CULTURAL RESOURCE SURVEY, TESTING, AND EVALUATION OF THE KEMERKO TPM PROJECT, HARBISON CANYON, SAN DIEGO COUNTY, CALIFORNIA

(TPM 20716RPL, Log No. 03-14-002)

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National Archaeological Data Base Information
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Sites: CA-SDI-16663 (Kem-S-1), CA-SDI-16664 (Kem-S-2), P-37-025165 (Kem-I-1), and P-37-025166 (Kem-I-2).
USGS Quadrangle: Alpine 7.5'
Area: 94 Acres
Key Words: County of San Diego, Harbison Canyon, Positive survey, Negative test, Bedrock milling station, CA-SDI-16663 (Kem-S-1), CA-SDI-16664 (Kem-S-2), P-37-025165 (Kem-I-1), and P-37-025166 (Kem-I-2).

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ABSTRACT

Laguna Mountain Environmental, Inc. (Laguna Mountain) conducted an archaeological survey of a 94-acre parcel for the proposed Kemerko TPM Project. Archaeological and historical research included a records search, literature review, examination of historic maps, and archaeological field inventory of the property. One site (CA-SDI-16664) could not be avoided and a testing and evaluation program was conducted to determine the significance of this site. The testing and evaluation program included a more detailed surface survey, re-examination of the bedrock milling, and subsurface test excavation.

Cultural resource work was conducted in accordance with the California Environmental Quality Act (CEQA) and the County of San Diego implementing regulations and guidelines including the County of San Diego Resource Protection Ordinance (RPO). The County of San Diego will serve as lead agency for the project and CEQA compliance.

Records searches at the South Coastal Information Center and the San Diego Museum of Man indicated that the majority of the project area had not been previously surveyed for cultural resources but that numerous cultural resources have previously been recorded within a one mile radius of the project. No previously recorded sites were present in the project area.

The inventory was conducted on July 15, 29, and August 1, 2003 by Mr. Andrew R. Pigniolo, RPA. Brush within portions of the project area is dense and areas of very steep slopes are present but open understory areas were also present and it was possible to survey most of the area in 10 to 15 meter (m) transect intervals. Very steep slopes (45-60 percent) were surveyed at approximately 25-30 m intervals. Special attention was paid to rock outcrops and overhangs. The cultural resources survey of the project adequately served to identify cultural resources.

The survey identified two prehistoric sites (CA-SDI-16663 and CA-SDI-16664) and two isolated artifacts (P-37-025165 and P-37-025166) within the project area. CA-SDI-16663 and CA-SDI-16664 are small bedrock milling stations with no associated artifacts and P-37-025165 and P-37-025166 are isolated lithic artifacts. Photographs and project records for this inventory will be temporarily curated at Laguna Mountain until final curation arrangements can be made at the San Diego Archaeological Center or another appropriate regional repository.

CA-SDI-16663 has not been evaluated for the California Register of Historical Resources (California Register) or as significant under the County RPO. Site CA-SDI-16664 was tested and evaluated with the determination of not significant and not eligible for the California Register. P-37-025165 and P-37-025166 as isolated lithic artifacts are not eligible for the California Register or significant under the County RPO. No further work is required to address isolates P-37-025165 and P-37-025166.

Current project plans indicate that site CA-SDI-16663 will be placed in a proposed open space easement. Based on the location of these easement and the lack of surface artifacts at this site, neither direct or indirect impacts from the project will occur to site CA-SDI-16663. Site CA-SDI-16663 will be preserved in the open space easement and no further work is recommended.

Site CA-SDI-16664 is within the proposed development area within Parcel 4. This site will be directly impacted by the current project, and a limited testing program was recommended to establish if the site qualifies as eligible for the California Register or as significant under the County RPO.

The current testing was conducted on December 14, 2005 by Mr. Andrew R. Pigniolo, RPA and Ms. Sarah Farmer with Mr. Clinton Linton serving as Native American Monitor. A series of 4 shovel test pits (STPs) were excavated at CA-SDI-16664 to determine if subsurface deposits were present and to establish the boundaries of the site. STPs were placed at 5 meter (m) intervals in cardinal directions from the center of the main bedrock milling element, except for the eastern STP which was placed at 6 meters to avoid a low lying boulder. The goal of STP placement was to test the areas near the feature most likely to contain subsurface artifacts. No subsurface cultural material was recovered from the STPs.

As the goal of the project was to identify resources that may be impacted by the project. Current project plans indicate that site CA-SDI-16663 will be placed in a proposed open space easement and will not be directly or indirectly impacted by the project. The absence of subsurface cultural material and the limited bedrock milling present makes CA-SDI-16664 unable to yield information important to prehistory or history as set forth in Criterium D of the California Register. CA-SDI-16664 is not eligible for the California Register or the County RPO. Direct and indirect impacts to California Register eligible cultural resources will not result from the project. No further cultural resources work is necessary to address impacts to these resources. Because the project does not include development of areas of significant alluvial deposits that might conceal archaeological sites, construction monitoring of the property is not necessary.

I. INTRODUCTION

A. Project Description

The proposed project is a subdivision and residential development of 94.05 gross acres into four parcels plus a remainder parcel. The four parcels have gross sizes ranging from 5.1 to 38.15 acres, and the remainder parcel is 36.72 acres. The proposed project is for residential land use. As part of the project residential development including building pads, road, and utilities would be graded and excavated. Off-site improvements are limited to utility connections to the residential area to the east.

The 94-acre project area is located in southern portion San Diego County within the Community of Harbison Canyon in the County of San Diego (Figure 1). It is located east of the City of El Cajon, north of Highway 94, and south of Interstate 8. The proposed subdivision is located just west of Harbison Canyon and north of Francis Drive. The project is located in the northeast quarter of Section 36 in Township 15 South, Range 1 East. The project is limited to the 94-acre proposed project area and includes only a small area off-site improvements in existing roads at the eastern end of the project. The project area is shown on the Alpine USGS 7.5' Quadrangle (Figure 2). Individual parcel boundaries are shown on the tentative parcel map (Figure 3).

The archaeological survey and testing and evaluation program was conducted pursuant to the California Environmental Quality Act (CEQA), and respective County of San Diego implementing regulations and guidelines including the Resource Protection Ordinance (RPO). The County of San Diego will serve as lead agency for CEQA compliance. The archaeological survey was conducted to determine if any cultural resources eligible for inclusion in the California Register of Historic Resources (California Register) or significant under the Resource Protection Ordinance (RPO) will be affected by this project. The additional testing and evaluation program was conducted to determine if site CA-SDI-16664 was eligible for the California Register or County RPO.

B. Project Personnel

The cultural resource inventory and testing and evaluation program has been conducted by Laguna Mountain Environmental, Inc. (Laguna Mountain), whose cultural resources staff meet state and local requirements. Mr. Andrew R. Pigniolo served as Principal Investigator for the project. Mr. Pigniolo is a member of the Register of Professional Archaeologists (RPA; previously called SOPA) and meets the Secretary of the Interior's standards for qualified archaeologists. He is also on the County of San Diego's list of qualified archaeologists. Mr. Pigniolo has an MA in Anthropology from San Diego State University and has extensive experience in the San Diego region. The resume of the Principal Investigator is included in Appendix A.

Ms. Sarah Farmer assisted in the field testing phase of the project. Ms. Farmer has a BA in Anthropology from the University of California, Las Angeles and has over three years experience in the San Diego region.

Ms. Heather L. Kwiatkowski assisted in the report preparation. Ms. Kwiatkowski has a BA in Anthropology from the University of Tennessee, Knoxville and has over five years experience in the southern California area. Ms. Natalie Brodie served as graphic artist for the project. Ms. Brodie has a BA in Anthropology from the University of California, San Diego and more than 4 years experience in California archaeology.

Mr. Clinton Linton served as the Native American Monitor during the project. Mr. Linton is a member of the Santa Ysabel Band of Mission Indians and holds BA degrees in both anthropology and history from the University of California, Riverside. In addition to knowledge of his Kumeyaay culture, he has more than three years experience working with the archaeology of southern California.

C. Structure of the Report

This report follows the State Historic Preservation Office's guidelines for Archaeological Resource Management Reports (ARMR). This report provides pertinent information from the County of San Diego Cultural Resource Survey Report Form and Form No. 1 is included as Appendix C to facilitate County review. The report introduction provides a description of the project and associated personnel. Section II provides background on the project area and previous research. Section III describes the research design, and survey methods while Section IV describes the inventory results including individual site descriptions. Section V provides evaluation criteria and recommendations.

Figure 1 Regional Location

Figure 2 Project Location Map

Figure 3. Project Plan

II. NATURAL AND CULTURAL SETTING

The following environmental and cultural background provides a context for the cultural resource inventory.

A. Natural Setting

The project area is located in the southern portion of San Diego County within the foothills and interior valleys of the region. The property includes ridges and a very steep mountain slope trending to the southeast. The project area is located on the western side of Harbison Canyon in the southeastern slope of a larger series of mountains. Elevations range from 1000 to 1840 feet above mean sea level (MSL). The property is undeveloped but the southern portion of the project area includes several small access roads for an overhead utility line that passes through the project area. Evidence of past percolation trenching and associated roads is also present.

The geomorphology of the project area is largely a product of the region's geologic history. During the Jurassic and late Cretaceous (>100 million years ago) a series of volcanic islands paralleled the current coastline in the San Diego region. The remnants of these islands stand as Mount Helix, Black Mountain, and the Jamul Mountains among others. This island arc of volcanos spewed out vast layers of tuff (volcanic ash) and breccia that have since been metamorphosed into hard rock of the Santiago Peak Volcanic formation. These fine-grained rocks provided a regionally important resource for Native American flaked stone tools.

At about the same time, a granitic and gabbroic batholith was being formed under and east of these volcanoes. This batholith was uplifted and forms the granitic rocks and outcrops of the Peninsular Range and the foothills to the west. The project area is part of this batholith and is underlain by these granitic rocks (Rogers 1992). Outcrops of granodiorite were present throughout the project area. In San Diego County the large and varied crystals of these granitic rocks provided particularly good abrasive surfaces for Native American seed processing. These outcrops were frequently used for bedrock milling of seeds. The batholith contains numerous pegmatite dikes. This was a good source of quartz, a material used by Native Americans for flaked stone tools and ceremonial purposes.

As the Peninsular Batholith rose, it warped and metamorphosed the overlying sediments, forming the Julian Schist (Remeika and Lindsay 1992). This formation contains quartzite, a material also used for Native American flaked stone tools. Its relatively poor flaking qualities made this quartzite less popular for tool making than the quartz and Santiago Peak materials.

The soils on the property include Las Posas series and acid ignious rocks (USDA 1973). Las Posas series soils consist of well-drained moderately deep stony fine sandy loams that have a clay subsoil. These soils are on uplands and formed in material weathered from basic igneous rocks (USDA 1973).

Las Posas stony fine sandy loam in present in the lower and southern portion of the project area. This soil is strongly sloping to moderately steep and is 26 to 40 inches deep over hard rock. Clay soils were noted in portions of this area during the survey.

The steep slopes making up the northern portion of the project area is mapped as acid ignious rock land (USDA 1973). This is rough steeply sloping broken terrain. Large boulders and granitic rock outcrops cover 50 to 90 percent of the total area. Soil material between these rocks is loam to loamy course sand in texture and is very shallow over decomposed granite.

Several small seasonal drainages with associated rock detritus from the adjacent steep slopes pass though the project area. These drainages appear to be largely ephemeral. A larger drainage with a developed riparian corridors is present just south of the project. Harbison Canyon and it's associated creek approximately 1/4 mile to the east also provided a major source of water and riparian resources to the area.

The climate of the region can generally be described as Mediterranean, with cool wet winters and hot dry summers. Rainfall limits vegetation growth. Two vegetation communities adapted to the dry conditions of the area occur in the project area. These include mixed chaparral and coastal sage scrub vegetation. Components of these communities provided important resources to Native Americans in the region. Sage seed, yucca, buckwheat, acorns, and native grasses formed important food resources to Late Prehistoric Native Americans.

Animal resources in the region include deer, fox, raccoon, skunk, bobcats, coyotes, rabbits, and various rodent, reptile, and bird species. Small game, dominated by rabbits, is relatively abundant.

B. Cultural Setting

Paleoindian Period

The earliest well documented prehistoric sites in southern California are identified as belonging to the Paleoindian period, which has locally been termed the San Dieguito complex/tradition. The Paleoindian period is thought to have occurred between 9,000 years ago, or earlier, and 8,000 years ago in this region. Although varying from the well-defined fluted point complexes such as clovis, the San Dieguito complex is still seen as a hunting focused economy with limited use of seed grinding technology. The economy is generally seen to focus on highly ranked resources such as large mammals and relatively high mobility which may be related to following large game. Archaeological evidence associated with this period has been found around inland dry lakes, on old terrace deposits of the California desert, and also near the coast where it was first documented at the Harris Site.

Early Archaic Period

Native Americans during the Archaic period had a generalized economy that focused on hunting and gathering. In many parts of North America, Native Americans chose to replace this economy with types based on horticulture and agriculture. Coastal southern California economies remained largely based on wild resource use until European contact (Willey and Phillips 1958). Changes in hunting technology and other important elements of material culture have created two distinct subdivisions within the Archaic period in southern California.

The Early Archaic period is differentiated from the earlier Paleoindian period by a shift to a more generalized economy and an increased focus on the use of grinding and seed processing technology. At sites dated between approximately 8,000 and 1,500 years before present, the increased use of groundstone artifacts and atlatl dart points, along with a mixed core-based tool assemblage, identify a range of adaptations to a more diversified set of plant and animal resources. Variations of the Pinto and Elko series projectile points, large bifaces, manos and portable metates, core tools, and heavy use of marine invertebrates in coastal areas are characteristic of this period, but many coastal sites show limited use of diagnostic atlatl points. Major changes in technology within this relatively long chronological unit appear limited. Several scientists have considered changes in projectile point styles and artifact frequencies within the Early Archaic period to be indicative of population movements or units of cultural change (Moratto 1984), but these units are poorly defined locally due to poor site preservation.

Late Archaic or Late Prehistoric Period

Around 2,000 B.P., Yuman-speaking people from the eastern Colorado River region began migrating into southern California, representing what is called the Late Prehistoric Period. The Late Prehistoric Period in San Diego County is recognized archaeologically by smaller projectile points, the replacement of flexed inhumations with cremation, the introduction of ceramics, and an emphasis on inland plant food collection and processing, especially acorns (True 1966). Inland semi-sedentary villages were established along major water courses, and montane areas were seasonally occupied to exploit acorns and piñon nuts, resulting in permanent milling features on bedrock outcrops. Mortars for acorn processing increased in frequency relative to seed grinding basins. This period is known archaeologically in southern San Diego County as the Yuman (Rogers 1945) or the Cuyamaca Complex (True 1970).

The Kumeyaay (formerly referred to as Diegueño) who inhabited the southern region of San Diego County, western and central Imperial County, and northern Baja California (Almstedt 1982; Gifford 1931; Hedges 1975; Luomala 1976; Shipek 1982; Spier 1923) are the direct descendants of the early Yuman hunter-gatherers. Kumeyaay territory encompassed a large and diverse environment which included marine, foothill, mountain, and desert resource zones. Their language is a dialect of the Yuman language which is related to the large Hokan super family.

There seems to have been considerable variability in the level of social organization and settlement variance. The Kumeyaay were organized by patrilineal, patrilocal lineages that claimed prescribed territories, but did not own the resources except for some minor plants and eagle aeries (Luomala 1976; Spier 1923). Some lineages occupied procurement ranges that required considerable residential mobility, such as those in the deserts (Hicks 1963). In the mountains, some of the larger groups occupied a few large residential bases that would be occupied biannually, such as those occupied in Cuyamaca in the summer and fall, and in Guatay or Descanso during the rest of the year (Almstedt 1982; Rensch 1975). According to Spier (1923), many Eastern Kumeyaay spent the period of time from spring through autumn in larger residential bases in the upland procurement ranges, and wintered in mixed groups in residential bases along the eastern foothills on the edge of the desert (i.e., Jacumba and Mountain Springs). This variability in settlement mobility and organization reflects the great range of environments in the territory.

Acorns were the single most important food source used by the Kumeyaay. Their villages were usually located near water, which was necessary for leaching acorn meal. Other storable resources such as mesquite or agave were equally valuable to groups inhabiting desert areas, at least during certain seasons (Hicks 1963; Shackley 1984). Seeds from grasses, manzanita, sage, sunflowers, lemonadeberry, chia and other plants were also used along with various wild greens and fruits. Deer, small game and birds were hunted and fish and marine foods were eaten. Houses were arranged in the village without apparent pattern. The houses in primary villages were conical structures covered with tule bundles, having excavated floors and central hearths. Houses constructed at the mountain camps generally lacked any excavation, probably due to the summer occupation. Other structures included sweathouses, ceremonial enclosures, ramadas and acorn granaries. The material culture included ceramic cooking and storage vessels, baskets, flaked lithic and ground stone tools, arrow shaft straighteners, stone, bone, and shell ornaments.

Hunting implements included the bow and arrow, curved throwing sticks, nets and snares. Shell and bone fishhooks, as well as nets, were used for fishing. Lithic materials including quartz and metavolcanics were commonly available throughout much of the Kumeyaay territory. Other lithic resources, such as obsidian, chert, chalcedony and steatite, occur in more localized areas and were acquired through direct procurement or exchange. Projectile points including the Cottonwood Series points and Desert Side-notched points were commonly produced.

Kumeyaay culture and society remained stable until the advent of missionization and displacement by Hispanic populations during the eighteenth century. The effects of missionization, along with the introduction of European diseases, greatly reduced the native population of southern California. By the early 1820s, California was under Mexico's rule. The establishment of ranchos under the Mexican land grant program further disrupted the way of life of the native inhabitants.

Ethnohistoric Period

The Ethnohistoric period refers to a brief period when Native American culture was initially being affected by Euroamerican culture and historical records on Native American activities were limited. When the Spanish colonists began to settle California, the project area was within the territory of a loosely integrated cultural group historically known as the Kumeyaay or Northern and Southern Diegueño because of their association with the San Diego Mission. The Kumeyaay as a whole speak a Yuman language which differentiates them from the Luiseño, who speak a Takic language to the north (Kroeber 1925). Both of these groups were hunter-gatherers with highly developed social systems. European contact introduced diseases that dramatically reduced the Native American population and helped to break down cultural institutions. The transition to a largely Euroamerican lifestyle occurred relatively rapidly in the nineteenth century.

Historic Period

Cultural activities within San Diego County between the late 1700s and the present provide a record of Native American, Spanish, Mexican, and American control, occupation, and land use. An abbreviated history of San Diego County is presented for the purpose of providing a background on the presence, chronological significance, and historical relationship of cultural resources within the county.

Native American control of the southern California region ended in the political views of western nations with Spanish colonization of the area beginning in 1769. De facto Native American control of the majority of the population of California did not end until several decades later. In southern California, Euroamerican control was firmly established by the end of the Garra uprising in the early 1850s (Phillips 1975).

The Spanish Period (1769-1821) represents a period of Euroamerican exploration and settlement. Dual military and religious contingents established the San Diego Presidio and the San Diego and San Luis Rey Missions. The Mission system used Native Americans to build a footing for greater European settlement. The Mission system also introduced horses, cattle, other agricultural goods and implements; and provided construction methods and new architectural styles. The cultural and institutional systems established by the Spanish continued beyond the year 1821, when California came under Mexican rule.

The Mexican Period (1821-1848) includes the retention of many Spanish institutions and laws. The mission system was secularized in 1834, which dispossessed many Native Americans and increased Mexican settlement. After secularization, large tracts of land were granted to individuals and families and the rancho system was established. Cattle ranching dominated other agricultural activities and the development of the hide and tallow trade with the United States increased during the early part of this period. The Pueblo of San Diego was established during this period and Native American influence and control greatly declined. The Mexican Period ended when Mexico ceded California to the United States after the Mexican-American War of 1846-48.

Soon after American control was established (1848-present), gold was discovered in California. The tremendous influx of American and Europeans that resulted quickly drowned out much of the Spanish and Mexican cultural influences and eliminated the last vestiges of de facto Native American control. Few Mexican ranchos remained intact because of land claim disputes and the homestead system increased American settlement beyond the coastal plain.

C. Prior Research

The archaeological inventory includes archival and other background studies in addition to Laguna Mountain's field survey of the project area. The archival research consisted of literature and record searches at local archaeological repositories, in addition to an examination of historic maps, and historic site inventories. This information was used to identify previously recorded resources and determine the types of resources that might occur in the survey area. The methods and results of the archival research are described below.

The records and literature search for the project was conducted at the South Coastal Information Center at San Diego State University and the San Diego Museum of Man. The records search included a one-mile radius of the project area to provide background on the types of sites that would be expected in the region (Appendix D). Copies of historic maps were provided by the South Coastal Information Center.

Sixteen documented archaeological investigations have taken place in the vicinity of the project. Most of these are surveys for small subdivisions and about half are more than 20 years old. Although older, the studies indicate there was an abundance of prehistoric activity in the area. Table 1 summarizes the investigations in a 1-mile radius.

While the majority of the project area has not been previously surveyed for cultural resources, a power utility corridor through the project has been previously surveyed (Cupples 1975). While this corridor was surveyed more than 25 years ago and methods have changed somewhat, no cultural resources were identified within the project area.

A total of 11 archaeological sites and three isolated artifacts have been identified through previous research within a one-mile radius of the project. None of these cultural resources were located within the project area. The previously recorded sites in the region provide an idea of the types of cultural resources that might be expected within the project area itself. The cultural resources within a one-mile radius are summarized on Table 2. They suggest that a variety of site types are present in the area.

As indicated in Table 2, site types in the region include rock shelters with rock art, habitation sites, temporary camps, bedrock milling stations, and historic structure locations. Most of the previously recorded sites are located in Harbison Canyon but several are located on adjacent slopes and ridges.

Table 1. Archaeological Investigations Within a One-Mile Radius of the Project Area

Author	Title	Date
A.D. Hinshaw Associates	Crestridge Specific Plan EIR Log#87-GP-1 Supplemental Information.	1987
Archaeological Associates	Archaeological Survey Report: The Spring Hills Subdivision Near Alpine in San Diego County, California.	1977
Bull	Results of an Archaeological Survey of the Oakridge Properties.	1976
Carrico and Case	Archaeological Survey for the 5 Oaks Property, Alpine, San Diego County, California.	1998
Craig Lorenz and Associates	Extended Initial Study for the Department of Planning and Land Use, County of San Diego, Alba Way Grading Permit, L-1171, Log#87-14-41, Harbison Canyon Planning Area, County of San Diego, California.	1988
Craig Lorenz and Associates	Wissel Subdivision TM 4487, P84-70, Log#84-19-17, Jamul-Dulzura Community Plan Area, County of San Diego, California	1988
Cupples	An Archaeological Survey of a Portion of the Proposed 69 KV Transmission Line Route Between Los Coches Substation and Alpine Substation.	1975
Englehorn	An Environmental Impact Analysis of Viewside Ranch.	1981
Fink	Archaeological Survey for the Crest Rezone, Crest, California.	1976
MSA, Inc.	Draft EIR: Myers Ranch, Alpine, County of San Diego.	1979
Pigniolo et al.	Archaeological Survey and Testing Report for the Crestlake Project, San Diego County, California.	1999
Rector et al.	Cultural Resources Inventory for the 1984 and Part of the 1985 California Metropolitan Project Area Public Lands Sale Program.	1984
Smith	An Archaeological Survey of the Gretler Lot Split Project, Crest, County of San Diego.	1990
Smith	Archaeological Survey of Degen Subdivision Project, Crest, County of San Diego.	1990
Smith and Pierson	Archaeological Survey of the Nicholas Lot Split Project and Evaluation of SDI-14260H.	1996
Van Horn and McCawley	Mapping Operations at SDM-W-1123 (Sdi-4666) on the Oakridge Property Near Alpine, San Diego County, CA.	1978

Table 2. Recorded Cultural Resources Within a One-Mile Radius of the Project Area

Site Number	Site Type	Recorder
CA-SDI-296	Rockshelter with Rock Art	Tinkcom et al.
CA-SDI-297	Rockshelter with Rock Art	Tinkcom et al.
CA-SDI-298	Habitation Site	Tinkcom et al.
CA-SDI-6033/SDM-W-1981B	Isolated Flakes	Van Horn
CA-SDI-6034/SDM-1981A	Temporary Camp	Van Horn
CA-SDI-10,479	Lithic Scatter	Cook
CA-SDI-10,480/SDM-W-3661	Bedrock Milling Station	Smith
CA-SDI-10,481/SDM-W-3662	Temporary Camp	Smith
CA-SDI-10,482/SDM-W-3663	Temporary Camp	Smith
CA-SDI-10,490/SDM-W-260	Habitation Site with Rock Art	Rogers
CA-SDI-11243/SDM-W-4099	Historic Structure Location	Gross and Robbins-Wade
CA-SDI-14,260	Historic Structure Location	Nichols
P-37-014915/SDM-W-4103	Isolated Flake	Gross and Knight
SDM-W-4101	Isolated Flake	Gross et al.

Historic research included an examination of a variety of resources. The current listings of the National Register of Historic Places were checked through the National Register of Historic Places website. The California Inventory of Historic Resources (State of California 1976) and the California Historical Landmarks (State of California 1992) were also checked for historic resources. Historic map research did not indicate the presence of resources within the project area.

III. RESEARCH DESIGN AND METHODS

A. Survey Methods

The survey of the project area was conducted on July 15, 29, and August 1, 2003 by Mr. Andrew R. Pigniolo, RPA. An intensive survey using roughly parallel transects with 10-15 meter (m) intervals was conducted over approximately 40 percent of the project area (Figure 4). This portion of project area was less steep and more likely to have been previously occupied. Visibility in this area was good averaging approximately 60 percent. Very steep slopes (with grades from 45-60 percent) were surveyed using irregular transects at approximately 25-30 m intervals. Although very steep and sometimes dangerous, visibility in this area was very good averaging approximately 80 percent. The survey of these very steeply sloping areas included special attention to overhangs and rock outcrops due to the presence of rockshelters within a 1-mile radius of the project.

B. Testing Research Design

Testing of site CA-SDI-16664 included development of a research design with appropriate research questions, detailed site mapping, surface collection of any prehistoric artifacts, recordation of bedrock milling, subsurface excavation, and analysis.

The research design will include regionally important research topics and questions that site CA-SDI-16664 may be able to address. These questions will be compared to the data recovered from the site during testing to help determine if the site has research potential under the California Register criteria.

CA-SDI-16664 will be evaluated based on the integrity of the site, possible Native American concerns associated with the site, and any research potential inherent within the site. These are applied within a theoretical framework of cultural materialism to determine appropriate research topics, implications, and data requirements needed to answer pertinent questions relative to the culture history of the area. These various concerns and criteria are described in greater detail below.

Integrity

Resource integrity is a critical part of evaluation. For archaeological purposes, integrity usually refers to the preservation of artifact associations and stratigraphy. Bioturbation and other natural factors affecting artifact associations are common in the San Diego region, and much of the region area has also been affected by agriculture and urban development.

Figure 4. Survey Methods

Native American Heritage Concerns

Native American heritage concerns need to be included in significance evaluations as part of State policy. Native American concerns particularly focus on religious sites, sites that contain human remains, and sites with items used for religious purposes.

Research Potential

Research potential is the most applicable of the California Register criteria for archaeological resources. To establish a framework to evaluate if a sites may be likely to yield information important in prehistory or history, important research questions are established along with data needs. These research criteria are established below.

Theoretical Orientation

As a social science, archaeology seeks to understand human behavior. Because of the nature of the archaeological record, archaeologists look at behavior in terms of cultural patterns, and environmentally oriented archaeologists attempt to explain these patterns in the context of various and changing natural and social environments. While much of the past archaeological research in San Diego County has focused on reconstructing culture change over time or "culture history," new theoretical ideas in the 1960s and 1970s highlighted the importance of the environment and shifted the emphasis of archaeology from reconstructing history to understanding culture (Binford 1989).

The fundamental theoretical orientation that underlies this study, and much of the work that has been conducted in San Diego County to date, is cultural materialism. "Cultural materialism" as used here essentially holds that practical, survival, and economic aspects of culture ultimately determine the success or the spread of specific behavior patterns (Hayden 1993). Cultural ecology and environmental archaeology are forms of cultural materialism, emphasizing the role of the environment as a practical controlling factor on culture and human behavior. The perspectives of cultural materialism and cultural ecology are appropriate for the study area because of the direct relationship between hunter-gatherer economy and the environment and because these concepts represent a continuation of recent thinking in the region. Cultural materialism is also appropriate for study of the historical archaeological resources because it focuses on relationships within systems.

Research Topics, Implications, and Data Requirements

Prehistoric Subsistence

Reconstructing the subsistence economy of prehistoric hunter-gatherers is a key question for cultural ecology. Historic period hunter-gatherers typically occupied extreme environments and/or had been heavily impacted by European colonial expansion. As a consequence, understanding the cultural adaptations of hunter-gatherers in more productive environments is heavily reliant on archaeological data.

For the most part, subsistence during the Late Prehistoric in San Diego County is fairly well understood through the ethnographic record. Ethnographic information has provided a level of detail beyond the archaeological record, but certain aspects are poorly known.

The lack of visible surface artifacts combined with the presence of bedrock milling for seed processing at CA-SDI-16664, it is likely that subsistence was focused on inland terrestrial resources. This site is located well beyond the ten kilometer coastal foraging radius suggested by Jones (1992).

- How does site subsistence pattern relate to resource availability and how does the site fit into the regional subsistence pattern? Is the site a processing station associated with a nearby habitation site?

Hypothesis: The general pattern is one of using available resources: Acorn processing subsistence technologies and small mammal procurement should dominate the assemblage.

Data Needs:

- Stratigraphic contexts that indicate the sites contain interpretable cultural strata that can be taken to represent the results of relatively short-term occupations or a single occupation that can be compared to other single occupation sites.

- Material suitable for establishing chronology from these contexts.

- Vertebrate and invertebrate faunal material, along with tools that reflect subsistence focus and activities such as projectile points, bifaces, and milling tools.

- Sufficient quantities of ecofactual material to allow patterns to be defined. To obtain a statistically valid sample, quantities of 50 items per m^3 are required.

Chronology

Chronology and aspects of culture history have long been the subjects of archaeological research in the San Diego region. Late Prehistoric period sites are common in the region, and are relatively easily identified through the presence of bedrock milling, ceramics, and bow and arrow technology. Early Archaic period sites are more difficult to recognize and perhaps less common in the area. Furthermore, while Archaic period sites have been scrutinized in coastal regions, few have been studied in depth in inland areas.

- Is the site Late Prehistoric in age and can it provide additional information on the pattern of Late Prehistoric occupation?

Hypothesis: The site is Late Prehistoric and may contain pottery or other time diagnostic cultural material.

Data Needs:

- Stratigraphic contexts that indicate the sites contain interpretable cultural strata that can be taken to represent the results of relatively short-term occupations or a single occupation that can be compared to other single occupation sites.

- Material suitable for radiocarbon dating from these contexts.

- Ceramics, projectile points or other time diagnostic items. To obtain a statistically valid sample, quantities of 50 items per m^3 are required.

Prehistoric Mobility and Exchange

Settlement Patterns have been the subject of considerable research in San Diego County. This topic contributes to the definition of settlement systems and the study of their change through time, both elements important to local prehistoric studies. The interaction of cultural groups and the natural landscape is an important aspect of human behavior. Just as cultural geographers study current land use patterns to aid in urban planning, the study of prehistoric settlement patterns can provide insight into past strategies of interaction with the environment.

Most settlement pattern studies focus on the relationship between natural resources and areas of human occupation. A general assumption is that important resources for subsistence create a draw for settlement, and that people will tend to locate near important water and food resources. Other types of sites may also be located near resources, but may not be related to habitation. These special task sites, such as isolated bedrock milling stations and lithic procurement/reduction areas, also provide important evidence on how people used the natural landscape.

An examination of resources used at a site and their source provenience is a means of examining mobility. Direct procurement, or travel over relatively large distances to procure resources is one aspect of mobility. Another aspect relates to territoriality. A seasonal round type of mobility strategy with bipolar village locations is often the model for Late Prehistoric mobility.

- How does CA-SDI-16664 fit into the regional settlement system through time?

Hypothesis: Site patterning in relation to water, land-form, and lithic resources is expected. Exchange played a very minor role in resource procurement and, although mobility provided a range of available resources at different time intervals, the sites reflect foraging and processing behavior and the local resources of the area. Roughly 90% of the assemblage will represent local materials within a 10-km foraging radius.

Data Needs:

- Stratigraphic contexts that indicate the sites contain interpretable cultural strata that can be taken to represent the results of relatively short-term occupations or a single occupation that can be compared to other single occupation sites.

- Material suitable for chronological control from these contexts.

- Artifacts representative of activities carried out at the sites. To obtain a statistically valid sample, quantities of 50 items per m^3 are probably required.

- Sufficient quantities of ecofactual material to allow patterns to be defined. To obtain a statistically valid sample, quantities of 50 items per m^3 are required.

B. Test Methods

The goal of the testing and evaluation program was to evaluate the eligibility of CA-SDI-16664 for the California Register, as it will be impacted by the proposed project. Testing included mapping, surface observation and collection of artifacts, as well as subsurface excavation to determine if a subsurface component is present.

The testing program was conducted on December 14, 2005 by Mr. Andrew R. Pigniolo, RPA and Ms. Sarah Farmer. Mr. Clinton Linton served as Native American monitor for the project. During the inventory phase, the site was initially surveyed using 10-15m parallel transects. The testing and evaluation phase began with a resurvey of the site area using 3-5m parallel transects. This resulted in the identification, marking, and collection of surface artifacts from the site area. The site was mapped using tape and compass. Any surface artifacts would have been marked with pinflags during the walkover survey, bagged, and marked with a surface collection number and proveninece coordinates.

The site record for CA-SDI-16664 was updated with the testing results on State of California, Department of Parks and Recreation forms. This form is included in Appendix E. Photographs and project records for the testing and evaluation program will be temporarily curated at Laguna Mountain until final curation arrangements can be made at the San Diego Archaeological Center or another appropriate regional repository.

A series of 4 shovel test pits (STPs) were excavated at CA-SDI-16664 to determine if subsurface deposits were present and to establish the boundaries of the site. STPs were placed at 5 meter (m) intervals in cardinal directions from the center of the bedrock milling feature, except for the eastern STP which was placed at 6 meters to avoid a low lying boulder. STPs were manually excavated circular test pits measuring 30 cm in diameter. STPs were excavated in 10 cm arbitrary, contour levels. The goal of STP placement was to test the areas within the site most likely to contain subsurface artifacts. All excavated soil was passed through 1/8-inch mesh hardware cloth and dry-screened in the field. No subsurface cultural material was recovered from the STPs.

A photographic record was kept to document the progress of the testing program. This included general overviews, and views of site excavation, and milling features. Digital photographs were taken during the entire testing program. A photographic log was kept to document orientation and subject matter.

IV. SURVEY RESULTS

The survey identified two prehistoric sites (CA-SDI-16663 and CA-SDI-16664) and two isolated artifacts (P-37-025165 and P-37-025166) within the project area (Figure 5). CA-SDI-16663 and CA-SDI-16664 are small bedrock milling stations with no associated artifacts and P-37-025165 and P-37-025166 are isolated lithic artifacts. Each of the cultural resources within the project area is described blow in greater detail.

CA-SDI-16663 (Kem-S-1)

This site is a small bedrock milling station with no associated surface artifacts. It is located on the east side of a small drainge on one of the few boulders in the area suitable for seed processing. The site is approximately 8 m north/south and 10 m east/west. It is unknown if a subsurface deposit is present but no associated surface artifacts were observed. The site consists of two adjacent bedrock milling features separated by a crack in the outcrop. Feature A is on the north and is the larger feature of the two. It includes 3 slicks that are fairly well-used and not damaged by weathering. Feature B contains a single slick with moderate use. The site appears to be undisturbed and retains good integrity although a road cut is located approximately 5 m north.

CA-SDI-16664 (Kem-S-2)

CA-SDI-16664 is a small bedrock milling station in the southeastern portion of the project area. It is located on a moderate-size granitic outcrop approximately 5 m east of a small seasonal drainage. The site is limited to a single bedrock milling feature with no associated surface artifacts. It is approximately 4 m north/south and 6 m east/west in size. The bedrock milling feature that makes up the site contains a single slick that shows a small amount of use limited to high points. The site area is undisturbed and site integrity is good.

P-37-025165 (Kem-I-1)

This isolate consists of two debitage fragments within a one meter area. One of the debitage fragments is a black interior flake of Santiago Peak Volcanic material. It is well patinated and aphanitic. The other debitage fragment is milky quartz angular waste without cortex. Another fragment of quartz is nearby but it is not clearly cultural. Visibility in the area was good and the area appears undisturbed.

P-37-025166 (Kem-I-2)

P-37-025166 is a single milky quartz interior flake. It is located approximately 35 m east of site CA-SDI-16663 but it may be associated with the activity in this area. Visibility in the area was good but no other cultural material was located. The area is undisturbed and integrity is good.

Figure 5

Project Location and Associated Cultural Resources

(Confidential figure located in Appendix F)

V. TESTING RESULTS

Of the two sites identified during the survey phase, site CA-SDI-16664 could not be avoided and placed into open space. A testing and evaluation program was therefore necessary to determine if this site qualifies as eligible for the California Register or as RPO significant.

Testing at site CA-SDI-16664 included a surface walkover of the site, re-examination of the bedrock milling, and subsurface testing to determine if associated artifacts were present. The site area was relocated and a walkover of the site surface did not produce any surface artifacts. The bedrock milling feature was re-examined and an additional small ground area was identified that might represent a small amount of use (Figure 6).

A series of 4 shovel test pits (STPs) were excavated at CA-SDI-16664 to determine if subsurface deposits were present and to establish the boundaries of the site. STPs were placed at 5 meter (m) intervals in cardinal directions from the center of the main bedrock milling element, except for the eastern STP which was placed at 6 meters to avoid a low lying boulder. The goal of STP placement was to test the areas near the feature most likely to contain subsurface artifacts.

No subsurface cultural material was recovered from the STPs. STP 5N/0E encountered a rock at the 10 cm level but it was possible to reach the 30 cm level before the STP was entirely filled with rock. STP 0N/6E was moved from its location at 5 m east but still encountered bedrock at 10 cm. STP 5S/0W was excavated to a depth of 30 cm, but was sterile while STP 0N/5W encountered bedrock at 8 cm. Soils were yellowish brown (10YR 5/4) sandy loam with fragments of decomposed granite (DG) 10YR 5/4. They were consistent throughout the site although DG did increase with depth.

The absence of artifacts at the site means that none of the questions set forth in the research design are able to be answered. The limited amount of grinding on the bedrock milling suggests a single or very short-term use consistent with a lack of artifact discard.

Figure 6

CA-SDI-16664 Bedrock Milling Feature and Test Locations

VI. EVALUATION CRITERIA, SIGNIFICANCE, AND RECOMMENDATIONS

A. Evaluation Criteria

The evaluation criteria used to determine site significance are provided below.

Cultural resource investigations must comply with a variety of laws, regulations, and ordinances. Many of these laws are complementary and provide similar protection for cultural resources at various jurisdictional levels.

The importance of cultural resources under State law as defined in CEQA has been refined to coincide with those of the California Register. Section 15064.5 of the CEQA guidelines provides for closer consistency with the National Register criteria. "Historical resources" as defined by Section 15064.5 of CEQA include:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record or manuscript which a lead agency determines to be historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically" significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resource Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resource Code sections 5020.1(j) or 5024.1.

California Register Criteria (a), (b), and (c) are unlikely to be met by prehistoric sites within the project because they most often apply to standing structures or resources with good historical documentation. Criterion (d) is the most applicable to prehistoric archaeological resources and historical resources with no architectural integrity and limited historical association.

The problem of establishing the research value of archaeological data at the State, and local level has been addressed by numerous archaeologists and cultural resource managers. A consensus had developed that emphasizes the development of a problem-oriented research design that ties explicit research questions to larger order research issues in anthropology, history, and other social sciences. The research design provided in Section III establishes specific criteria for evaluating the importance of site information. These research criteria can provide information that will provide public benefit by expanding our understanding of history and prehistory.

In addition to the significance criteria defined above, the County of San Diego Resource Protection Ordinance defines significant prehistoric or historic sites as a:

> Location of past intense human occupation where buried deposits can provide information regarding important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, state, or federal importance. Such locations shall include, but not be limited to: any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places or the State Landmark Register; or included or eligible for inclusion, but not previously rejected for the San Diego County Historic Site Board List; any are of past human occupation located on public or private land where important prehistoric or historic activities and/or events occurred; and any location of past or current sacred religious or ceremonial observances protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9, such as burial(s), pictographs, petroglyph, solstice observatory sites, sacred shrines, religious ground figures, and natural rocks or places which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

The relationship between RPO and CEQA significance is not clearly defined, but RPO significant cultural resources are described as “unique” in RPO and are generally considered to be at a higher level of significance than the thresholds set by CEQA. RPO significant resources are most often considered to be resources of both scientific and religious or ethnic significance, such as archaeological resources with human remains or rock art.

B. Significance

The goal of the project was to identify resources that may be impacted by the project. The survey identified two prehistoric sites (CA-SDI-16663 and CA-SDI-16664) and two isolated artifacts (P-37-025165 and P-37-025166) within the project area. CA-SDI-16663 and CA-SDI-16664 are small bedrock milling stations with no associated artifacts and P-37-025165 and P-37-025166 are isolated lithic artifacts. Sites CA-SDI-16663 and CA-SDI-16664 have not been previously evaluated for nomination to the California Register of Historical Resources (California Register) or for significance under the County RPO.

CA-SDI-16663 and CA-SDI-16664 do not appear to qualify as eligible for the California Register or as significant under the County RPO, based on an absence of associated surface artifacts, but testing would be necessary to document that subsurface components are not present. P-37-025165 and P-37-025166, as isolated lithic artifacts, are not eligible for the California Register or significant under the County RPO.

Impacts to site CA-SDI-16664 could not be avoided and a testing and evaluation program was conducted to determine the significance of this site. The testing and evaluation program included a more detailed surface survey, re-examination of the bedrock milling, and subsurface test excavation. No additional cultural material was identified at site CA-SDI-16664 during testing. The absence of subsurface cultural material and the limited bedrock milling present makes CA-SDI-16664 unable to yield information important to prehistory or history as set forth in Criterium D of the California Register. CA-SDI-16664 does not meet any of the California Register criteria and is not eligible for nomination to the California Register or is it significant under the County RPO.

C. Recommendations

The project includes areas of proposed open space and proposed development areas (Figure 7). Current project plans indicate that site CA-SDI-16663 will be placed in a proposed open space easement. Based on the location of these easement and the lack of surface artifacts at this site, neither direct or indirect impacts from the project will occur to site CA-SDI-16663. Site CA-SDI-16663 will be preserved in the open space easement and no further work is recommended.

Site CA-SDI-16664 is within the proposed development area within Parcel 4 (see Figure 7). This site will be directly impacted by the current project. The testing program determined that site CA-SDI-16664 does not qualify as eligible for the California Register or as significant under the County RPO. This site will be directly impacted by the proposed project.

P-37-025165 and P-37-025166, as isolated lithic artifacts, are not eligible for the California Register or significant under the County RPO. No further work is required to address isolates P-37-025165 is within the proposed development area and will be indirectly impacted by road construction. P-37-025166 is within the proposed open space easement and will not be directly impacted by the project.

Figure 7

Proposed Impacts and Cultural Resources

(Confidential figure located in Appendix F)

Because the project does not include development of areas of significant alluvial deposits that might conceal archaeological sites, construction monitoring of the property is not necessary. Artifacts were not collected during the course of this project and curation of collections is not necessary. Direct and indirect impacts to California Register eligible cultural resources will not result from the project. No further cultural resources work is necessary to address impacts to these resources.

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APPENDICES

A. Resume of Principal Investigator
B. Records Search Confirmations
C. County Survey Form 1
D. Native American Monitoring Letter Report
E. Site and Isolate Forms (Confidential)(With Confidential Appendix)
F. Confidential Figures (Confidential) (With Confidential Appendix)

APPENDIX A

RESUME OF PRINCIPAL INVESTIGATOR

APPENDIX B

RECORDS SEARCH CONFIRMATIONS

APPENDIX C

COUNTY SURVEY FORM 1

APPENDIX D

NATIVE AMERICAN MONITORING LETTER REPORT

APPENDIX E

SITE AND ISOLATE FORMS

(With Confidential Appendix)

APPENDIX F

CONFIDENTIAL FIGURES

(With Confidential Appendix)

CONFIDENTIAL APPENDICES

CULTURAL RESOURCE SURVEY, TESTING, AND EVALUATION OF THE KEMERKO TPM PROJECT, HARBISON CANYON, SAN DIEGO COUNTY, CALIFORNIA (TPM 20716RPL, Log No. 03-14-002)

Prepared for:

Mr. Sam Kemerko
4669 Charest Drive
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Prepared by:

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7969 Engineer Road, Suite 208
San Diego, CA 92109

Andrew R. Pigniolo, MA
Heather L. Kwiatkowski, BA

July 2008

National Archaeological Data Base Information
Type of Study: Cultural Resource Survey, Testing, and Evaluation
Sites: CA-SDI-16663 (Kem-S-1), CA-SDI-16664 (Kem-S-2), P-37-025165 (Kem-I-1), and P-37-025166 (Kem-I-2).
USGS Quadrangle: Alpine 7.5'
Area: 94 Acres
Key Words: County of San Diego, Harbison Canyon, Positive survey, Negative test, Bedrock milling station, CA-SDI-16663 (Kem-S-1), CA-SDI-16664 (Kem-S-2), P-37-025165 (Kem-I-1), and P-37-025166 (Kem-I-2).

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B. Records Search Confirmations (With Technical Report)
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E. Site and Isolate Forms (Confidential)
F. Confidential Figures (Confidential)

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(With Technical Report)

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(With Technical Report)

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(With Technical Report)

APPENDIX E

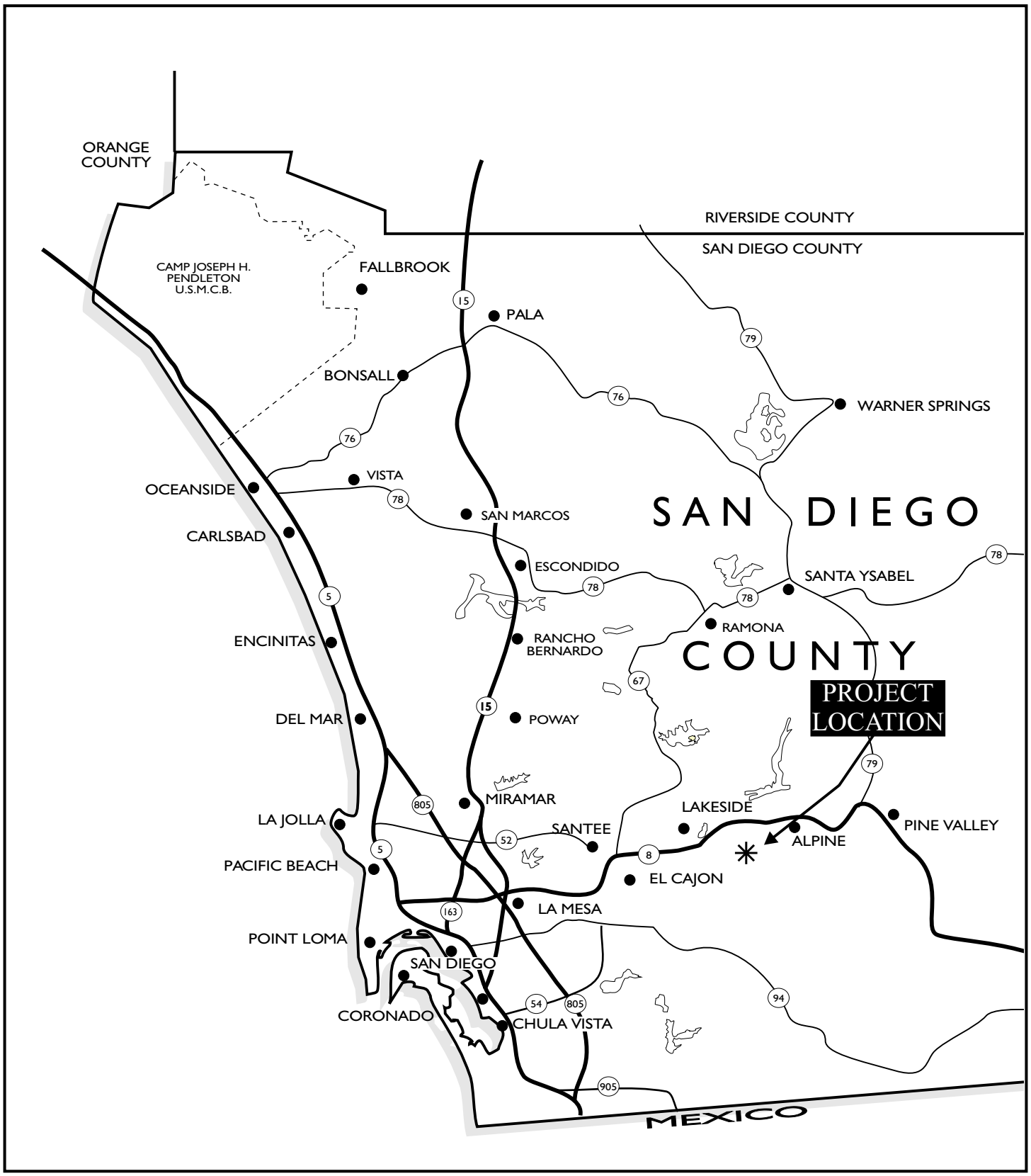
SITE AND ISOLATE FORMS

(Confidential)

APPENDIX F

CONFIDENTIAL FIGURES

(Confidential)



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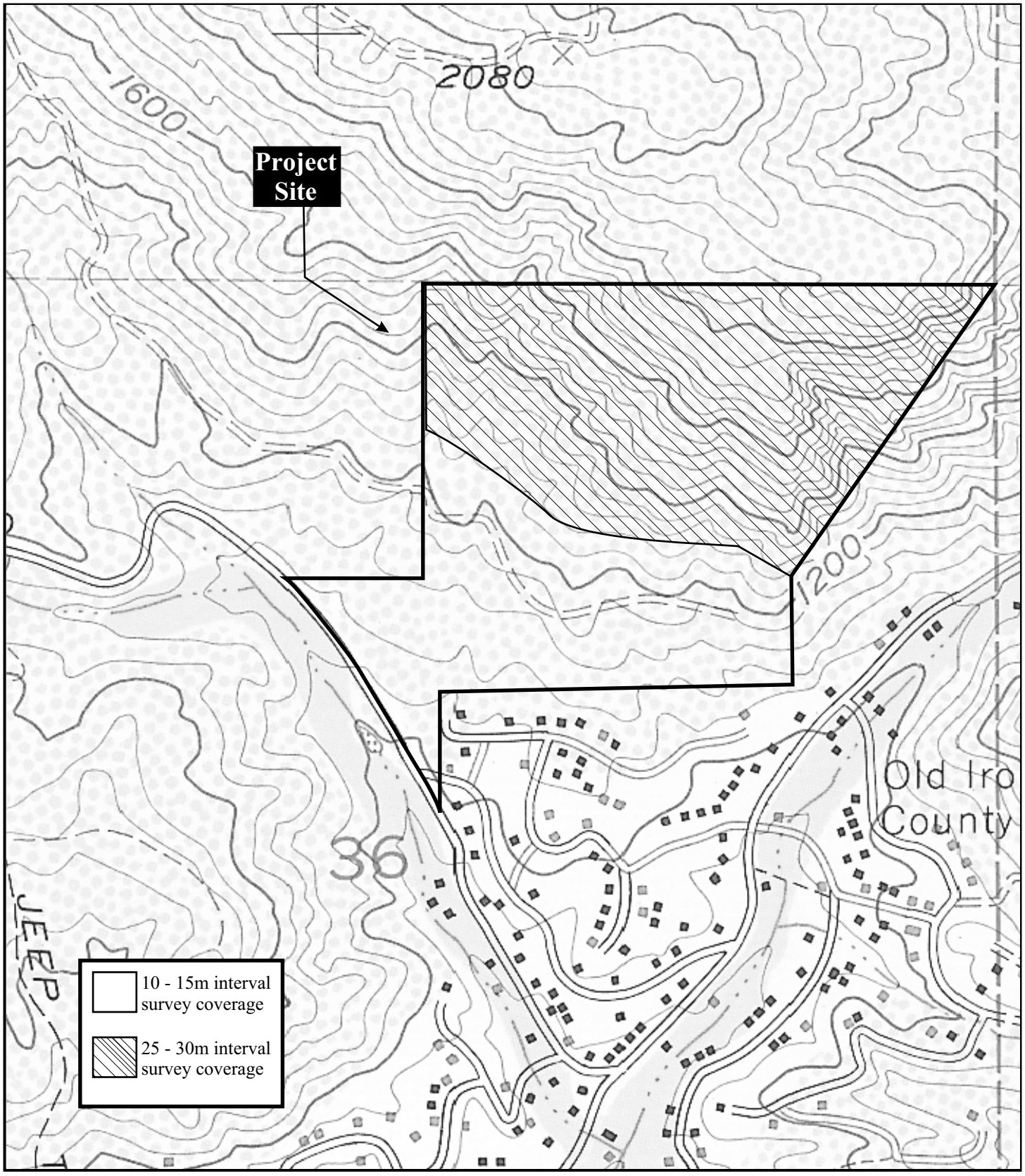
M I L E S

Figure 1
Regional Location Map

Laguna Mountain Environmental, Inc.



SOURCE: USGS 7.5' Alpine Quadrangle

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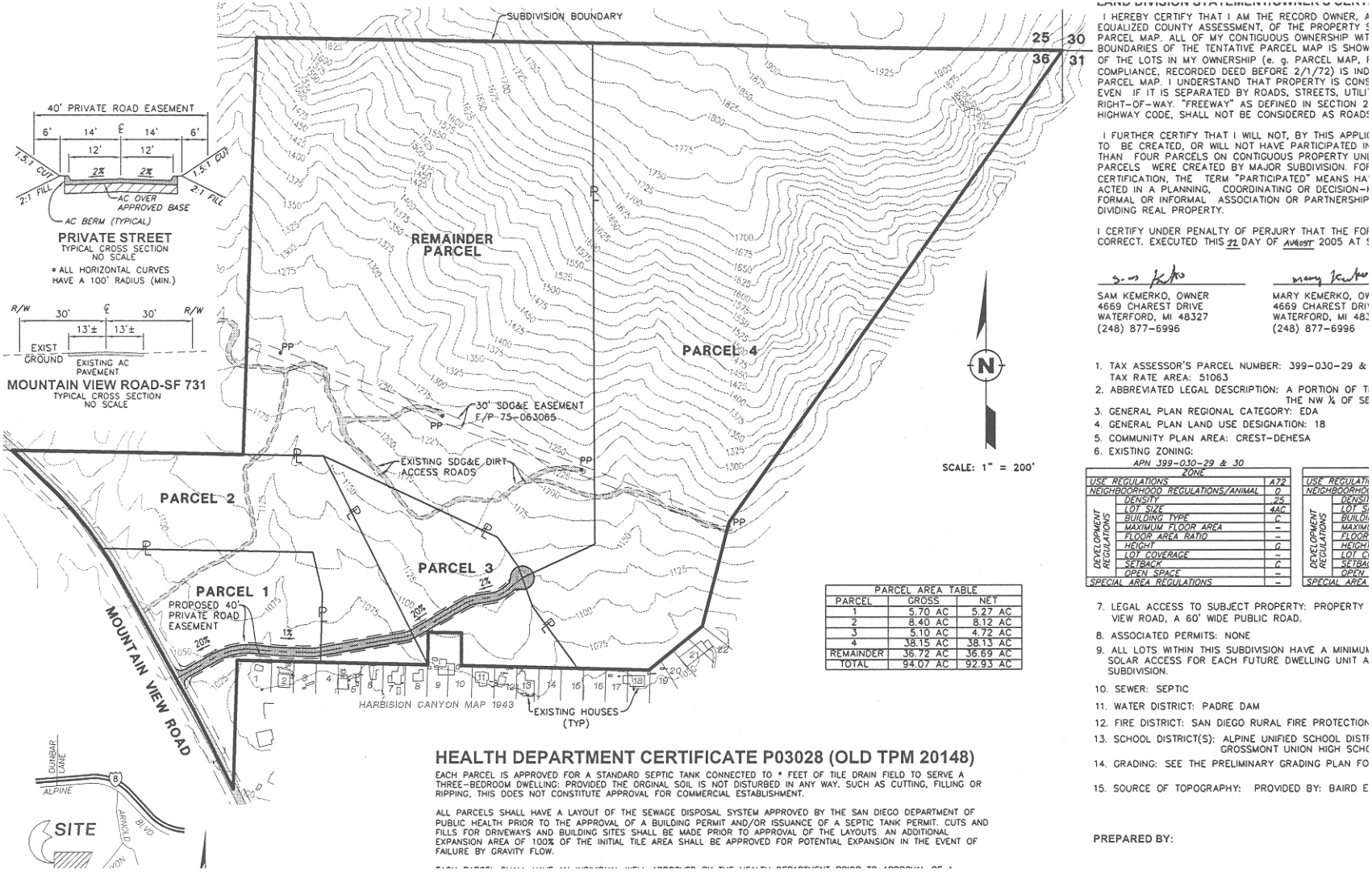
Figure 4
Survey Coverage

Laguna Mountain Environmental, Inc.



PARCEL AREA TABLE		
PARCEL	GROSS	NET
1	5.70 AC	5.27 AC
2	8.40 AC	8.12 AC
3	5.10 AC	4.72 AC
4	38.15 AC	38.13 AC
REMAINDER	36.72 AC	36.69 AC
TOTAL	94.07 AC	92.93 AC

HEALTH DEPARTMENT CERTIFICATE P03028 (OLD TPM 20148)

EACH PARCEL IS APPROVED FOR A STANDARD SEPTIC TANK CONNECTED TO * FEET OF TILE DRAIN FIELD TO SERVE A THREE-BEDROOM DWELLING; PROVIDED THE ORGINAL SOIL IS NOT DISTURBED IN ANY WAY. SUCH AS CUTTING, FILLING OR RIPPING, THIS DOES NOT CONSTITUTE APPROVAL FOR COMMERCIAL ESTABLISHMENT.

ALL PARCELS SHALL HAVE A LAYOUT OF THE SEWAGE DISPOSAL SYSTEM APPROVED BY THE SAN DIEGO DEPARTMENT OF PUBLIC HEALTH PRIOR TO THE APPROVAL OF A BUILDING PERMIT AND/OR ISSUANCE OF A SEPTIC TANK PERMIT. CUTS AND FILLS FOR DRIVEWAYS AND BUILDING SITES SHALL BE MADE PRIOR TO APPROVAL OF THE LAYOUTS. AN ADDITIONAL EXPANSION AREA OF 100% OF THE INITIAL TILE AREA SHALL BE APPROVED FOR POTENTIAL EXPANSION IN THE EVENT OF FAILURE BY GRAVITY FLOW.

I HEREBY CERTIFY THAT I AM THE RECORD OWNER, A EQUALIZED COUNTY ASSESSMENT, OF THE PROPERTY S PARCEL MAP. ALL OF MY CONTIGUOUS OWNERSHIP WIT BOUNDARIES OF THE TENTATIVE PARCEL MAP IS SHOW OF THE LOTS IN MY OWNERSHIP (e. g. PARCEL MAP, F COMPLIANCE, RECORDED DEED BEFORE 2/1/72) IS IND PARCEL MAP. I UNDERSTAND THAT PROPERTY IS CONS EVEN IF IT IS SEPARATED BY ROADS, STREETS, UTILI RIGHT-OF-WAY. "FREEWAY" AS DEFINED IN SECTION 2 HIGHWAY CODE, SHALL NOT BE CONSIDERED AS ROADS

I FURTHER CERTIFY THAT I WILL NOT, BY THIS APPLIC TO BE CREATED, OR WILL NOT HAVE PARTICIPATED IN THAN FOUR PARCELS ON CONTIGUOUS PROPERTY UNI PARCELS WERE CREATED BY MAJOR SUBDIVISION. FOR CERTIFICATION, THE TERM "PARTICIPATED" MEANS HA ACTED IN A PLANNING, COORDINATING OR DECISION-M FORMAL OR INFORMAL ASSOCIATION OR PARTNERSHIP DIVIDING REAL PROPERTY.

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOR CORRECT. EXECUTED THIS 22 DAY OF AUGUST 2005 AT S

SAM KEMERKO, OWNER
4669 CHAREST DRIVE
WATERFORD, MI 48327
(248) 877-6996

MARY KEMERKO, OW
4669 CHAREST DRI
WATERFORD, MI 48
(248) 877-6996

1. TAX ASSESSOR'S PARCEL NUMBER: 399-030-29 & TAX RATE AREA: 51063
2. ABBREVIATED LEGAL DESCRIPTION: A PORTION OF T THE NW ¼ OF SE
3. GENERAL PLAN REGIONAL CATEGORY: EDA
4. GENERAL PLAN LAND USE DESIGNATION: 18
5. COMMUNITY PLAN AREA: CREST-DEHESA
6. EXISTING ZONING:

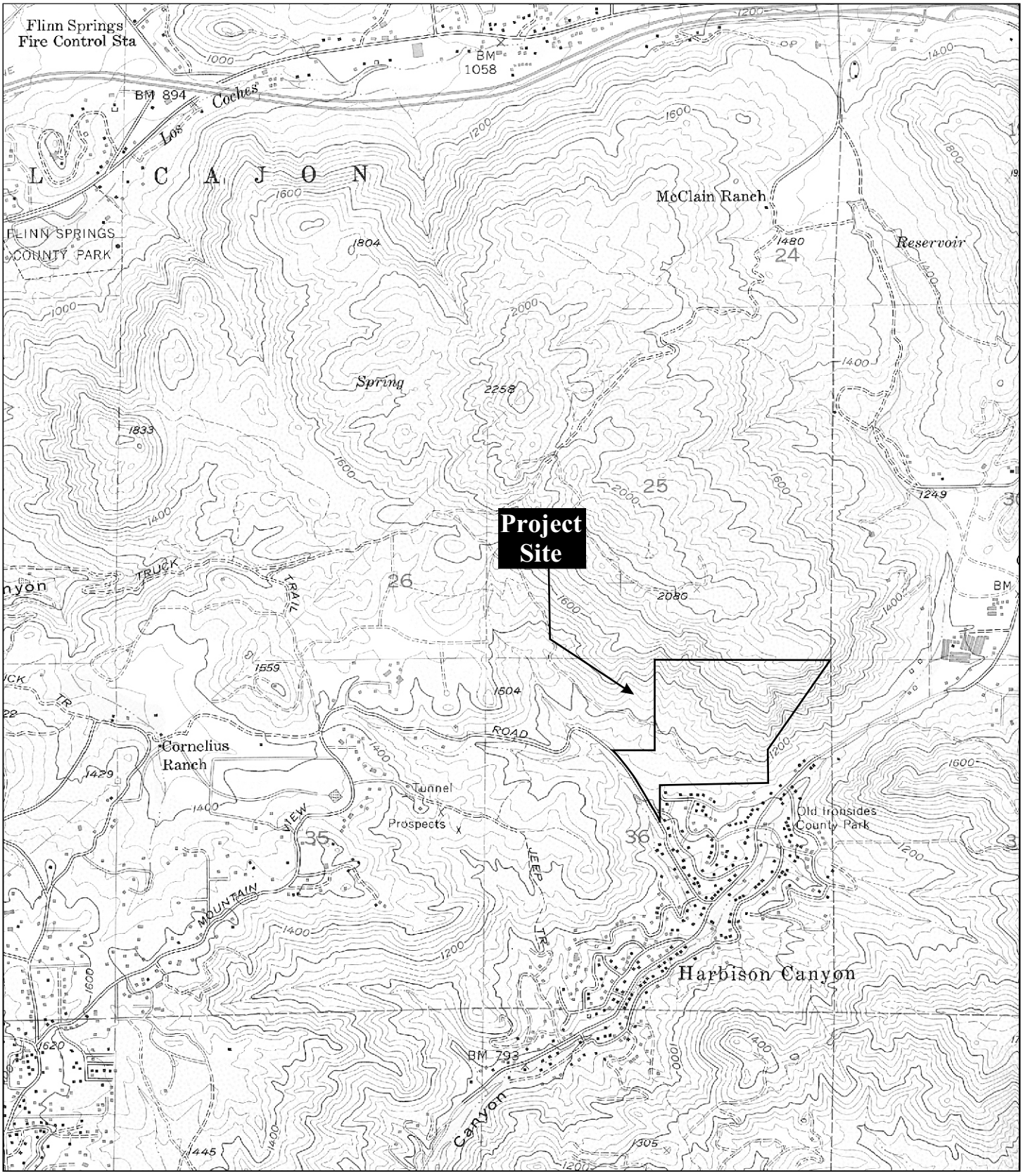
APN 399-030-29 & 30

ZONE		A72
USE REGULATIONS		A72
NEIGHBOORHOOD REGULATIONS/ANIMAL		0
DEVELOPMENT REGULATIONS	DENSITY	25
	LOT SIZE	4AC
	BUILDING TYPE	C
	MAXIMUM FLOOR AREA	-
	FLOOR AREA RATIO	-
	HEIGHT	G
	LOT COVERAGE	-
	SETBACK	C
	OPEN SPACE	-
SPECIAL AREA REGULATIONS		-

7. LEGAL ACCESS TO SUBJECT PROPERTY: PROPERTY VIEW ROAD, A 60' WIDE PUBLIC ROAD.
8. ASSOCIATED PERMITS: NONE
9. ALL LOTS WITHIN THIS SUBDIVISION HAVE A MINIMU SOLAR ACCESS FOR EACH FUTURE DWELLING UNIT A SUBDIVISION.
10. SEWER: SEPTIC
11. WATER DISTRICT: PADRE DAM
12. FIRE DISTRICT: SAN DIEGO RURAL FIRE PROTECTION
13. SCHOOL DISTRICT(S): ALPINE UNIFIED SCHOOL DIST GROSSMONT UNION HIGH SCHO
14. GRADING: SEE THE PRELIMINARY GRADING PLAN FO
15. SOURCE OF TOPOGRAPHY: PROVIDED BY: BAIRD E

PREPARED BY:

Figure 3
Project Plan



SOURCE: USGS 7.5' Alpine Quadrangle

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Figure 2
Project Location

Laguna Mountain Environmental, Inc.

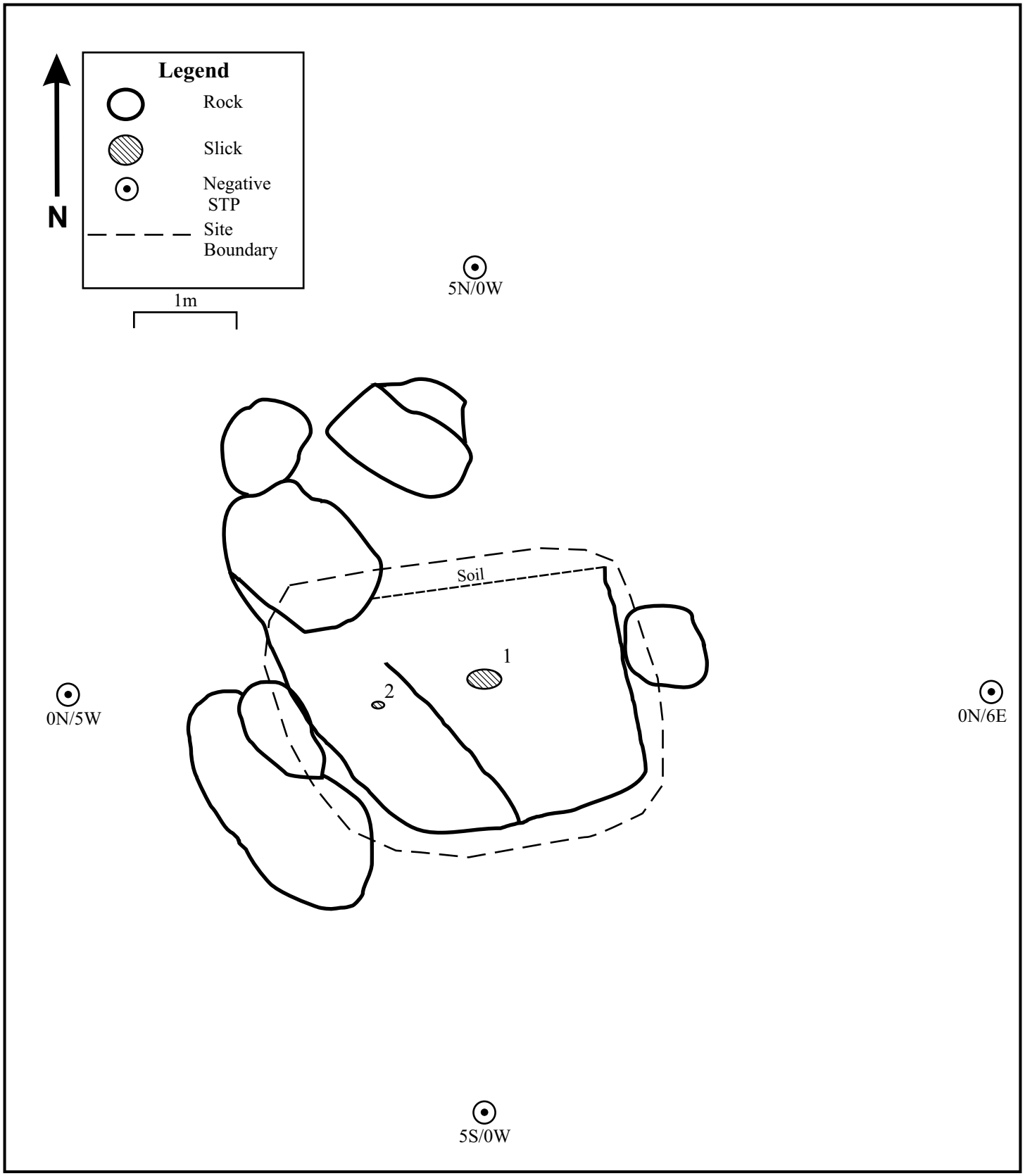

Figure 6
CA-SDI-16664
Bedrock Milling Feature and Test Locations

Laguna Mountain Environmental, Inc.