and a lower concern about affecting significant paleontological resources. This class includes:

- Formations with sporadic known occurrences of vertebrate fossils - often marine in origin.
- Vertebrate fossils and scientifically significant invertebrate or plant fossils known to occur intermittently; predictability known to be low.
- Poorly studied and/or poorly documented formations. Potential yield cannot be assigned without ground reconnaissance.

Class 3 Management notes:

- (1) Management concern for paleontological resources is moderate; or cannot be determined from existing data.
- (2) Surface-disturbing activities may require field assessment to determine appropriate course of action.

Class 3a – Moderate Potential. Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered. Common invertebrate or plant fossils may be found in the area, and opportunities may exist for hobby collecting. The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.

Class 3b – Unknown Potential. Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known. This may indicate the unit or area is poorly studied, and field surveys may uncover significant finds. The units in this Class may eventually be placed in another Class when sufficient survey and research is performed. The unknown potential of the units in this Class should be carefully considered when developing any mitigation or management actions.

CLASS 4 – HIGH. Geologic units containing a high occurrence of significant fossils. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. Surface disturbing activities may adversely affect paleontological resources in many cases. The probability for impacting significant paleontological resources is moderate to high, and is dependent on the proposed action. Mitigation considerations must include assessment of the disturbance, such as removal or penetration of protective surface alluvium or soils, potential for future accelerated erosion, or increased ease of access resulting in greater looting potential. If impacts to significant fossils can be anticipated, on-the-ground surveys prior to authorizing the surface disturbing action will usually be necessary. On-site monitoring or spot-checking may be necessary during construction activities. This class includes:

- Extensive soil or vegetative cover; bedrock exposures are limited or not expected to be impacted.
- Areas of exposed outcrop are smaller than two contiguous acres.
- Outcrops from cliffs of sufficient height and slope so that impacts are minimized by topographic conditions.
- Other characteristics are present that lower the vulnerability of both known and unidentified paleontological resources.

Class 4 Management notes:

- (1) Management concern for paleontological resources in Class 4 is moderate to high, depending on the proposed action.
- (2) A field survey by a qualified paleontologist is often needed to assess local conditions.
- (3) Management prescriptions for resource preservation and conservation through controlled access or special management designation should be considered.
- (4) Class 4 and Class 5 units may be combined as Class 5 for broad applications, such as planning efforts or preliminary assessments, when geologic mapping at an appropriate scale is not available. Resource assessment, mitigation, and other management considerations are similar at this level of analysis, and impacts and alternatives can be addressed at a level appropriate to the application.

Class 4a – High and exposed. Unit is exposed with little or no soil or vegetative cover. Outcrop areas are extensive with exposed bedrock areas often larger than two acres. Paleontological resources may be susceptible to adverse impacts from surface disturbing actions. Illegal collecting activities may impact some areas.

Class 4b – High and Unexposed. These are areas underlain by geologic units with high potential but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to moderating circumstances. The bedrock unit has high potential, but a protective layer of soil, thin alluvial material, or other conditions may lessen or prevent potential impacts to the bedrock resulting from the activity.

CLASS 5 – VERY HIGH. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils, and that are at risk of human-caused adverse impacts or natural degradation. The probability for impacting significant fossils is high. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be

expected to occur in the impacted area. On-the-ground surveys prior to authorizing any surface disturbing activities will usually be necessary. On-site monitoring may be necessary during construction activities.

This class includes:

- Extensive soil or vegetative cover; bedrock exposures are limited or not expected to be impacted.
- Areas of exposed outcrop are smaller than two contiguous acres.
- Outcrops from cliffs of sufficient height and slope so that impacts are minimized by topographic conditions.
- Other characteristics are present that lower the vulnerability of both known and unidentified paleontological resources.

Class 5 Management notes:

- (1) Management concern for paleontological resources in Class 5 areas is high to very high.
- (2) A field survey by a qualified paleontologist is usually necessary prior to surface disturbing activities or land tenure adjustments. Mitigation will often be necessary before and/or during these actions.
- (3) Official designation of areas of avoidance, special interest, and concern may be appropriate.

Class 5a – Very High and Exposed. Unit is exposed with little or no soil or vegetative cover. Outcrop areas are extensive with exposed bedrock areas often larger than two contiguous acres. Paleontological resources are highly susceptible to adverse impacts from surface disturbing actions. Unit is frequently the focus of illegal collecting activities.

Class 5b – very high and unexposed. These are areas underlain by geologic units with very high potential but have lowered risks of human-caused adverse impacts and/or lowered risk of natural degradation due to moderating circumstances. The bedrock unit has very high potential, but a protective layer of soil, thin alluvial material, or other conditions may lessen or prevent potential impacts to the bedrock resulting from the activity.

http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/20080/im_2008-009.html

APPENDIX D: MITIGATION MONITORING PLAN

Archaeology Mitigation Monitoring Plan

Prior to issuance of construction permits, the applicant shall submit for the review and approval of the Environmental Coordinator, the following County-required Archaeological Monitoring and Recovery Plan.

a. List of Personnel involved in the monitoring activities: The principal investigator will be Sherri Gust of Cogstone, a San Luis Obispo County Qualified Archaeologist. Potential Cogstone supervisors and monitors personnel include Chad Jackson and Kacey Hadick. Both have bachelor's degrees and more than two years of experience. Another San Luis Obispo County Qualified Archaeologist with a graduate degree and a minimum of five years of experience as a principal investigator and other qualified supervisors and monitors with bachelor's degrees and a minimum of two years of experience may be substituted with permission of the County Environmental Coordinator.

b. Clear identification of what portions of the project (eg phases, areas of the site, types of activities): There are five previously recorded archaeological resources within the project site. The construction of the above ground pipelines is not anticipated to substantively impact these cultural resources. The proposed location of the Lagoon Fresh Water Injection Well (LIW) is within the boundary of site CA-SLO-378 and is expected have an impact on this site. The Advanced water treatment plant (AWTP) is at the northern edge of CA-SLO-221 and the western portion of the AWTP is within the boundary of site CA-SLO-1373. The construction access road to the LIW area passes through sites CA-SLO-187 and CA-SLO-378. The construction access road to the AWTP passes through sites CA-SLO-1373 and CA-SLO-221 (Figure 10). Grading, trenching and excavations in these areas may adversely impact the sites. Site SLO-1374 is located adjacent to the existing CCSD Water Supply Pipeline and is not expected to be impacted.

c. Description of how the monitoring shall occur: All ground disturbing activities, including vegetation removal, require full time monitoring within the boundaries of the archaeological sites. The archaeological monitor will work closely but safely with heavy equipment to observe the ground surface being cut. The monitor has the authority to temporarily divert equipment to evaluate and/or recover potentially significant archaeological resources.

Prehistoric resources may be observed or recovered from any of the archaeologically sites. Isolated prehistoric resources observed will be collected and isolate site records filed. If prehistoric features are observed, work in that vicinity will halt until the principal investigator retains Native American observers with Chumash heritage to participate in the testing and evaluation of those features. If testing determines that the features meet significance criteria under CEQA, then the principal investigator must submit a data recovery plan to the County Environmental Coordinator which meets all elements of the County Archaeology Phase III Mitigation requirements and obtain approval before implementing the plan.

Isolated historical archaeological resources observed will be collected and isolate site records filed. If historical archaeological features are observed, work in that vicinity will halt until the feature is evaluated. If testing determines that the features meet significance criteria under CEQA, then the principal investigator must submit a data recovery plan to the County Environmental Coordinator which meets all elements of the County Archaeology Phase III Mitigation requirements and obtain approval before implementing the plan.

d. Description of frequency of monitoring (eg full-time, part-time, spot checking): All ground disturbing activities, including vegetation removal, require full time monitoring within the boundaries of the archaeological sites. The schedule will be determined from the construction schedule when it becomes available.

e. Description of what resources are expected to be encountered:

Trinomial (CA-SLO-)	Primary No. (P-40-)	Description
187	187	Prehistoric open village site as indicated by midden deposit
221	221	Multi-component agricultural area showing surface indications of roofing tile fragments, and many lithic artifacts (Mission San Miguel Estancia?)
378	378	Prehistoric large permanent camp site
1373	1373	Multi-components extensive midden deposit with shellfish remains, lithics, groundstone and bone. Proto-Historic adobe and Historic scatters
1374	1374	Prehistoric bedrock mortars and shell fragments

f. Description of circumstances that would result in the “work diversion” at the project site: Discovery of potentially significant resources will result in temporary diversion of machinery to allow recovery.

g. Description of procedures for diverting work on the site and notification procedures: The monitor will have authority to divert grading away from exposed resources temporarily in order to recover specimens. Discovery of potentially significant features will result in halt of work in the immediate vicinity and use of flagging to establish an exclusion zone (excluding heavy equipment) to allow the archaeologist to safely evaluate the find. Features determined to meet significance criteria under CEQA will require work to remain halted until approval for, and implementation of, a data recovery plan is completed. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the fossil discovery.

h. Description of monitoring reporting procedures: The principal investigator will prepare monthly progress reports to be filed with the District and the County Environmental Coordinator. The principal investigator will prepare a final report at the conclusion work to be filed with the District and the County Environmental Coordinator summarizing all monitoring and mitigation activities and confirming that all recommended mitigation measures have been met. The report will include a list of specimens recovered, documentation of each site, interpretation of resources recovered and will include all specialist's reports as appendices. If this report cannot be completed within 60 days of conclusion of earthmoving due to time required for identification and interpretation or other causes, the principal investigator will obtain agreement from the District and the County Environmental Coordinator on the revised deadline.

i. Disposition of collected materials: Significant archaeological materials will be accessioned into the San Luis Obispo County Archaeological Society repository. Resources which do not meet significance criteria will be donated for educational purposes.

j. Proposed analysis of results of data recovery and collected materials, including timeline of final analysis results: Artifacts require cleaning, stabilization, identification, cataloging and analysis. The time period necessary for the work will depend on the number of specimens recovered.

Significant archaeological materials recovered will be identified and analyzed by expert archaeologists. A comprehensive catalog including all provenience and identification information will be prepared. Artifact dates of manufacture and use will provide information of time period. Information from the anticipated domestic features will be compared to previously known deposits and interpreted within the framework of current knowledge. If possible, given the data recovered, the local archaeological framework will be revised to include the new discoveries.

All identification and analysis will be complete and the monitoring report submitted to the District and County Environmental Coordinator for review within sixty days of completion of laboratory work including identifications.

k. Project Proponent's Responsibilities: The project proponent is responsible to bear all costs associated with this mitigation plan including preparation of specimens to the curation standards of the repository and curation fees.

l. Research Questions: The prehistoric and historical archaeological materials which may be encountered can contribute to (1) better information on how the four prehistoric sites are related to one another, (2) whether they represent the same or different time periods, (3) better information on later historic uses, and (4) relationship of the area to local missions. Detailed and accurate horizontal location (GPS using UTM) and vertical location (elevation tied to levels)

information is essential. Mapping should utilize a total station or Trimble-type high resolution GPS device for accuracy, rather than hand held GPS.

Figure 11, Cultural Resources Impacts Map, was intentionally omitted.