Exhibit B

Cultural Resources Study

A CULTURAL RESOURCES STUDY FOR THE LOS PEÑASQUITOS ADOBE DRAINAGE PROJECT

SAN DIEGO COUNTY, CALIFORNIA

CSD-04.03

Submitted to:

County of San Diego
Department of General Services
5560 Overland Avenue, Suite 410
San Diego, California 92123

Prepared for:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard, Suite 200
La Mesa, California 91942

Prepared by:

Brian F. Smith and Jennifer R. Kraft
Signature:
Brian F. Smith and Associates, Inc.
14010 Poway Road, Suite A
Poway, California 92064
(858) 484-0915

November 11, 2013

National Archaeological Database Information

Author(s):	Brian F. Smith and Jennifer R. Kraft
Consulting Firm:	Brian F. Smith and Associates, Inc. 14010 Poway Road, Suite A Poway, California 92064 (858) 484-0915
Project Proponent:	County of San Diego Department of General Services 5560 Overland Avenue, Suite 410 San Diego, California 92123
Report Date:	November 11, 2013
Report Title:	A Cultural Resources Study for the Los Peñasquitos Adobe Drainage Project, San Diego County, California (CSD-04.03)
USGS Quadrangle:	*Del Mar, California* (7.5 minute)
Study Area:	Pipeline alignment is 350 feet long and one foot wide, around the north and east sides of the historic adobe foundation
Key Words:	Archaeological significance testing program; prehistoric Site SDI-5220; historic adobe and reservoir; SDI-8125/H; *Del Mar* Quadrangle (7.5 minute); Los Peñasquitos (Johnson-Taylor) Adobe–National Register Site; positive for subsurface deposits; impacts to significant deposits; mitigation measures required.

Table of Contents

Page

EXECUTIVE SUMMARY .....*vi*
1.0 INTRODUCTION.....1.0–1
2.0 GUIDELINES FOR DETERMINING SIGNIFICANCE.....2.0–1
3.0 SETTING 3.0–1
3.1 Cultural Setting 3.0–3
3.1.1 Paleo Indian Period (11,500 to circa 9,000 YBP).....3.0–6
3.1.2 Archaic Period (circa 9,000 to 1,300 YBP).....3.0–7
3.1.3 Late Prehistoric Kumeyaay (1,300 YBP to Contact).....3.0–19
3.1.4 Historic Period.....3.0–25
4.0 RESEARCH DESIGN..... 4.0–1
4.1 Prehistoric Research Design.....4.0–1
4.2 Historic Research Design 4.0–2
5.0 METHODOLOGY.....5.0–1
5.1 Field Methodology 5.0–1
5.2 Laboratory Methodology.....5.0–1
5.3 Registration and Curation.....5.0–1
5.4 Native American Participation and Consultation.....5.0–2
6.0 RESULTS.....6.0–1
6.1 Records Search Results 6.0–3
6.2 Field Investigations 6.0–5
6.2.1 Description of Field Investigations.....6.0–5
6.2.2 Laboratory Analysis.....6.0–8
6.2.3 Summary of Testing Program 6.0–13
7.0 DISCUSSION 7.0–1
8.0 INTERPRETATION OF RESOURCE IMPORTANCE AND IMPACT IDENTIFICATION.....8.0–1
8.1 Evaluation Procedures.....8.0–2
8.2 Assessment of Effects 8.0–5

Table of Contents (continued)

Page

9.0 MANAGEMENT CONSIDERATIONS – MITIGATION MEASURES AND DESIGN CONSIDERATIONS 9.0–1
9.1 Recommendations 9.0–1
9.2 Proposed Mitigation Measures 9.0–2
10.0 MITIGATION PLAN 10.0–1
10.1 General Mitigation Recommendations 10.0–1
10.2 Research Design 10.0–2
10.2.1 Prehistoric Research Design 10.0–3
10.3 Methodology 10.0–8
10.3.1 Field Methods 10.0–9
10.3.2 Laboratory Analysis 10.0–9
10.4 Curation 10.0–10
10.5 Native American Consultation 10.0–11
10.5.1 Provisions for the Discovery of Human Remains 10.0–11
11.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED 11.0–1
12.0 LIST OF MITIGATION MEASURES AND DESIGN CONSIDERATIONS 12.0–1
13.0 REFERENCES 13.0–1

Appendices

Appendix A – Resumes of Key Personnel
Appendix B – Archaeological Records Search Results*
Appendix C – NAHC Sacred Lands File Search Results
Appendix D – Confidential Maps*
Appendix E – Artifact Catalog
** Deleted for public review and bound separately in the Confidential Appendix*

List of Figures

Page

Figure 1.0–1 General Location Map 1.0–3
Figure 1.0–2 Project Location Map.....1.0–4
Figure 1.0–3 Project Development Map 1.0–5
Figure 3.1–1 Ethnographic Map (circa 1770) 3.0–22
Figure 3.1–2 Ethnographic and Historic Villages of San Diego County 3.0–23
Figure 3.1–3 Map Showing Adobe Locations Within the Los Peñasquitos Rancho 3.0–30
Figure 3.1–4 Johnson-Taylor Adobe Buildings and Features* 3.0–32
Figure 3.1–5 Previous Archaeological Excavations Map* 3.0–34
Figure 6.0–1 Cultural Resource Location Map* 6.0–2
Figure 6.2–1 Excavation Location Map* 6.0–6

**Deleted for public review and bound separately in the Confidential Appendix*

List of Plates

Page

Plate 1.0–1 View of the Johnson-Taylor Adobe, facing west.....1.0–1
Plate 3.0–1 East portion of project area, facing southeast 3.0–1
Plate 3.0–2 East portion of project area, facing north.....3.0–2
Plate 3.1–1 San Dieguito-type artifacts 3.0–10
Plate 3.1–2 Illustration of a hypothesized early prehistoric coastal settlement 3.0–14
Plate 3.1–3 La Jolla-type artifacts.....3.0–15
Plate 3.1–4 Middle Holocene artifacts.....3.0–16
Plate 3.1–5 Late Prehistoric artifacts 3.0–20
Plate 6.0–1 Johnson-Taylor Adobe courtyard showing placement of STP 5, facing northwest.....6.0–1
Plate 6.2–1 North portion of project area showing STPs 1 and 2, facing east.....6.0–5
Plate 6.2–2 East portion of project area showing STPs 6 through 9, facing south.....6.0–7
Plate 7.0–1 View of the reservoir prior to the relining in 2012 .....7.0–2
Plate 7.0–2 View of previous concrete work that was completed in the 1990s.....7.0–2
Plate 7.0–3 View of the applied layer of concrete and steel rebar framework across the historic reservoir 7.0–3

List of Tables

Page

Table 3.1–1 Summary of Prehistoric Culture Chronologies for Southern California ... 3.0–5
Table 6.1–1 Previous Studies Conducted Within a One-Quarter-Mile Radius of the Los Peñasquitos Adobe Drainage Project Boundary 6.0–3
Table 6.2–1 Shovel Test Artifact Recovery Summary 6.0–8
Table 6.2–2 Shovel Test Excavation Data 6.0–9
Table 7.0–1 Cultural Resources Located Within the Los Peñasquitos Adobe Drainage Project 7.0–1

EXECUTIVE SUMMARY

The following report describes a cultural resources assessment study conducted by Brian F. Smith and Associates, Inc. (BFSA) for the Los Peñasquitos Adobe Drainage Project (referred to as the ***Project*** in this report), located in the Los Peñasquitos Canyon Preserve between the communities of Mira Mesa and Los Peñasquitos. The ***Project*** will consist of the installation of approximately 350 linear feet of subsurface pipeline designed to drain groundwater away from the foundation of the Johnson-Taylor Adobe and into the historic reservoir immediately south of the adobe structure. This project is designed to enhance the preservation of the adobe by channeling rising groundwater away from the adobe foundation. The rising groundwater is associated with a natural spring that surfaces just east of the adobe, and which has become more active in recent years. The project is critical to preserving the historic adobe from groundwater impacts caused by increased flow of groundwater following the Sierra El Mayor earthquake that occurred in northern Baja California on April 4, 2010. The archaeological study, conducted in July of 2013, included the archaeological testing and significance evaluation program for cultural deposits and historic structures (the reservoir structure) located within the ***Project's*** Area of Potential Effect (APE). The archaeological test for cultural deposits and the historic evaluation of the reservoir structure within the APE of the planned drainage line trench were required by the County of San Diego and contracted by the County of San Diego Department of General Services (DGS) to HELIX Environmental Planning, Inc. (HELIX) and their subcontractor BFSA. The APE was chosen to limit impacts to on-site cultural resources because it overlapped with portions of trenching from a previous project (see Figure 3.1–5). Throughout the cultural resources investigation, BFSA worked with the County's Department of Parks and Recreation (DPR), who are responsible for the management of the county park.

The purpose of the archaeological investigation was to evaluate potential impacts to historic and prehistoric deposits, as well as historic structures, associated with recorded cultural resources at the project location. Although the goal of the subdrain installation is to enhance the preservation of the National Register Site (the Johnson-Taylor Adobe), the action was seen as a source of potentially adverse impacts to historic or prehistoric resources known to exist at this location. In order to characterize the cultural deposits or structures that could be affected by this preservation action, a series of nine, hand-excavated shovel test pits (STPs) were excavated by BFSA archaeologists along the alignment of the drainage line. This information was used to complete the impact assessment and develop a mitigation program.

An archaeological records search was conducted at the South Coastal Information Center (SCIC) at San Diego State University (SDSU). The search indicated that two cultural resources are recorded within the project boundary (SDI-5220 and SDI-8125/H). One cultural resource (SDI-8101) has been recorded within a one-quarter-mile radius of the ***Project.*** The historic Johnson-Taylor Adobe (SDI-8125/H) is recorded on the National Register of Historic Places (NR ID #80000843).

In accordance with County of San Diego guidelines, a representative of local Native American groups was present during the fieldwork. A Kumeyaay representative from Red Tail Monitoring & Research, Inc. participated in the fieldwork program.

The investigations along the APE identified the presence of historic and prehistoric cultural materials within the soil that will be excavated for the installation of the subdrain. Furthermore, the drainage pipeline will empty into the historic reservoir via a hole cored through the north wall of the reservoir. The conclusion has been reached that cultural deposits associated with the National Register Site SDI-8125/H (the Johnson-Taylor Adobe) and the prehistoric Site SDI-5220 will be affected by the installation of the subdrain. Fortunately, the impacts to sensitive deposits will be confined to a narrow trench, which minimizes the effect upon cultural deposits. Furthermore, the hole to be cored through the reservoir wall will only be three inches in diameter and will not be a significant impact because this structure has been modified many times since it was built and further modifications will not represent an impact necessitating mitigation. The historic reservoir is a "contributing factor" to the historic ranch complex, however, the structure has been previously altered over time to preserve the function of the structure. Preservation projects in the 1990s intended to maintain the functionality of the reservoir included cementing the sides and installing a root-protective membrane to keep roots from damaging the walls of the reservoir. Although these projects have modified the interior appearance of the historic reservoir, they were completed to maintain and support the historic function of the structure. Measures to mitigate the impacts have been included in this report. These measures will essentially require that all soils to be excavated for the installation of the subdrain be hand-excavated under the direction of an archaeologist and Native American observer. All soils removed from the trench will be screened and all artifacts, both historic and prehistoric, will be recovered. Once the pipeline is installed, the screened soil will be used to backfill the trench. All recovered artifacts will be analyzed and discussed in a mitigation monitoring report. Artifacts will be prepared for curation and deposited at the San Diego Archaeological Center (SDAC) following the completion of all ground-disturbing actions associated with the ***Project***.

1.0 INTRODUCTION

BFSA conducted an archaeological testing and significance evaluation program for the Los Peñasquitos Adobe Drainage Project (referred to as the ***Project*** in this report) located in the Los Peñasquitos Canyon Preserve. The proposed undertaking by the County DGS involves the installation of a subsurface drainage pipeline (a subdrain) along the north and east sides of the Johnson-Taylor Adobe, a National Register historic structure, to prevent an increased flow of encroaching groundwater that surfaced following the Sierra El Mayor Earthquake on April 4, 2010 from reaching the foundations and walls of the adobe. The County DGS contracted HELIX to conduct cultural and biological resource studies to analyze the potential effects of the installation of the subdrain upon any sensitive cultural or biological resources. HELIX subcontracted the cultural resource study to BFSA. The APE was chosen to limit impacts to cultural resources because portions overlapped with trenching from a previous construction project (see Figure 3.1–5). The scope of work for the cultural resource study included a records search for the property, research of county historic archives, and an archaeological testing and evaluation program. The resources that were the focus of the archaeological study consist of portions of the prehistoric Site SDI-5220 and the multi-component Site SDI-8125/H that includes the Johnson-Taylor Adobe (Plate 1.0–1). The archaeological testing program was designed to evaluate the potential significance of any cultural deposits according to the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (September 26, 2006; Revised December 5, 2007).

The project site is located at 12122 Canyonside Park Drive in the Los Peñasquitos Canyon Preserve (see Figure 1.0–1). Specifically, the ***Project*** is located on the *Del Mar, California* USGS 7.5-minute topographic quadrangle (Figure 1.0–2). The Los Peñasquitos Adobe location corresponds to a National Register Historic and Archaeological District that is highlighted by the Johnson-Taylor Adobe Ranch Headquarters. The adobe and surrounding grounds are currently serving as a county park that is administered by the County DPR.

Plate 1.0–1: View of the Johnson-Taylor Adobe, facing west.

The proposed action consists of the installation of approximately 350 linear feet of subsurface drainage pipe around

the north and east sides of the Johnson-Taylor Adobe structure, extending south toward an existing historic concrete water retention basin (Figure 1.0–3). A hole will be drilled through the north wall of the historic reservoir and the subdrain will be constructed to empty directly into the reservoir. Only the narrow trench needed for the subdrain represents the extent of the APE, although some superficial contouring of the area on the north side of the adobe may be required to move surface water runoff into the drainage pipe and enhance the survival of the adobe structure.

In order to evaluate potential impacts to the historic and prehistoric resources known to exist in the ***Project*** APE, BFSA prepared an archaeological test plan that outlined a program of research and field excavations that were intended to produce sufficient data from which to determine the significance of any cultural deposits affected by the proposed action. The County DPR approved the test plan and authorized BFSA to conduct the necessary tests to assess potential impacts to any significant cultural resources, and present mitigation measures designed to reduce any significant impacts.

All aspects of the ***Project*** were directed by Consulting Archaeologist and Principal Investigator Brian F. Smith, who conducted the testing program with assistance from field archaeologists Anthony Cortez, Kyle Coulter, Charles Dickerson, and Clarence Hoff. A Native American representative, Dennis Linton, Jr., from Red Tail Monitoring & Research, Inc. participated in the fieldwork program. Brian Smith, Jennifer Kraft, and Claire Allen conducted research and prepared the text of this report. Graphics were provided by Tracy Stropes. Report editing and production were conducted by Elena Buckley.

Figure 1.0–1

General Location Map

The Los Peñasquitos Adobe Drainage Project

DeLorme (1:250,000 series)

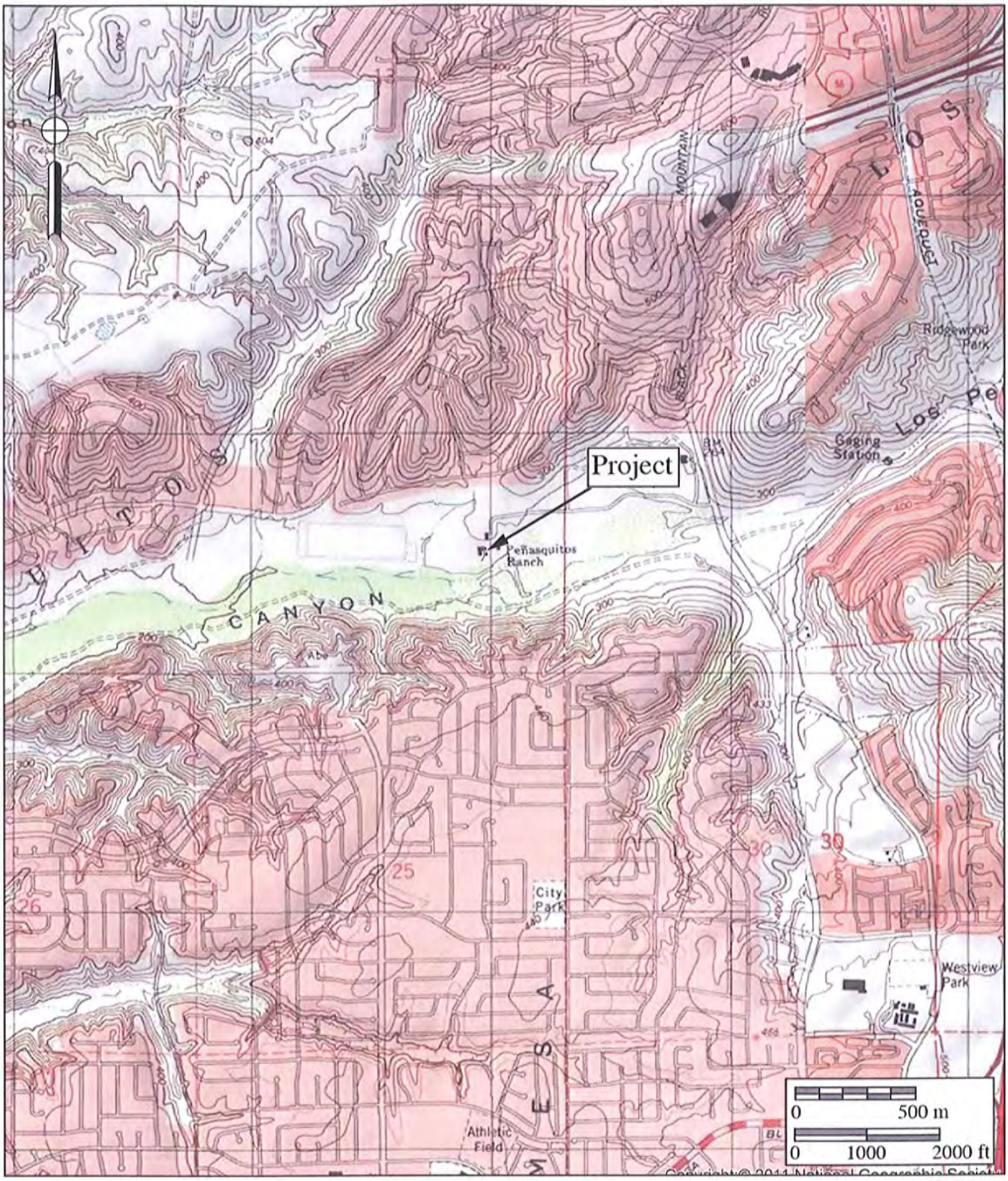


Figure 1.0–2

Project Location Map

The Los Peñasquitos Adobe Drainage Project

USGS *Del Mar/Poway* Quadrangles (7.5-minute series)

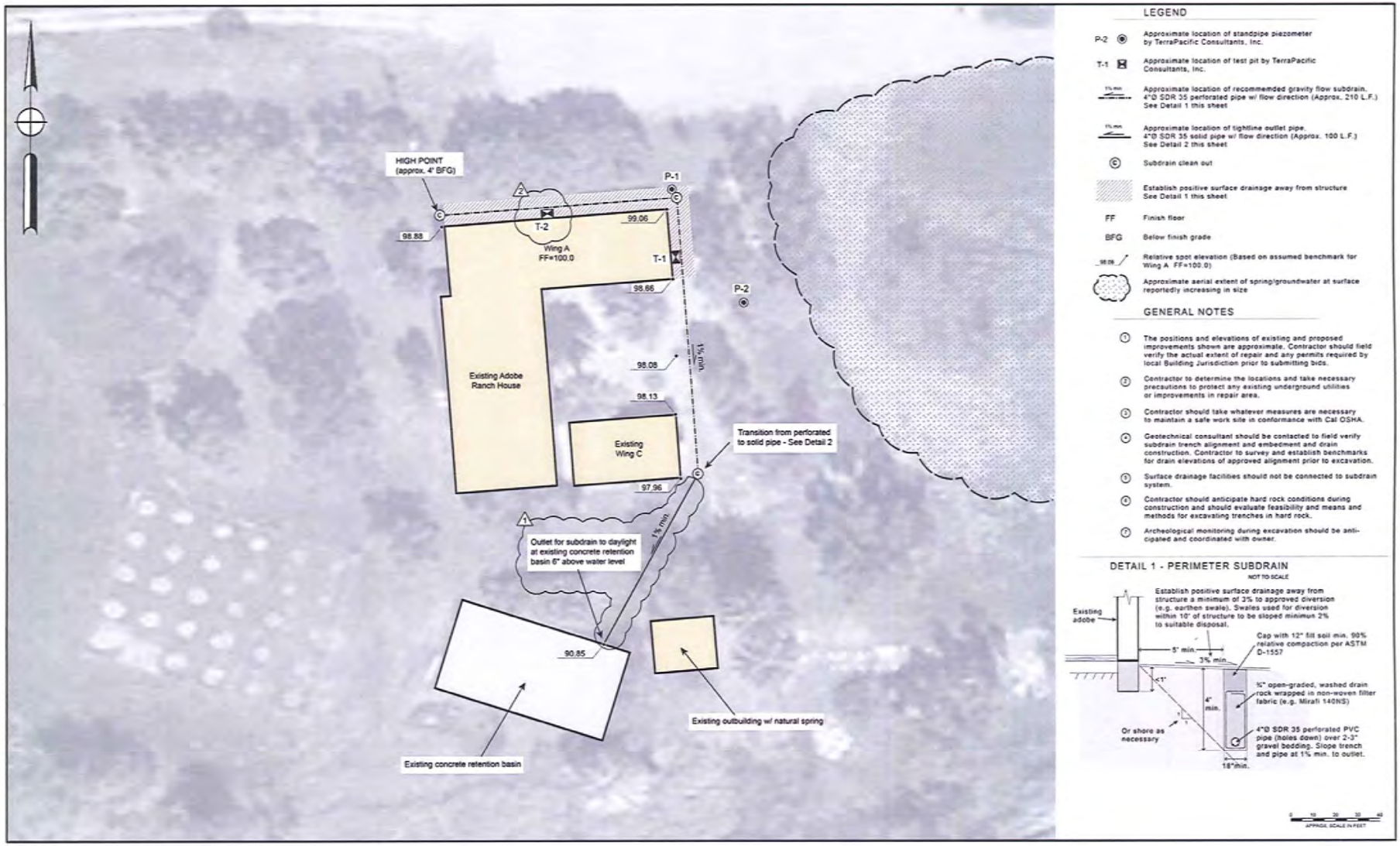


Figure 1.0–3

Project Development Map

The Los Peñasquitos Adobe Drainage Project

2.0 GUIDELINES FOR DETERMINING SIGNIFICANCE

For the purposes of this document, the location of the proposed action is within the boundaries of a National Register Historic and Archaeological District, highlighted by the Johnson-Taylor Adobe. Any cultural deposits identified within the drainage line APE will be associated with the National Register Site. The County of San Diego has presented guidelines for determination of resource significance in Section 3.2.2 of the 2006 publication *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (September 26, 2006; Revised December 5, 2007). Those guidelines will not be reiterated here, as the ***Project*** is directly identified as significant.

The task assigned to BFSA under the County's contract with HELIX is to evaluate the significance of potential impacts to cultural resources affected by the ***Project.*** Pursuant to the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (September 26, 2006; Revised December 5, 2007), any of the following will be considered a significant impact to cultural resources. Impacts are considered significant if:

1) The project, as designed, causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State California Environmental Quality Act (CEQA) guidelines.
2) The project, as designed, causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA guidelines.
3) The project, as designed, disturbs any human remains, including those interred outside of formal cemeteries.
4) The project proposes non-exempt activities or uses damaging to, and fails to preserve, significant cultural resources as defined by the Resource Protection Ordinance (RPO).

3.0 SETTING

The ***Project*** is located within the Los Peñasquitos Canyon Preserve (Plates 3.0–1 and 3.0–2), near Canyonside Community Park, on the south side of the San Diego community of Rancho Peñasquitos. The topography at the site is characterized as a truncated erosional terrace cut by the Los Peñasquitos Creek. The entire area is technically within the floodplain of the creek, which passes within several yards of the standing adobe structure. Various shallow drainages cut from the higher elevations on the north side of the Los Peñasquitos Canyon in a southerly direction toward the creek. Because the slope gradient is very gradual in the area of the adobe, the valley floor and associated floodplain are very wide. A spring is located immediately east of the historic adobe, which was certainly a factor in the location of the adobe, as well as the Native American occupation site that covers several acres around the historic district. Elevations within the project area range from approximately 230 to 240 feet above mean sea level (AMSL), with the higher point in the northwest corner.

The project area displays a variety of soils. The lower elevations consist of alluvial clays and sands indicative of a floodplain. The soil in the upper elevations consists of brown sandy silt with a dark midden soil between approximately 20 and 65 centimeters below surface. Lithic and ground stone artifacts were recovered from the midden soils. These lithic materials, which are generally hard and extremely resistant to erosion, were preferred by the prehistoric inhabitants of the San Diego region for the manufacture of flaked tools and grinding implements (Smith 1991; Robbins-Wade 1990).

Plate 3.0–1: East portion of project area, facing southeast.

Plate 3.0–2: East portion of project area, facing north.

The biological setting of the project area is dominated by disturbed historic and modern landscapes, north of the Los Peñasquitos Creek. An agricultural vegetative community consisting primarily of introduced grasses, with scant areas of native coastal sage scrub adjacent to drainages is present within the park boundary. Southern willow scrub and riparian habitat are found to the south of the adobe. These communities are dependent on the amount of precipitation that the area receives. The amount of seasonal precipitation is related to the major landforms that exist throughout the county. Coastal mesas, such as Los Peñasquitos, receive an average of between 12 and 16 inches (30 to 40 centimeters) of rainfall annually, mostly between October and May (Beauchamp 1986). The project area also exhibits generally mild temperatures; however, several instances of winter frost, as well as some weeks in the summer with temperatures reaching 100 degrees Fahrenheit, are recorded annually. These environments tend to support a wide variety of wildlife, particularly birds and small mammals (Beauchamp 1986).

The entire project area has been used for farming and grazing during the past, although currently the property is vacant and used only to host tours at the park. The previous plowing and cattle grazing ushered in introduced grasses and weeds that contribute to the vegetation in the area.

3.1 Cultural Setting

Archaeological investigations in San Diego County have documented a diverse and rich record of human occupation spanning the past 10,000 years. Likewise, the history of archaeological research in San Diego County and southern California since the 1920s is as diverse and rich as the number of archaeological investigations conducted by scholars with different research designs and mental constructs. These investigations have provided an overwhelming body of knowledge concerning the prehistory of San Diego County and southern California. Researchers have continuously built on this body of knowledge and have offered more than a dozen cultural sequences based on characteristics observed in the archaeological record. Typically, scholars have separated prehistory into three general sequences and have used the terms complex, period, stage, tradition, and horizon to define each sequence. The terms used to describe these sequences generally fall into three categories: those used to describe a culture with a specific tool kit (*e.g.,* San Dieguito and La Jolla), geographical (*e.g.,* La Jolla and Pauma), and/or temporal (*e.g.,* Archaic and Late Prehistoric). These terms are often used interchangeably to describe a particular artifact assemblage or site.

The first generally accepted culture chronology for San Diego County was developed by Malcolm Rogers (1939, 1945). Rogers (1939, 1945) divided San Diego prehistory into three complexes or cultures, which he called (in temporal order from earliest to latest) San Dieguito, La Jolla, and Yuman. Subsequent researchers have modified Rogers' original sequence by further subdividing the cultures (*e.g.,* La Jolla I, La Jolla II, and La Jolla III) (Moriarty et al. 1959), renaming the cultures based on geographical distinctions (*e.g.,* La Jolla vs. Pauma) (Meighan 1954; True 1966), and/or by collapsing the cultures into cultural temporal periods (*e.g.,* Early Period [Archaic] and Late Period) (Gallegos 2002). Most of the early (*i.e.,* pre-1960) cultural sequences were developed prior to the development and use of radiocarbon dating, and were based on similar comparisons with artifact assemblages in other geographical regions with relative and/or absolute dates. While a number of different cultural sequences have been put forth in the past 60 years, including many based on radiocarbon sequences, there still does not appear to be a consensus in the culture chronology for San Diego County.

Today, most researchers collapse San Diego prehistory into three general periods—Paleo Indian, Archaic, and Late Prehistoric (Masters and Gallegos 1997; Reddy 2000)—and use the terms San Dieguito, La Jolla, Pauma, Encinitas Tradition, Milling Stone Horizon, Yuman, Shoshonean, Diegueño, Cuyamaca Complex, and San Luis Rey Complex interchangeably in describing these periods. For example, Paleo Indian is frequently used interchangeably with San Dieguito, and Archaic is alternated with La Jolla or Pauma. The situation is further confused by the realization that as more and more information is gathered about San Diego prehistory, the more the characteristics distinguishing San Dieguito, Pauma, La Jolla, and Yuman become blurred. In fact, archaeological sites in San Diego County often contain evidence of use throughout prehistory, and repeatedly this information is located in poorly stratified and mixed subsurface deposits. These types of difficulties preclude making distinctions between specific

complexes that are based on tool kit or geographical differences. Unlike other areas of California or the southwest, the discovery of archaeological sites with strong stratification sequences undisturbed by bioturbation is extremely rare in San Diego.

The following discussion about the prehistory of San Diego County uses the terms Paleo Indian, Archaic, and Late Prehistoric/Kumeyaay to guide the review of San Diego prehistory with specific reference to the San Dieguito, La Jolla, and Pauma complexes. The discussion will focus on the historical use of these terms; particularly, how scholars have used these terms to differentiate particular periods of prehistory. Absolute chronological information, where possible, will be incorporated into this discussion to examine the effectiveness of continuing to interchangeably use these terms. The Archaic Period represents 7,700 years of prehistory from the early Holocene to the beginning of the late Holocene. The Archaic Period is typically broken down into Early, Middle, and Late in order to examine trends that occurred during this period. The Early Archaic Period represents the time from 9,000 to 6,000 years before the present (YBP), the Middle Archaic Period signifies the time between 6,000 and 3,000 YBP, and finally, the Late Archaic Period characterizes the period from 3,000 to 1,300 YBP. The Late Prehistoric Period represents the terminus of the Late Holocene between 1,300 and 450 YBP. The end of the Late Prehistoric Period is associated with the arrival of Spanish explorers in 1542, after which the next cultural stage is usually referred to as the Protohistoric Period. Reference will be made to the geological framework that divides the culture chronology of the area into four segments: late Pleistocene (20,000 to 10,000 YBP), early Holocene (10,000 to 6,650 YBP), middle Holocene (6,650 to 3,350 YBP), and late Holocene (3,350 to 200 YBP). The use of the geological framework in describing San Diego prehistory is advantageous over other frameworks, as it allows comparisons to be made with other geographic regions, relies on absolute dating methods, and can be used to examine climatic or environmental changes. Additionally, for sites where cultural affiliation or complex cannot be determined, a geological framework is useful. Table 3.1–1 provides a summary of the regional chronologies in relationship to the geological framework.

Table 3.1–1
Summary of Prehistoric Culture Chronologies
for Southern California*

			Coastal San Diego County		Interior San Diego County Northern	Interior San Diego County Southern	Syntheses		
Year YBP	**Geologic Era**	**Years A.D./B.C.**	**Rogers 1939, 1945**	**Moriarty 1966**	**Meighan 1954**	**True 1958, 1966, 1970**	**Warren 1968**		**Gallegos 2002 Reddy 2000**
Present	Late Holocene	1950	Yuman III Culture		Luiseño	Diegueño	Yuman	Shoshonean	Late Prehistoric/Kumeyaay or Late Period (1,300 A.D. to Present) Other Names: Diegueño/Yuman Cuyamaca Complex San Luis Rey I, II
		1,500	Yuman II Culture		San Luis Rey I San Luis Rey II	Cuyamaca Complex			
1,000		1,000	Yuman I Culture		Shoshonean Intrusion		Encinitas Tradition		Archaic or Early Period Other Names: Pauma Complex Encinitas Tradition La Jolla Complex San Dieguito Paleo Indian
2,000		500 A.D. 0 B.C .500			Transition or Hiatus?				
3,000		1,000		La Jolla III	Milling Stone Substratum (La Jolla/Pauma Complexes)				
		1,500	La Jolla II Culture						
4,000	Middle Holocene	2,000		La Jolla II					
		2,500							
5,000		3,000							
		3,500	La Jolla I Culture						
6,000		4,000		La Jolla I					
		4,500							
7,000		5,000							
		5,500	San Dieguito Culture		San Dieguito		San Dieguito Tradition		
8,000	Early Holocene	6,000		San Dieguito					
		6,500							
9,000		7,000							
		7,500							
10,000		8,000							
	Pleistocene	8,500							
		9,000							

(Adapted from Moratto 1984 and Gallegos 2002)

3.1.1 Paleo Indian Period (11,500 to circa 9,000 YBP)

The Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands (Moratto 1984). At approximately 10,000 YBP, a cool/moist climate was present in San Diego County. This is supported by pine pollen found in deposits at Point Loma and Encinitas and oak pollen identified in deposits from Otay Mesa (Gallegos and Kyle 1988; Kaldenberg 1982; Kyle et al. 1989). However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes (Moratto 1984; Martin 1967, 1973; Fagan 1991). The San Diego shoreline at 10,000 YBP, depending on the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location (Masters 1983).

In North America, the Paleo Indian Period begins at approximately 11,500 YBP with what is known as the Clovis Culture. The Clovis Culture is distinctly recognized by large, fluted points, although other artifacts including knives, scrapers, choppers, perforators, and casual flake tools have been found in Clovis and other late Pleistocene sites (Fagan 1991; Moratto 1984). They are typically thought of as big-game hunters because of the association of fluted points with extinct megafauna, such as mammoths, found at kill sites in the Plains and Rocky Mountains. Additionally, during the late Pleistocene, plants do not seem to be important in subsistence because of the lack of ground stone tools and other artifacts typically associated with plant gathering. Clovis sites have not been identified in the project area, although in San Diego County and southern California, isolated Clovis-like fluted points have been found in a variety of settings including passes in the Cuyamaca Mountains and the Tehachapi Mountains, valleys in the Mojave Desert and Owens Valley, and along the shorelines of Little Lake, Searles Lake, Panamint Lake, and ancient Lake Mojave (Davis 1973; Glennan 1971). The recovery of isolated fluted points would suggest that at the end of the Pleistocene small groups of people sharing Clovis-like traits were present in southern California. The recovery of fluted points in a variety of settings would suggest that Paleo Indians were likely attracted to the abundant marshlands, estuaries, and lakeshores. Rather than being big-game hunters, these people likely subsisted using a more generalized hunting, gathering, and collecting adaptation, utilizing a variety of resources including birds, mollusks, and both large and small mammals (Erlandson and Colten 1991; Moratto 1984; Moss and Erlandson 1995). The lack of sites with late Pleistocene and/or early Holocene subsurface assemblages in San Diego County greatly hinders the understanding of the Paleo endian Period in San Diego (True and Bouey 1990).

The lack of distinctive Clovis sites has not precluded assumptions about the antiquity of humans in San Diego prehistory; however, some of the earliest archaeological investigations in San Diego County and southern California were quick to provide evidence of late Pleistocene occupation in California. Human skeletal fragments collected by Rogers between 1920 and 1935

from sites near La Jolla (SDM-W2 and SDM-W4) yielded amino acid dates of roughly 44,000 and 28,000 years, respectively. However, over 40 years later, researchers demonstrated that amino-acid dates differ substantially from those by radiometric techniques (Protsch 1978). In fact, radiocarbon analysis conducted on the skeletal fragments from Site SDM-W2 (La Jolla Shores) yielded early to middle Holocene dates ranging from 7,370 ± 70 to 5,460 ± 100 YBP (Moratto 1984). The Del Mar Man Site (W-34) was once thought to be 46,000 years old, but has been more recently dated to 5,400 YBP (Taylor et al. 1985).

George Carter and Herbert Minshall even proposed that people existed in San Diego County as long as 80,000 to 100,000 years ago, although these views are unconventional and not widely accepted (Moratto 1984). Carter and Minshall, examining locales in La Jolla Valley, Old Mission, Sweetwater River Valley, Mission Valley, and Texas Street, argued that people were in San Diego County by at least 40,000, and possibly 125,000, years ago. They based their claim on several items, including the association of a Pleistocene horse tooth near the La Jolla Valley Site, climatic and geomorphologic data, and the perceived similarities between the San Diego cultural materials and artifacts found in Eurasian deposits that dated to the Sangamon Interglacial (80,000 YBP). Several books were written by Carter, including *Earlier than You Think* (1980) and *Pleistocene Man at San Diego* (1957), and Minshall wrote *The Broken Stones*: *The Case for Early Man in California* (1976). Most researchers dismiss the work of Carter and Minshall, asserting that their artifacts are naturally modified stones and their archaeological sites are natural geological features. Nonetheless, the work by Carter and Minshall contributed to the argument for early occupation of San Diego County by Pleistocene humans.

3.1.2 Archaic Period (circa 9,000 to 1,300 YBP)

The Archaic Period of prehistory begins with the onset of the Holocene around 9,000 YBP. The climate at the beginning of the early Holocene is marked by cool/moist periods and an increase in warm/dry periods and sea levels. The San Diego shoreline at 8,000 YBP, depending on the particular area of the coast, was near the 20-meter isobath, or one to four kilometers further west than its present location (Masters 1983). In Arizona and southern California, the juniper woodlands below approximately 5,300 feet AMSL persisted into the early Holocene, but above approximately 6,000 feet AMSL, conifer forests gave way to modern vegetation types (Van Devender and Spaulding 1979). Several individuals have documented the recession of the once abundant coniferous forests during the early Holocene (Axelrod 1967; Heusser 1978).

The rising sea level during the early Holocene created rocky shorelines and bays along the San Diego coast by flooding valley floors and eroding the coastline (Curray 1965; Inman 1983). Shorelines were primarily rocky with small littoral cells, as sediments were deposited at bay edges, but rarely discharged into the ocean (Reddy 2000). These bays eventually evolved into lagoons and estuaries, which provided a rich habitat for mollusks and fish. In particular, *Argopecten* and *Chione* seem to dominate the mollusks gathered by prehistoric people during

this time (Gallegos 1992). The warming trend and rising sea levels generally continued until the late Holocene (4,000 to 3,500 YBP).

At the beginning of the late Holocene, sea levels stabilized, rocky shores declined, lagoons filled with sediment, and sandy beaches became established (Gallegos 1985; Inman 1983; Masters 1994; Miller 1966; Warren and Pavesic 1963). Many former lagoons became saltwater marshes surrounded by coastal sage scrub by the late Holocene (Gallegos 2002). The filling of lagoons with sediment and the expansion of sandy beaches generally occurred first in northern portion and then ultimately spread south toward the southern portion of San Diego County. In large part this was due to the greater size of the drainage systems in the northern part of the county (Inman 1983; Masters 1994). The sedimentation of the lagoons is significant in that it had profound effects on the types of resources available to prehistoric peoples. Habitat was lost for certain mollusks, namely *Chione* and *Argopecten*, but habitat was gained for other mollusks, particularly *Donax* (Gallegos 1985; Reddy 2000). The larger mollusks, *Chione* and *Argopecten*, are found in lagoons and estuaries and the smaller mollusk, *Donax*, prefer gentle, sloping beaches. Several researchers have documented the shift in the use from *Chione* and *Argopecten* during the end of the late Holocene by prehistoric occupants (Laylander 1993, 2005). In northern San Diego County, *Donax* has been found in significant quantities in late prehistoric deposits along the coast and inland, whereas in earlier deposits, *Donax* is non-existent or rare (Cardenas and Robbins-Wade 1985; Corum 1991; Hector 1983; Quintero 1987). The decline in larger shellfish and the loss of drinking water and Torrey Pine nuts resulted in a major depopulation of the coast as people shifted inland to reliable freshwater sources and intensified their exploitation of terrestrial small game and plants, including acorns (originally proposed by Rogers 1929; Gallegos 2002). The San Diego and Mission bays, however, are unique in that they did not experience the infilling of sediment witnessed by smaller lagoons and estuaries to the north because the tidal flushing that occurs there washes sediment into the ocean (Masters 1988). As a result, the coast south of Mission Bay did not witness the same major population decline.

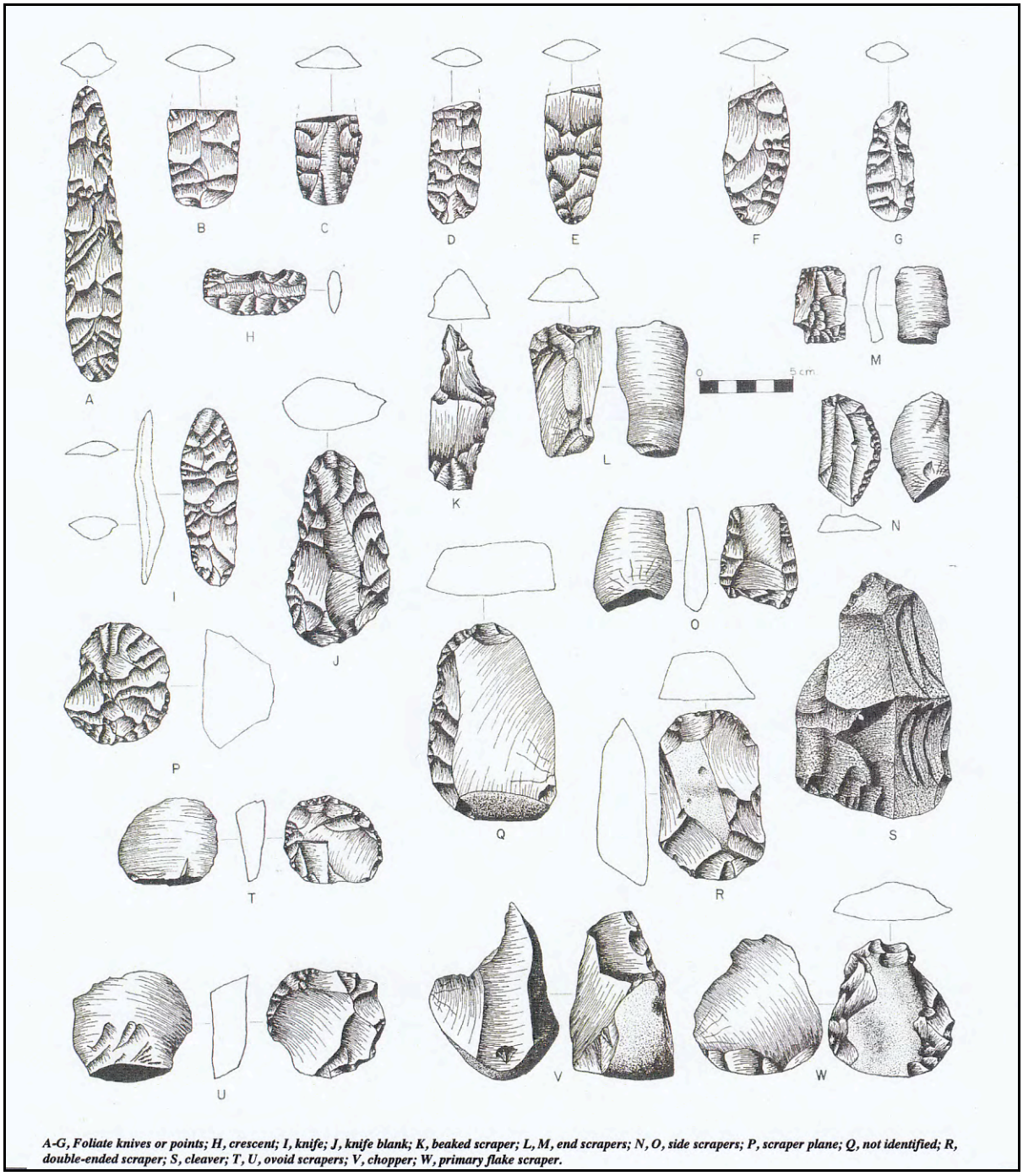
In San Diego County, the Archaic Period is associated with a number of different cultures, complexes, traditions, or horizons including San Dieguito, La Jolla, Pauma, Encinitas, and Milling Stone. Archaeologists have differing opinions regarding the age and importance of these different periods of San Diego prehistory. The following summary of the Archaic Period begins with an examination of the San Dieguito Complex, followed by a discussion of the La Jolla and Pauma complexes.

The San Dieguito Complex is probably the least understood cultural manifestation in the region because concise radiocarbon dates on stratigraphically intact, undisturbed San Dieguito deposits, or sites, is lacking. Most San Dieguito sites, or sites with San Dieguito-like artifacts, are surface assemblages, and those with subsurface deposits have usually been disturbed by bioturbation or modern agricultural activities. Some scholars view the San Dieguito as the earliest complex in San Diego prehistory (Warren and True 1961; Warren 1967), whereas other

researchers propose that the San Dieguito Complex represents the inland hunting component of a generalized hunting and gathering culture of the Holocene, lumping it in with the La Jolla and Pauma complexes (Kaldenberg 1982; Norwood and Walker 1980; Gallegos 1991). Some researchers (Bull 1987; Raven-Jennings and Smith 1999a, 1999b) have also proposed that the phases of the San Dieguito (I, II, and III) represent different stages of lithic tool procurement and production, and the presence of hunting-type tools represents use of inland terrestrial resources (Berryman and Berryman 1988; Gallegos 1987).

Malcolm Rogers was the first to refer to the earliest artifact assemblages in San Diego County as belonging to the San Dieguito Complex. Beginning in the 1920s, Rogers conducted investigations of archaeological sites located along the San Diego and Baja California coast, as well as surveys of the San Dieguito Plateau and Colorado Desert (Rogers 1966). In 1920, Malcolm Rogers stated that he "discovered the San Dieguito Industry at what is now known as the C.W. Harris Site" (Rogers 1939; Warren 1966). The Harris Site (SDM-W-198/SDI-149) became known as a San Dieguito-type site through Rogers' and later Warren and True's (1961) investigations. Interestingly, however, Rogers never published his research on the site. His research on the Harris Site and his perceived views on the San Dieguito Complex would later be published in 1966 by Claude Warren and H.M. Wormington, E.L. Davis, and Clark Brott.

Rogers did publish the results of his archaeological investigations concerning the surface examination of San Dieguito sites along the San Dieguito Plateau and Colorado Desert (1929, 1939). In 1929, Rogers had identified four loci of San Dieguito sites in San Diego County based on areas of intensive occupation, each having at least one large site dignified with the term village, including three in the Coast Range (also referred to as Black Mountain volcanics) between San Marcos Creek on the north and Los Peñasquitos Creek on the south. Generally, most San Dieguito Complex sites lack midden and are often eroded, although the Harris Site is a notable exception (Rogers 1929). Artifacts designated by Rogers (1929, 1939) as diagnostic of this complex were tools typically associated with hunting tool manufacture and animal procurement and processing. These artifacts included teshoa flakes, beveled flakes, notched cobbles (rare), cores, hammerstones, cleavers, choppers, pulping planes, leaf-, lancelote-, and triangular-shaped bifaces and knives, amulets or crescents, a variety of scrapers (ovoid, keeled, domed, flake, side, and end), spokeshaves, reamers (drills and gravers), and borers (Rogers 1939). These tools were often made from felsite, now referred to as Santiago Peak Volcanics (SPV) or fine-grained metavolcanic material (FGM), for which the Otay area was a major source. Rogers (1939) found similarities between the artifact assemblages in San Diego County and those in the Colorado Desert. The only difference Rogers (1939) noted was that those in the desert contained "stemmed blades" (stemmed projectile points), whereas "stemmed blades" or points were absent in San Diego County. These early lithic industries were at first labeled Malpais, Scraper-Makers, and Playa; however, these terms were eventually subsumed under the San Dieguito Complex (Rogers 1939), which would later be divided into San Dieguito I, II, and III. Plate 3.1–1 shows artifacts considered typical of the San Dieguito Complex.



A-G, Foliate knives or points; H, crescent; I, knife; J, knife blank; K, beaked scraper; L, M, end scrapers; N, O, side scrapers; P, scraper plane; Q, not identified; R, double-ended scraper; S, cleaver; T, U, ovoid scrapers; V, chopper; W, primary flake scraper.

Plate 3.1–1: San Dieguito-type artifacts (after Moratto 1984, Figure 3.7).

Rogers (1939, 1958) originally believed that the San Dieguito Complex lasted approximately 2,000 to 3,000 years, from 2000 to 1000 B.C. through 800 A.D. Rogers based this assumption on the observation that the artifacts were associated with a culture that was earlier than the Yuman or Shoshonean culture since the San Dieguito artifacts displayed patina, desert varnish, and sandblasting, and the Yuman assemblages, besides containing additional artifacts like pottery, did not show patina, desert varnish, or sandblasting (Rogers 1966). Furthermore, Rogers (1939, 1958), citing Antevs' 1938 climatic study, stated that since San Dieguito-like artifacts were found around the shorelines of extinct stands of desert lakes, this offered evidence that these sites were inhabited during a period of cooler/moister climate that occurred at approximately 2000 B.C. (4,000 YBP). According to Warren (1966), before Rogers' death and after dates on La Jolla coastal sites yielded evidence of occupation at 6,000 YBP, Rogers had decided that the San Dieguito Complex was much older than 2000 B.C.

The Harris Site is better characterized as a series of loci with different subsurface components and is now referred to as the Harris Site Complex (Carrico et al. 1991). The subsequent investigations of the Harris Site by Rogers (1939) and Warren and True (1961) provided the first stratigraphic evidence to place the San Dieguito as the earliest cultural complex in San Diego County based upon their interpretations. The San Dieguito component was a deeply buried deposit (approximately seven feet below the modern surface), below subsurface deposits of La Jolla and Yuman artifact assemblages. Although Rogers never produced a report, Warren (1966) compiled the notes and records from Rogers' 1938 investigation of the site, which involved the investigations of two loci, one in the area south of Lynch Wash (Locus I) and the other in the mid-channel of the San Dieguito River (Locus II). Rogers (in Warren 1966) identifies San Dieguito II artifacts in the "E stratum of Locus I," San Dieguito III artifacts in the "M stratum of Locus II," and La Jolla II and Diegueño artifacts in "Stratum B of Locus I." Artifacts identified as San Dieguito II in the "E stratum of Locus I" included a number of different scrapers (ovoid, domed, flake, end and side), scraper planes, amulets or crescents, and leaf-, triangular-, and lancelote-shaped projectile points, bifaces, and knives. Artifacts identified as San Dieguito III in the "M stratum of Locus II" included a variety of scrapers (domed, ovoid, and side), square-based knives, ovoid to leaf-shaped knives and bifaces, and triangular- (Humboldt) and stemmed-eared (Elko) projectile points. Rogers suggested that the marine shell (mostly *Chione* and *Argopecten*) recovered in the "M stratum of Locus II" represented the first San Dieguito midden with marine shell (Rogers in Warren 1966). La Jolla II and Diegueño artifacts (found in "Stratum B of Locus I") were identified as unifacial and bifacial manos, oval basin metates, primary flake scrapers (teshoa flakes, cortex-based scrapers, and cortex back scrapers), domed scrapers, and miscellaneous flake scrapers (pentagonal, triangular, end, and irregular), hammer/choppers, choppers, cores, notched and concave-base projectile points (small Humboldt and Cottonwood projectile points), and knives (flat-based and rectangular). Additionally, Rogers discovered disturbed La Jolla II burials in his 1938 excavations (Rogers in Warren 1966).

In 1959, Claude Warren and D.L. True directed a University Of California at Los Angeles (UCLA) archaeological survey team in excavations at the Harris Site (SDI-149 and SDI-316) and specifically in what Rogers referred to as the multi-component Locus I. The investigations by Warren and True (1961) led to an update of the cultural sequence of San Diego prehistory, placing the San Dieguito Complex as the earliest culture. They characterized San Dieguito sites as being located on mesas and ridges, small in size, lacking midden, and often heavily eroded. Warren and True (1961) and Warren (1967) identified San Dieguito artifacts as leaf- and lancelote-shaped knives, knife blanks (bifaces), projectile points (occasional stemmed), a variety of scrapers (ovoid side, keeled side and end, rectangular side, rectangular end, triangular end, domed, and flake), crescent amulets (eccentric Type 5 crescent) (Fenenga 1984) or eccentric crescents, engraving tools (gravers), choppers (crude), hammerstones (pebble), core hammers, and cores. The lithic tools are percussion flaked and occasionally some are pressure flaked. Pottery is absent and ground stone is extremely rare, if present at all in San Dieguito sites (Warren and True 1961). Most San Dieguito lithic tools were made of locally available felsitic materials (SPV), but other local FGMs and occasionally imported materials were used. Warren and True (1961) concluded that the San Dieguito Complex represents an early population, relatively small in number, whose primary subsistence was hunting.

Warren and True (1961) submitted two samples for radiocarbon analysis. The first was conducted on shell (*Chione californiensis*) collected by Rogers in 1938 from the San Dieguito III component he identified in Stratum M. The sample (LJ-136) resulted in a radiocarbon date of 4,720 ± 160 YBP (calibrated 2770 B.C. ± 160). The second sample submitted was carbonized wood and seeds collected from what was called a La Jolla feature (Feature 5—possible hearth or roasting pit). This sample (LJ-202) yielded a date of 6,300 ± 200 YBP (calibrated 4,50 B.C. ± 240). The first date of 4,720 ± 160 YBP, from Rogers' San Dieguito III component was dismissed by Warren and True (1961) because the sample had been collected 21 years before it was assayed. The La Jolla component of the Harris Site yielded an older radiocarbon date, and a series of radiocarbon dates (7,370 ± 100 YBP, 7,300 ± 200 YBP, and 5,460 ± 100 YBP) from coastal La Jolla sites yielded older dates (Hubbs et al. 1960; Moriarty et al. 1959). They reasoned that since the La Jolla Feature 5 was separated by the San Dieguito III component by 32 inches of consolidated and partially cemented river silt, and that since the San Dieguito component was positioned in deposits below the La Jolla component, the San Dieguito had to be older than the La Jolla. Moreover, they reasoned that since the La Jolla Complex on the coast had been given an initial date of approximately 7,500 YBP (5500 to 6000 B.C.), then the San Dieguito Complex had to date to at least 8,000 YBP (6000 B.C.). Additional charcoal and carbonaceous earth samples collected from within the San Dieguito component during additional excavations in 1965 by Warren (1967) yielded calibrated radiocarbon dates of 6540 B.C. ± 400 (A-724 and A-725) and 7080 B.C. ± 350 (A-722A). These dates led Warren (1967) to suggest an age of over 8,000 YBP for the San Dieguito Complex and "probably in the neighborhood of

10,000 YBP" for the earliest complexes (in reference to San Dieguito I), given that San Dieguito-type artifacts had been found further east around the lakeshores of Pleistocene lakes.

In 1964, Paul Ezell, with San Diego State College (now SDSU), carried out additional work at the Harris Site (SDI-149 and SDI-316). Ezell's (1977) research largely supported the earlier work of Rogers and Warren. La Jolla cobble and Yuman fire hearths were excavated, resulting in a radiocarbon date on charcoal from a La Jolla Complex roasting pit of 3,910 ± 50 YBP (Beta No. 38827). Ezell, in a later 1987 publication, thought that the Harris Site (SDI-149 and SDI-316) was atypical of the San Dieguito Complex and not a "type site" of the San Dieguito. Additional work at the Harris Site was carried out by Ezell and Carrico in 1977 and Carrico et al. in 1991. In the latter study, Carrico et al. (1991) substantiated what was known already about the Harris Site Complex, and recommended that the site be considered a Historic District and eligible for listing on the National Register of Historic Places. A bulk soil sample taken from a hearth feature resulted in a date of 3,470 ± 110 YBP (Beta No. 38826).

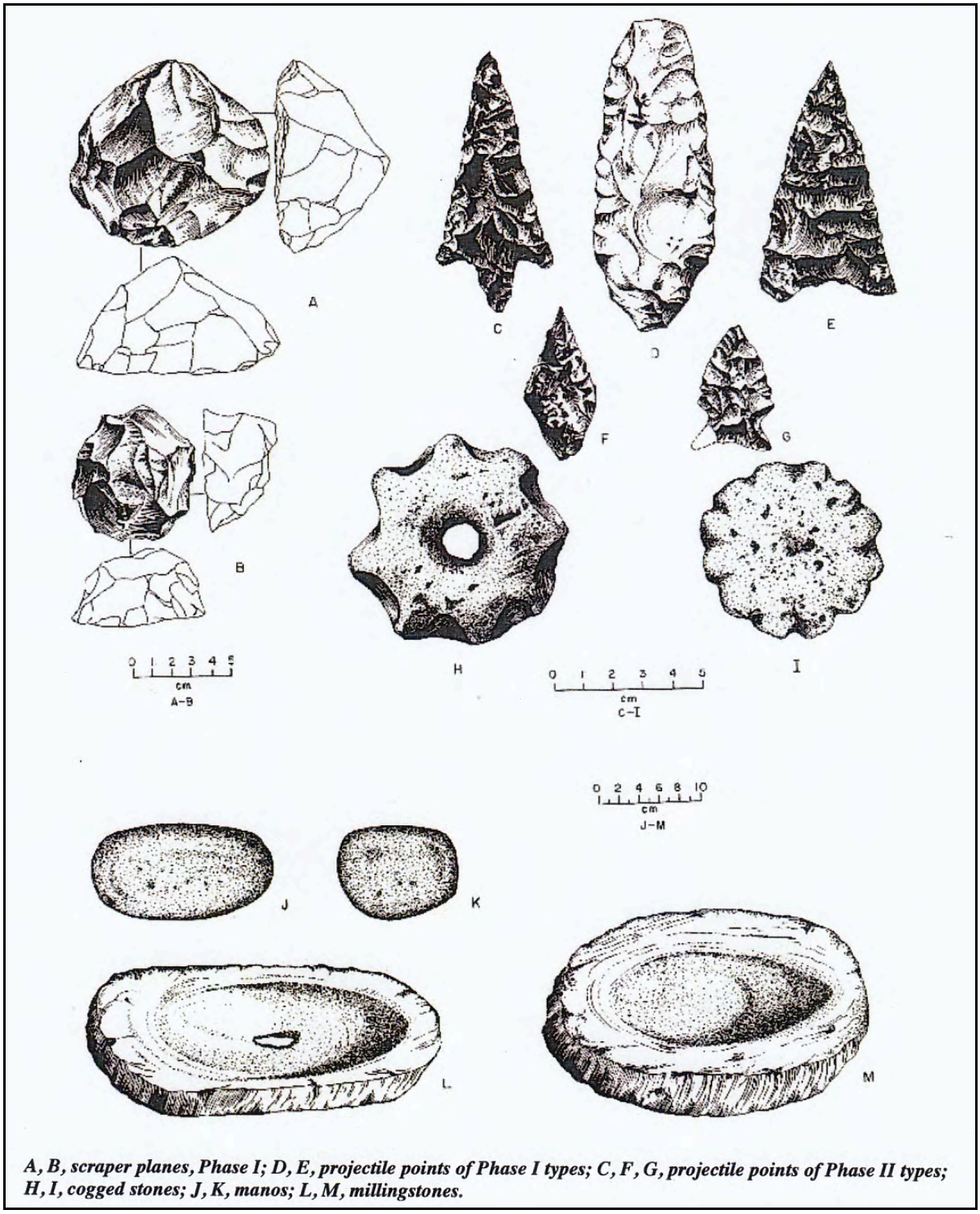
Artifacts considered diagnostic of the San Dieguito Complex are similar to artifact assemblages located further east in the Great Basin and American Southwest. The San Dieguito artifacts are also similar to the artifact assemblages found around the presumed late Pleistocene shorelines of Lake Mojave (Campbell et al. 1937), Tonopah Lake (Campbell 1949), Panamint Basin (Davis et al. 1969), and Owens Lake (Antevs 1938; Campbell 1949). Furthermore, the San Dieguito tool assemblage resembles that of the Western Lithic Co-Tradition (Davis et al. 1969) and the Western Pluvial Lakes Tradition (Bedwell 1970; Moratto 1984). Additionally, excavations conducted at Danger Cave in Utah (Jennings 1957), Ventana Cave in Arizona (Haury 1950), and Newberry Cave in the Mojave Desert (Smith et al. 1957) provided stratigraphic evidence for the San Dieguito Complex being the earliest culture, as San Dieguito-like artifacts were found in the basal levels of the caves' subsurface deposits. The results of these studies, the investigations of the Harris Site by Warren and True (1961), the suggestion that the earliest phase of the San Dieguito dated to 10,000 YBP (Warren 1967), and the lack of Clovis sites led to the conception that the San Dieguito represent the earliest cultural complex in San Diego prehistory. The San Dieguito culture became synonymous with Paleo Indian, and for many current researchers it remains a viable Paleo Indian cultural complex (Reddy 2000).

The basis for the identification of the San Dieguito Complex has been lithic artifact morphology, as described by Rogers (1939), Warren (1966), and Davis et al. (1969), and the use of local green metavolcanic material in tool manufacture (especially in the Otay area), but very few absolute dates have been confirmed. Many archaeologists continue to debate whether the San Dieguito Complex people continued to occupy San Diego County or abandoned the area circa 8,000 YBP (SDCAS 1987). Sites in San Diego County that have been reported as early Holocene (circa 9,000 to 7,000 YBP) and/or with possible San Dieguito components include the Agua Hedionda (UCLJ-M-15 and SDI-10,695, W-131) (Koerper et al. 1986), Rancho Park North (SDM-W-49) (Kaldenberg 1982), Batiquitos Lagoon (Gallegos 1992), San Dieguito Lagoon/River Valley (Norwood 1980; Norwood and Walker 1980; Smith 1986, 1987; Warren

1967), San Elijo Lagoon (Gallegos 1992), Peñasquitos Lagoon (Smith and Moriarty 1985a), La Jolla/UCSD (Moriarty et al. 1959; Shumway et al. 1961), and Tijuana Lagoon/Otay Mesa sites (Bingham 1978; Breschini et al. 1990). Recently, however, there have been sites that have been reported as having a San Dieguito component or having San Dieguito-like artifacts, but that are dated to the middle and late Holocene. An investigation of the San Dieguito Scraper Hill Site (SDI-8330/W-240) by Raven-Jennings and Smith (1999a) provided support for Rogers' original age estimation of the San Dieguito Complex dating between 4,000 and 2,800 YBP. Similar assemblages have also been found in the Otay region in contexts younger than 5,000 YBP (Smith and Moriarty 1985b; Kyle et al. 1990). Clearly, more research is needed regarding the temporal placement and definition of the San Dieguito Complex.

In any event, at approximately 8,000 YBP a different yet major prehistoric cultural complex, called the La Jolla Complex (Encinitas Tradition, Milling Stone Horizon), appears in the archaeological record along the San Diego coastal region (Plate 3.1–2). Radiocarbon dates from sites attributed to this complex span over 7,000 years of prehistory. The La Jolla Complex is best recognized for its pattern of large coastal sites, shell middens, basin metates, manos, cobble-based tools, discoidals, and flexed human burials (Shumway et al. 1961; Smith and Moriarty 1985a). While scrapers are the most recognized tool type, coastal La Jolla Complex sites also contain a large quantity of utilized flakes, which may have been used to pry open marine mollusks, and large numbers of manos and metates. Plates 3.1–3 and 3.1–4 show a sample of La Jolla-type artifacts.

Plate 3.1–2: Illustration of a hypothesized early prehistoric coastal settlement.



A, B, scraper planes, Phase I; D, E, projectile points of Phase I types; C, F, G, projectile points of Phase II types; H, I, cogged stones; J, K, manos; L, M, millingstones.

Plate 3.1–3: La Jolla-type artifacts (after Moratto 1984, Figure 4.6).

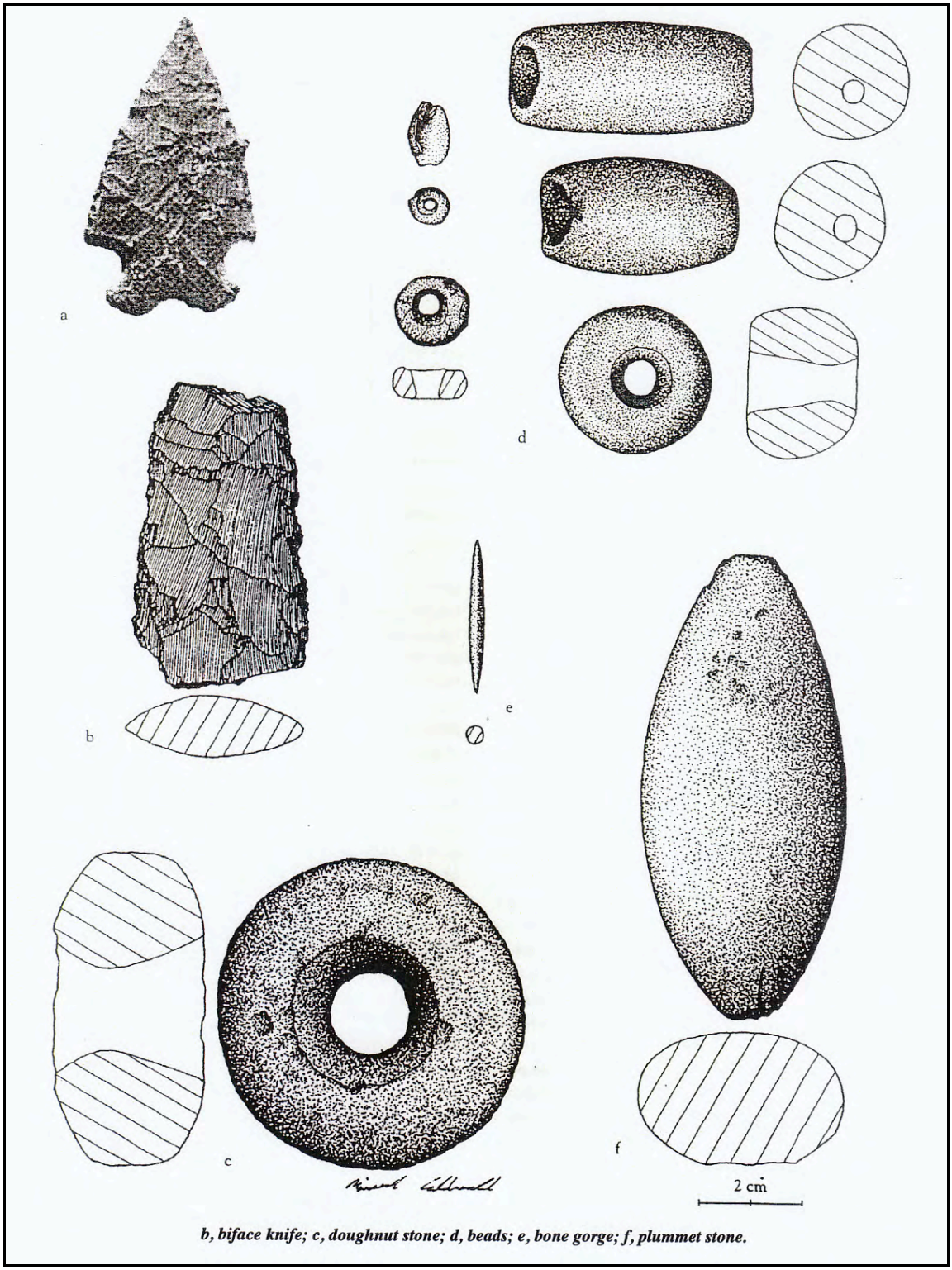


Plate 3.1–4: Middle Holocene artifacts (after Masters and Gallegos 1997, Figure 2.4).

Assemblages at coastal sites indicate a subsistence pattern focused on mollusk collection and nearshore fishing, suggesting an incipient maritime adaptation with regional similarities to more northern sites of the same period (Koerper et al. 1986). The presence of obsidian from the Coso source has also been attributed as a characteristic of Archaic La Jolla Complex sites in San Diego and Orange counties (Koerper et al. 1986; Erickson et al. 1989). This obsidian source was located several hundred miles northeast of San Diego County, and was likely obtained through trade with groups situated further north. Shellfish have been interpreted as the dietary staple, although both nuts and grasses were also an important part of the diet. The La Jolla Complex was considered different from the prior San Dieguito Complex by being more focused on gathering activities that emphasized shellfish, plants, and fish, rather than hunting activities, which focused on terrestrial large game. Regionally, the La Jolla Complex is associated with the Encinitas Tradition (Warren 1968) and Milling Stone Horizon (Wallace 1955), which characterize the Archaic Period throughout coastal southern California.

The earliest sites from this period are mostly found in the northern portion of San Diego County and are the same sites as those reported for the San Dieguito Complex, including the Harris Site Complex (Rogers in Warren 1966; Warren 1967), the Rancho Park North Site (Kaldenberg 1982), the Agua Hedionda sites (Koerper et al. 1986), the Batiquitos Lagoon Site (Gallegos 1992), the Peñasquitos Lagoon sites (W-20) (Smith and Moriarty 1985a), the La Jolla/UCSD sites (Moriarty et al. 1959; Shumway et al. 1961; Gallegos et al. 1989), the Tijuana Lagoon/Otay Mesa Site (Gallegos 1992), and the Ballast Point/San Diego Bay Site (Gallegos and Kyle 1988). Most lagoon sites exhibit continuous occupation from 9,000 to 3,500 YBP (Gallegos 1992), and in northern San Diego County coastal lagoons supported large populations circa 6,000 YBP, as is shown by numerous radiocarbon dates from the many sites adjacent to these lagoons (Carrico et al. 1991). The collection of shellfish and seeds, fishing, and the hunting of terrestrial game and marine animals have been documented through the archaeological investigations of these coastal lagoon sites. The distribution of radiocarbon dates suggests that coastal adaptations supported a sustainable population density during the middle Holocene between 7,500 and 3,500 YBP (Masters and Gallegos 1997). Archaeological investigations at the Ballast Point Site (Gallegos and Kyle 1988) indicate that a larger portion of the diet was filled with marine, rather than terrestrial, resources. Evidence from dietary analyses and fishing tools, such as gorges and composite fishhooks, and the implied use of boats, suggests an intensification of the San Diego maritime pattern in the middle Holocene—one that resembles the Santa Barbara Channel maritime tradition (Masters and Gallegos 1997).

In northern San Diego County, between 4,000 and 3,000 YBP, the lagoons filled with sediment, the most important resources, particularly mollusks and fish, were lost or diminished, and many of the coastal sites were thought to have been abandoned. The paucity of archaeological sites dating from 3,000 to 1,300 YBP in northern San Diego County has been used as evidence to support this argument (Gallegos 1992). Recent investigations at sites along the northern San Diego County coast, including Camp Pendleton, and new investigations at

Agua Hedionda Lagoon, Buena Vista Lagoon, Los Peñasquitos Lagoon, and Sorrento Valley, have challenged the coastal decline model by showing that coastal sites were inhabited during this period and that there was increased reliance on less optimal resources, such as small shellfish and nearshore schooling fish (Byrd and Reddy 2002). At Site W-20 on Los Peñasquitos Lagoon, radiocarbon dates for the village site document a continuous occupation from 7,140 to 2,355 YBP. During this occupation span of 5,000 years, factors of environmental change and overfishing of shellfish were documented by the gradual shifting in shellfish recovery patterns and decline in the size (and maturity) of all shellfish species (Smith and Moriarty 1985a). Investigations at coastal lagoon sites farther south around the San Diego Bay, such as Ballast Point (Gallegos and Kyle 1988), have shown continuous occupation throughout the period between 6,600 and 1,300 YBP. San Diego Bay, being larger and influenced by tidal flushing, did not fill with sediment, as did the northern San Diego lagoons and estuaries (Masters 1988). Additionally, at Chollas Creek on the eastern shore of San Diego Bay, a midden extending into the intertidal zone yielded radiocarbon dates of 2,100 and 1,450 YBP (Masters and Gallegos 1997).

In any event, there appears to have been a change in the subsistence and settlement strategies to include an increase in the use of terrestrial inland resources at the end of the middle Holocene and beginning of the late Holocene. Populations shifted inland to river valleys and intensified exploitation of terrestrial animals and plants, possibly including acorns (Rogers 1929). Inland La Jolla Complex sites have been reported in transverse valleys and sheltered canyons, and have been termed “Pauma Complex” (True 1958; Warren et al. 1961; Meighan 1954) in northern San Diego County. Pauma Complex sites, as proposed by True and others, represent inland manifestations of the coastal La Jolla Complex occupation and were considered distinct from earlier coastal sites given their lack of subsurface deposits, marine shell, and bone. By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusks, have greater tool variety, including atlatl dart points and quarry-based tools, and seem to express a more sedentary lifestyle with a broader range of resources utilized than sites from the earlier San Dieguito Complex. True (1958) initially suggested that inland Pauma Complex sites were similar to San Dieguito sites based on the presence of crescentics, bifaces, and projectile points. The dependence on terrestrial resources is seen by some investigators as representing a Campbell-like subsistence focus based on the hunting of large and small mammals and the collection of hard seeds and roots (True 1958; Gallegos 1985). Subtle modifications in the artifact assemblage are interpreted as a response to changing environmental conditions, which required an increasingly diversified economy focused on terrestrial resources.

Data from inland sites support the idea that settlement patterns may have changed at the end of the middle Holocene to compensate for declining marine resources. In particular, the greatest period of occupation at the Rolling Hills Ranch sites was the end of the middle Holocene and beginning of the late Holocene, or between 5,800 and 2,140 YBP (Smith et al. 2004). The Scripps Poway Parkway Site (SDI-4608c) also showed evidence of being more intensely

occupied at the beginning of the late Holocene, around 3,400 YBP, given that a greater variety of activities including subsistence, domestic, and ritual were performed on-site. Furthermore, the Rancho San Diego sites in the Sweetwater Valley show repeated and intensive occupation of inland sites at the beginning of the late Holocene (Byrd and Serr 1993). The archaeological investigations of inland Archaic sites have not been as intensive and varied as those investigations conducted at coastal sites. In part, this is because of the visibility of coastal sites, as historically, development in San Diego County advanced from west to east. Nevertheless, as San Diego County continues to grow eastward, more inland archaeological sites will be investigated, and the information gathered will be used to update the culture chronology.

In summary, archaeological research indicates that San Diego County was occupied between 9,000 and 1,300 YBP by a population(s) that utilized a wide range of both marine and terrestrial resources. Overlapping radiocarbon dates and artifact types between sites identified as the San Dieguito, La Jolla, and/or Pauma complexes suggest a generalized hunting and gathering pattern that was employed for over 8,000 years. Rather than two separate and distinct cultural complexes, the San Dieguito and La Jolla (and variations within) likely represent differences in site types and uses of marine and terrestrial resources. The nomenclature using San Dieguito, La Jolla, Pauma, Encinitas, and Milling Stone for an 8,000-year period of prehistory should be redefined to recognize a wider variety of site types, such as shell dumps, coastal lagoon sites, inland hunting camps, and quarry sites (Gallegos 1992). The large amount of marine shell and fish with some mammal bone found in early and middle Holocene sites next to coastal lagoons changes as one moves inland, where an increase in flakes, tools, and bone, but a decrease in shell, occurs (Gallegos 1992; Smith 1986). The transition in sites and artifact assemblages likely reflects the same people seasonally moving within the coastal drainages and exploiting both marine (fish and mollusks) and terrestrial (small and large game, plants, and lithic material) resources. The future analysis of both coastal and inland sites will eventually provide a more complete assessment of the subsistence and settlement strategies employed by inhabitants of San Diego County during the Archaic Period and, likely, to the dismissal in use of the terms San Dieguito and La Jolla as defining separate cultural complexes.

3.1.3 Late Prehistoric Kumeyaay (1,300 YBP to Contact)

Generally, most scholars agree that by around 1,300 YBP a culture different from the preceding Archaic culture occupied San Diego County. The Late Prehistoric Kumeyaay, located in the western part of San Diego, is recognized between 650 A.D. to Spanish contact (sixteenth century). The Kumeyaay were a complex hunting and gathering group that utilized a wide variety of marine and terrestrial resources. Cremation of the dead, pottery production and use, the bow and arrow, small projectile points, the use of Obsidian Butte obsidian from Imperial Valley, and the reliance upon acorns as a main food staple are the defining characteristics of the Late Prehistoric Kumeyaay (Gallegos 2002; Moratto 1984). Artifacts considered diagnostic of the Late Prehistoric are shown in Plate 3.1–5.

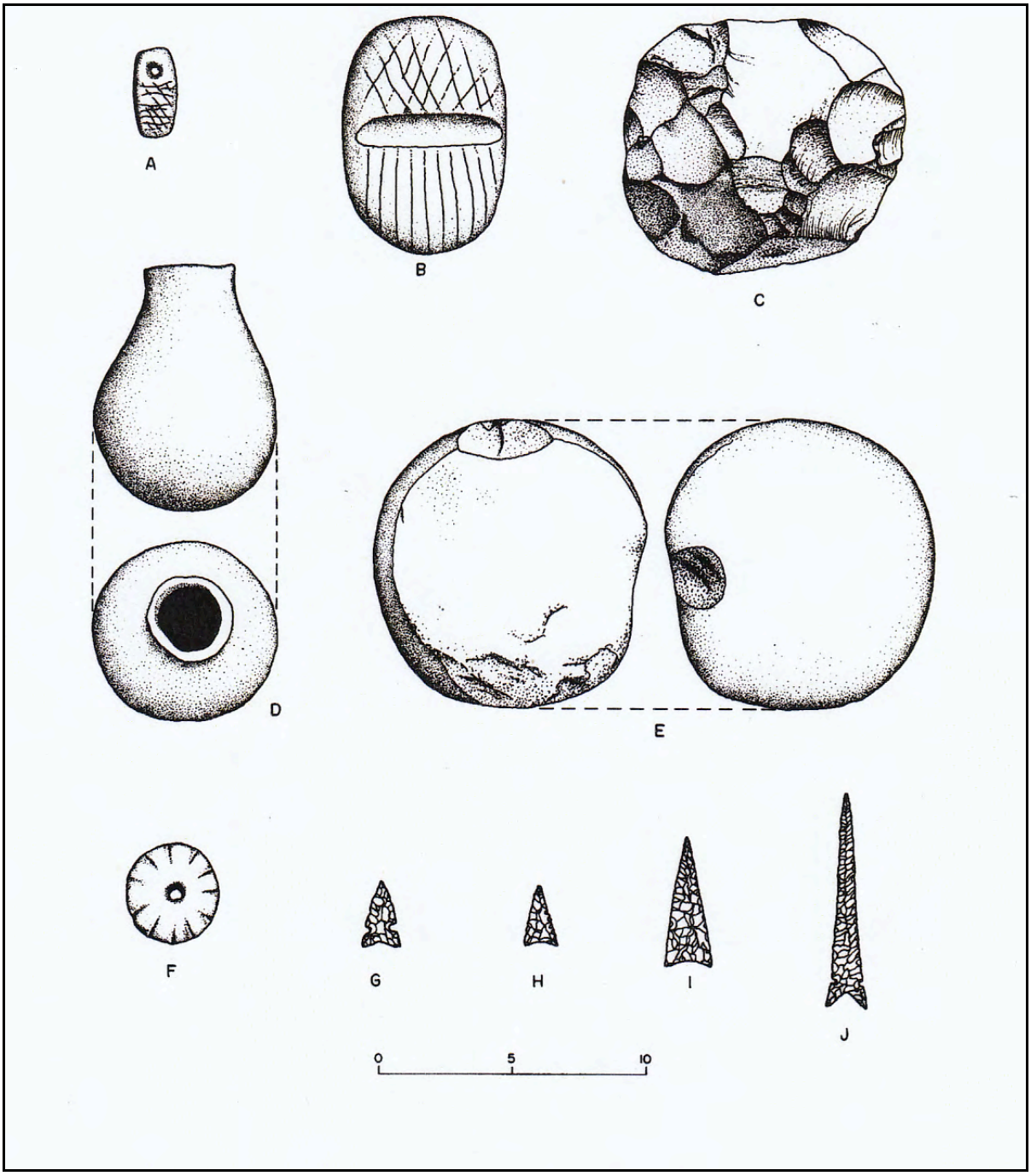


Plate 3.1–5: Late Prehistoric artifacts (after Moratto 1984, Figure 4.16).

The bow and arrow and pottery innovations appear to have spread west from the American Southwest across the Colorado Desert (Moratto 1984). The Kumeyaay adopted these technologies rather than being replaced by groups moving westward given that the language they speak is in the Yuman language family in the Hokan Stock. The Hokan Stock is considered the oldest language stock in California prehistory (Kroeber 1925; Moratto 1984; Shipley 1978).

Firm evidence has not yet been recovered to indicate whether the people living during the Archaic Period are predecessors of the Kumeyaay or whether archaic people were culturally absorbed or pushed out. However, stratigraphic information recovered from Site SDI-4609 in Sorrento Valley suggests a hiatus of 650 ± 100 years between the occupation of the coastal area by the La Jolla Complex (1,730 ± 75 YBP) and the Kumeyaay (1,085 ± 65 YBP) (Carrico and Taylor 1983; Smith and Moriarty 1983). This gap in the archaeological record may represent the decline and abandonment of the coast by archaic people followed by the arrival of the Kumeyaay. On the other hand, continuous occupation during the transition from the Archaic Period to the Late Prehistoric Kumeyaay Period has been suggested by evidence found at the Scripps Poway Parkway Site (Raven-Jennings and Smith 1999b) and the Rancho San Diego sites (Byrd and Serr 1993), which would generally support the linguistic information.

When contacted by the Spanish in the sixteenth century, the Kumeyaay occupied a territory bounded on the west by the Pacific Ocean, on the east by the Sand Hills, on the north by Agua Hedionda Lagoon, and on the south by Todos Santos Bay in what is now Baja California (Luomala 1978). A series of closely related, Yuman-speaking bands crisscrossed this region, divided into a northern (Ipai) and southern (Tipai) dialect (Figure 3.1–1). Variously referred to in the literature as Tipai-Ipai (Luomala 1978), Diegueño (after the mission at San Diego) (Kroeber 1925), or lumped together with other groups under the term Mission Indians, in San Diego County these people refer to themselves as Kumeyaay. The disruption of native customs and subsistence makes the estimates of protohistoric populations and political units difficult. Nevertheless, the Kumeyaay population was estimated to be between 10,000 and 20,000 with as many as 85 villages (Carrico 1986; Luomala 1978; Shipek 1986). Figure 3.1–2 displays a map of ethnographic villages. The center of the villages contained the ceremonial and political structures and clusters of residential houses surrounded these structures (Shipek 1981). Each village community or rancheria consisted of a patrilineal band or tribelet that was politically independent and controlled territory over 10 to 30 miles of a particular river or creek drainage (Shipek 1981; Kroeber 1925; Luomala 1978).

Figure 3.1–1

Ethnographic Map (circa 1770)

The Los Peñasquitos Adobe Drainage Project

Figure 3.1–2

Ethnographic and Historic Villages of San Diego County

(after Carrico 1986 and Bean and Shipek 1978)

The Los Peñasquitos Adobe Drainage Project

The resources in each band's territory were controlled by that band and another band could not trespass by gathering plants or hunting game without that band's permission. Bands, which were autonomous tribelets, claimed territorial areas and communally distributed resources, such as water, food caches, and agave. Use rights existed, by which families and individuals owned what they made or obtained. Leadership, often inherited, consisted of a clan chief and his assistant(s) and a hunt master. Dance and ceremonial leaders also existed (Luomala 1978). Clans were locally exogamous and patrilocal, so wives came from outside the area (Spier 1923).

Acorns, seeds, rabbits, hares, deer, fish, mollusks, and other marine resources are considered the major food resources of the Kumeyaay (Bancroft 1886; Carrico 1986). A study by Christenson (1990) found that acorns and rabbits meet minimal daily nutritional requirements, but that a broader diet is demonstrated in the ethnographic and archaeological record. The Kumeyaay traveled with the seasons and, unlike earlier inhabitants of the area, built their seasonal cycle around access to acorns and piñons located in the higher elevations above 4,000 feet. In autumn, western Kumeyaay met with eastern Kumeyaay to harvest acorns, trade, and conduct ceremonies (Christenson 1990; Lee 1937). Winter was spent in sheltered valleys where neither high-elevation cold nor coastal fogs were a problem. Spring subsistence centered on the collection of buds and shoots and the animals that were attracted by them. Ripened grasses and fruits were focused on during the summer. Groups traveled to higher elevations for the harvesting of nut crops during the fall (Luomala 1978). Hunting augmented this vegetal diet, and foothill people visited coastal bands to fish. Large game was not common prey, and only a few men were trained in its procurement; more commonly, rabbits, rodents, snakes, and birds were informally captured (Luomala 1978; Spier 1923). Rabbits were communally killed at times, for in addition to the meat, large quantities of skins were desired for robes.

Luomala (1978) suggests that camping places were chosen based on access to water, protection from the weather, and abundant flora and fauna. Structures included dwellings, ramadas, and windbreaks. Dwellings were typically grass-thatched domes over a slight pit. Ramadas and windbreaks protected workplaces, with ramadas shading grinding areas and windbreaks shielding outdoor cooking areas. Conical acorn granaries were also constructed of interwoven willow withes (Spier 1923). Ceremonial shelters were open to the east, facing a dance circle with an outdoor pit (Luomala 1978). Sweathouses were semi-subterranean, pole and earth-covered structures that contained a fire pit in the center of the floor (Kroeber 1925). Houses were burned following the death of an occupant and former house sites were avoided because of fear of spirit-caused illnesses.

Personal possessions included ground stone tools, pottery of a variety of shapes, sizes, and functions, carrying nets, bows and arrows, throwing sticks, and tobacco pipes. Triangular stone-tipped arrows were used against big game, such as deer; otherwise, a sharpened wooden foreshaft sufficed. A hide quiver contained a pottery cup in which extra points were kept. Men carried a sharpened bone dagger from the foreshaft of a deer and women made basket awls of the same material (Spier 1923). Children sometimes had clay dolls. A game was played with stone

disks that were 7.5 to 10 centimeters in diameter, where one disk was thrown and then used by the others as a target, much like a modern game of horseshoes (Spier 1923).

Clothing was minimal and was primarily made from willow bark, tules, or sedge. Women wore an apron of corded fiber held in place with a belt of their own hair (Gifford 1931). Men and children typically went naked, although men sometimes wore a waist cord from which they tied objects in order to transport. In cold weather, blanket/robes of rabbit skins or deer hides were worn. Basket hats were worn by both sexes, as well as sandals made from agave or yucca fiber (Spier 1923). Tattoos were popular decorations for both men and women; men also wore deer-shank earrings and a pendant, or a tube from the nasal septum.

Crystals were frequently kept for their magical properties and shamans would use them to facilitate communicating with spirits and to determine the cause of illness. Other ceremonial artifacts included deer hoof, gourd, or pottery rattles, ceremonial wands consisting of a hafted leaf-shaped point, eagle, owl and raven feathers, wooden flutes, soapstone mortars and pestles for jimsonweed preparation, and crescent-shaped stones for use in female puberty ceremonies (Spier 1923; Waterman 1910). Projectile points sometimes served ceremonial functions as well. Points were placed under rocks around camps to prevent bewitching, and were sometimes worn on a cord around the neck by shamans during dances for the same reason (Spier 1923). Possessions were not inherited; all were burned at the death of an individual or as a part of the yearly keruk mourning ceremony.

Generally, missionization for the Kumeyaay was less swift than in other areas, owing to sustained resistance (Luomala 1978). Nevertheless, as increasing numbers of Spanish and Mexican peoples, and later Americans during the Gold Rush, settled in the area, the Native American populations diminished as they were displaced or decimated by disease (Carrico and Taylor 1983). Additionally, as cattle ranching and farming in inland San Diego County became more prevalent after 1850, many native plants and animals were eliminated or their populations severely narrowed, which disrupted food resources typically utilized by native peoples.

3.1.4 Historic Period

Exploration Period (1530 to 1769)

The historic period around San Diego Bay began with the landing of Juan Rodríguez Cabrillo and his men in 1542 (Chapman 1921). Sixty years after the Cabrillo expeditions (1602 to 1603), an expedition led by Sebastian Vizcaíno made an extensive and thorough exploration of the Pacific coast. Although the voyage did not extend beyond the northern limits of the Cabrillo track, Vizcaíno had the most lasting effect on the nomenclature of the coast. Many of the names he gave to places have survived, whereas nearly every one of Cabrillo's has faded from use. Cabrillo gave the name of "San Miguel" to the first port at which he stopped in what is now the United States; 60 years later, Vizcaíno changed it to "San Diego" (Rolle 1969).

Spanish Colonial Period (1769 to 1821)

The Spanish occupation of the claimed territory of Alta California took place during the reign of King Carlos III of Spain (Engelhardt 1920). A powerful representative of the king in Mexico, José de Gálvez, conceived of the plan to colonize Alta California and thereby secure the area for the Spanish crown (Rolle 1969). The effort involved both a military and religious contingent, where the overall intent of establishing forts and missions was to gain control of the land and the native inhabitants through conversion. Actual colonization of the San Diego area began on July 16, 1769 when a Spanish exploration party, commanded by Gaspar de Portolá (with Father Junípero Serra in charge of religious conversion of the native populations), arrived by the overland route to San Diego to secure California for the Spanish crown (Palou 1926). The natural attraction of the harbor at San Diego and the establishment of a military presence in the area solidified the importance of San Diego to the Spanish colonization of the region and the growth of the civilian population. Missions were constructed from San Diego to as far north as San Francisco. The mission locations were based on a number of important territorial, military, and religious considerations. Grants of land were made to persons who applied, but many tracts reverted back to the government for lack of use. As an extension of territorial control by the Spanish empire, each mission was placed so as to command as much territory and as large a population as possible. While primary access to California during the Spanish Period was by sea, the route of El Camino Real served as the land route for transportation, commercial, and military activities within the colony. This route was considered to be the most direct path between the missions (Rolle 1969; Caughey 1970). As increasing numbers of Spanish and Mexican peoples, as well as the later Americans during the Gold Rush, settled in the area, the Native American populations diminished as they were displaced or decimated by disease (Carrico and Taylor 1983).

Mexican Period (1821 to 1846)

Father Miguel Hidalgo y Costilla and a group of Native American followers began a revolt against Spanish rule on September 16, 1810. Hidalgo did not succeed in the fight against the Spanish, and was ultimately executed. However, the revolt continued and the Spanish were finally defeated in 1821. Mexican Independence Day is celebrated on September 16th of each year in honor of Father Hidalgo's bravery. The revolution had repercussions in the northern territories as well, and by 1834 all of the mission lands in Alta California had been removed from the control of the Franciscan Order under the Acts of Secularization. Without proper maintenance, the missions quickly began to disintegrate. After 1836, missionaries ceased to make regular visits to the outlying Native American communities to minister their needs (Engelhardt 1920). Large tracts of land continued to be granted to persons who applied for them or who had gained favor with the Mexican government. Grants of land were also made to settle government debts and the Mexican government was also called upon to reaffirm some older Spanish land grants shortly before the Mexican-American War of 1846 (Moyer 1969).

Anglo-American Period (1846 to Present)

California was invaded by United States troops during the Mexican-American War of 1846 to 1848. The acquisition of strategic Pacific ports and California land was one of the principal objectives of the war (Price 1967). At the time, the inhabitants of California were practically defenseless, and they quickly surrendered to the United States Navy in July of 1847 (Bancroft 1886).

The cattle ranchers of the "counties" of southern California had prospered during the cattle boom of the early 1850s. They were able to "reap windfall profit…pay taxes and lawyer's bills…and generally live according to custom" (Pitt 1966). However, cattle ranching soon declined, contributing to the expansion of agriculture. With the passage of the "No Fence Act," San Diego's economy shifted from stock raising to farming (Robinson 1948). The act allowed for the expansion of unfenced farms, which was crucial in an area where fencing material was practically unavailable. Five years after its passage, most of the arable lands in San Diego County had been patented as either ranchos or homesteads, and growing grain crops replaced raising cattle in many of the county's inland valleys (Blick 1976; Elliott 1883).

By 1870, farmers had learned to dry farm and were coping with some of the peculiarities of San Diego County's climate (*San Diego Union*, February 6, 1868; Van Dyke 1886). Between 1869 and 1871, the amount of cultivated acreage in the county rose from less than 5,000 acres to more than 20,000 (*San Diego Union*, January 2, 1872). Of course, droughts continued to hinder the development of agriculture (Crouch 1915; *San Diego Union*, November 10, 1870; Shipek 1977). Large-scale farming in San Diego County was limited by a lack of water and the small size of arable valleys. The small urban population and poor roads also restricted commercial crop growing. Meanwhile, cattle continued to be grazed in parts of inland San Diego County. In the Otay Mesa area, for example, the "No Fence Act" had little effect on cattle farmers because ranches were spaced far apart and natural ridges kept the cattle out of nearby growing crops (Gordinier 1966).

During the first two decades of the twentieth century, the population of San Diego County continued to grow. The population of the inland portion of the county declined during the 1890s, but between 1900 and 1910, it rose by about 70 percent. The pioneering efforts were over, the railroads had broken the relative isolation of southern California, and life in San Diego County became similar to other communities throughout the west. After World War I, the history of San Diego County was primarily determined by the growth of San Diego Bay. In 1919, the United States Navy decided to make the bay the home base for the Pacific Fleet (Pourade 1967), and during the 1920s the aircraft industry followed suit (Heiges 1976). The establishment of these industries led to the growth of the county as a whole; however, most of the civilian population growth occurred in the coastal areas in the northern portion of the county where the population almost tripled between 1920 and 1930. During this time period, the history of inland San Diego County was subsidiary to that of the city of San Diego, which had become a Navy center and industrial city (Heiges 1976). In inland San Diego County, agriculture became

specialized, and recreational areas were established in the mountain and desert areas. Just before World War II, urbanization began to spread to the inland parts of the county.

Johnson-Taylor Adobe (1823 to Present)

The Johnson-Taylor Adobe site is a historic structure, recorded as Site SDI-8125/H, which was constructed on top of a prehistoric site identified as Site SDI-5220. Site SDI-5220 is a long-term Native American habitation site originally recorded by R.H. Norwood in 1977. In 1985, an archaeological study by RECON discovered characteristics of both prehistoric and protohistoric Native American occupation with a date range of 7800 B.P. to 1840 A.D. (see Appendix B). The Native American occupation that preceded the historic rancho development at this location was centered around a natural spring and the seasonal flow of Los Peñasquitos Creek. The abundance of food and water drew Archaic and Late Prehistoric inhabitants for over 7,000 years. The natural setting that supported the Native American population for such a long period was the magnet for the historic occupation associated with the Rancho de Los Peñasquitos.

In 1823, Captain Francisco Maria Ruiz was granted the 8,486-acre Rancho de los Peñasquitos, the first private rancho in San Diego County (Pourade 1963). Ruiz built what is now known as the Ruiz-Alvarado Adobe on this land, near the convergence of the Los Peñasquitos and Lopez canyons. The rancho was mainly used for raising cattle. Ruiz visited the rancho infrequently, however, and eventually deeded the rancho to his friend, Francisco Maria Alvarado, whose family lived in the adobe and managed the cattle. Only two partial walls of the Ruiz-Alvarado house remain at present; its deterioration is mainly due to weathering and vandalism.

Around 1857, Alvarado's daughter married Captain George Alonzo Johnson. Johnson and his wife were given title to Rancho de los Peñasquitos in 1862 and built a second adobe directly south of SDI-5220. Mary Ward discusses the possibilities of a small settlement already existing in the area prior to the adobe's construction, although it is unclear if the adobe was built over the settlement or merely nearby, and no concrete evidence has been uncovered to support this idea (Hector 1991b).

The Johnson Adobe (now referred to as the Johnson-Taylor Adobe) was constructed in 1862, according to the National Register of Historic Places Nomination Form (the adobe and related features were accepted on the National Register in 1980). According to Ward, the first structure to be constructed was the adobe, now constituting the north wing of the building (see Appendix B: National Register Nomination Form). By 1868, several outbuildings, reservoirs, and the west and south wings were added to the complex. A description of the adobe is presented in the following *San Diego Union* article from April 28, 1869:

> At the request of Captain George A. Johnson, in company with some friends, we paid a visit last week to Peñasquitos, the Captain's home. The ranch

> is situated about 16 miles from San Diego and some four or five miles from where the road to Los Angeles passed through the Soledad Valley. The road was in fine condition and the ride was exceedingly exhilarating. Among those lovely valleys, it passed, crossing, sometimes, gurgling streams of water, shaded by large trees filled with birds of silvery voices and among flowers of the most beautiful hues. We were but a little more than two hours in making the trip. No pen can describe the beauties of the scene by which the house is surrounded, situated in a valley near a little stream skirted by tall and graceful cottonwood and slender willows; on either hand, the hills roll back in graceful undulations covered with verdure and flowers of every color. The lands around the house are tastefully laid out and filled with fruit and ornamental trees, grape vines, strawberries and vegetables. The Captain has displayed a great deal of taste in his election of trees and shrubbery and a disregard for expenses in preparing his grounds. A little below the house he has built a tank, or reservoir, 65 feet long by 35 feet in width and about 3-1/2 feet in depth. The sides are built of stone with a cement hard as flint. Into the reservoir, a stream of water supplied by a large spring is constantly flowing and upon the water-clear as crystal-ducks of several fine varieties are always swimming. The Captain's residence is not only commodious, but most conveniently planned and tastefully furnished; while the outhouses, barns, stables, milk house, wash house and bath house are in keeping with the dwelling and are well adapted to the convenience and pleasure of a gentlemen of taste and refinement. He has a couple of fine stallions, the pride of his eye, and some of the finest colts in the country. He is a prince in generosity and knows, not only how to live and take comfort, but how to make others comfortable and happy around him. With such a host in such a place and more than all-beneath the benign influence of amiable and accomplished horses, how else could the hours pass except more pleasantly.

Having little knowledge of ranching, Johnson allowed the cattle ranch to decline over time. In 1885, Jacob Taylor, who platted and sold the community of Del Mar, bought the ranch from Johnson and remodeled the ranch house, which has been given the name "Johnson-Taylor Adobe" (Figure 3.1–3). For a short time the adobe was converted into a house-hotel and Taylor set up a stagecoach to run from the hotel to the railroad station in Del Mar (Hector 1991b).

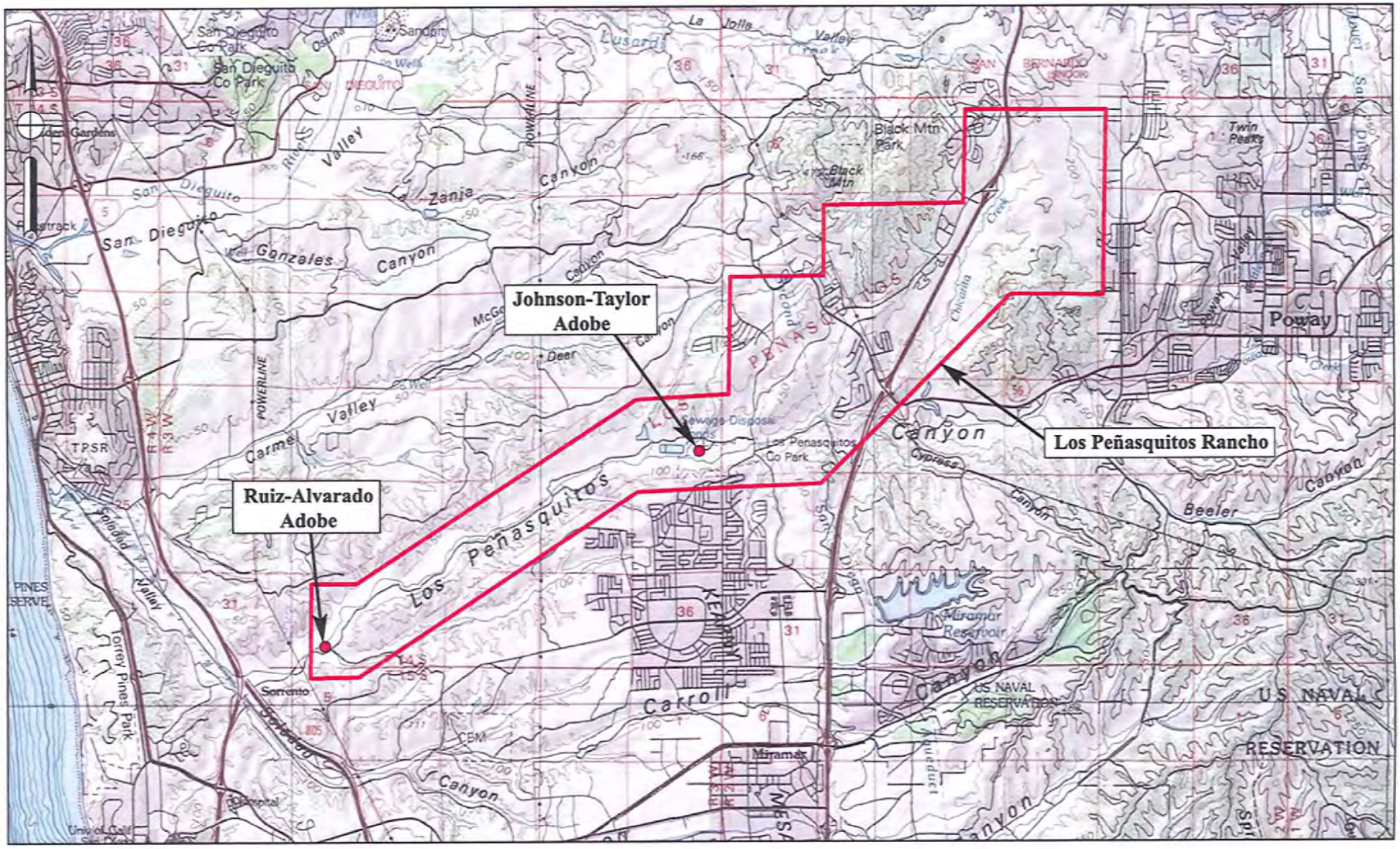


Figure 3.1–3

Map Showing Adobe Locations Within the Los Peñasquitos Rancho

The Los Peñasquitos Adobe Drainage Project

The ranch burned down in 1913 and was rebuilt. It was used as a bunkhouse until approximately 1940, at which time it was again remodeled to include an updated kitchen and bathroom (Hector 1991a). Ownership of the adobe changed hands several times over the next few decades, finally being purchased in 1982 by the County of San Diego. Two-thirds of the adobe still remains and is currently utilized by the County DPR rangers, the San Diego County Archaeological Society, and other historical and environmental groups (Ray 1990).

Beginning in the early 1980s, archaeological studies of the adobe site area eventually identified a widespread prehistoric scatter that encompassed a much larger area then previously recorded by Norwood in 1977. Artifacts recovered over the various field excavations of the entire Johnson-Taylor Adobe site support occupation from prehistoric to historic times, and include flaked tools made from ceramics and glass, which indicates a likely presence of Native Americans on the property during historic times. From 1983 to 1985, Susan Hector, through a contract executed between the County DPR and RECON, conducted three phases of test excavations at the Johnson-Taylor Adobe. These test excavations allowed Hector to report that both historic and prehistoric constituents were identified. Excavations took place both inside the northern wing of the adobe and at a prehistoric site on the knoll beside the ranch house. Sites SDI-8125/H and SDI-5220 generally overlap beneath the adobe site, and are characterized as containing significant amounts of small and large burned mammal bones, ground stones, bifacial tools, debitage, and pottery located at each site. Obsidian artifacts were only located at Site SDI-8125/H, while chert and chalcedony were found at both sites. Hector suggests that while SDI-5220 displays characteristics of a more permanent habitation, SDI-8125/H resembles a special activity area (Hector 1984).

Within the historic site boundary (SDI-8125/H), excavations yielded historic artifacts in the first 20 centimeters and an intact prehistoric midden with artifacts between 30 and 60 centimeters. Historic artifacts recovered pertained to the Johnson era and reflected family activities within a household. Square-cut nails in the wooden floor and circular saw marks in the planking also confirmed the 1862 Johnson expansion date of the building (Hector 1993). In addition, excavations located double cobble foundations and dirt clay floors that were cut through at the time of the placement of the wooden joists of the adobe, indicating that at one point only the west portion (Wing B) of the main adobe room existed. Figure 3.1–4 depicts wings A, B, and C, as well as the different components discovered on the adobe grounds. When the analysis of adobe block removed from the southernmost room of Wing A revealed that it was nearly identical to that found in the westerly and easterly portion of Wing A, the wing's construction in a single time period was confirmed (Copper 1989) (Figure 3.1–4). Further, a refuse scatter in the eastern area of the adobe suggests the possibility that the area was at one point outside the structure (Hector 1984). Test excavations in the spring of 1984 at the eastern end of Wing A yielded butchered cattle bones and fragments of kaolin clay pipes. Below the historic deposit and reasonably distant trash deposit, an intact prehistoric midden was found (Hector 1991b).

Figure 3.1–4
Johnson-Taylor Adobe Buildings and Features
(Hector 1993, Figure 2)

(Deleted for Public Review; Bound Separately)

During the later excavations of Stephen J. Bouscaren in the 1990s to early 2000s, aboriginally modified historic artifacts indicating a protohistoric Native American occupation were located in Site SDI-5220, north of the historic site boundary.

Monitoring discoveries at both sites included historic and prehistoric artifacts (Hector and Van Wormer 1986). Sites SDI-5220 and SDI-8125/H revealed prehistoric artifacts in the trenches around Wing A that consisted of ground stone and debitage, and historic artifacts that consisted of glass, ceramics, and miscellaneous metal. The preliminary sewer trench and sewer lateral to Wing A also contained both prehistoric and historic artifacts (Hector and Van Wormer 1986), and only prehistoric artifacts were located in the sewer tests strictly within Site SDI-5220. Updated artifact analysis of the two sites suggested that SDI-8125/H had an earlier component found only in the eastern part of Wing A and the parking lot area due to an early radiocarbon date (circa 5500 B.P.), whereas SDI-5220 appears to be firmly Late Prehistoric due to the abundance of Tizon Brown Ware recovered there. The proposition that sites SDI-5220 and SDI-8125/H were specialized activity areas of the same site was still being explored at that time; however, the mitigation data gathered by Hector strongly suggested that there would be both prehistoric and historic cultural materials south and east of the parking lot (Hector and Van Wormer 1986).

In 1991, a reconnaissance of the property 1,000 feet north of the Johnson-Taylor Adobe revealed a possible ruin of an adobe structure. This discovery prompted field excavations of the area by San Diego City College from 1992 to 2004 under Stephen J. Bouscaren, Ph.D. A total of 55 test units were excavated within SDI-5220 (Larberg 2008). Excavations here led to the discovery of Native American occupation of the property north of the Johnson-Taylor Adobe during the historic period. It was hypothesized by Hector that the Native Americans who lived there were workers for Francisco Ruiz (Hector 1993). However, the origin and connection of these Native American artifacts is still to be determined.

Further excavations under the supervision of Dr. Lynne Christenson, professor of Anthropology at SDSU, took place from 1990 to 1993 in the area directly south and east of Wing C of the adobe complex (Larberg 2008). Over four subsequent field seasons, areas surrounding a spring house, chicken coop (or lath house), and a dump site were excavated (Figure 3.1–5). The 1990 field season began with five test units placed along the south wall of Wing C. The 1991 season focused on the chicken coop/lath house and yielded a construction date ranging between 1882 and 1911 (Cooper 1993). The 1992 season tested areas around the spring house and dump site west of the concrete reservoir and southwest of Wing C. The 1993 season focused again on the chicken coop/lath house, but also opened two test units west of the spring house (Figure 3.1–5). Christenson's work lent to the most recent use and function of the outlying historic structures and dump sites of the Johnson-Taylor Adobe (Larberg 2008).

Figure 3.1–5
Previous Archaeological Excavations Map
(Courtesy of County of San Diego Department of Parks and Recreation)

(Deleted for Public Review; Bound Separately)

4.0 RESEARCH DESIGN

The cultural resource testing program conducted for the ***Project*** was required by the County of San Diego. The investigation included significance testing for prehistoric and historic deposits associated with SDI-5220 and SDI-8125/H. The testing program for the ***Project*** focused on the relationship between the environmental setting and the human response to environmental factors.

4.1 Prehistoric Research Design

The theoretical construct or research orientation was designed for the significant resources located within the ***Project,*** primarily focusing on the manifestation in the archaeological record of prehistoric subsistence patterns in the Los Peñasquitos area. The question posed as a working hypothesis is provided below.

Research Question:

- How did the prehistoric subsistence patterns in the Los Peñasquitos area change through time?

Sites in the vicinity are generally located on elevations near drainages; larger, more diverse sites are located in areas of vegetation transition, while smaller sites are located in zones of single or limited biological resources. Over time, environmental changes during the Archaic Period likely had a significant impact on the subsistence pattern in the Los Peñasquitos area. Therefore, in inland areas of the coastal zone, such as Los Peñasquitos, the semi-arid climate resulted in a concentration of water and other resources in drainage areas, resulting in a drainage-oriented settlement pattern. It follows that within the ***Project,*** site location, frequency, and size would be expected to be directly related to resource abundance, particularly in ecological transition zones and drainage patterns, and furthermore, that as the environmental conditions changed, so too did the subsistence pattern.

Discriminating between the La Jolla Complex (Archaic) and Kumeyaay (Late Prehistoric) subsistence practices is central to the issue of adaptive change. It appears likely that the transition between the foraging strategy of the La Jolla Period and the collector strategy of the Late Prehistoric Period was a gradual one, possibly fueled by the changing environmental conditions at the end of the Archaic Period. The degree to which the resulting archaeological assemblages represent adaptations to inland resources is of much interest in San Diego County (Laylander 1993). The inland expression of the La Jolla Complex is characterized by diminishing shellfish remains, a diversified tool kit made of inland quarried lithic material in addition to cobbles, a broad range of resource exploitation, increased milling, increased sedentism, and an emphasis on terrestrial hunting and gathering (Moriarty 1966; Gallegos 1991; Kaldenberg 1982; True 1958; Warren et al. 1961; Meighan 1954; and Forstadt et al. 1992). The

apparent similarities between La Jolla Complex and Late Prehistoric Kumeyaay subsistence adaptations make distinguishing between the two a complicated issue, until the later appearance of pottery, smaller projectile points, cremations, and exotic lithic materials (Gallegos 1992; Christenson 1992). While it is generally understood that a gradual intensification in the use of a broad range of resources took place during this period, the ways in which this adaptation is expressed in artifact assemblages and settlement patterns is less well understood.

Determination of site function is an important aspect of this research topic, particularly as it relates to site location through time. The assignment of site function has generally been reduced to an extrapolation of primary site activities based on artifact recoveries (*i.e.,* food processing, lithic production, milling, etc.). However, the word "function" is used to describe not only the activities conducted at a site, but also the role played by the site in the subsistence pattern of a particular group. Thus, the analysis of site function can be focused at two levels: site specific function and regional or subsistence function.

At the testing level, the small sample size taken from any one site is not typically sufficient to substantially advance the knowledge of prehistoric patterns. This is particularly true of small, localized sites such as SDI-5220, where the artifact assemblage is limited to single representatives from one or two different artifact classes (*i.e.,* a single core or a single metate fragment). On the other hand, the fact that small lithic scatters are so common indicates the importance of understanding the role of such limited-use sites in the prehistoric subsistence system as a whole through time. It follows that each site holds the potential to contribute to this type of study, however limited the collected data. As large-scale archaeological studies progress and more is understood regarding prehistoric subsistence systems, the data gathered from small, limited-use sites might find increased significance.

The optimal data needs for this study include the determination of the cultural affiliation and general dates of use. It is hoped that time- and culture-sensitive artifacts will be recovered. The identification and recovery of any faunal remains found at the site is very important, and the identification of the floral materials present at the time of prehistoric occupation is also essential. Any faunal materials that are recovered must be identified to species, and any other cultural information, such as evidence of cooking, butchering, or other modifications, must be analyzed. Such analysis will provide information regarding diet and subsistence patterns by revealing the types of plant and animal resources that were exploited and the environments that existed when the exploitation took place.

4.2 Historic Research Design

The historic research design for a testing program is to determine a site's function and ability to provide data to address regional and contemporary research issues within the context of the early development of Los Peñasquitos. Since the Spanish intrusion into the region, Los Peñasquitos has been used for ranching and agriculture. After Mexican independence in the mid-nineteenth century, Rancho Peñasquitos operated under one of the Mexican land grants.

After the United States annexed California, the "Homestead Act" and "No Fence Act" drew additional Euro-American settlers to Los Peñasquitos Canyon (Gordinier 1966). Expected historical resources include ranching, agriculture, homesteading, and farmstead materials.

Research Questions:

- Are specific pastoral, agricultural, or post-war resort developmental episodes identifiable in the archaeological record?
- In the case that features are identified, when were they constructed and can they be attributed to a specific occupation period or a specific occupant?
- If artifact deposits are identified, under what circumstances was the material discarded? Can the deposition be attributed to a specific occupation period or specific occupant, or only to the community in general?
- Do artifact deposits reflect specific information, such as gender, age, socioeconomic status, or ethnicity regarding the people who lived or worked in the area? In terms of archaeological deposits identified within the current project, can a distinction be made between domestic and commercial deposition?

The research questions presented here were used to guide the accumulation of data to determine the site's significance. The basic data requirements for the study of historic economic practices include site features and site assemblages.

Archaeological Data Needs

Should cultural deposits be encountered, archaeological field investigations will focus on the following information:

- The size, shape, construction materials, and construction configuration of any remaining architectural elements or features that may indicate age, varying technologies, economic status, and ethnic patterning.
- The size, shape, and construction materials of features may suggest different functions (*e.g.*, residence, industrial, garage, or barn), indicating different economic activities.
- Integrity of the deposit or feature is critically important when determining significance.

Archaeological laboratory investigations will focus on the following information:

- The presence of discrete clusters of functionally related items may indicate a variety of different economic activities such as mercantile enterprises, bootlegging, and general household refuse.

- The presence and relative density of non-local items such as Chinese coins (wens), ceramics with Asian makers' marks, ethnic-specific ornamental items, and religious jewelry such as crosses may suggest different ethnic groups.
- The presence and relative density of personal items such as women's jewelry, combs, brushes, curlers, needles, thimbles, and garter clips, or men's work boots and cufflinks may indicate gender.
- The presence and relative density of subsistence items such as different types of tins, bottles, shell, and bone remains may suggest economic status, food availability, or personal preference.
- The presence and relative density of personal items such as marbles, porcelain doll fragments, toy cars, cap guns, toy china fragments, and toy banks may indicate the presence of children.
- The types and quantities of food bone may reflect consumer trends and economic status.
- The presence and relative density of luxury items such as ornamental lamps, fine china, silverware, and perfume bottles may indicate economic status.

5.0 METHODOLOGY

The archaeological program conducted for the ***Project*** consisted of the significance evaluation of cultural resources identified within the project boundary. This archeological study conformed to County of San Diego Archaeological/Historical Guidelines and the appropriate statutory requirements of CEQA. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO 1995). The testing program was submitted for review and authorization to the County DPR prior to the initiation of any field investigations.

5.1 Field Methodology

Testing Methodology

The field investigations were actually very limited in scope and focused solely upon the drainage pipeline APE. Knowing that the trench needed for the drainage pipeline was narrow (one foot wide) in width, the sampling of the subsurface deposits along the APE was completed by excavating a series of shovel tests directly within the APE corridor. The series of STPs, which were situated at approximately 10- to 15-meter intervals along the proposed drainage pipeline, were intended to identify the nature and extent of any subsurface cultural deposits. The shovel tests were approximately 30 centimeters in diameter and excavated in decimeter levels to a minimum depth of 30 centimeters, or until a sterile level was encountered. All excavated soils were sifted through one-eighth-inch mesh hardware cloth.

All shovel test excavations were mapped using a Global Positioning System (GPS) unit. The collected artifacts were bagged, labeled, and returned to the laboratory of BFSA for further analysis. As per County of San Diego requirements, a Native American representative was present during the field testing program.

5.2 Laboratory Methodology

In keeping with generally accepted archaeological procedures, the artifacts and ecofacts collected during the investigations were categorized as to artifact form, mineralogy, and function. Comparative collections curated in the laboratory of BFSA are often helpful in identifying unusual or highly fragmentary specimens. The cataloging process for the recovered specimens utilized a classification system commonly employed in this region. After cataloging and identification, the collections were marked with the appropriate provenience and catalog information, then packaged for permanent curation. No radiocarbon dating or other specialized studies were conducted as part of this project.

5.3 Registration and Curation

A copy of this report will be permanently filed with the SCIC at SDSU. All project field notes, photographs, and other paperwork associated with our involvement in this project will be

housed at the offices of BFSA in Poway, California. Per County requirements, all artifacts collected will be curated at the SDAC upon completion of the ***Project,*** along with a copy of all notes, photographs, and this report.

5.4 Native American Participation and Consultation

In addition to the archaeological records searches, BFSA requested a review of the Sacred Lands File from the Native American Heritage Commission (NAHC) (Appendix C). In accordance with County of San Diego guidelines, specifically Section 4.2 of the County of San Diego's Draft CEQA Process Guidance for Cultural Resources, Land Use and Environment Group (revised July 27, 2006), a representative of local Native American groups was present during the fieldwork. Dennis Linton, Jr. of Red Tail Monitoring & Research, Inc., a Kumeyaay Native American monitoring service, participated in the fieldwork program.

6.0 RESULTS

In accordance with the County of San Diego cultural resources guidelines, the archaeological testing conducted along the proposed subdrain alignment APE was intended to provide a foundation from which to evaluate the significance of impacts to cultural deposits associated with prehistoric and historic occupation at this location. According to the records search data, two cultural resources are located within the project APE. These sites are listed as SDI-5220 and SDI-8125/H, and are illustrated on the Cultural Resource Location Map (Figure 6.0–1). The following sections describe the testing fieldwork, laboratory analysis of recovered artifacts and ecofacts, and the assessment of significance of the cultural deposits.

An evaluation of the significance of these impacts to the site is presented in Section 8.0. All of the shovel tests within the project area, except STP 8, exhibited cultural material within the topsoil (Plate 6.0–1). The cultural deposits generally extended to 60 to 70 centimeters below the surface, depending on erosion and depositional processes. Below the cultural deposits, a compacted medium brown culturally sterile clay layer or bedrock was encountered. The evaluations of the cultural resources within the project boundary are presented in Section 6.2, which provides details of the sampling program and artifact recovery.

Plate 6.0–1: Johnson-Taylor Adobe courtyard showing placement of STP 5, facing northwest.

Figure 6.0–1
Cultural Resource Location Map

(Deleted for Public Review; Bound Separately)

6.1 Records Search Results

As part of the current study, BFSA conducted an archaeological records search at the SCIC. The records search indicated that the project area has been subjected to a number of cultural resource studies. BFSA conducted research at the County of San Diego Historic Records Center to obtain information about previous archaeological studies focused upon the historic adobe and the surrounding Native American site. That research is summarized in the latter portion of this section. The three SCIC-recorded cultural resource studies that have been conducted within a one-quarter-mile radius of the project area are listed below (Table 6.1–1). The complete records search results are provided in Appendix B.

At least seven additional studies have been conducted between 1975 and 1991 that have included portions of the project area. These studies, and possibly others, are on file at the County of San Diego Historic Records Center at the County Operations Center in San Diego County. No indexing system has been created for the information housed at this facility, therefore it is likely that some reports and studies were not discovered during background research conducted by BFSA for this project.

The results of the SCIC records search also showed that two cultural resources have been recorded within the project boundary. One additional prehistoric resource (SDI-8101) has been recorded within a one-quarter-mile radius of the project area.

Table 6.1–1

Previous Studies Conducted Within a One-Quarter-Mile Radius of the
Los Peñasquitos Adobe Drainage Project Boundary

Norwood, Richard H.
1978 *The Cultural Resources of Penasquitos East.* RECON. Submitted to Peñasquitos, Inc. Unpublished report on file at the South Coastal Information Center, San Diego State University, California.

Caterino, David
2005 *The Cemeteries and Gravestones of San Diego County: An Archaeological Study.* David Caterino. Submitted to San Diego State University, Department of Anthropology. Thesis/Dissertation on file at South Coastal Information Center, San Diego State University.

Kick, Maureen
2007 *Cultural Resources Technical Report for the San Diego Vegetation Management Project*. URS. Submitted to FEMA. Unpublished report on file at the South Coastal Information Center, San Diego State University, California.

The Johnson-Taylor Adobe site consists of two overlapping resources: prehistoric Site SDI-5220 and the historic site pertaining to the adobe itself, SDI-8125/H. Site SDI-5220 is a

long-term habitation site originally recorded by R.H. Norwood in 1977 (see Figure 6.0–1). In 1985, RECON found that the site exhibited characteristics of both late prehistoric- and historic-period Native American occupation with a date range of 7800 B.P. to 1840 A.D. (see Appendix B). Elevation at the site is approximately 295 feet AMSL. Disturbances in the area include grazing and cultivation.

The Johnson-Taylor Adobe structure was assigned the site number SDI-8125/H. In 1823, Captain Francisco Maria Ruiz was granted the 8,486-acre Rancho de los Peñasquitos, the first private rancho in San Diego County (Pourade 1963). On this land, Ruiz built what is now known as the Ruiz-Alvarado Adobe, near the convergence of the Los Peñasquitos and Lopez canyons. The locations of the two different adobe structures are presented in Figure 3.1–3. The rancho was mainly used for raising cattle.

Around 1857, Alvarado's daughter married Captain George Alonzo Johnson. Johnson and his wife were given title to Rancho de los Peñasquitos in 1862 and built the Johnson-Taylor Adobe directly south of Site SDI-5220. Historical documentation indicates that a small settlement already existed in the area prior to the adobe's construction, although it is unclear if the adobe was built over the settlement or merely nearby. Johnson had little knowledge of ranching, and over time he allowed the cattle ranch to decline. In 1885, Jacob Taylor, who platted and sold the community of Del Mar, bought the ranch from Johnson and remodeled the ranch house. For a short time, the adobe was converted into a house-hotel and Taylor set up a stagecoach to run from the hotel to the railroad station in Del Mar (Hector 1991b).

The ranch burned down in 1913 and was rebuilt. It was used as a bunkhouse until approximately 1940; at this time it was again remodeled to include an updated kitchen and bathroom (Hector 1991a). Ownership of the adobe changed hands several times over the next few decades, finally being purchased in 1982 by the County of San Diego. Two-thirds of the adobe still remains and is currently being utilized by the County rangers, the San Diego County Archaeological Society, and other historical and environmental groups (Ray 1990).

6.2 Field Investigations

6.2.1 Description of Field Investigations

Field investigations for the ***Project*** were conducted using the standard methodologies described in Section 5.0. The potential for subsurface cultural deposits within the ***Project*** APE was investigated through the excavation of a total of nine STPs. The locations of the STPs are shown in Figure 6.2–1 and Plates 6.2–1 and 6.2–2. All shovel tests were excavated in decimeter levels to a minimum depth of 30 centimeters, until a culturally sterile level or bedrock was encountered. The maximum depth at which artifacts were recovered was 80 centimeters, and the average shovel test depth was approximately 40 centimeters. All STPs, except for STP 8, were positive for cultural material with a total of 192 artifacts and 30.4 grams of fragmented faunal bone and shell. The location of STP 8 appears to correspond to an area that was disturbed, which likely accounts for the lack of artifact recovery. The highest concentration of recovery came from STP 3, with a total of 102 artifacts and approximately 14.1 grams of ecofacts. A summary of recovery from the STPs at the Johnson-Taylor Adobe is presented in Table 6.2–1, and detailed excavation data is provided in Table 6.2–2.

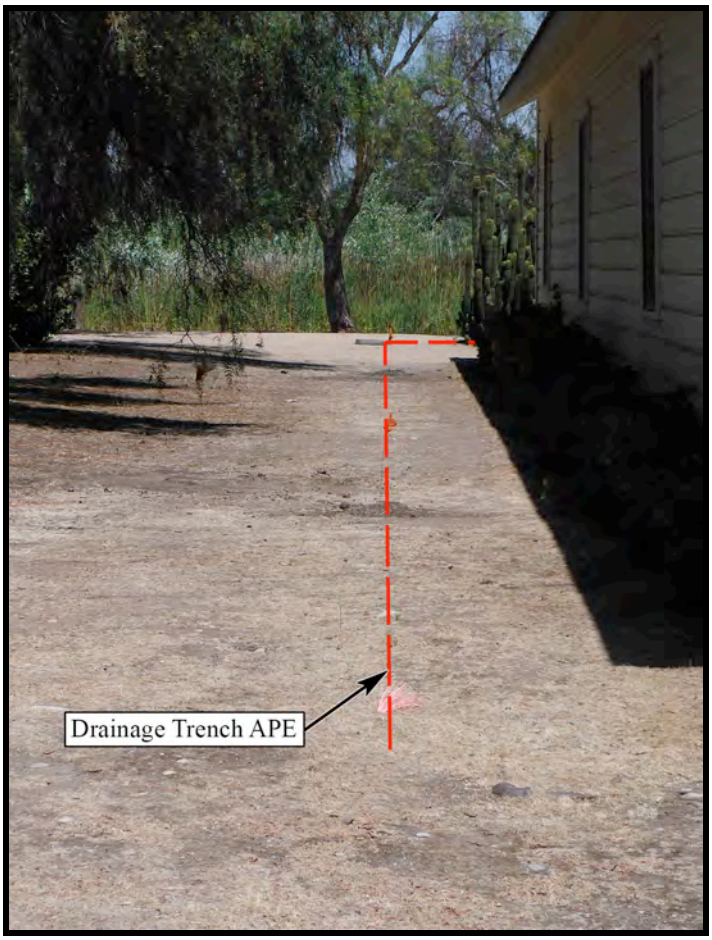


Plate 6.2–1: North portion of project area showing STPs 1 and 2, facing east.

Figure 6.2–1
Excavation Location Map

(Deleted for Public Review; Bound Separately)

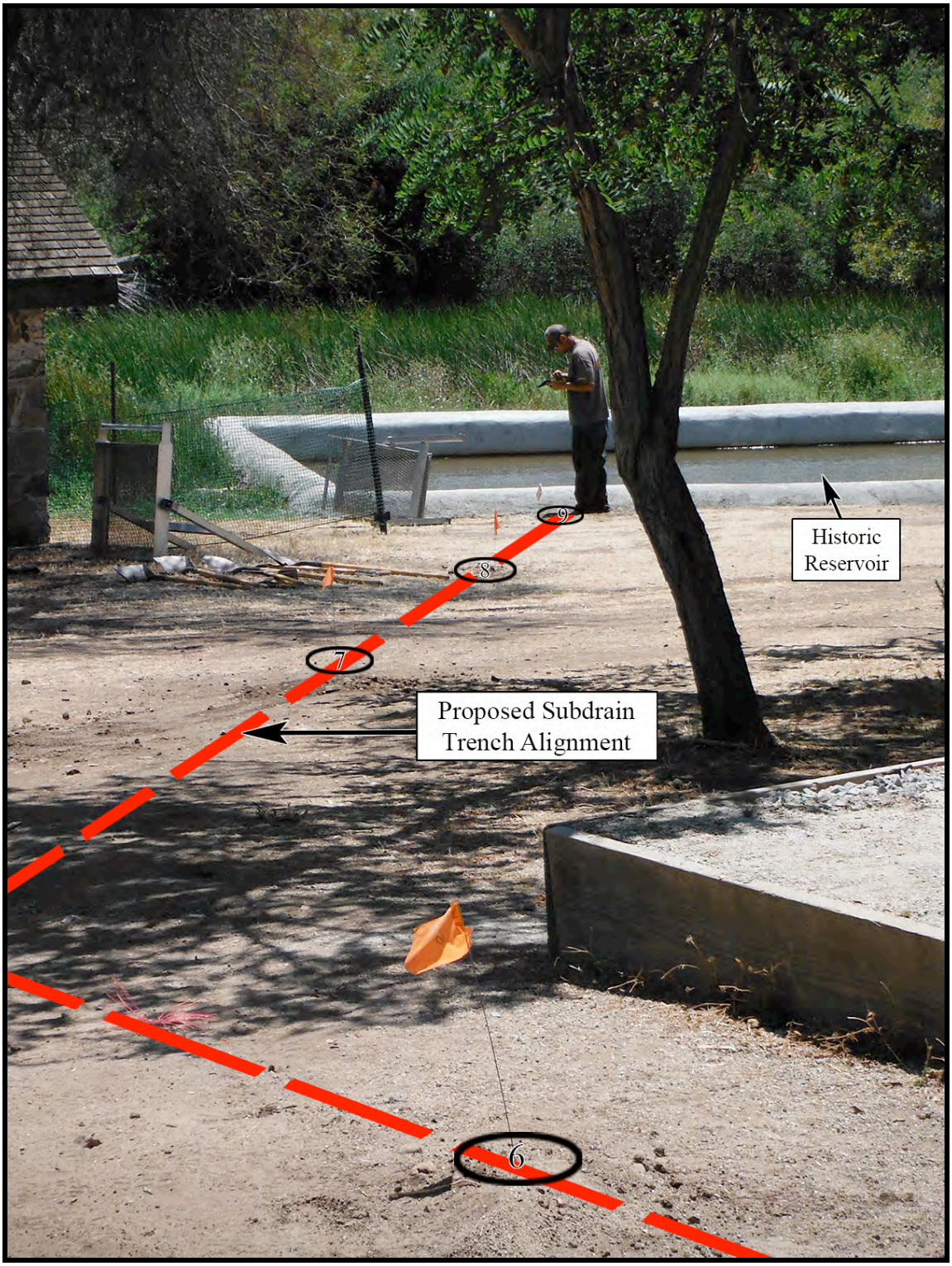


Plate 6.2–2: East portion of project area showing STPs 6 through 9, facing south. The historic reservoir is shown in the photograph, as is the location of the end of the *Project* APE, where it intersects with the reservoir.

6.2.2 Laboratory Analysis

Laboratory analysis for the artifacts recovered from the area immediately surrounding the Johnson-Taylor Adobe included the standard procedures described in Section 5.0 of this report. All artifacts and ecofacts recovered from field investigations conducted at the site were returned to the laboratory facility of BFSA to be cataloged and analyzed. Recovery from the shovel tests included 192 artifacts and 30.4 grams of marine shell and faunal bone, which are listed in Table 6.2–1 and detailed in Appendix E. All faunal material was closely inspected and no evidence of human remains was detected amongst the faunal collection. Detailed excavation data is provided in Table 6.2–2.

Table 6.2–1

Shovel Test Artifact Recovery Summary

Recovery Category	Total	Percent
Ecofacts (grams)		
Marine Shell	2.4	7.89
Faunal Bone	28.0	92.11
Total Ecofacts	30.4	100.00
Prehistoric Artifacts		
Bone Tools	5	2.60
Ceramics (Tizon Brown Ware)	4	2.08
Debitage	96	50.00
FARs (Fire-Affected Rock)	43	22.40
Flake Tools	1	0.52
Manos	5	2.60
SETs (Steep-Edged Tool)	3	1.56
Total Prehistoric Artifacts	157	81.76
Historic Artifacts		
Bottle Fragments (Glass)	18	9.38
Bullet Casings	2	1.04
Buttons	1	0.52
Ceramics (Terra-Cotta)	1	0.52
Nails	3	1.56
Plates	3	1.56
Unidentified Metal	4	2.08
Window Shards (Glass)	3	1.56
Total Historic Artifacts	35	18.22
Total Artifacts	192	100.00*

**Rounded total may not equal 100.00 percent*

Table 6.2–2

Shovel Test Excavation Data

Shovel Test	Depth (cm)	Quantity/ Weight	Artifact Type	Material Type	Historic, Prehistoric, or Undetermined
1	0-10	6	Debitage	1 Quartz 5 Metavolcanic	Prehistoric
		1	Bullet Casing	Metal	Historic
		0.1 g	Bone	Small Mammal	Prehistoric
	10-20	1	Debitage	Metavolcanic	Prehistoric
		1	Debitage	PDL Chert	Prehistoric
		1	Bottle Fragment	Glass	Historic
		0.2 g	Bone	Small Mammal	Non-Cultural
	20-30	6	Debitage	1 Quartz 5 Metavolcanic	Prehistoric
		<0.1 g	Bone	Small Mammal	Non-Cultural
		0.6 g	Charcoal	Undifferentiated	Undetermined
	30-40	2	Debitage	Metavolcanic	Prehistoric
2	0-10	2	Debitage	Metavolcanic	Prehistoric
		1	SET	Metavolcanic	Prehistoric
		1	Plate	Earthenware	Historic
	10-20	5	Debitage	Metavolcanic	Prehistoric
		1	SET	Quartzite	Prehistoric
		1	Bottle Fragment	Glass	Historic
	20-30	2	Debitage	Metavolcanic	Prehistoric
		2	Window Shards	Glass	Historic
		0.2 g	Bone	Medium Mammal	Undetermined
		0.4 g	Shell	*Haliotis* sp.	Undetermined
	30-40	5	Debitage	Metavolcanic	Prehistoric
	40-50	No Recovery			
	50-60	1	Debitage	Metavolcanic	Prehistoric
3	0-10	4	FARs	Undifferentiated	Prehistoric
		3	Debitage	Metavolcanic	Prehistoric
		1	Mano	Granite	Prehistoric
		1	Square Nail	Iron	Historic
		0.2 g	Bone	Medium Mammal	Undetermined
		<0.1 g	Shell	*Mytilus* sp.	Undetermined
	10-20	4	Debitage	1 Quartzite 3 Metavolcanic	Prehistoric
		3.5 g	Bone	Large Mammal	Historic
		0.5 g	Shell	2 *Argopecten* sp. 3 *Chione* sp.	Undetermined
	20-30	8	Debitage	Metavolcanic	Prehistoric
		1	Mano	Granite	Prehistoric
		1	Flake Tool	Metavolcanic	Prehistoric
		1	FAR	Granite	Prehistoric
	30-40	16	FAR	Granite	Prehistoric
		10	Debitage	Metavolcanic	Prehistoric

Shovel Test	Depth (cm)	Quantity/ Weight	Artifact Type	Material Type	Historic, Prehistoric, or Undetermined
		2	Ceramic	Tizon Brown Ware	Prehistoric
		1	Mano	Granite	Prehistoric
		7.6 g	Bone	1 Aves	Undetermined
				6 Large Mammal	Historic
		<0.1 g	Shell	Unidentifiable	Undetermined
	40-50	20	Debitage	1 Quartz	Prehistoric
				19 Metavolcanic	
		7	FARs	Granite	Prehistoric
		2	Manos	Granite	Prehistoric
		2	Bone Tools	Bone	Undetermined
		1	SET	Metavolcanic	Prehistoric
		1	Plate	Ironstone	Historic
		1.1 g	Bone	Medium Mammal	Prehistoric
	50-60	8	Debitage	Metavolcanic	Prehistoric
		3	Bone Tools	Bone	Prehistoric
		3	FARs	Granite	Prehistoric
		1	Ceramic	Tizon Brown Ware	Prehistoric
		1	Ceramic	Terra-cotta	Historic
		0.5 g	Bone	Medium Mammal	Prehistoric
		0.5 g	Shell	1 *Chione* sp.	Undetermined
				1 Unidentifiable	
4	0-10	1	Debitage	Metavolcanic	Prehistoric
		5.3 g	Bone	Large Mammal	Undetermined
	10-20	2	Round Nails	Iron	Historic
		0.2 g	Shell	*Argopecten* sp.	Undetermined
		0.1 g	Bone	Medium Mammal	Undetermined
	20-30	1	Debitage	Metavolcanic	Prehistoric
	30-40	1	Debitage	Metavolcanic	Prehistoric
5	0-10	1	Bullet Casing	Metal	Historic
		1	Bottle Fragment	Glass	Historic
		0.1 g	Bone	Medium Mammal	Undetermined
	10-20	2	Unidentified	Metal	Historic
		1	Bottle Fragment	Glass	Historic
	20-30	No Recovery			
	30-40	1	Bottle Fragment	Glass	Historic
		0.7 g	Bone	Small Mammal	Non-Cultural
				Aves	Undetermined
				Medium Mammal	Undetermined
6	0-10	3	FARs	Granite	Prehistoric
		0.8 g	Bone	Large Mammal	Undetermined
	10-20	2	Unidentified	Metal	Historic
		1	FAR	Granite	Prehistoric

Shovel Test	Depth (cm)	Quantity/ Weight	Artifact Type	Material Type	Historic, Prehistoric, or Undetermined
		1.9 g	Bone	Large Mammal	Historic
7	0-10	3	Debitage	1 Quartz 2 Metavolcanic	Prehistoric
		5.5 g	Bone	Large Mammal	Undetermined
	10-20	2	Debitage	Metavolcanic	Prehistoric
		2	Bottle Fragments	Glass	Historic
		0.1 g	Bone	Small Mammal	Non-Cultural
	20-30	1	Bottle Fragment	Glass	Historic
8	0-10	No Recovery			
	10-20				
	20-30				
9	0-10	1	Debitage	Metavolcanic	Prehistoric
		1	Bottle Fragment	Glass	Historic
		0.1 g	Shell	*Argopecten* sp.	Undetermined
	10-20	3	Bottle Fragments	Glass	Historic
		1	Plate	Ironstone	Historic
		1	Button	Porcelain	Historic
	20-30	4	Bottle Fragments	Glass	Historic
		1	Debitage	Metavolcanic	Prehistoric
		1	FAR	Granite	Prehistoric
	30-40	1	Debitage	Metavolcanic	Prehistoric
		1	FAR	Granite	Prehistoric
	40-50	2	FARs	Granite	Prehistoric
		1	Ceramic	Tizon Brown Ware	Prehistoric
	50-60	4	FARs	Granite	Prehistoric
	60-70	2	Bottle Fragments	Glass	Historic
	70-80	1	Debitage	Metavolcanic	Prehistoric
		1	Window Shard	Glass	Historic
		0.5 g	Shell	*Mytilus californianus*	Undetermined

Lithic Artifact Analysis

A total of 100 lithic artifacts were recovered from the current program at the ***Project.*** Lithic production waste (debitage) accounted for 50 percent of all artifacts with SETs accounting for 1.56 percent and flake tools accounting for 0.52 percent. Activities indicated by the artifacts recovered from the site include procurement, processing, and maintenance of lithic tools. The lithic artifact collection included a small range of material types including metavolcanic rocks and quartzite, which are both locally available. No temporally diagnostic artifacts were recovered, such as Late Prehistoric projectile points.

Ground Stone Tool Analysis

All ground stone materials recovered from the ***Project*** were selected for analysis and interpretation. Ground stone implements may include a wide range of objects used for or created

by the processes of abrasion, impaction, or polishing (Adams 2002). Ground stone tools are often associated with the processing/milling of seeds, nuts (*i.e.*, acorns, walnuts, and holly leaf cherry), and small mammals. In addition, ethnographic evidence indicates that bone, clay, and pigments may have also been processed with the same tools (Gayton 1929; Kroeber 1925; Spier 1978). Implements of this type may be identified by the pattern of wear developed through milling stone against stone. This process often results in a smooth and/or polished surface, depending on the substance being ground and the lithic material type. Often these surfaces are pecked or resharpened when ground too smooth. These implements are sometimes shaped into a desired form through pecking, grinding, and/or flaking. Thus, tool identification is based on the presence of ground or smooth surfaces, pecked or resharpened surfaces, and evidence of shaping of the tool form. The tools were separated into three groups: manos/metates, unidentifiable ground stone fragments, and battered implements. Unidentifiable ground stone is defined herein as a fragment of lithic material with a minimum of one ground surface, but with no technologically identifiable characteristics to indicate tool form.

A total of five manos were recovered from STP 3 during the testing program at the ***Project.*** Of the total, one was complete, and four were fragmentary. The majority of manos recovered are granitic cobbles (n=4) with the remaining being represented by cobble volcanics (n=1). Analysis indicates that bifacial use-wear predominates the collection. Two of the manos recovered show evidence of shaping, such as pecking, flaking, and end-battering, which suggests extended use (Cat. No. 34 and Cat. No. 44). This extended use and mano curation may imply long-term occupation of the site. There is end-battering present on one of the specimens. The end-battering visible on the specimen may indicate that the manos were also used as hammers to roughen metate grinding surfaces when they became too slick to grind. The overall curvature of most mano faces is slight, indicating that the opposing milling surface that the manos were ground against (*i.e.*, metate or milling slick) was shallow in form. In addition, the grinding patterns evident on the faces of two of the manos indicate that they are basin manos used primarily in a reciprocal stroke orientation in concert with shallow basin metates (Adams 2002). The manos identified in the present collection were also thermally damaged to varied degrees. The milling assemblage recovered from the ***Project*** suggests that the site inhabitants depended on food packages that required milling for processing (*i.e.*, seeds). It is evident that a moderate portion of the inhabitants' diet in the area was derived from plant foods that required milling in order to be processed.

Ecofacts

A total of 30.4 grams of faunal bone and marine shell were recovered from the current program at the ***Project.*** Of the 2.4 grams of shell collected from the STPs, less than 0.2 grams were unidentifiable. The remaining shell fragments consisted of species including *Argopecten* sp., *Chione* sp., *Haliotis* sp., and *Mytilus californianus.* Based on known prehistoric subsistence

patterns, it is likely that the shell fragments are associated with the prehistoric components of the sites within the APE; however, this cannot be determined without conducting radiocarbon dating.

All faunal bone recovered from the STP excavations (28.0 grams) was placed into categories of bird (aves) and small, medium, or large mammal. No other animal types were represented in the assemblage. Most small mammal remains consisted of unmodified, complete elements belonging to gophers or other rodents, indicating that these animals had died in burrows and were therefore determined to be non-cultural in nature. Only 1.7 grams of bone were positively determined to be prehistoric in origin. This determination was based on the size of the animal (small and medium mammals), the level of fragmentation (likely pulverized using ground stone tools), absence of modern butchering techniques, and level of burning (burned throughout). Medium and large mammal remains were often too fragmented to be identified to any particular animal, however, most large mammal bone (12.9 grams) was determined to be historic due to the type of butchering imposed on the elements. Those specimens labeled as historic exhibited saw or cleaver cut marks. The remaining large mammal bone (11.6 grams) mainly consisted of long-bone fragments that had been crushed and heavily fragmented, which is often indicative of marrow extraction processes. Because both historic and prehistoric people used similar procedures for marrow extraction from large bones, these were labeled as "undetermined." Much like the shell, the exact age of the faunal assemblage cannot be determined without radiocarbon dating; however, since the majority of large mammal bone was butchered using historic practices, it is likely that the remaining "undetermined" large mammal specimens are also historic.

Historic Artifact Analysis

A total of 35 historic artifacts (18.22 percent of the total assemblage) were recovered from the STPs. STP 9 contained the highest concentration of historic artifacts with one button fragment, one ironstone fragment, one shard of window glass, and 10 separate bottle fragments. All historic items recovered, except for three nails, were too fragmented to exhibit maker's marks or to determine the exact method of manufacture. Two round nails, the technology of which date to the beginning of the twentieth century, were found in STP 4. A square nail, likely made before 1900, was recovered from STP 3. These dates correspond with the known dates of historic occupation for the Johnson-Taylor Adobe.

6.2.3 Summary of Testing Program

Site SDI-5220 was previously recorded as a prehistoric midden deposit at the top of the knoll, then again as an "aboriginal site directly behind barn." The overall dimensions of the recent recorded site boundary are approximated at 300 meters north/south by 250 meters east/west. Site SDI-8125/H was originally recorded as the Johnson-Taylor Adobe and its associated outbuildings in 1979. At that time, it was being used as a working horse ranch. Although the two sites have been recorded independently, previous research points toward the

possibility of the two sites constituting different time periods within the same general site area. Regardless of site number, however, it is apparent that one or more prehistoric deposits extend north (behind the barn) and south (to the existing reservoir) from the Johnson-Taylor Adobe.

The testing program demonstrated that the site contains two types of temporal expressions. The first is the presence of a prehistoric component with a significant subsurface deposit. The second expression is the presence of historic artifacts consisting mostly of bottle fragments and building materials scattered throughout the midden, with a higher density south of the adobe. Shovel test excavations indicate that the prehistoric subsurface deposit extends to a depth of approximately 80 centimeters. It is unclear, however, if the location of STP 3, where this maximum depth was encountered, is solely related to SDI-8125/H or is a continuation of SDI-5220. Prehistoric diagnostic artifacts consisted of only a few pieces of Tizon Brown Ware, a pottery style characteristic of the Late Prehistoric Kumeyaay. The only historic temporally diagnostic artifacts recovered during the excavations were two nails—one square and one round—that places historic occupation within the previously known timeframe of the late 1800s to the mid-1900s. Although there was little variety in the artifact types recovered, excavations at the ***Project*** exhibited a moderately deep, dense, lithic assemblage, as well as historic artifacts, indicating that the site was occupied during the prehistoric and historic periods.

The ***Project*** APE is interpreted as containing both a prehistoric habitation site where activities included the procurement, production, and maintenance of lithic resources and the processing and consumption of animal and marine resources, in addition to historic occupation associated with the Johnson-Taylor Adobe and cattle ranch operation. Few temporally diagnostic prehistoric artifacts were recovered; however, the Tizon Brown Ware and the early 1900s historic artifacts that were recovered suggest repeated use of this location from the Late Prehistoric onward. As a result, the site does exhibit additional research potential.

The analysis of the prehistoric and historic cultural materials recovered from the drainage pipeline APE revealed a significant cultural deposit. The recovered prehistoric lithic artifacts indicate that site activities were focused on the procurement, processing, and maintenance of lithic tools, while the historic artifacts revealed an occupation date corresponding to the construction and use of the adobe after 1862, which corresponds to the known usage of the Johnson-Taylor Adobe. No in situ features, either historic or prehistoric, were identified in the shovel tests.

Since the testing and evaluation program identified an intact subsurface deposit containing artifacts and ecofacts, the site has yielded information and is considered to have additional research potential. The Johnson-Taylor Adobe is already identified as a National Register Site, and the cultural materials recovered in association with this site are likewise contributing elements to the significance of this location. The subsurface deposits are considered important resources which exhibit additional research potential, according to criteria listed in the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (September 26, 2006; Revised December 5, 2007).

7.0 DISCUSSION

The cultural resources study of the ***Project*** consisted of an archaeological testing program. The cultural resources identified within the ***Project*** (listed in Table 7.0–1) have all been previously recorded, and no additional sites were discovered.

Table 7.0–1

Cultural Resources Located Within the Los Peñasquitos Adobe Drainage Project

Cultural Resource	Evaluation
SDI-5220	Tested/Significant
SDI-8125/H	Tested/Significant and National Register-Listed

To evaluate the potential impacts to cultural resources by the proposed subdrain installation, a testing program was implemented to determine if any cultural resources would be adversely impacted. The information gathered during the testing process documented that the two recorded cultural resources within the ***Project*** APE have associated subsurface deposits. Both sites have been previously impacted by a variety of disturbances including erosion, grading activities, agricultural uses, and vehicle and pedestrian traffic. However, it appears that the cultural deposit possesses sufficient integrity to represent a significant subsurface component.

Subsurface testing demonstrated that the subsurface deposit of artifacts and ecofacts exists to a maximum depth of 80 centimeters. The historic and prehistoric components exhibit additional research potential and are considered important resources according to criteria listed in the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (September 26, 2006; Revised December 5, 2007).

The only historic structure that will be affected by the ***Project*** is the historic reservoir south of the adobe. The reservoir, which was constructed circa 1867 by Captain George A. Johnson, is a contributing marker to the National Register Site. No testing or other documentation was required to substantiate the historical significance of the reservoir. This historic feature is a contributing component of the site; however, the reservoir has been affected over time by various park improvement projects to help preserve the function of the structure. Improvements to the reservoir since the 1980s included the construction of a steel rebar framework across the historic feature for structural improvements and the application of a concrete layer over the entire historic reservoir for integrity of the feature. Although these projects have modified the appearance of the historic reservoir, they were completed to maintain and support the historic function of the structure. The photos below show some of the physical changes that occurred prior to the most recent improvements made in 2012.

Plate 7.0–1: View of the reservoir prior to the relining in 2012.

Plate 7.0–2: View of previous concrete work that was completed in the 1990s.

Plate 7.0–3: View of the applied layer of concrete and steel rebar framework across the historic reservoir.

8.0 INTERPRETATION OF RESOURCE IMPORTANCE AND IMPACT IDENTIFICATION

The Los Peñasquitos Adobe Drainage Project significance testing was conducted to assess potential impacts to important cultural resources affected by the planned excavation for the drainage pipeline (see Figure 1.0–3: Project Development Map). As has been previously noted, the work conducted by BFSA for the ***Project*** is one of several cultural resource studies conducted in the area of the adobe. The result of these studies has been the identification of two previously recorded cultural resources, SDI-5220 and SDI-8125/H (see background information in Section 6.1); SDI-5220 was identified as containing a dense and defined significant prehistoric deposit, while SDI-8125/H was identified as the Johnson-Taylor Adobe and associated structures. The goal of the archaeological study is to determine the potential impacts to cultural resources associated with trenching for the proposed drainage pipeline. The ***Project*** will consist of the excavation of a narrow trench for a drainage line to a depth of approximately four feet from the north side of the adobe structure, along the east side of the adobe courtyard to the south into the existing historic reservoir, at which point a hole will be drilled through the wall for the drainage pipe. The APE was chosen to limit cultural resource impacts by overlapping a portion of the drainage trench with trenching from a previous construction project.

Within the project boundary, portions of both cultural resources were tested and evaluated during the current study in accordance with the guidelines of the County of San Diego and in compliance with CEQA. For this review, criteria listed in the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (September 26, 2006; Revised December 5, 2007) was utilized as the foundation for resource evaluations. These significance guidelines synthesize both Section 15064.5 of CEQA and the County of San Diego's RPO criteria; however, DPR is not subject to the RPO. The significance criteria used to evaluate the ***Project*** sites is listed in Section 8.1.

Both of the recorded sites are significant, and the adobe complex, including the historic reservoir (SDI-8125/H), is listed on the National Register. The testing program was ultimately targeted at the narrow APE and any cultural deposits that may be impacted. The shovel test data has documented the presence of both historic and prehistoric artifacts within the APE at depths to a maximum of 80 centimeters. Therefore, based upon the types of artifacts recovered from the shovel tests within the boundaries of significant cultural resources, the trench to be excavated for the drainage pipeline will impact important cultural deposits associated with SDI-5220 and SDI-8125/H. The shovel test data was limited in the volume of soil exposed and screened. However, based upon the small sample represented by the shovel tests, there is sufficient data to identify deposits that represent research potential corresponding to the prehistoric occupation of the canyon, followed by the early historic rancho development.

8.1 Evaluation Procedures

The cultural resources tested within the project area were evaluated according to County of San Diego criteria, as stated previously. Although SDI-8125/H is on the National Register, the shovel test data was necessary to confirm the status of cultural deposits within the APE. The characteristic consistently cited for sites evaluated as significant was the potential of the resource to produce information valuable to local and regional research questions. Both SDI-5220 and SDI-8125/H contained the elements of material culture and ecofacts that represent a focused occupation for a long period of time, and are thus considered significant. Historically, the project area was used for agricultural and ranching activities and is now a historic preserve listed on the National Register.

Determining the Significance of Impacts to Archaeological and Historical Resources

As part of the evaluation of resources for the Rancho Peñasquitos Adobe Drainage MND Project, the term "historical resources" as described in CEQA shall include the following:

(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 the local register of historical resources as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resources survey meeting the requirements in 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 or 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 the 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 Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(i) or 5024.1.

In addition, CEQA also states that impacts to a local community, ethnic, or social group must also be considered. If a resource is determined to be not important under these criteria, it is assumed that the resource cannot be significantly impacted and, therefore, mitigating measures are not warranted. However, any resources found to be important according to these criteria must be assessed for project-related actions that could directly or indirectly impact such resources. Impacts that adversely affect important resources are considered to be significant impacts for which mitigating measures are warranted.

> Significant prehistoric or historic sites: 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 Historical Site Board List; any area 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, petroglyphs, 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.

In addition to the CEQA and County significance guidelines, the criteria set forth in the *County of San Diego Guidelines for Determining Significance, Cultural Resources: Archaeological and Historic Resources* (September 26, 2006; Revised December 5, 2007) has been included for further evaluation of significance:

1. Resources associated with events that have made a significant contribution to the broad patterns of California or San Diego County's history and cultural heritage.
2. Resources associated with the lives of persons important to our past, including the history of San Diego County or its communities.
3. Resources that embody the distinctive characteristics of a type, period, region (San Diego County), or method of construction, or represent the work of an important creative individual, or possess high artistic values.
4. Resources that have yielded or may be likely to yield, information important in prehistory or history.
5. Districts are significant resources if they are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition, but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture. A traditional cultural landscape is an example of a prehistoric district because individual sites must be considered within the broader context of their association with one another.
6. Resource Protection Ordinance. DPR is exempt from the RPO.
7. If human remains are discovered, the county coroner shall be contacted. In the event that the remains are determined to be of Native American origin, the Most Likely Descendent, as identified by the Native American Heritage Commission, shall be contacted in order to determine proper treatment and disposition of the remains. A resource shall be considered significant if it contains any human remains interred outside of a formal cemetery.
8. Resources must retain enough of their historical character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated through the assessment of a cultural resource's attributes, and may include design, location, setting, materials, workmanship, feeling, and association. It must be judged with reference to the particular criteria under which a resource is proposed for eligibility (structural, architectural, artistic, historic location, archaeological site, historic district). Alterations over time to a resource or historic changes in its use may themselves have historical, cultural, or architectural significance.

8.2 Assessment of Effects

In order to assess the effects of the proposed ***Project*** on cultural resources, a set of assumptions was used for the impact analysis:

- The drainage pipeline trench APE will affect an area 350 feet long, four feet deep, and one foot wide, or 1,400 cubic feet (39 cubic meters). No architectural components of the Johnson-Taylor Adobe will be affected.
- All impacts to cultural resources are assumed to be direct, particularly those resulting from trenching. All direct impacts will result in the disturbance or removal of cultural deposits to depths of four feet or 130 centimeters.
- In order to discharge water into the historic reservoir, a hole will be drilled through the wall so that a pipe can be inserted to direct water into the reservoir. This action will result in a direct, albeit very small, impact to the previously modified historic reservoir.
- Cultural resources that border the proposed drainage alignment will not be directly impacted; any indirect impacts to the adobe structure will be avoided by restricting the trench excavation to hand tools.

The proposed ***Project*** will impact portions of two archaeological resources (SDI-5220 and SDI-8125/H). These areas are characterized as subsurface deposits of historic and prehistoric artifacts associated with the Kumeyaay occupation of SDI-5220 followed by the construction and occupation of the historic Johnson-Taylor Adobe (SDI-8125/H) after 1862. Impacts to the significant cultural deposits will be fully mitigated by the recommended measures in Section 9.0. Sites SDI-5220 and SDI-8125/H would be directly affected by the trenching for the ***Project.*** Direct impacts to these sites, although confined to a narrow APE encompassing a total volume of 39 cubic meters, would be significant.

The ***Project*** will include the drilling of a three- to four-inch-diameter hole through the wall of the historic reservoir where the south end of the drainage line will empty into the reservoir. The reservoir is a contributing component to the National Register Site listed as the Johnson-Taylor Adobe. The reservoir has undergone physical changes since it was originally built to help preserve the function of the structure. Although these projects have modified the interior historic appearance of the reservoir, they were completed to maintain and support the historic function of the structure. The drilling of a hole through the wall of the 42-by-28-foot structure will not represent a significant impact, primarily because the walls of the reservoir have been concreted over time, most recently in 2012, which has already affected the visual integrity of the structure. The drilled hole will not substantially distract from the current status of the reservoir, nor will the historic importance of the Johnson-Taylor Adobe complex be affected.

Summary of Impact Significance

The area to be impacted by the ***Project*** will directly affect two cultural resources. These sites were evaluated as representing significant cultural deposits based on County of San Diego guidelines and are considered to have further potential to yield additional information. Impacts to these sites are considered significant. One of the sites, SDI-8125/H, is also listed on the National Register of Historic Places.

9.0 MANAGEMENT CONSIDERATIONS – MITIGATION MEASURES AND DESIGN CONSIDERATIONS

The proposed ***Project*** will impact cultural deposits associated with two cultural resources, SDI-5220 and SDI-8125/H. It is important to understand that the prehistoric Site SDI-5220 covers a much larger area than the historic structures listed as SDI-8125/H, including the prehistoric deposits beneath the historic site. Trenches for the subdrain will pass through the historic deposits of SDI-8125/H first and then, as the trenches are excavated deeper, the prehistoric deposits will be encountered. For the purpose of determining appropriate mitigation measures, impacts to the identified cultural deposits will be considered as limited to the narrow trench alignment. Mitigation will not be required to extend beyond the width or depth of the drainage pipeline trench. In general, the mitigation of impacts to important archaeological deposits may be achieved through data recovery. There is no option to relocate the ***Project*** because the preservation of the adobe requires that the installation of the drainage line to channel groundwater away from the foundation must be placed as designed by the project engineers. No mitigation measures are required for the drilling of a hole through the wall of the historic reservoir because this action is not considered to represent a significant impact based upon the recent enhancement of the water basin.

9.1 Recommendations

In accordance with Section 15064.5 of CEQA and the guidelines of the County of San Diego, cultural deposits evaluated as important due to their association with significant and National Register Site SDI-8125/H and CEQA-significant Site SDI-5220, as well as the research potential of these affected deposits, will require mitigation measures to reduce the significance of project-related impacts. The proposed drainage cannot be relocated since it has been specifically designed to reroute water away from the foundation of the historically significant adobe structure. Because the relocation of the drainage line is not a feasible alternative, the data recovery program must include measures that will achieve mitigation through the recovery and analysis of cultural materials. Information from the field investigations and laboratory analysis will be applied to the research questions incorporated into a data recovery program. The general mitigation proposal is provided in Section 9.2, while site-specific mitigation measures are given in Section 10.0.

With reference to the historic reservoir located at the south end of the drainage channel, impacts to the historic structure associated with the drilling of a hole through the north wall of the reservoir will not require any specific mitigation measures. This conclusion was reached on the basis that the structure's integrity and appearance have already been compromised by previous improvements to the reservoir to ensure that its function will continue.

9.2 Proposed Mitigation Measures

For the ***Project,*** avoidance is not feasible and the mitigation will be achieved through the implementation of a data recovery program. Proposed mitigation measures for the ***Project*** are provided below. Details of the mitigation program are provided in Section 10.0.

Mitigation Measure 1

The mitigation of adverse impacts to the significant sites (SDI-5220 and SDI-8125/H) will be achieved through the implementation of a monitoring and data recovery program. Because of the narrowness of the trench, excavation of the trench in 10-centimeter levels is deemed impractical, unless a significant discovery is made. The data recovery program will include archaeological monitoring by a qualified archaeologist and a Kumeyaay Native American of the trench excavations and the screening of all soils removed during trenching to recover all artifacts, both historic and prehistoric, that are observed. The monitoring of trench excavations and the screening of all soils to recover any cultural materials will be expanded to standard archaeological excavation protocols in the event that significant deposits, features, or human remains are encountered.

Mitigation Measure 2

All cultural materials recovered during the screening of trench spoil will be returned to the BFSA laboratory for cleaning, identification, and cataloging. Further analysis will include lithics analysis, ceramics analysis, faunal analysis, floral analysis, assemblage analysis, and radiocarbon dating. Historical artifacts shall be identified and analyzed using historical archaeological analytical techniques such as artifact function patterning, bottled products pattern analysis, and ceramic economic indexing. Additional historic research shall be conducted as necessary to aid in analyzing and explaining the significance of patterns. Information generated from the field and laboratory programs will be used to address research presented in the research design detailed in this archaeological study. The implementation of the research design constitutes mitigation for the impacts to archaeological/historical sites SDI-5220 and SDI-8125/H. Results of field work and laboratory analyses shall be presented in a technical report prepared in accordance with the County of San Diego's report guidelines.

Mitigation Measure 3

All archaeological materials recovered during significance testing and grading monitoring activities will be curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the

form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.

10.0 MITIGATION PLAN

The proposed Los Peñasquitos Adobe Drainage Project will impact small quantities of cultural deposits associated with archaeological sites SDI-5220 and SDI-8125/H, which have been evaluated as significant cultural resources. In order to comply with CEQA and County of San Diego guidelines for the treatment of cultural resources, the following mitigation plan was developed. The goal of this plan is the successful mitigation of impacts.

The testing of the cultural deposits within the APE identified temporally diagnostic artifacts and provided information that demonstrates that the property was most likely occupied first during the Late Prehistoric Period by Kumeyaay Native Americans, and subsequently during the historic period after Captain George A. Johnson constructed an adobe residence and ranch headquarters at this location in 1862. The artifact collection from the cultural resource sites within the ***Project*** comprises a limited representation of prehistoric use, and reflects a focus on resource extraction and processing, and maintenance of lithic tools. Historic occupation at the site is also represented through a small quantity of historic artifacts associated with the construction and occupation of the ranch house adobe after 1862.

The major goal of the mitigation program is the reduction of the potentially adverse impacts to the CEQA-significant sites through a mitigation monitoring and data recovery program. The data recovery program and curation will mitigate the impacts to this resource to a level less than significant. For these sites, mitigation can be achieved through data recovery because the principal aspect of the significance of the site is directly related to the research potential and information value represented in the cultural deposits.

If the importance of a site is directly associated with the information potential it retains, then identifying the range and types of data available at the site, as well as the regional archaeological objectives that can be furthered with the addition of data from the site, will provide the foundation for achieving mitigation through data recovery. As will be demonstrated in subsequent sections, data recovery will help mitigate direct impacts to the specific cultural resources identified as CEQA-significant, but it will not be feasible to preserve them within the narrow drainage trench alignment.

In the following sections, specific mitigation measures will be discussed for these significant sites. Actual research issues and data needs are also discussed in Section 10.2: Research Design.

10.1 General Mitigation Recommendations

Two CEQA-significant cultural resources identified within the ***Project*** will be directly impacted (SDI-5220 and SDI-8125/H), albeit only 39 cubic meters will be affected. The typical application of mitigation measures involving data recovery utilizes standard archaeological excavation units to achieve a stratigraphically controlled representation recovery. However, because of the constrained, narrow width of the proposed trench

excavations, standard archaeological protocols will not be appropriate. It is unlikely that controlled excavation within the subdrain trench will contribute to the advancement of complicated research directives, due to the limitations of the excavations within the one-foot-wide trench. Therefore, as opposed to the standard protocols that would base data recovery on a statistical sample, the data recovery program will consist of the careful monitoring of all hand excavations by laborers and a recovery process that will result in the recovery of all cultural materials disturbed within the APE.

General Mitigation Procedures for Data Recovery

As noted previously, for the minimal areas to be disturbed by the trenching through subsurface areas of SDI-5220 and SDI-8125/H, the success of the mitigation program is contingent upon extracting sufficient information that will exhaust the data potential of the impacted portions of the site. Data recovery is commonly discussed in terms of sampling percentages, referring to the percent of the area of the significant subsurface deposit that will be excavated. However, in the case of the Los Peñasquitos Adobe Drainage Project, the process of excavating soil for the subdrain will be monitored and all excavated soil will be screened to recover any cultural materials. All artifacts recovered from the screens will be cataloged, analyzed, and curated.

10.2 Research Design

The data recovery program is designed to comply with the regulations of the County of San Diego, and exhaust the research potential of the resources affected by the area within the APE in order to reduce the impacts to a level below significant. The data recovery program also follows the California Office of Historic Preservation (OHP) publication *Guidelines for Archaeological Research Design, Preservation Planning Bulletin No.* 5. (1991).

The design for the data recovery program for the ***Project*** includes a consideration of the types of data that may be encountered, and then applying this information to the current regional research questions pertaining to the cultures represented at the sites. The research questions provided below include those that can be addressed during the data recovery program. These questions will be analyzed in the final mitigation report. A copy of the final report will be provided to the DPR history center.

This research design incorporates research questions based upon the current state of knowledge in anthropological theory and area-specific research concerns. For the purposes of this research design, the study area includes the western San Diego County region. As a prelude to archaeological data recovery, theoretical research hypotheses must be applied to the proposed data recovery program to ensure that the information recovered will address these important research concerns. The hypotheses contained herein are designed so that they may be tested against the archaeological data recovered from SDI-5220 and SDI-8125/H.

10.2.1 Prehistoric Research Design

The data recovery program for the prehistoric component of SDI-5220 and SDI-8125/H will focus on understanding the use of natural resources by the prehistoric occupants of the area through time. The research design for the data recovery program was formulated using information from surrounding sites to determine the variety of characteristics manifested in the area, including site location in relation to water, vegetation, lithic resources, and elevations. The theoretical orientation and major research objectives were based on an attempt to determine the vertical and horizontal variability within the site. Vertical variation in the deposit might indicate either a shift in the subsistence strategy or in the kinds of subsistence materials available over a period of time. A shift in subsistence strategy over time might signify that different cultural groups were present at different times, or that one group adopted new lifestyles. Horizontal variations in the sample might indicate specialized activity areas or intra-site organization.

The data recovery program was designed to retrieve the maximum amount of information from the affected sites that could be applied to a wide variety of research topics concerning the region as a whole. Specifically, the research goals focused on gathering site-specific data to define intra-site organization, temporal placement, trade associations, and site function. Furthermore, the sites will be analyzed in spatial context, to address the goals of environmental archaeology and define the relationship of the sites to the biophysical environment. Subsistence and settlement, chronology, technology, quarrying activities, and regional exchange and inter-group relations are the topics from which archaeological questions were formulated. These topics are presented below with individual research questions, although collectively they are designed to contribute to the overall understanding of how the prehistoric inhabitants of Los Peñasquitos Canyon utilized the natural resources of the area through time.

Research Topics

Subsistence and Settlement Patterns

The degree to which the archaeological cultures represent alternate adaptations to inland resources has been an issue of much interest and debate in San Diego County (Laylander 1993). As is true elsewhere in California, an early hunting orientation was replaced by a more diversified, plant-oriented strategy during the Archaic Period, becoming ever more broad-based over time (Moratto 1984). The Late Prehistoric Period was characterized by an even wider use of resources, with new strategies that focused on a few storable species, especially acorns (Chartkoff and Chartkoff 1984). This change may have been fueled, particularly in northern San Diego County, by the siltation of previously resource-rich lagoons circa 3,500 YBP (Warren 1964). In the southern portion of the county, the formation of San Diego Bay encouraged the growth of an even more specialized marine orientation. A subsistence shift may have occurred when the coastal areas north of Mission Bay became less attractive, prompting a switch to inland strategies (Gallegos and Kyle 1988).

Researchers generally believe that the adaptation to the environment by Archaic La Jollan peoples in San Diego County initially emphasized hunting over gathering (in the guise of the now-subsumed San Dieguito Complex), and marine over terrestrial resources, and that this practice was "replaced" by the Late Prehistoric Kumeyaay subsistence pattern, where inland terrestrial resources gained ascendancy. Generally, archaeologists agree that increased settlement densities and a terrestrial resource focus, particularly on the gathering and processing of acorns, are Late Prehistoric characteristics. The appearance of pottery, smaller projectile points, cremations, and the use of exotic lithic materials, especially Obsidian Butte obsidian, is evidence used to recognize this adaptive change (Gallegos 1992; Christenson 1992).

Recent evidence indicates that the La Jollan subsistence strategy was much more dependent on inland resources than previously thought (Raven-Jennings and Smith 1999b; Buysse and Smith 2003). Therefore, contrasting inland Archaic and Late Prehistoric Kumeyaay sites presents much more of a challenge than comparing coastal La Jolla Complex and Late Prehistoric Kumeyaay sites. The inland expression of the La Jolla Complex (Warren et al. 1961) is characterized by a decreased quantity of marine mollusks, a greater variety of tools made of inland quarried stone in addition to cobbles, a broader range of resources used and resource zones exploited, increased milling, increased sedentism, and an emphasis on terrestrial hunting and gathering, all of which blur the distinctions between the La Jolla Complex and the later Late Prehistoric Kumeyaay lifeways (Moriarty 1966; Gallegos 1991; Kaldenberg 1982; True 1958; Warren et al. 1961; Meighan 1954; and Forstadt et al. 1992). As a result, many archaeologists propose continuity between the inland La Jolla Complex and the Late Prehistoric Kumeyaay, stressing the overall similarity of the tool kits and the general extension of Archaic lifeways into the Late Prehistoric Period (Warren 1964, 1968; True 1966,1970; True et al. 1974; Byrd and Serr 1993; Cardenas 1986).

Various researchers (True and Waugh 1982; Byrd and Serr 1993) have found it useful to employ Binford's (1980) distinction between foragers and collectors to contrast local Archaic and Late Prehistoric patterns. The difference between foraging and collecting strategies is a matter of relative mobility and the spatial relationship between consumers and resources, both of which have implications for the resulting archaeological record. The Archaic La Jollan Complex is associated with the foraging strategy where residential camps are placed near desired resources and occupied for short periods of time. This focus on very local resource procurement and consumption results in quite small, resource-specific locations and tool kits. The Late Prehistoric Kumeyaay pattern is characterized as a collector strategy, where habitation sites were of a seasonal nature, and are thus larger and display more diversity in tools. Logistical forays are staged from these areas to seek out a wide variety of resources beyond the camp boundary, which result in the appearance of many ancillary resource procurement locations. At the large sedentary camps, faunal resources in particular appear to be very diverse, with various animal classes represented. Waugh (1986), while noting this correlation, stated that it is uncertain

if this diversity was due to more inhabitants in a small area, or whether the sedentism itself was a response to the depletion or absence of larger animals.

The transition between a forager and a collector strategy was not abrupt, however, and sites from the Late Archaic Period (3,000 to 1,300 YBP) represent the gradual transformation of Archaic lifeways into a collector mode. Although the change appears at different times throughout California, the Late Archaic is characterized by increased hunting and an emphasis on acorns (Chartkoff and Chartkoff 1984). In the Santa Barbara area, the shift to a broader resource base began around 5,000 to 3,000 YBP, reached up to 50 miles inland, and was labeled the Campbell Tradition (Harrison and Harrison 1966). The Campbell Tradition represents a more diversified economy that was focused on acorn processing, mollusk gathering, terrestrial hunting of rabbits, deer, and waterfowl, and the beginnings of a specialized maritime economy. The technological hallmarks of this tradition include stone bowls, mortars and pestles, hopper mortars, projectile points, drill-like implements, flake scrapers, large knives, and ornaments made of shell, bone, and stone (Koerper et al. 1986). The latter part of the Campbell Tradition is termed Middle Period in the Santa Barbara area (King 1981), where increasing complexity is posited on the basis of multiplying varieties of beads and ornaments, in addition to the technological developments listed above. The Campbell Tradition was initially characterized as an intrusion of Alaskan peoples (Harrison and Harrison 1966); however, more recent studies all point to a gradual, *in situ* development of the Chumash people over the course of 7,000 years (Moratto 1984).

Wallace (1955) also separates this time period from preceding patterns for southern California as Horizon III of his Intermediate Cultures (3,000 to approximately 2,000/1,000 YBP). He notes that mortars and pestles become more common, perhaps signaling the initial use of acorns, along with basket-hopper mortars. Additionally, during this time period, projectile points become smaller and there are increasing quantities of *Olivella* beads, bone awls, and steatite artifacts, as exemplified by the Campbell Tradition. Similarly, Moriarty (1966) places a major change during this time period, calling it Dieguerio I (pre-ceramic Yuman), attributing the change in subsistence and settlement to the amalgamation of desert peoples with the resident La Jolla Complex people circa 3,000 to 2,000 YBP. Other researchers, while not giving this period a specific name, have noted an increasingly broad resource base and a proliferation of inland occupation sites at this time period (Norwood 1980; Forstadt 1992; Cardenas 1986).

In San Diego County, the Campbell Tradition has been previously considered to be only weakly represented due to the lack of evidence for marine mammal hunting (Warren 1968) and the utilization of inland environments (Warren 1964). However, recent investigations from Otay Ranch (Smith et al. 2004), Scripps Poway Parkway (Raven-Jennings and Smith 1999b), Rancho San Diego (Byrd and Serr 1993), and sites SDI-4648 and W-348 (Cardenas and Van Wormer 1984) offer increasing evidence of relatively intense use of inland San Diego County by the end of the Middle Archaic (3,000 YBP). Byrd and Serr (1993), in fact, question

whether the Archaic exploitation of inland environments was not already well established prior to 3,000 YBP, but note the lack of evidence.

In addition, the hiatus or decline in the occupation of coastal sites during the Late Archaic and early Late Prehistoric, which caused consternation due to the lack of radiocarbon dates between approximately 2,000 and 600 YBP, appears to be in the process of being filled in by the discovery of inland occupation sites in northern and southern San Diego County. Several reasons have been put forward to explain what seems to be the lack of coastal occupation during this time period. Given the known decimation of coastal resources during this same period, an exodus from the larger coastal villages to locations inland, may have occurred. However, rather than utterly disappear, the La Jolla complex resurfaces inland at this same time period and is transformed by a tool kit meant for a different environment, which has subsequently been identified as Pauma Complex. As inland San Diego County continues to be developed, it is likely that the idea that site location shifted towards the inland to exploit more abundant, terrestrial resources will be accepted. Alternatively, the lack of radiocarbon dates from this time period may be explained by error factors in the radiocarbon method or it may be indicative of bias in the selection of radiocarbon samples (Laylander 1993). In short, a mixed hunting/gathering strategy prevailed over most time periods in San Diego County, yet there are enough cumulative differences to make the effort to discriminate between Archaic and Late Prehistoric sites and site components, in order to isolate and characterize subsistence and settlement strategies over time, a worthy task.

Chronology

Chronology is the foundation of most archaeological research; in the current case, where contrasts between time periods are sought, it is imperative to maximize the number of solidly dated associations. Culture-sensitive materials include pottery and projectile points, while relative and absolute dating techniques can be employed on obsidian, shell, charcoal, and soil samples.

Research Questions:

- Did both the Late Prehistoric Kumeyaay and Archaic La Jollan occupy Los Peñasquitos Canyon?
- Is there a hiatus within the Archaic or between the La Jollan and Kumeyaay habitations of inland sites, as has been documented in coastal areas between 2,000 and 600 YBP, or is there continued use of the area during this period?
- Do the assemblages at the Johnson-Taylor Adobe provide data in support of continuity or change in tool kits and subsistence activities?
- Some researchers maintain that radiocarbon dates taken from shell and soil are not comparable. Do paired shell/soil samples at the Johnson-Taylor Adobe agree or disagree as to the date range at this site?

- Are the previously accepted culturally diagnostic artifact types (marine shell, ground stone tools, Coso obsidian, and cobble-based tools for La Jolla Complex; ceramics, small projectile points, Obsidian Butte obsidian, and bedrock milling for Late Prehistoric) accurate cultural markers at the Johnson-Taylor Adobe sites, if in fact the site supported two periods of occupation?

Technology

The relative lack of temporally diagnostic artifacts at sites in San Diego County limits the analytic value of even a large sample of sites, unless a model can be proposed that allows at least some sites to be dated based on the groupings of non-diagnostic artifacts for a particular time period. To expand the interpretive value of the non-diagnostic artifacts recovered, characteristic tools kits of the Late Prehistoric Kumeyaay and Archaic La Jollans should be identified in datable contexts. If diagnostic tool kits could be identified, these could be used to assist in the interpretation of the cultural affiliation of other sites that lack temporally diagnostic tools or absolute dates.

Cobble and domed scrapers, scraper planes, and cobble tools in general (Kowta 1969; Kaldenberg 1982), along with associated cortical debitage (Rosen 1989), marine shell, and heavier tools, are thought to be associated with the La Jolla Complex. Quarried materials, lighter flake tools, a high frequency of medium processing tools such as perforators, drills, and flake scrapers (Cardenas and Van Wormer 1984), and an increased use of fine-grained materials such as quartz, chalcedony, and jasper, are typical of the Late Prehistoric Kumeyaay (Gallegos 1992).

Ground stone tools are believed by some archaeologists to be temporally sensitive. Portable metates appear to be associated with Archaic sites (Byrd and Serr 1993), while mortars and pestles are considered hallmarks of the Late Prehistoric Kumeyaay (Carrico and Taylor 1983; Byrd and Serr 1993). Bedrock milling stations are considered by some to be diagnostic of Late Prehistoric use (Forstadt et al. 1992; Byrd and Serr 1993), although some believe that they may also be found at Late Archaic sites as well (WESTEC Services, Inc. 1981). Byrd and Serr (1993) found evidence of bedrock milling at an Archaic site and at several Late Prehistoric sites, suggesting that perhaps the presence of milling features as a diagnostic temporal trait remains undefined.

Tool function is another key issue in the understanding of cultural change, since La Jollan and Late Prehistoric Kumeyaay tools are relatively simple and redundant in terms of lithic materials and functional types represented. For example, without residue analysis, it is not known whether a mano represents a plant- or animal-processing tool. Therefore, the possibility exists that the same tools were put to different uses over time. The ethnographic literature associates ground stone tools not only with plant processing, but also with the grinding of small animals (Michelson 1967; Luomala 1978), which has been supported by blood residue

analysis of metates (Carbone 1984, Yohe et al. 1991) and manos (Byrd and Serr 1993), wherein rabbit blood was identified on both types of tools.

Without empirical evidence, it is difficult to ascertain the function of even those tools that have a more obvious use; as Carrico and Kyle (1987) pointed out, the presence of knives may indicate not only hunting, but any activities which included scraping and cutting, such as in the processing of wood, shell, and hide. Byrd and Serr's (1993) residue analysis was a case in point: hammerstones showed residues from rabbit and deer, one Desert Side-Notched projectile point contained pronghorn blood, another had trout (or salmon) blood, and an Elko projectile point included rabbit blood residue. This inquiry is further confounded by the fact that assemblage-oriented analysis to determine cultural discriminations is often derailed by seasonal or special activity tool kits (Binford 1980).

Research Questions:

- If a tool kit were recovered from the Johnson-Taylor Adobe sites, which include scrapers, scraper planes, and cobble and domed scrapers, would it be indicative of Archaic use?
- What types of artifacts were made with fine-grained metavolcanic materials? Was there variation in the use of ultra fine-grained materials, both local and non-local, from the Archaic to the Late Prehistoric?
- Were milling functions different between Archaic and Late Prehistoric sites? What resources were ground or pounded in mortars and on portable metates? Did these differ through time?
- What were the functions of the different tool categories? Did these functions change over time? Were different resources processed with different lithic tools?
- Can assemblages and/or certain tool categories be used to indicate subsistence activities in the absence of faunal remains?

Research Questions for Potential Data Recovery:

- Can specialized studies, including use-wear studies, residue analysis, and reduction stage classification, provide additional clues regarding the range of activities conducted at the site?
- How do these sites fit into the overall settlement and subsistence systems of prehistoric populations in the area? How does the utilization of the Johnson-Taylor Adobe sites compare to other sites in the region both spatially and temporally?

10. 3 Methodology

A plan for a program to carry out the necessary data recovery procedures is presented below. The program is consistent with the policies and guidelines of the County of San Diego and with the California OHP publication *Guidelines for Archaeological Research Design,*

Preservation Planning Bulletin No. 5 (1991). In order to mitigate potential impacts to the affected resources in accordance with CEQA, and also to retrieve the data needed to comply with County of San Diego guidelines, recovery of all artifacts excavated for the subdrain trench within the site area to be impacted (*i.e.*, the limits of impacts) will be required.

10.3.1 Field Methods

The data recovery program will focus upon the monitoring of all trench excavations. All removed soils from the drainage trench will be sifted through one-eighth-inch mesh hardware cloth. All artifacts recovered during the screening process shall be properly labeled with provenience information in the field, and subsequently subjected to standard laboratory procedures of washing (if appropriate) and cataloging. The trenching excavations will be documented with field notes, illustrations, and photographs. Stratigraphic control will not be conducted unless the artifact recovery indicates an important delineation between the prehistoric and historic recovery.

Any features that are discovered during the archaeological excavations shall be exposed through careful hand excavation, although no excavations will be completed outside the trench boundaries unless authorized by the County DPR. If datable materials are found in association with discovered features, a sample shall be collected for the application of radiocarbon dating.

Throughout the field operations, standard archaeological procedures will be implemented. All test trenches and features will be mapped utilizing a Trimble GeoXT GPS unit.

10.3.2 Laboratory Analysis

All of the materials recovered from the field excavations will be subjected to standard laboratory analysis. Artifacts may be washed, if necessary, to permit proper identification. The artifacts will be sorted and cataloged, including counts, materials, condition, weight, provenience, and unique artifact identification numbers.

The lithic artifacts recovered from the ***Project*** will be subjected to analysis that will include recordation of critical measurements and weight, and inspection for evidence of use-wear, retouch, patination, or stains. The recovered flakes (or a representative sample) will be subjected to an analysis of attributes such as size, condition, type, termination, and material. The attribute analysis will include the flake collections recovered during the testing program.

Non-lithic materials, such as ecofacts (shell and bone), shall be subjected to specialized analyses. The shell will be cataloged by species and weight of recovery per level. The bone material will be weighed and subsequently submitted for specialized faunal analysis. The laboratory analysis of the column samples may include flotation procedures to remove seeds and other microfaunal remains from the soil, followed by the screening of the remainder through a one-sixteenth-inch mesh sieve, if the potential for non-lithic materials is noted in the deposit.

Other specialized studies that will be conducted if the appropriate materials are encountered during the data recovery program will include marine shell species identification, faunal analysis, otolith analysis (for seasonality), oxygen isotopic analysis (also for seasonality), radiocarbon dating, obsidian sourcing and hydration, and blood residue and phytolith studies. These specialized studies are briefly described below:

a. ***Shell Analysis:*** The recovery of shell is possible within the ***Project*** APE. Analysis of the shell recovery will include the speciation of all shell fragments collected. The shell will be recorded by weight, and will include a count of hinges to determine the minimum number of individuals represented by the recovery.
b. ***Faunal Analysis:*** Prehistoric and historic food bone has been recovered from the testing program. Any bone material recovered during the data recovery program should be analyzed by a faunal expert to identify species, type, age, and evidence of burning or butchering. The prehistoric and historic bone recovered will provide information concerning diet, activity areas within the sites, the habitats exploited, and methods of processing.
c. ***Radiocarbon Dating:*** This dating technique will be attempted if appropriate datable materials are recovered. The investigations conducted thus far did recover dateable material, although dating was not conducted as part of the testing program. The radiocarbon dating will be useful in conjunction with the stratigraphic recovery of cultural materials to establish the chronology at this location. Therefore, the collection of samples for dating will be based on the presence of diagnostic artifacts, features, or geological strata delineations. In conjunction with the research topics, any possible opportunities to delineate parts of sites into Late Prehistoric and Archaic periods will be advanced through the use of dating methods.
d. ***Blood Residue Studies:*** Organic residue on lithic artifacts may be useful in the determination of the species of animals represented by the residue. However, the use of blood residue studies is necessarily dependent upon the identification of such residues on artifacts. The detection of blood residue will be made prior to any washing of artifacts.
e. ***Obsidian Hydration and Sourcing:*** Any recovered obsidian artifacts will be submitted to a specialist to determine the source of the lithic material. The obsidian shall also be analyzed to produce hydration readings, which may then be used to provide relative dates for the use of the artifacts.

10.4 Curation

The cultural materials recovered from the mitigation program shall be permanently curated at a San Diego facility that meets federal standards per 36 CFR Part 79, such as the SDAC. Artifacts shall be professionally curated and made available to other

archaeologists/researchers for further study. A list of the curated artifacts will be included as an appendix in the report.

10.5 Native American Consultation

Local Native American representatives shall be contacted and included as part of the mitigation program. Native American monitoring shall be required during the archaeological excavations. As part of the data recovery mitigation program, a pre-excavation agreement may be made with the local Kumeyaay Native American tribes. This agreement will describe the procedures to be invoked in the event that any human remains are encountered or items of sacred or religious significance are discovered.

10.5.1 Provisions for the Discovery of Human Remains

The possibility exists that human remains may be discovered during the data recovery programs, although no human bone material was identified during the testing program. In the event that human burials are encountered, standard procedures for such discoveries will be implemented, including notification of the San Diego County Coroner's Office, the County of San Diego, the NAHC in Sacramento, and Kumeyaay Native American representatives. Fieldwork will be discontinued in the area of any such discovery. The Native American representative and the County of San Diego will be consulted to determine a preferred course of action, and the burial will be treated accordingly.

11.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

The ***Project*** was directed by Consulting Archaeologist and Principal Investigator Brian F. Smith. Field archaeologists Anthony Cortez, Kyle Coulter, Charles Dickerson, and Clarence Hoff conducted test excavations. Tracy Buday provided artifact identifications and completed the artifact catalog. Brian Smith, Jennifer Kraft, and Claire Allen conducted historic research. Brian Smith and Jennifer Kraft prepared this technical report of findings. Tracy Stropes prepared the report graphics and Elena Buckley conducted technical editing and report production. Dennis Linton, Jr., a Kumeyaay Native American representative with Red Tail Monitoring & Research, Inc., was present for all fieldwork conducted. The County of San Diego provided the resource assessment and reporting guidelines for this project.

12.0 LIST OF MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Resource	Mitigation Measures	Design Considerations
SDI-5220	Data Recovery, trenching monitoring, and screening of all soil within the APE by a Kumeyaay Native American and qualified archaeologist, scientific analysis of all recovered materials in a technical report, and curation of all artifacts.	Hand excavation of all soil within the APE to limit impacts caused by trenching of the drainage alignment.
SDI-8125H	Data Recovery, trenching monitoring, and screening of all soil within the APE by a Kumeyaay Native American and qualified archaeologist, scientific analysis of all recovered materials in a technical report, and curation of all artifacts.	Hand excavation of all soil within the APE to limit impacts caused by trenching of the drainage alignment.

13.0 REFERENCES

Adams, Jenny L.
2002 *Ground Stone Analysis: A Technological Approach*. University of Utah Press, Salt Lake City, Utah.

Antevs, Ernst
1938 Climatic History and the Antiquity of Man in California. Berkeley: *University of California Archaeological Survey Reports* 16:23-31.

Axelrod, D.I.
1967 Geologic History of the California Insular Flora. In *Proceedings of the Symposium on the Biology of the California Islands*, edited by R.N. Phillbrick, pp. 267-315. Santa Barbara Garden, Santa Barbara, California.

Bancroft, Hubert Howe
1886 *History of California*. Vols. I and II. The History Company, San Francisco.

Bean, Lowell John and Florence C. Shipek
1978 Luiseño. In *Handbook of North American Indians*, Vol. 8. California, edited by Robert F. Heizer. Smithsonian Institution, Washington, D.C.

Beauchamp, R. Mitchel
1986 *A Flora of San Diego County, California*. Sweetwater River Press, National City, California.

Bedwell, S.F.
1970 Prehistory and Environment of the Pluvial Fork Rock Lake Area of South-Central Oregon. Unpublished Ph.D. dissertation on file at the Department of Anthropology at the University of Oregon, Eugene.

Berryman, Judy A. and Stanley R. Berryman
1988 *Archaeological Salvage Report for W-240: The Scraper Hill Site, Escondido, California.* Report on file at Brian F. Smith and Associates, Poway, California.

Binford, Lewis R.
1980 Willow Smoke and Dog's Tails: Hunter-Gatherer Settlement Systems and Archaeological Site Formation. *American Antiquity* 45 (1).

Bingham, J.C.
1978 *Archaeological Test Excavations within Border Field State Park, San Diego County. Department of Parks and Recreation.* California Archaeological Reports 16.

Blick, J.D.
1976 *Agriculture in San Diego County.* In *San Diego – An Introduction to the Area*. Edited by Philip Pryde. Kendall/Hunt Publishing Company, Dubuque, Iowa.

Breschini, G.S., T. Haversat, and J. Erlandson
1990 *California Radiocarbon Dates*. Coyote Press. Salinas, California.

Bull, Charles S.
1987 *A New Proposal: Some Suggestions for San Diego Prehistory. San Dieguito-La Jolla: Chronology and Controversy*, edited by Dennis Gallegos. San Diego County Archaeological Society Research Paper No. 1.

Buysse, Johnna L. and Brian F. Smith
2003 Results of an Archaeological Data Recovery Program at Site CA-SDI-5326, Westview High School, Poway Unified School District, City of San Diego (LDR #99-0551). On file, South Coastal Information Center, San Diego State University, San Diego, California.

Byrd, Brian F. and Seetha N. Reddy
2002 Late Holocene Adaptations along the Northern San Diego Coast: New Perspectives on Old Paradigms. In: *Catalysts to Complexity: Late Holocene Societies on the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 40-62. Perspectives in California Archaeology 6. University of California, Los Angeles

Byrd, Brian F. and Carol Serr
1993 *Multi-Component Archaic and Late Prehistoric Residential Camps Along the Sweetwater River, Rancho San Diego, California*. Anthropological Technical Series No. 1. Brian F. Mooney Associates, San Diego, California.

Campbell, E.W.C.
1949 Two Ancient Archaeological Sites in the Great Basin. *Science* 109:340.

Campbell, E.W.C., W.H. Campbell, Ernst Antevs, C.E. Amsden, J.A. Barbieri, and F.D. Bode
1937 *The Archaeology of Pleistocene Lake Mojave*. Los Angeles: Southwest Museum Papers 11.

Carbone, Larry A.
1984 Environmental Change and Cultural Transition in the Early Prehistory of South-Coastal California. Unpublished Master's thesis, Simon Fraser University.

Cardenas, D. Sean
1986 Avocado Highlands: An Inland Late La Jolla and Preceramic Yuman Site from Southern San Diego County. In *Cultural Resource Management Casual Paper* 2(2). Department of Anthropology, San Diego State University, San Diego, California.

Cardenas, D.S. and Mary Robbins-Wade
1985 An Archaeological Investigation of SDM-W-143/146: An Unique Coastal Luiseño Occupation Site in Carlsbad, California. On file at the South Coastal Information Center, San Diego State University, California.

Cardenas, D. Sean and Stephen R. Van Wormer
1984 Archaeological Investigations of SDI-4648 and SDM-W-348. On file, South Coastal Information Center, San Diego State University, San Diego, California.

Carrico, Richard L.
1986 Before the Strangers: American Indians in San Diego at the Dawn of Contact. *The Impact of European Exploration and Settlement on Local Native Americans*. Cabrillo Historical Association, Cabrillo.

Carrico, Richard L. and Carolyn Kyle
1987 *Archaeological Investigation at Westwood Valley, San Diego, California.* On file, South Coastal Information Center, San Diego State University, San Diego, California.

Carrico, Richard L. and Clifford V.F. Taylor
1983 *Excavation of a Portion of Ystagua: A Coastal Valley Ipai Settlement*. Environmental Impact Report on file at the City of San Diego, Environmental Quality Division.

Carrico, Richard L., Theodore Cooley, and J. Clevenger
1991 *Final Excavation at the Harris Site Complex, San Diego County, California.* Prepared for the County of San Diego by ERCE. Report on file at the South Coastal Information Center.

Carter, G.F.
1957 *Pleistocene Man at San Diego*. The Johns Hopkins Press, Baltimore.

1980 *Earlier Than You Think: A Personal View of Man in America.* College Station. Texas A and M University Press.

Caughey, John W.
1970 *California: A Remarkable State's Life History* (Third Edition). Prentice–Hall, Englewood Cliffs, New Jersey.

Chapman, Charles E.
1921 *A History of California: The Spanish Period*. The Macmillan Company, New York.

Chartkoff, Joseph L. and Kerry Kona Chartkoff
1984 *The Archaeology of California*. Stanford University Press, Stanford, California.

Christenson, Lynne E.

1990 *The Late Prehistoric People of San Diego County, California: Their Settlement and Subsistence System.* Ph.D. Dissertation, Department of Anthropology, Arizona State University. Ann Arbor: University Microfilms.

1992 The Late Prehistoric Yuman Settlement and Subsistence System: Coastal Adaptation. In *Essays on the Prehistory of Maritime California*, edited by Terry Jones. Center for Archaeological Research, Davis, California.

Cooper, Jason

1993 "Architectural and Historical Survey of the Poultry House at the Los Peñasquitos Ranch House: Preliminary Findings from the Fall 1991 Excavation Season." *Proceedings of the Society for California Archaeology, Vol. 6* (1993):159-163. Society for California Archaeology, Chico, California.

Copper, Robert R.

1989 Memorandum of Agreement to Gerald Jamriska, Acting Director, Department of Planning and Land Use, San Diego, California, 28 Mar. 1989.

Corum, J.

1991 *Phase II Archaeological Test Excavation at Site CA-SDi-5445, City of Oceanside, California*. Caltrans District 11, San Diego

County of San Diego

2006 *Draft CEQA Process Guidance for Cultural Resources*. Land Use and Environmental Group. Revised July 27, 2006.

2006 *Guidelines for Determining Significance: Cultural Resources: Archaeological and Historic Resources.* Land Use and Environment Group, Department of Planning and Land Use, Department of Public Works. Approved September 26, 2006; Revised December 5, 2007.

Crouch, Herbert

1915 *Reminiscences, 1868-1915*. Unpublished manuscript, California Room, San Diego Public Library; and SDHS Library, Serra Museum.

Curray, J.R.

1965 Late Quaternary History: Continental Shelves of the United States. *Quaternary of the United States*, edited by H.E. Wright Jr. and D.G. Frey, pp. 723-735. Princeton University Press.

Davis, E.L.

1973 People of the Old Stone Age at China Lake. Manuscript. San Diego Great Basin Foundation.

Davis, E.L., C.W. Brott, and D.L. Weide
1969 *The Western Lithic Co-Tradition*. San Diego Museum Papers No. 6. San Diego Museum of Man, San Diego.

Elliott, Wallace W.
1883 *History of San Bernardino and San Diego Counties* (1965 Edition). Riverside Museum Press, Riverside, California.

Engelhardt, Zephyrin
1920 *San Diego Mission*. James M. Barry Company, San Francisco.

Erickson, E., J. Henry, H. Koerper, C. Drover, and P. Langenwalter
1989 Advances in Obsidian Hydration Dating and Obsidian Exchange in Prehistoric Orange County. *Pacific Coast Archaeological Society Qu*arterly 25(2):45-60.

Erlandson, J. and R. Colten
1991 *An Archaeological Context for Archaeological Sites on the California Coast.* Hunter-Gatherers of the Early Holocene Coastal California, edited by J. Erlandson and R. Colten, pp.1-10. Perspectives in California Archaeology, Volume I, Jeanne Arnold, series editor. Institute of Archaeology, UCLA.

Ezell, P.
1977 New Information on San Dieguito III Technology. *Journal of California Anthropology* 4(2):306-308.

1987 *The Harris Site – An Atypical San Dieguito Site or Am I beating a Dead Horse. San Dieguito-La Jolla: Chronology and Controversy*, edited by D. Gallegos. San Diego County Archaeological Society, Research Paper, No. 1.

Fagan, B.
1991 *Ancient North America: The Archaeology of a Continent*. Thames and Hudson. London.

Fenenga, G.L.
1984 *A Typological Analysis of the Temporal and Geographic Distribution of the Eccentric Crescent in Western North America*. MS in possession of author.

Forstadt, Michael S., Tirzo Gonzalez, Jerry W. Forstadt, and Stanley R. Berryman
1992 *Archaeological Testing at Black Mountain Ranch San Diego, California.* Report on file at Advanced Sciences, Inc., San Diego.

Gallegos, Dennis
1985 *A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region*. Casual Papers, San Diego State University.

1987 A Review and Synthesis of Environmental and Cultural Material for the Batiquitos Lagoon Region. *San Dieguito – La Jolla Chronology and Controversy*, edited by D. Gallegos, pp. 23-34. San Diego Archaeological Society Research Paper, No. 1, Susan Hector, series editor, San Diego County Archaeological Society, San Diego.

1991 *Antiquity and Adaptation at Agua Hedionda, Carlsbad, California*. *Hunter-Gatherers of Early Holocene Coastal California*, edited by John M. Erlandson and Roger H. Colton. Perspectives in California Archaeology No. 1. Institute of Archaeology, University of California, Los Angeles.

1992 Patterns and Implications of Coastal Settlement in San Diego County: 9000 to 1300 Years Ago. *Essays on the Prehistory of Maritime California*, edited by Terry Jones. Center for Archaeological Research, Davis, California.

2002 Southern California in Transition: Late Holocene Occupation of Southern San Diego County. *Catalysts to Complexity: Late Holocene Societies of the California Coast*, edited by J. Erlandson and T. Jones.

Gallegos, Dennis and Carolyn Kyle

1988 *Five Thousand Years of Maritime Subsistence at Ballast Point Prehistoric Site SDI-48 (W-164) San Diego, California.* Report on file at the South Coastal Information Center, San Diego State University.

Gallegos, Dennis R., Andrew Pigniolo, and Roxana Phillips

1989 A Cultural And Paleontological Inventory Update for the University of California at San Diego and Scripps Institution of Oceanography. On file, South Coastal Information Center, San Diego State University, San Diego, California.

Gallegos, Dennis, Adella Schroth, Carolyn Kyle, and Patricia Mitchell

1998 *Management Plan for Otay Mesa Prehistoric Resources, San Diego, California. Prepared as Part of the Section 106 Study Conducted for State Route 905, 11-SD-905, P.M. 5.7/12.0, 093160.* Gallegos and Associates, Carlsbad. Report submitted to Caltrans District 11, San Diego, and City of San Diego Planning Department. Report on file, South Coastal Information Center, San Diego State University.

Gayton, A.H.

1929 Yokuts and Western Mono Pottery-Making. In *University of California Publications in American Archaeology and Ethnology* 24(3):239-255.

Gifford, Edward W.

1931 *The Kamia of Imperial Valley*. Coyote Press. Salinas, California.

Glennan, W.S.

1971 Concave-Based Lancelote Fluted-Points from California. *Masterkey* 45(1):27-32.

Gordinier, Jerry G.
1966 *Problems of Settlement in the San Diego Foothills*. Unpublished Master's thesis, San Diego State College, San Diego.

Harrison, W.M. and E.S. Harrison
1966 An Archaeological Sequence for the Hunting People of Santa Barbara, California. *University of California, Los Angeles, Archaeological Survey Annual Report, 1965-1966.*

Haury, E.W.
1950 *The Stratigraphy and Archaeology of Ventana Cave, Arizona*. University of Arizona and New Mexico Press. Tucson and Albuquerque.

Hector, Susan M.
1983 *Archaeological Excavation of SDI-5601 (SDM-W-1293), Carlsbad, California*. RECON, San Diego.

Hector, Susan M.
1984 Test Excavations at Los Peñasquitos Ranch House. MS on file, Regional Environmental Consultants (RECON), San Diego.

1991a Memo to Mary Ward, County Historian, County of San Diego, Department of Parks and Recreation, San Diego, California, 2 Aug. 1991.

1991b "Changes in Historic Site Function: The Johnson-Taylor Adobe." *Proceedings of the Society for California Archaeology, Vol. 4* (1991):117-129. Society for California Archaeology, Chico, California.

1993 "Archaeological Research at Los Peñasquitos Ranch Complex: Summary of Studies Focused on Site Chronology and Function." *Proceedings of the Society for California Archaeology, Vol. 6* (1993):129-139. Society for California Archaeology, Chico, California.

Hector, Susan M. and Stephen R. Van Wormer
1986 Broken Fragments of Past Lifeways: Archaeological Excavations at Los Penasquitos Ranch House Resource Area, San Diego. RECON, San Diego.

Heiges, Harvey
1976 The Economic Base of San Diego County. *San Diego – An Introduction to the Region*, edited by Philip Pryde. Kendall/Hunt Publishing Company, Dubuque, Iowa.

Heusser, L.E.
1978 Pollen in Santa Barbara Basin, California: A 12,000-Year Record. *Geological Society American Bulletin 89*:673-678.

Hubbs, C., G. Bien, and H. Seuss
1960 La Jolla Natural Radiocarbon Measurements. *American Journal of Science Radiocarbon Supplement* 2:197-223.

Inman, D.L.
1983 Application of Coastal Dynamics to the Reconstruction of Paleocoastlines in the Vicinity of La Jolla, California. *Quaternary Coastlines and Marine Archaeology*, edited by P.M. Masters and N.C. Fleming, pp. 1-49, Academic Press, New York.

Jennings, J.D.
1957 *Danger Cave*. University of Utah Anthropological Papers 27. Salt Lake City.

Kaldenberg, Russell
1982 *Rancho Park North: A San Dieguito-La Jolla Shellfish Processing Site in Coastal Southern California.* Occasional Paper No. 6. Imperial Valley College Museum Society, El Centro, California.

King, Chester DeWitt
1981 The Evolution of Chumash Society: A Comparative Study of Artifacts used in Social System Maintenance in the Santa Barbara Channel Region Before AD 1804. Unpublished Doctoral dissertation, University of California, Davis.

Koerper, Henry C., Paul E. Langenwalter, and Adella Schroth
1986 *The Agua Hedionda Project Archaeological Investigations at CA-SDI-5353 and CA-SDI-9649.* Report on file at the South Coastal Information Center, San Diego State University.

Kowta, Makoto
1969 The Sayles Complex: A Late Milling Stone Assemblage from Cajon Pass and the Ecological Implications of Its Scraper Planes. *University of California Publications in Anthropology* (6).

Kroeber, A.L.
1925 *Handbook of the Indians of California.* Bureau of American Ethnology Bulletin 78, 1976 Dover Publications edition, Dover Publications, Inc., New York.

Kyle, Carolyn, Adella Schroth, and Dennis Gallegos
1989 *Early Period Occupation at the Kuebler Ranch, Site SDI-8654, Otay Mesa, San Diego County, California*. ERCE, San Diego, California. Manuscript on file at the South Coastal Information Center, San Diego State University.

Kyle, Carolyn, Adella Schroth, and Dennis Gallegos
1990 Early Period Occupation at the Kuebler Ranch, Site SDI-8654, Otay Mesa, San Diego County, California. ERCE, San Diego, California, 6-5.

Larberg, Destiny S.
2008 *Rancho Peñasquitos Archaeological Excavations* [map]. 1 inch=25 meters (scale). San Diego, California: County of San Diego Parks and Recreation.

Laylander, Don (Editor)
1993 *Research Issues in San Diego Archaeology.* San Diego County Archaeological Society, San Diego, California.

2005 *Research Issues in San Diego Archaeology (Updated web version).* San Diego County Archaeological Society, San Diego, California.

Lee, Melicent Humason
1937 *Indians of the Oaks.* San Diego Museum of Man.

Luomala, Katherine
1978 *Tipai-Ipai.* Handbook of North American Indians, Vol. 8: California, edited by R. F. Heizer. Smithsonian Institution, Washington, D.C.

Martin, P.S.
1967 Prehistoric Overkill. *Pleistocene Extinctions: The Search for a Cause*, edited by P. Martin and H. E. Wright. Yale University Press: New Haven.

1973 The Discovery of America. *Science* 179(4077):969-974.

Masters, P.
1983 Detection and Assessment of Prehistoric Artifact Sites off the Coast of Southern California. *Quaternary Coastlines and Marine Archaeology,* edited by P.M. Masters and N.C. Fleming, pp. 1-49, Academic Press, New York.

1988 *Paleo-Environmental Reconstruction of San Diego Bay, 10,000 Years BP to Present. Five Thousand Years of Maritime Subsistence at Ballast Point Prehistoric Site SDI-48 (W-164) San Diego, California*. Edited by D. Gallegos, pp. 4.1-4.22. Manuscript on file, South Coastal Information Center, San Diego State University, San Diego, California.

1994 *Archaeological Investigations at Five Sites on the Lower San Luis Rey River, San Diego County, California,* edited by Michael Moratto, pp. A1-A19. Infotec Research, Fresno, California and Gallegos and Associates, Pacific Palisades California.

Masters, P. and Dennis Gallegos
1997 Environmental Change and Coastal Adaptations in San Diego County during the Middle Holocene. In *Archaeology of the California Coast during the Middle Holocene*, edited by J. Erlandson and M. Glassow, pp. 11-22. Archaeological Institute UCLA, Los Angeles.

Meighan, C.W.
1954 A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10(2).

Michelson, Ralph C.
1967 Pecked Metates of Baja California. *The Masterkey* 41(2).

Miller, J.
1966 *The Present and Past Molluscan Faunas and Environments of Four Southern California Coastal Lagoons*. Master's thesis. University of California, San Diego.

Minshall, H.L.
1976 *The Broken Stones*: *The Case for Early Man in California*. La Jolla Copley Books.

Moratto, Michael J.
1984 *California Archaeology*. Academic Press, New York.

Moriarty, James R., III
1966 Culture Phase Divisions Suggested by Topological Change Coordinated with Stratigraphically Controlled Radiocarbon Dating in San Diego. *Anthropological Journal of Canada* Vol. 4, No. 4.

Moriarty, James R., III, G. Shumway, and C. Warren
1959 *Scripps Estate Site 1 (SDI-525), A Preliminary Report on an Early Site on the San Diego Coast.* University of California Los Angeles Archaeological Survey Annual Report 1958-1959:185-216.

Moss, M.L. and J. Erlandson
1995 Reflections on North American Coast Prehistory. *Journal of World Prehistory* 9(1):1-46.

Moyer, Cecil C.
1969 *Historic Ranchos of San Diego*, edited by Richard F. Pourade. Union-Tribune Publishing Company, San Diego, California.

Norwood, Richard H.
1980 *The Archaeological Resources of Fairbanks Ranch, Rancho Santa Fe, California.* Manuscript on file, South Coastal Information Center, San Diego State University, San Diego, California.

Norwood, Richard H. and C. Walker
1980 *The Cultural Resources of San Dieguito.* Manuscript on file, South Coastal Information Center, San Diego State University, San Diego, California.

Office of Historic Preservation
1991 Guidelines for Archaeological Research Designs. *Preservation Planning Bulletin No. 5*, Sacramento, California.

Palou, Fray Francisco
1926 *Historical Memoirs of New California*. Edited by Herbert Eugene Bolton (4 Volumes). University of California Press, Berkeley.

Pitt, Leonard
1966 *The Decline of the Californias*. University of California Press, Los Angeles.

Pourade, Richard F.
1963 *The Silver Dons: The History of San Diego*. Volume 3. Union-Tribune Publishing Company, San Diego, California.

1967 *The Rising Tide: Southern California in the Twenties and Thirties*. Union-Tribune Publishing Company, San Diego.

Price, Glenn W.
1967 *Origins of the War with Mexico*. University of Texas Press, Austin.

Protsch, R.R.
1978 *Catalog of Fossil Hominids in North America*. Fischer Press. New York.

Quintero, Leslie
1987 Room and Board at Deer Springs. *Faunal Analysis as an Aid to Settlement Studies.* Unpublished Master's thesis. Department of Anthropology. San Diego State University.

Raven-Jennings, Shelly and Brian F. Smith
1999a *Final Report for Site SDI-8330/W-240 'Scraper Hill,' Escondido, California.* Unpublished Report on file at SCIC at SDSU.

1999b *Report of Excavations at CA-SDI-4608: Subsistence and Technology Transitions during the Mid-to-Late Holocene in San Diego County (Scripps Poway Parkway).* Unpublished Report on file at SCIC at SDSU.

Ray, Nancy
1990 "Peñasquitos Long a Favored Spot." *Los Angeles Times*, Los Angeles.

Reddy, Seetha
2000 *Settling the Highlands: Late Holocene Highland Adaptations on Camp Pendleton, San Diego County California*. Prepared for the Army Corps of Engineers by ASM Affiliates. Manuscript on file at South Coastal Information Center.

Robinson, William Wilcox
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. University of California Press, Berkeley.

Robbins-Wade, Mary
1990 *Prehistoric Settlement Pattern of Otay Mesa San Diego County, California*. Unpublished Master's thesis, Department of Anthropology, San Diego State University.

Rogers, Malcolm J.
1929 Archaeological Field Work in North America during 1928, California. *American Anthropologist* 31(3):341.

1939 Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. *San Diego Museum Papers* (No. 3 — 1989 printing). San Diego Museum of Man.

1945 An Outline of Yuman Prehistory. Albuquerque: *Southwestern Journal of Anthropology* 1(2):167—198.

1958 San Dieguito implements from the terraces of the Rincon-Patano and Rillito drainage system. *The Kiva* 24(1):1-23

1966 *Ancient Hunters of the Far West*. Edited with contributions by H.M. Worthington, E.L. Davis, and Clark W. Brott. Union Tribune Publishing Company, San Diego.

Rolle, Andrew F.
1969 *California: A History* (Second Edition). Thomas Y. Crowell Company, New York.

Rosen, Martin D.
1989 Archaeological Test Excavation Report: CA-SDI-9678, a La Jollan Period Campsite in Carmel Valley, San Diego, California. On file, Caltrans District 11, San Diego, California.

San Diego County Archaeological Society (SDCAS)
1987 San Dieguito-La Jolla: Chronology and Controversy. In *Research Paper* (No. 1).

Shipek, Florence
1977 *A Strategy for Change: The Luiseño of Southern California*. Unpublished Ph.D. dissertation on file at the University of Hawaii.

1981 A Native American Adaptation to Drought: The Kumeyaay as Seen in the San Diego Mission Records. *Ethnohistory* 28:295-312.

1986 The Impact of Europeans upon Kumeyaay Culture. In *The Impact of European Exploration and Settlement on Local Native Americans.* San Diego: Cabrillo Historical Association.

Shipley, W.
1978 *Native Languages of California.* In Handbook of North American Indians, Vol. 8: California, pp. 80-90, edited by R. F. Heizer. Washington D.C. Smithsonian Institution.

Shumway, George, Carl L. Hubbs, and James R. Moriarty, III
1961 Scripps Estate Site, San Diego, California: A La Jollan Site Dated 5,460-7,370 Years Before the Present. *Annals of the New York Academy of Sciences* Vol. 93, No. 3.

Smith, Brian F.
1986 *The Excavations at Site SDI-5594/W-1746*. Manuscript on file. Brian F. Smith and Associates, San Diego, California.

1987 *The Excavations at Site CA-SDI-9956/W-3376.* Environmental Impact Report on file at the County of San Diego, Department of Planning and Land Use.

1991 *Results of an Archaeological Survey and the Evaluation of Cultural Resources Within the Rancho San Miguel Subdivision Project*. Report on File at the South Coastal Information Center, San Diego State University, San Diego.

Smith, Brian F. and James R. Moriarty III
1983 *An Archaeological Evaluation of a Drainage Channel Project at the South Sorrento Business Park*. Environmental Impact Report on file at the City of San Diego.

1985a *An Archaeological Reconnaissance of San Diego Motor Racing Park, Otay Mesa, San Diego*. Report on file at the City of San Diego, Environmental Analysis Division.

1985b *The Archaeological Excavations at Site W-20, Sierra Del Mar*. Report on file at the South Coast Information Center.

Smith, Brian F., Michelle Tilley, Larry Pierson, Johnna Buysse, and Shannon Gilbert
2004 *Archaeological Data Recovery of Sites within the Rolling Hills Ranch Development Project, San Diego County.* Report on file at the South Coastal Information Center, San Diego State University.

Smith, G.A., W.C. Schuiling, L. Martin, R. Sayles, and P. Jillson
1957 *The Archaeology of Newberry Cave, San Bernardino County, California.* San Bernardino: San Bernardino County Museum Association.

Spier, Leslie
1923 *Southern Diegueño Customs.* Phoebe A. Hearst Memorial Volume, University of California Press, Berkeley, California.

Spier, Robert F.G.
1978 Foothill Yokuts. In *Handbook of the North American Indians*, Vol. 8, California, edited by Robert F. Heizer, pp. 471-484. Smithsonian Institution, Washington, D.C.

State Historic Preservation Office (SHPO)
1995 *Instructions for Recording Historical Resources*. Office of Historic Preservation, Sacramento.

Taylor, R.E., L.A. Payne, C.A. Prior, P.J. Slotta, R. Gillespie, A.J. Gowlett, R.H. Hedges, A.J. T. Tull, T.H. Zabel, D.J. Donahue, and R. Berger
1985 Major Revisions in the Pleistocene Age Assignment for North American Human Skeletons by C-14 Accelerator Mass Spectrometry; None Older than 11,000 C-14 years B.P. *American Antiquity* 50:136-140.

True, Delbert L.
1958 An Early Complex in San Diego County, California. *American Antiquity* (Vol. 23, No. 3).

1966 Archaeological Differentiation of the Shoshonean and Yuman Speaking Groups in Southern California. Unpublished doctoral dissertation, University of California at Los Angeles.

1970 Investigations of a Late Prehistoric Complex in Cuyamaca Rancho State Park, San Diego County, California. *University of California, Los Angeles Archaeological Survey Monographs* (1).

True, Delbert L. and P. Bouey
1990 Gladishill: A Probable San Dieguito Camp Near Valley Center, California. *Journal of New World Archaeology* 7(4):1-28.

True, Delbert L. and Georgie Waugh
1982 Proposed Settlement Shifts During San Luis Rey Times, Northern San Diego County. *Journal of California and Great Basin Anthropology* 4(1).

True, Delbert L., C.W. Meighan, and Harvey Crew
1974 Archaeological Investigations at Molpa, San Diego County, California. *University of California Publications in Anthropology* (11), Berkeley.

Van Devender, T.R. and W.G. Spaulding
1979 Development of Vegetation and Climate in the Southwestern United States. *Science* 204:701-710.

Van Dyke, Theodore
1886 *Southern California*. Fords, Howard and Hulbert.

Van Wormer, Stephen R. and Susan D. Walter
2007 From the Ashes: Archaeological Investigations at Wing C of the Peñasquitos Ranch House (SDI-8125/H). Walter Enterprises. Submitted to County of San Diego Department of Parks and Recreation Resources Division, San Diego, California.

Wallace, William J.
1955 A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214-230. Albuquerque.

Warren, Claude N.
1966 *The San Dieguito Type Site: M.J. Rogers 1938 Excavation on the San Dieguito River*. San Diego Museum Papers No. 5. San Diego Museum of Man, San Diego.

1964 Cultural Change and Continuity on the San Diego Coast. Doctoral dissertation, University of California, Los Angeles.

1967 The San Dieguito Complex: A Review and Hypothesis. *American Antiquity*, (Vol. 2, No. 2). Salt Lake City, Utah.

1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. *Archaic Prehistory in the Western United States*, edited by C. Irwin-Williams. *Eastern New Mexico Contributions in Anthropology* (Vol. 1, No. 3).

Warren, Claude N. and Delbert L. True
1961 *The San Dieguito Complex and its Place in California Prehistory*. University of California Los Angeles Archaeological Survey Annual Report, pp. 246-338.

Warren, Claude N. and M.G. Pavesic
1963 Shell Midden Analysis of Site SDI-603 and Ecological Implications for Cultural Development of Batiquitos Lagoon, San Diego County, Los Angeles. University of California, Los Angeles, Archaeological Survey Annual Report, 1960-1961:246-338.

Warren, Claude N., D.L. True and Ardith A. Eudey
1961 Early Gathering Complexes of Western San Diego County: Results and Interpretations of an Archaeological Survey. *Archaeological Survey Annual Report 1960-1961*. University of California, Los Angeles.

Waterman, T.T.
1910 *The Religious Practices of the Diegueño Indians.* University of California Publications in American Archaeology and Ethnology Vol. 8, No. 6.

Waugh, Georgie
1986 *Intensification and Land-use: Archaeological Indications of Transition and Transformation in a Late Prehistoric Complex in Southern California.* Doctoral dissertation, University of California, Davis.

WESTEC Services, Inc.
1981 Phase I Archaeological Investigations of the Proposed Westwood Project. Report on file at Ogden Environmental Services, Inc., San Diego.

Yohe, Robert M. II, Margaret E. Newman and Joan S. Schneider
1991 Immunological Identification of Small-Mammal Proteins on Aboriginal Milling Equipment. *American Antiquity* 56(4).

Newspapers:

San Diego Union – February 6, 1868
San Diego Union – January 2, 1872
San Diego Union – April 28, 1869
San Diego Union – November 10, 1870

APPENDIX A

Qualifications of Key Personnel

Brian F. Smith, MA

Owner, Principal Investigator
Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 679-8218 • Fax: (858) 679-9896 • E-Mail: bsmith@bfsa-ca.com

Education

Master of Arts, History, University of San Diego, California 1982

Bachelor of Arts, History and Anthropology, University of San Diego, California 1975

Experience

Principal Investigator 1977–Present

Brian F. Smith and Associates, Inc.

Brian F. Smith is the owner and principal historical and archaeological consultant for Brian F. Smith and Associates. In the past 32 years, he has conducted over 2,500 cultural resource studies in California, Arizona, Nevada, Montana, and Texas. These studies include every possible aspect of archaeology from literature searches and large-scale surveys to intensive data recovery excavations. Reports prepared by Brian Smith have been submitted to all facets of local, state, and federal review agencies, including the US Army Crops of Engineers (USACE), the Bureau of Land Management (BLM), Bureau of Reclamation (BR), the Department of Defense (DOD), and Department of Homeland Security. In addition, Mr. Smith has conducted studies for utility companies (Sempra Energy) and state highway departments (CalTrans).

Professional Accomplishments

These selected major professional accomplishments represent research efforts which have added significantly to the body of knowledge concerning the prehistoric lifeways of cultures once present in the southern California area and historic settlement since the late 18th century. Mr. Smith has been principal investigator on the following select projects, except where noted.

Downtown San Diego Mitigation and Monitoring Reporting Programs: Large number of downtown San Diego mitigation and monitoring projects submitted to the Centre City Development Corporation, some of which included Strata (2008), Hotel Indigo (2008), Lofts at 707 10th Avenue Project (2007), Breeza (2007), Bayside at the Embarcadero (2007), Aria (2007), Icon (2007), Vantage Pointe (2007), Aperture (2007), Sapphire Tower (2007), Lofts at 655 Sixth Avenue (2007), Metrowork (2007), The Legend (2006), The Mark (2006), Smart Corner (2006), Lofts at 677 7th Avenue (2005), Aloft on Cortez Hill (2005), Front and Beech Apartments (2003), Bella Via Condominiums (2003), Acqua Vista Residential Tower (2003), Northblock Lofts (2003), Westin Park Place Hotel (2001), Parkloft Apartment Complex (2001), Renaissance Park (2001), and Laurel Bay Apartments (2001).

Archaeology at the Padres Ballpark: Involved the analysis of historic resources within a seven block area of the "East Village" area of San Diego, where occupation spanned a period from the 1870s to the 1940s. Over a period of two years, BFSA recovered over 200,000 artifacts and hundreds of pounds of metal, construction debris, unidentified broken glass, and wood. Collectively, the Ballpark project and the other downtown mitigation and monitoring projects represent the largest historical archaeological program anywhere in the country in the past decade. 2000-2007.

The Navy Broadway Complex: Architectural and historical assessment of over 25 structures that comprise the Naval Supply Depot, many of which have been in use since World War I and were used extensively during World War II. The EIR/EIS which was prepared included National Register evaluations of all structures. The archaeological component of the project involved the excavation of backhoe trenches to search for evidence of the remains of elements of the historic waterfront features that characterized the bay front in the latter half of the 19th century. This study was successful in locating portions of wharves and shanties that existed on the site prior to capping of this area after construction of the sea wall in the early 20th century.

4S Ranch Archaeological and Historical Cultural Resources Study: Data recovery program consisted of the excavation of over 2,000 square meters of archaeological deposits that produced over one million artifacts, primarily prehistoric materials. The archaeological program at 4S Ranch is the largest archaeological study ever undertaken in the San Diego County area and has produced data that has exceeded expectations regarding the resolution of long-standing research questions and regional prehistoric settlement patterns.

Charles H. Brown Site: Attracted international attention to the discovery of evidence of the antiquity of man in North America. Site located in Mission Valley, in the City of San Diego.

Del Mar Man Site: Study of the now famous Early Man Site in Del Mar, California, for the San Diego Science Foundation and the San Diego Museum of Man, under the direction of Dr. Spencer Rogers and Dr. James R. Moriarty.

Old Town State Park Projects: Consulting Historical Archaeologist. Projects completed in the Old Town State Park involved development of individual lots for commercial enterprises. The projects completed in Old Town include Archaeological and Historical Site Assessment for the Great Wall Cafe (1992), Archaeological Study for the Old Town Commercial Project (1991), and Cultural Resources Site Survey at the Old San Diego Inn (1988).

Site W-20, Del Mar, California: A two-year-long investigation of a major prehistoric site in the Del Mar area of the City of San Diego. This research effort documented the earliest practice of religious/ceremonial activities in San Diego County (circa 6,000 years ago), facilitated the projection of major non-material aspects of the La Jolla Complex, and revealed the pattern of civilization at this site over a continuous period of 5,000 years. The report for the investigation included over 600 pages, with nearly 500,000 words of text, illustrations, maps, and photographs which document this major study.

City of San Diego Reclaimed Water Distribution System: A cultural resource study of nearly 400 miles of pipeline in the City and County of San Diego.

Master Environmental Assessment Project, City of Poway: Conducted for the City of Poway to produce a complete inventory of all recorded historic and prehistoric properties within the City. The information was used in conjunction with the City's General Plan Update to produce a map matrix of the City showing areas of high, moderate, and low potential for the presence of cultural resources. The effort also included the development of the City's Cultural Resource Guidelines, which were adopted as City policy.

Draft of the City of Carlsbad Historical and Archaeological Guidelines: Contracted by the City of Carlsbad to produce the draft of the City's historical and archaeological guidelines for use by the Planning Department of the City.

The Midbayfront Project for the City of Chula Vista: Involved a large expanse of undeveloped agricultural land situated between the railroad and San Diego Bay in the northwestern portion of the City. The study included the analysis of some potentially historic features and numerous prehistoric sites.

Cultural resources survey and test of sites within the proposed development of the Audie Murphy Ranch, Riverside County, California: Project Manager/Director of the investigation of 1,113.4 acres and 43 sites, both prehistoric and historic—included project coordination; direction of field crews; evaluation of sites for significance based on County of Riverside and CEQA guidelines; assessment of cupule, pictograph, and rock shelter sites, co-authoring of cultural resources project report. February-September 2002.

Cultural resources evaluation of sites within the proposed development of the Otay Ranch Village 13 Project, San Diego County, California: Project Manager/Director of the investigation of 1,947 acres and 76 sites, both prehistoric and historic—included project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of San Diego and CEQA guidelines; co-authoring of cultural resources project report. May-November 2002.

Cultural resources survey for the Remote Video Surveillance Project, El Centro Sector, Imperial County: Project Manager/Director for a survey of 29 individual sites near the U.S./Mexico Border for proposed video surveillance camera locations associated with the San Diego Border barrier Project—project coordination and budgeting; direction of field crews; site identification and recordation; assessment of potential impacts to cultural resources; meeting and coordinating with U.S. Army Corps of Engineers, U.S. Border Patrol, and other government agencies involved; co-authoring of cultural resources project report. January, February, and July 2002.

Cultural resources survey and test of sites within the proposed development of the Menifee West GPA, Riverside County, California: Project Manager/Director of the investigation of nine sites, both prehistoric and historic—included project coordination and budgeting; direction of field crews; assessment of sites for significance based on County of Riverside and CEQA guidelines; historic research; co-authoring of cultural resources project report. January-March 2002.

Mitigation of a Archaic cultural resource for the Eastlake III Woods Project for the City of Chula Vista, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. September 2001-March 2002.

Cultural resources survey and test of sites within the proposed French Valley Specific Plan/EIR, Riverside County, California: Project Manager/Director of the investigation of two prehistoric and three historic sites—included project coordination and budgeting; survey of project area; Native American consultation; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural resources survey and test of sites within the proposed Lawson Valley Project, San Diego County, California: Project Manager/Director of the investigation of 28 prehistoric and two historic sites—included project coordination; direction of field crews; assessment of sites for significance based on CEQA guidelines; cultural resources project report in prep. July-August 2000.

Cultural resource survey and geotechnical monitoring for the Mohyi Residence Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; field survey; assessment of parcel for potentially buried cultural deposits; monitoring of geotechnichal borings; authoring of cultural resources project report. Brian F. Smith and Associates, San Diego, California. June 2000.

Enhanced cultural resource survey and evaluation for the Prewitt/Schmucker/Cavadias Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; direction of field crews; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. June 2000.

Cultural resources survey and test of sites within the proposed development of the Menifee Ranch, Riverside County, California: Project Manager/Director of the investigation of one prehistoric and five historic sites—included project coordination and budgeting; direction of field crews; feature recordation; historic structure assessments; assessment of sites for significance based on CEQA guidelines; historic research; co-authoring of cultural resources project report. February-June 2000.

Salvage mitigation of a portion of the San Diego Presidio identified during water pipe construction for the City of San Diego, California: Project Archaeologist/Director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. April 2000.

Enhanced cultural resource survey and evaluation for the Tyrian 3 Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced cultural resource survey and evaluation for the Lamont 5 Project, Pacific Beach, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. April 2000.

Enhanced cultural resource survey and evaluation for the Reiss Residence Project, La Jolla, California: Project Manager/Director of the investigation of a single-dwelling parcel—included project coordination; assessment of parcel for potentially buried cultural deposits; authoring of cultural resources project report. March-April 2000.

Salvage mitigation of a portion of Site SDM-W-95 (CA-SDI-211) for the Poinsettia Shores Santalina Development Project and Caltrans, Carlsbad, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program; management of artifact collections cataloging and curation; data synthesis and authoring of cultural resources project report in prep. December 1999-January 2000.

Survey and testing of two prehistoric cultural resources for the Airway Truck Parking Project, Otay Mesa, California: Project Archaeologist/Director—included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; authoring of cultural resources project report, in prep. December 1999-January 2000.

Cultural resources Phase I and II investigations for the Tin Can Hill Segment of the Immigration and Naturalization Services Triple Fence Project along the International Border, San Diego County, California: Project Manager/Director for a survey and testing of a prehistoric quarry site along the border—NRHP eligibility assessment; project coordination and budgeting; direction of field crews; feature recordation; meeting and coordinating with U.S. Army Corps of Engineers; co-authoring of cultural resources project report. December 1999-January 2000.

Mitigation of a prehistoric cultural resource for the Westview High School Project for the City of San Diego, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program including collection of material for specialized faunal and botanical analyses; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; co-authoring of cultural resources project report, in prep. October 1999-January 2000.

Mitigation of a prehistoric cultural resource for the Otay Ranch SPA-One West Project for the City of Chula Vista, California: Project Archaeologist/Director—included direction of field crews; development of data recovery program; management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report, in prep. September 1999-January 2000.

Monitoring of grading for the Herschel Place Project, La Jolla, California: Project Archaeologist/ Monitor—included monitoring of grading activities associated with the development of a single-dwelling parcel. September 1999.

Survey and testing of an historic resource for the Osterkamp Development Project, Valley Center, California: Project Archaeologist/ Director—included direction of field crews; development and completion of data recovery program; budget development; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and testing of a prehistoric cultural resource for the Proposed College Boulevard Alignment Project, Carlsbad, California: Project Manager/Director —included direction of field crews; development and completion of testing recovery program; assessment of site for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report, in prep. July-August 1999.

Survey and evaluation of cultural resources for the Palomar Christian Conference Center Project, Palomar Mountain, California: Project Archaeologist—included direction of field crews; assessment of sites for significance based on CEQA guidelines; management of artifact collections cataloging and curation; data synthesis; authoring of cultural resources project report. July-August 1999.

Survey and evaluation of cultural resources at the Village 2 High School Site, Otay Ranch, City of Chula Vista, California: Project Manager/Director —management of artifact collections cataloging and curation; assessment of site for significance based on CEQA guidelines; data synthesis; authoring of cultural resources project report. July 1999.

Cultural resources Phase I, II, and III investigations for the Immigration and Naturalization Services Triple Fence Project along the International Border, San Diego County, California: Project Manager/Director for the survey, testing, and mitigation of sites along border—supervision of multiple field crews, NRHP eligibility assessments, Native American consultation, contribution to Environmental Assessment document, lithic and marine shell analysis, authoring of cultural resources project report. August 1997-January 2000.

Phase I, II, and II investigations for the Scripps Poway Parkway East Project, Poway California: Project Archaeologist/Project Director—included recordation and assessment of multicomponent prehistoric and historic sites; direction of Phase II and III investigations; direction of laboratory analyses including prehistoric and historic collections; curation of collections; data synthesis; coauthorship of final cultural resources report. February 1994; March-September 1994; September-December 1995.

Archaeological evaluation of cultural resources within the proposed corridor for the San Elijo Water Reclamation System Project, San Elijo, California: Project Manager/Director —test excavations; direction of artifact identification and analysis; graphics production; coauthorship of final cultural resources report. December 1994-July 1995.

Evaluation of Cultural Resources for the Environmental Impact Report for the Rose Canyon Trunk Sewer Project, San Diego, California: Project Manager/Director —direction of test excavations; identification and analysis of prehistoric and historic artifact collections; data synthesis; co-authorship of final cultural resources report, San Diego, California. June 1991-March 1992.

Reports/Papers

Author, coauthor, or contributor, to over 2,500 cultural resources management publications, a selection of which are presented below.

2012 A Phase I Cultural Resource Study for the Payan Property Project, San Diego, CA

2012 Phase I Archaeological Survey of the Rieger Residence, 13707 Durango Drive, Del Mar, California 92014, APN 300-369-49

2011 Mission Ranch Project (TM 5290-1/MUP P87-036W3): Results of Cultural Resources Monitoring During Mass Grading / January 30, 2012 / Brian Smith

2011 Mitigation Monitoring Report for the 1887 Viking Way Project, La Jolla, California

2011 Cultural Resource Monitoring Report for the Sewer Group 714 Project

2011 Results of archaeological monitoring at the 10th Avenue Parking Lot Project, City of San Diego, California (APNs 534-194-02 and 03), August 12, 2011, Brian F. Smith

2011 Archaeological Survey of the Pelberg Residence for a Bulletin 560 Permit Application; 8335 Camino Del Oro; La Jolla, California 92037 APN 346-162-01-00 / November 9, 2011 / Brian F. Smith

2011 A Cultural Resources Survey Update and Evaluation for the Robertson Ranch West Project and an Evaluation of National Register Eligiblity of Archaeologoical sites for Sites for Section 106Review (NHPA) / 10/10/11 / Brian F. Smith & Clarence Hoff

2011 Mitigation Monitoring Report for the 43rd and Logan Project; June 7, 2012; Tracy A. Stropes and Brian F. Smith

2011 Mitigation Monitoring Report for the Sewer Group 682 M Project, City of San Diego Project #174116

2011 A Phase I Cultural Resource Study for the Nooren Residence Project, 8001 Calle de la Plata, La Jolla, California, Project No. 226965

2011 A Phase I Cultural Resource Study for the Keating Residence Project, 9633 La Jolla Farms Road, La Jolla, CA 92037

2010 Mitigation Monitoring Report for the 15th & Island Project, City of San Diego; APNs 535-365-01, 535-365-02 and 535-392-05 through 535-392-07

2010 Archaeological Resource Report Form: Mitigation Monitoring of the Sewer and Water Group 772 Project, San Diego, California, W.O. Nos. 187861 and 178351

2010 Pottery Canyon Site Archaeological Evaluation Project, City of San Diego, California, Contract No. H105126

2010 Archaeological Resource Report Form: Mitigation Monitoring of the Racetrack View Drive Project, San Diego, California; Project No. 163216; Larry J. Pierson; October 22, 2010

2010 A Historical Evaluation of Structures on the Butterfield Trails Property

2010 Historic Archaeological Significance Evaluation of 1761 Haydn Drive, Encinitas, California (APN 260-276-07-00)

2010 Results of Archaeological monitoring of the Heller/Nguyen Project, TPM 06-01, Poway, CA

2010 Cultural Resource Survey and Evaluation Program for the Sunday Drive Parcel Project, San Diego County, California, APN 189-281-14

2010 Archaeological Resource Report Form: Mitigation Monitoring of the Emergency Garnet Avenue Storm Drain Replacement Project, San Diego, California, Project No. B10062

2010 An Archaeological Study for the 1912 Spindrift Drive Project

2009 Cultural Resource Assessment of the North Ocean Beach Gateway Project City of San Diego #64A-003A; Project #154116.

2009 Archaeological constraints study of the Morgan Valley Wind Assessment Project, Lake County, California.

2008 Results of an archaeological review of the Helen Park Lane 3.1-acre Property (APN 314-561-31), Poway, California.

2008 Archaeological Letter Report for a Phase I Archaeological Assessment of the Valley Park Condominium Project, Ramona, California; APN 282-262-75-00.

2007 Archaeology at the Ballpark. Brian F. Smith and Associates, San Diego, California. Submitted to the Centre City Development Corporation.

2007 Result of an Archaeological Survey for the Villages at Promenade Project (APNs 115-180-007-3,115-180-049-1, 115-180-042-4, 115-180-047-9) in te City of Corona, Riverside County.

2007 Monitoring Results for the Capping of Site CA-SDI-6038/SDM-W-5517 within the Katzer Jamul Center Project; P00-017.

2006 Archaeological Assessment for The Johnson Project (APN 322-011-10), Poway, California.

2005 Results of archaeological monitoring at the El Camino Del Teatro Accelerated Sewer Replacement Project (Bid No. K041364; WO # 177741; CIP # 46-610.6.

2005 Results of archaeological monitoring at the Baltazar Draper Avenue Project (Project No. 15857; APN: 351-040-09).

2004 TM 5325 ER #03-14-043 Cultural Resources.

2004 An Archaeological Survey and an Evaluation of Cultural Resources at the Salt Creek Project. Report on file at Brian F. Smith and Associates.

2003 An Archaeological Assessment for the Hidden Meadows Project, San Diego County, TM 5174, Log No. 99-08-033. Report on file at Brian F. Smith and Associates.

2003 An Archaeological Survey for the Manchester Estates Project, Coastal Development Permit #02-009, Encinitas, California. Report on file at Brian F. Smith and Associates.

2003 Archaeological Investigations at the Manchester Estates Project, Coastal Development Permit #02-009, Encinitas, California. Report on file at Brian F. Smith and Associates.

2003 Archaeological Monitoring of Geological Testing Cores at the Pacific Beach Christian Church Project. Report on file at Brian F. Smith and Associates.

2003 San Juan Creek Drilling Archaeological Monitoring. Report on file at Brian F. Smith and Associates.

2003 Evaluation of Archaeological Resources Within the Spring Canyon Biological Mitigation Area, Otay Mesa, San Diego County, California. Brian F. Smith and Associates, San Diego, California.

2002 An Archaeological/Historical Study for the Otay Ranch Village 13 Project (et al.). Brian F. Smith and Associates, San Diego, California.

2002 An Archaeological/Historical Study for the Audie Murphy Ranch Project (et al.). Brian F. Smith and Associates, San Diego, California.

2002 Results of an Archaeological Survey for the Remote Video Surveillance Project, El Centro Sector, Imperial County, California . Brian F. Smith and Associates, San Diego, California.

2002 A Cultural Resources Survey and Evaluation for the Proposed Robertson Ranch Project, City of Carlsbad . Brian F. Smith and Associates, San Diego, California.

2002 Archaeological Mitigation of Impacts to Prehistoric Site SDI-7976 for the Eastlake III Woods Project, Chula Vista, California . Brian F. Smith and Associates, San Diego, California.

2002 An Archaeological/Historical Study for Tract No. 29777, Menifee West GPA Project, Perris Valley, Riverside County. Brian F. Smith and Associates, San Diego, California.

2002 An Archaeological/Historical Study for Tract No. 29835, Menifee West GPA Project, Perris Valley, Riverside County. Brian F. Smith and Associates, San Diego, California.

2001 An Archaeological Survey and Evaluation of a Cultural Resource for the Moore Property, Poway. Brian F. Smith and Associates, San Diego, California.

2001 An Archaeological Report for the Mitigation, Monitoring, and Reporting Program at the Water and Sewer Group Job 530A, Old Town San Diego. Brian F. Smith and Associates, San Diego, California.

2001 A Cultural Resources Impact Survey for the High Desert Water District Recharge Site 6 Project, Yucca Valley. Brian F. Smith and Associates, San Diego, California.

2001 Archaeological Mitigation of Impacts to Prehistoric Site SDI-13,864 at the Otay Ranch SPA-One West Project. Brian F. Smith and Associates, San Diego, California.

2001 A Cultural Resources Survey and Site Evaluations at the Stewart Subdivision Project, Moreno Valley, County of San Diego. Brian F. Smith and Associates, San Diego, California.

2000 An Archaeological/Historical Study for the French Valley Specific Plan/EIR, French Valley, County of Riverside. Brian F. Smith and Associates, San Diego, California.

2000 Results of an Archaeological Survey and the Evaluation of Cultural Resources at The TPM#24003–Lawson Valley Project. Brian F. Smith and Associates, San Diego, California.

2000 Archaeological Mitigation of Impacts to Prehistoric Site SDI-5326 at the Westview High School Project for the Poway Unified School District. Brian F. Smith and Associates, San Diego, California.

2000 An Archaeological/Historical Study for the Menifee Ranch Project. Brian F. Smith and Associates, San Diego, California.

2000 An Archaeological Survey and Evaluation of Cultural Resources for the Bernardo Mountain Project, Escondido, California. Brian F. Smith and Associates, San Diego, California.

2000 A Cultural Resources Impact Survey for the Nextel Black Mountain Road Project, San Diego, California. Brian F. Smith and Associates, San Diego, California.

2000 A Cultural Resources Impact Survey for the Rancho Vista Project, 740 Hilltop Drive, Chula Vista, California. Brian F. Smith and Associates, San Diego, California.

2000 A Cultural Resources Impact Survey for the Poway Creek Project, Poway, California. Brian F. Smith and Associates, San Diego, California.

2000 Cultural Resource Survey and Geotechnical Monitoring for the Mohyi Residence Project. Brian F. Smith and Associates, San Diego, California.

2000 Enhanced Cultural Resource Survey and Evaluation for the Prewitt/Schmucker/ Cavadias Project. Brian F. Smith and Associates, San Diego, California.

2000 Enhanced Cultural Resource Survey and Evaluation for the Lamont 5 Project. Brian F. Smith and Associates, San Diego, California.

2000 Salvage Excavations at Site SDM-W-95 (CA-SDI-211) for the Poinsettia Shores Santalina Development Project, Carlsbad, California. Brian F. Smith and Associates, San Diego, California.

2000 Enhanced Cultural Resource Survey and Evaluation for the Reiss Residence Project, La Jolla, California. Brian F. Smith and Associates, San Diego, California.

2000 Enhanced Cultural Resource Survey and Evaluation for the Tyrian 3 Project, La Jolla, California. Brian F. Smith and Associates, San Diego, California.

2000 A Report for an Archaeological Evaluation of Cultural Resources at the Otay Ranch Village Two SPA, Chula Vista, California. Brian F. Smith and Associates, San Diego, California.

2000 An Archaeological Evaluation of Cultural Resources for the Airway Truck Parking Project, Otay Mesa, County of San Diego. Brian F. Smith and Associates, San Diego, California.

2000 Results of an Archaeological Survey and Evaluation of a Resource for the Tin Can Hill Segment of the Immigration and Naturalization and Immigration Service Border Road, Fence, and Lighting Project, San Diego County, California. Brian F. Smith and Associates, San Diego, California.

1999 An Archaeological Survey of the Home Creek Village Project, 4600 Block of Home Avenue, San Diego, California. Brian F. Smith and Associates, San Diego, California.

1999 An Archaeological Survey for the Sgobassi Lot Split, San Diego County, California. Brian F. Smith and Associates, San Diego, California.

1999 An Evaluation of Cultural Resources at the Otay Ranch Village 11 Project . Brian F. Smith and Associates, San Diego, California.

1999 An Archaeological/Historical Survey and Evaluation of a Cultural Resource for The Osterkamp Development Project, Valley Center, California. Brian F. Smith and Associates, San Diego, California.

1999 An Archaeological Survey and Evaluation of Cultural Resources for the Palomar Christian Conference Center Project, Palomar Mountain, California . Brian F. Smith and Associates, San Diego, California.

1999 An Archaeological Survey and Evaluation of a Cultural Resource for the Proposed College Boulevard Alignment Project . Brian F. Smith and Associates, San Diego, California.

1999 Results of an Archaeological Evaluation for the Anthony's Pizza Acquisition Project in Ocean Beach, City of San Diego (with L. Pierson and B. Smith). Brian F. Smith and Associates, San Diego, California.

1996 An Archaeological Testing Program for the Scripps Poway Parkway East Project . Brian F. Smith and Associates, San Diego, California.

1995 Results of a Cultural Resources Study for the 4S Ranch . Brian F. Smith and Associates, San Diego, California.

1995 Results of an Archaeological Evaluation of Cultural Resources Within the Proposed Corridor for the San Elijo Water Reclamation System . Brian F. Smith and Associates, San Diego, California.

1994 Results of the Cultural Resources Mitigation Programs at Sites SDI-11,044/H and SDI-12,038 at the Salt Creek Ranch Project . Brian F. Smith and Associates, San Diego, California.

1993 Results of an Archaeological Survey and Evaluation of Cultural Resources at the Stallion Oaks Ranch Project . Brian F. Smith and Associates, San Diego, California.

1992 Results of an Archaeological Survey and the Evaluation of Cultural Resources at the Ely Lot Split Project . Brian F. Smith and Associates, San Diego, California.

1991 The Results of an Archaeological Study for the Walton Development Group Project . Brian F. Smith and Associates, San Diego, California.

Professional Memberships

Society for California Archaeology

Jennifer R. Kraft, BA

Field Services Manager, Faunal Analyst
Brian F. Smith and Associates, Inc.
14010 Poway Road • Suite A •
Phone: (858) 484-0915 • Fax: (858) 679-9896 • E-Mail: jenni.kraft@gmail.com

Education

Bachelor of Arts, Anthropology, University of California, Santa Cruz **2004**

Experience

Field Services Manager, Faunal Analyst **November 2006–Present**
Brian F. Smith and Associates, Inc.

Duties include report writing, editing and production; construction monitoring management; coordination of field survey and excavation crews; laboratory and office management; faunal, prehistoric and historic laboratory analysis for over 400 projects over the past 6 years. Knowledge of recent archaeological and paleontological monitoring requirements for all Southern California lead agencies, as well as Native American monitoring requirements.

UC Santa Cruz Monterey Bay Archaeology Archives Supervisor **December 2003–March 2004**
Santa Cruz, California

Supervising intern for archaeological collections. Duties included volunteer management and general curation management for archaeological materials from the greater Monterey Bay region.

Faunal Analyst, Research Assistant **June 2003–December 2003**
University of California, Santa Cruz

Intern assisting in laboratory analysis and cataloging for faunal remains collected from CA-MNT-234. Analysis included detailed zoological identification and taphonomic analysis of prehistoric marine and terrestrial mammals, birds, and fish inhabiting the greater Monterey Bay region.

Archaeological Technician, Office Manager **January 2000-December 2001**
Archaeological Resource Management

Duties included construction monitoring, field survey, excavation, report editing, report production, and office management.

Reports

Co-Author

2012 "Cultural Resources Monitoring Report for the Pottery Court Project (TPM 36193), City of Lake Elsinore, Riverside County, California.' Prepared for BRIDGE Housing Corporation. Report on file at the California Eastern Information Center.

2011 "Mitigation Monitoring Report for the 15th & Island Project, City of San Diego, California." Prepared for Oliver McMillan. Report on file at the California South Coastal Information Center.

2011 "A Phase I Cultural Resource Study for the Wesley Palms Retirement Community Project, San Diego, California." Prepared for Front Porch Development Company. Report on file at the California South Coastal Information Center.

2011 "A Cultural Resource Monitoring Report for the Alvarado Apartments Project, San Diego, California." Prepared for The Dinerstein Companies. Report on file at the California South Coastal Information Center.

Contributing Author /Analyst

2011 Faunal Analysis and Report Section for "A Cultural Resource Data Recovery Program for SDI-4606 Locus B for St. Gabriel's Catholic Church, Poway, California." Prepared for St. Gabriel's Catholic Church. Report on file at the California South Coastal Information Center.

2010 Faunal Analysis and Report Section for "An Archaeological Study for the 1912 Spindrift Drive Project, La Jolla, California." Prepared for Island Architects. Report on file at the California South Coastal Information Center.

2010 Faunal Analysis and Report Sections for "Results of a Cultural Mitigation and Monitoring Program for Robertson Ranch: Archaic and Late Prehistoric Camps near the Aqua Hedionda Lagoon." Prepared for McMillan Land Development. Report on file at the California South Coastal Information Center.

2009 Faunal Identification for "An Earlier Extirpation of Fur Seals in the Monterey Bay Region: Recent Findings and Social Implications." *Proceedings of the Society for California Archaeology, Vol. 21, 2009*

APPENDIX B

Archaeological Records Search Results

(Deleted for Public Review; Bound Separately)

APPENDIX C

NAHC Sacred Lands File Search Results

Brian F. Smith and Associates, Inc.
Archaeology / Biology / History / Paleontology / Air Quality / Traffic / Acoustics

November 15, 2011

For: Mr. Dave Singleton, Program Analyst
Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, California 95814

From: Tracy A Stropes, M.A., RPA
Brian F. Smith and Associates
14010 Poway Rd. Suite A
Poway, CA 92064

Re: Request for a Sacred Lands File records search for The Los Penasquitos Recycled Water Pipeline Project, County of San Diego, California.

I am writing to request a record search of the Sacred Lands File and a list of appropriate Native American contacts for the The Los Penasquitos Recycled Water Pipeline Project:. The linear project begins at the corner of Black Mountain Road and Canyonside Park Road terminating near the intersection of Camino Ruiz and Park Village Road. Specifically, the property is located at Township 14 South, Range 3 West (projected) within an unsectioned portion of the USGS Del Mar 7.5' topographic quadrangle. A copy of the project map, with the project location has been attached for your records.

Sincerely,

Tracy A. Stropes, M.A., RPA
Senior Project Archaeologist
Phone: 858-484-0915
Email: tstropes@bfsa-ca.com

Attachments:
USGS 7.5 minute *Del Mar,* California topographic maps with project area delineated.

Sacred Lands File & Native American Contacts List Request
NATIVE AMERICAN HERITAGE COMMISSION

□915 Capitol Mall, RM 364 □Sacramento, CA 95814□(916) 653-4082 □
(916) 657-5390 – Fax□
nahc@pacbell.net

Information Below is Required for a Sacred Lands File Search

Project: The Los Penasquitos Recycled Water Pipeline Project

County: San Diego

USGS Quadrangle Name: La Jolla

Township: 14S Range: 3W

Company/Firm/Agency: Brian F. Smith & Associates

Contact Person: Tracy A. Stropes, RPA

Street Address: 14010 Poway Road, Suite A

City: Poway Zip: 92064

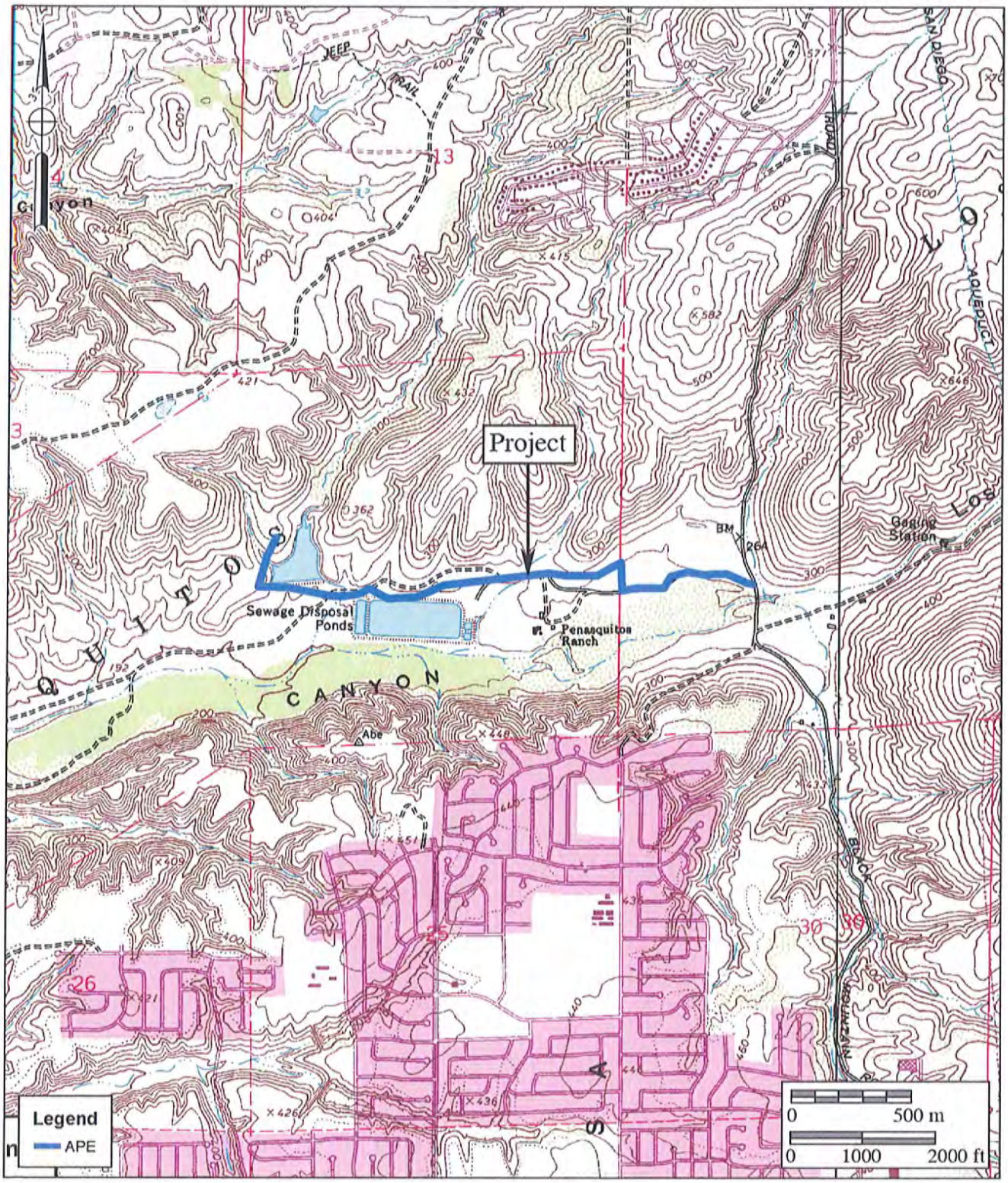
Phone: 858-484-0915

Fax: 858-679-9896

Email: tstropes@bfsa-ca.com

Project Description:

The project consists of the placement of 8,000 feet or recycled water line. The linear project begins at the corner of Black Mountain Road and Canyonside Park Road terminating near the intersection of Camino Ruiz and Park Village Road. Specifically, the property is located at Township 14 South, Range 3 West (projected) within an unsectioned portion of the USGS Del Mar 7.5' topographic quadrangle. A copy of the project map, with the project location has been attached for your records.. .



SLF Search Map

The Los Penasquitos Recycled Water Pipeline Project

USGS Del Mar and Poway Quadrangles (7.5 minute series)

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net

August 30, 2012

Mr. Tracy A. Stropes, M.A., RPA
Brian F. Smith and Associates, Inc.
10410 Poway Road, Suite A
Poway, CA 92064

Sent by FAX to:: 858-679-9896
No. of Pages: 6

Re: Sacred Lands File Search and Native American Contacts list for the proposed Sacred Lands File Search and Native American Contacts list for the proposed **"The Los Peñasquitos Recycled Water Pipeline Projec);"** located in the Black Mountain area; San Diego County, California

Dear Mr. Stropes

The Native American Heritage Commission (NAHC) conducted a Sacred Lands provided and **Native American cultural resources were not identified** within one-half mile of the project site, the 'area of potential effect' (e.g. APE): you specified.. Also, please note; the NAHC Sacred Lands Inventory is not exhaustive and does not preclude the discovery of cultural resources during any project groundbreaking activity..

California Public Resources Code §§5097.94 (a) and 5097.96 authorize the NAHC to establish a Sacred Land Inventory to record Native American sacred sites and burial sites. These records are exempt from the provisions of the California Public Records Act pursuant to. California Government Code §6254 (r). The purpose of this code is to protect such sites from vandalism, theft and destruction.

In the 1985 Appellate Court decision (170 Cal App 3rd 604), the court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources, impacted by proposed projects including archaeological, places of religious significance to Native Americans and burial sites

The California Environmental Quality Act (CEQA – CA Public Resources Code §§ 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ...objects of historic or aesthetic significance." In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. CA Government Code §65040.12(e) defines "environmental justice" provisions and is applicable to the environmental review processes.

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Local Native Americans may have knowledge of the religious and cultural significance of the historic properties of the proposed project for the area (e.g. APE). Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). We urge consultation with those tribes and interested Native Americans on the list that the NAHC has provided in order to see if your proposed project might impact Native American cultural resources. Lead agencies should consider avoidance as defined in §15370 of the CEQA Guidelines when significant cultural resources as defined by the CEQA Guidelines §15064.5 (b)(c)(f) may be affected by a proposed project. If so, Section 15382 of the CEQA Guidelines defines a significant impact on the environment as "substantial," and Section 2183.2 which requires documentation, data recovery of cultural resources.

The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

Partnering with local tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA (42 U.S.C 4321-43351) and Section 106 4(f), Section 110 and (k) of the federal NHPA (16 U.S.C. 470 *et seq*), Section 4(f) of the Department of Transportation Act of 1966 (23 CFR 774); 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq*. and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The NAHC remains concerned about the limitations and methods employed for NHPA Section 106 Consultation.

Also, California Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery', another important reason to have Native American Monitors on board with the project.

To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. An excellent way to reinforce the relationship between a project and local tribes is to employ Native American Monitors in all phases of proposed projects including the planning phases.

Confidentiality of "historic properties of religious and cultural significance" may also be protected under Section 304 of he NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be

advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APE and possibility threatened by proposed project activity.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton

Attachment: Native American Contact List

Native American Contacts
San Diego County
August 30, 2012

Barona Group of the Capitan Grande
Edwin Romero, Chairperson
1095 Barona Road Diegueno
Lakeside , CA 92040
sue@barona-nsn.gov
(619) 443-6612
619-443-0681

Viejas Band of Kumeyaay Indians
Anthony R. Pico, Chairperson
PO Box 908 Diegueno/Kumeyaay
Alpine , CA 91903
jrothauff@viejas-nsn.gov
(619) 445-3810
(619) 445-5337 Fax

La Posta Band of Mission Indians
Gwendolyn Parada, Chairperson
PO Box 1120 Diegueno/Kumeyaay
Boulevard , CA 91905
gparada@lapostacasino.
(619) 478-2113
619-478-2125

Kumeyaay Cultural Historic Committee
Ron Christman
56 Viejas Grade Road Diegueno/Kumeyaay
Alpine , CA 92001
(619) 445-0385

San Pasqual Band of Mission Indians
Allen E. Lawson, Chairperson
PO Box 365 Diegueno
Valley Center, CA 92082
allenl@sanpasqualband.com
(760) 749-3200
(760) 749-3876 Fax

Campo Band of Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 Diegueno/Kumeyaay
Campo , CA 91906
chairgoff@aol.com
(619) 478-9046
(619) 478-5818 Fax

Sycuan Band of the Kumeyaay Nation
Daniel Tucker, Chairperson
5459 Sycuan Road Diegueno/Kumeyaay
El Cajon , CA 92019
ssilva@sycuan-nsn.gov
619 445-2613
619 445-1927 Fax

Jamul Indian Village
Raymond Hunter, Chairperson
P.O. Box 612 Diegueno/Kumeyaay
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785
(619) 669-48178 - Fax

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 applicable for contacting local Native Americans with regard to cultural resources for the proposed The Los Penasquitos Recycled Water Pipeline Project; located near Black Mountain; San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Native American Contacts
San Diego County
August 30, 2012

Mesa Grande Band of Mission Indians
Mark Romero, Chairperson
P.O Box 270 Diegueno
Santa Ysabel, CA 92070
mesagrandeband@msn.com
(760) 782-3818
(760) 782-9092 Fax

San Pasqual Band of Indians
Kristie Orosco, Environmental Coordinator
P.O. Box 365 Luiseno
Valley Center, CA 92082 Diegueno
(760) 749-3200
council@sanpasqualtribe.org
(760) 749-3876 Fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775 Diegueno -
Pine Valley , CA 91962
(619) 709-4207

Ewiiaapaayp Tribal Office
Will Micklin, Executive Director
4054 Willows Road Diegueno/Kumeyaay
Alpine , CA 91901
wmicklin@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Inaja Band of Mission Indians
Rebecca Osuna, Chairman
2005 S. Escondido Blvd. Diegueno
Escondido , CA 92025
(760) 737-7628
(760) 747-8568 Fax

Ipai Nation of Santa Ysabel
Clint Linton, Director of Cultural Resources
P.O. Box 507 Diegueno/Kumeyaay
Santa Ysabel, CA 92070
cjlinton73@aol.com
(760) 803-5694
cjlinton73@aol.com

Kumeyaay Cultural Repatriation Committee
Steve Banegas, Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
sbenegas50@gmail.com
(619) 742-5587
(619) 443-0681 FAX

Manzanita Band of the Kumeyaay Nation
Leroy J. Elliott, Chairperson
P.O. Box 1302 Diegueno/Kumeyaay
Boulevard , CA 91905
ljbirdsinger@aol.com
(619) 766-4930
(619) 766-4957 - FAX

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 applicable for contacting local Native Americans with regard to cultural resources for the proposed The Los Penasquitos Recycled Water Pipeline Project; located near Black Mountain; San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Native American Contacts
San Diego County
August 30, 2012

Kumeyaay Diegueno Land Conservancy
Mr. Kim Bactad, Executive Director
2 Kwaaypaay Court Diegueno/Kumeyaay
El Cajon , CA 91919
guassacl@onebox.com
(619) 445-0238 - FAX
(619) 659-1008 - Office
kimbactad@gmail.com

Inter-Tribal Cultural Resource Protection Council
Frank Brown, Coordinator
240 Brown Road Diegueno/Kumeyaay
Alpine , CA 91901
frankbrown6928@gmail.com
(619) 884-6437

Kumeyaay Cultural Repatriation Committee
Bernice Paipa, Vice Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
(619) 478-2113
(KCRC is a Colation of 12
Kumeyaay Governments

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 applicable for contacting local Native Americans with regard to cultural resources for the proposed The Los Penasquitos Recycled Water Pipeline Project; located near Black Mountain; San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

APPENDIX D

Confidential Maps

(Deleted for Public Review; Bound Separately)

APPENDIX E

Artifact Catalog

The Los Peñasquitos Adobe Drainage Project
Artifact Catalog
CA-SDI-8125/H

ACCESSION	CAT NO	UNIT TYPE	UNIT	LEVEL (cm)	ACTIVITY	ARTIFACT	PORTION	MATERIAL	MOD 1	MOD 2	QUAN	LENGTH	WIDTH	THICK	WEIGHT (g)	Box #	COMMENTS
CA-SDI-8125/H	1	STP	1	0-10		Debitage	com	1 Quartz, 5 Metavolcanic			6				4.9		
CA-SDI-8125/H	2	STP	1	0-10		Faunal	frag	Bone	Polished	Bulk					0.1		
CA-SDI-8125/H	3	STP	1	0-10	Munitions	.22 cal bullet casing	com	Metal			1				3.2		"U" embossed on end; discarded
CA-SDI-8125/H	4	STP	1	10-20		Debitage	com	Metavolcanic			1				0.4		
CA-SDI-8125/H	5	STP	1	10-20		Debitage	com	PDL			1				32.3		
CA-SDI-8125/H	6	STP	1	10-20		Faunal	frag	Bone		Bulk					0.2		
CA-SDI-8125/H	7	STP	1	10-20	Consumer	Bottle Glass	frag	Amethyst			1				0.1		
CA-SDI-8125/H	8	STP	1	20-30		Debitage	com	1 Quartz, 5 Metavolcanic			6				15.8		
CA-SDI-8125/H	9	STP	1	20-30		Faunal	frag	Bone		Bulk					0.05		
CA-SDI-8125/H	10	STP	1	20-30		Charcoal	frag	Undiff.		Bulk					0.6		
CA-SDI-8125/H	11	STP	1	30-40		Debitage	com	Metavolcanic			2				2.9		
CA-SDI-8125/H	12	STP	2	0-10		Debitage	com	Metavolcanic			2				2.2		
CA-SDI-8125/H	13	STP	2	0-10		SET	com	Metavolcanic			1	77.9	43	37.4	123.4		
CA-SDI-8125/H	14	STP	2	0-10	Kitchen	Historic Ceramic	frag	Ironstone	Plate	Blue floral pattern	1				0.5		
CA-SDI-8125/H	15	STP	2	10-20		Debitage	com	Metavolcanic			5				7.7		
CA-SDI-8125/H	16	STP	2	10-20		SET	com	Quartzite			1	64.4	40.6	44.6	136.5		
CA-SDI-8125/H	17	STP	2	10-20	Consumer	Bottle Glass	frag	Amber			1				1.2		
CA-SDI-8125/H	18	STP	2	20-30		Debitage	com	Metavolcanic			2				28.2		
CA-SDI-8125/H	19	STP	2	20-30		Faunal	frag	Bone			1				0.2		
CA-SDI-8125/H	20	STP	2	20-30		Faunal	frag	Shell			1				0.4		
CA-SDI-8125/H	21	STP	2	20-30	Building Materials	Window Glass	frag	Colorless			2				0.5		
CA-SDI-8125/H	22	STP	2	30-40		Debitage	com	Metavolcanic			5				19		
CA-SDI-8125/H	23	STP	2	50-60		Debitage	com	Metavolcanic			1				50.2		Rhyolite?
CA-SDI-8125/H	24	STP	3	0-10		Debitage	com	Metavolcanic			3				1		
CA-SDI-8125/H	25	STP	3	0-10		Faunal	frag	Bone		Bulk					0.2		
CA-SDI-8125/H	26	STP	3	0-10		Faunal	frag	Shell		Bulk					0.04		
CA-SDI-8125/H	27	STP	3	0-10		Mano	frag	Granitic	Fire Affected		1				295.7		
CA-SDI-8125/H	28	STP	3	0-10		FAR	frag	Granitic			4				637.8		
CA-SDI-8125/H	29	STP	3	0-10	Hardware	Square Nail	com	Metal			1				4.8		
CA-SDI-8125/H	30	STP	3	10-20		Debitage	com	1 Quartzite, 3 Metavolcanic			4				27.3		
CA-SDI-8125/H	31	STP	3	10-20		Faunal	frag	Bone		Bulk					3.5		
CA-SDI-8125/H	32	STP	3	10-20		Faunal	frag	Shell		Bulk					0.5		
CA-SDI-8125/H	33	STP	3	20-30		Debitage	com	Metavolcanic			8				29.2		
CA-SDI-8125/H	34	STP	3	20-30		Mano	frag	Granitic	Unifacial		1				165.5		
CA-SDI-8125/H	35	STP	3	20-30		FAR	frag	Granitic			1				971.2		
CA-SDI-8125/H	36	STP	3	30-40		Debitage	com	Metavolcanic			10				31.4		
CA-SDI-8125/H	37	STP	3	30-40		Mano	frag	Granitic	Unifacial		1				127.6		
CA-SDI-8125/H	38	STP	3	30-40	Prehistoric	Prehistoric Ceramic	frag	Tizon Brown Ware			2				8.4		
CA-SDI-8125/H	39	STP	3	30-40		Faunal	frag	Shell		Bulk					0.02		
CA-SDI-8125/H	40	STP	3	30-40		Faunal	frag	Bone		Bulk					7.6		
CA-SDI-8125/H	41	STP	3	30-40		FAR	frag	Granitic			16				1662.7		
CA-SDI-8125/H	42	STP	3	40-50		Debitage	com	1 Quartz, 19 Metavolcanic			20				22.7		
CA-SDI-8125/H	43	STP	3	40-50		SET	com	Metavolcanic			1				149.6		
CA-SDI-8125/H	44	STP	3	40-50		Mano	com	Granitic			1	110.1	78.7	48.6	662.1		
CA-SDI-8125/H	45	STP	3	40-50		Mano	frag	Granitic			1				85.9		
CA-SDI-8125/H	46	STP	3	40-50		Faunal	frag	Bone		Bulk					1.1		
CA-SDI-8125/H	47	STP	3	40-50		FAR	frag	Granitic			7				830.6		
CA-SDI-8125/H	48	STP	3	40-50	Kitchen	Historic Ceramic	frag	Ironstone	Plate		1				1.4		

The Los Peñasquitos Adobe Drainage Project
Artifact Catalog
CA-SDI-8125/H

ACCESSION	CAT NO	UNIT TYPE	UNIT	LEVEL (cm)	ACTIVITY	ARTIFACT	PORTION	MATERIAL	MOD 1	MOD 2	QUAN	LENGTH	WIDTH	THICK	WEIGHT (g)	Box #	COMMENTS
CA-SDI-8125/H	49	STP	3	50-60		Debitage	com	Metavolcanic			8				5.4		
CA-SDI-8125/H	50	STP	3	50-60		Faunal	frag	Bone		Bulk					0.5		
CA-SDI-8125/H	51	STP	3	50-60		Faunal	frag	Shell		Bulk					0.5		
CA-SDI-8125/H	52	STP	3	50-60	Prehistoric	Prehistoric Ceramic	frag	Tizon Brown Ware			1				2.3		
CA-SDI-8125/H	53	STP	3	50-60		FAR	frag	Granitic			3				1423.3		
CA-SDI-8125/H	54	STP	3	50-60	Gardner's Tools	Historic Ceramic	frag	Terra Cotta			1				1.9		
CA-SDI-8125/H	55	STP	4	0-10		Debitage	com	Metavolcanic			1				0.2		
CA-SDI-8125/H	56	STP	4	0-10		Faunal	frag	Bone		Bulk					5.3		
CA-SDI-8125/H	57	STP	4	10-20		Faunal	frag	Bone		Bulk					0.1		
CA-SDI-8125/H	58	STP	4	10-20		Faunal	frag	Shell		Bulk					0.2		
CA-SDI-8125/H	59	STP	4	10-20	Building Materials	Nail	frag	Metal			2				6.9		
CA-SDI-8125/H	60	STP	4	20-30		Debitage	com	Metavolcanic			1				3.8		
CA-SDI-8125/H	61	STP	4	30-40		Debitage	com	Metavolcanic			1				0.8		
CA-SDI-8125/H	62	STP	5	0-10		Faunal	frag	Bone		Bulk					0.1		
CA-SDI-8125/H	63	STP	5	0-10	Munitions	Bullet casing	frag	Metal			1				1		
CA-SDI-8125/H	64	STP	5	0-10	Consumer	Bottle Glass	frag	Amber			1				0.1		
CA-SDI-8125/H	65	STP	5	10-20	Consumer	Bottle Glass	frag	Colorless			1				0.7		
CA-SDI-8125/H	66	STP	5	10-20		Ferrous Metal	frag	Metal			2				7.3		
CA-SDI-8125/H	67	STP	5	30-40	Consumer	Bottle Glass	frag	Colorless			1				3.7		
CA-SDI-8125/H	68	STP	5	30-40		Faunal	frag	Bone		Bulk					0.7		
CA-SDI-8125/H	69	STP	6	0-10		Faunal	frag	Bone		Bulk					0.8		
CA-SDI-8125/H	70	STP	6	0-10		FAR	frag	Granitic			3				148.4		
CA-SDI-8125/H	71	STP	6	10-20		Faunal	frag	Bone		Bulk					1.9		
CA-SDI-8125/H	72	STP	6	10-20		FAR	frag	Granitic			1				115.5		
CA-SDI-8125/H	73	STP	6	10-20	Hardware	Ferrous Metal	frag	Metal			2				4.3		
CA-SDI-8125/H	74	STP	7	0-10		Debitage	com	1 Quartz, 2 Metavolcanic			3				7.9		
CA-SDI-8125/H	75	STP	7	0-10		Faunal	frag	Bone		Bulk					5.5		
CA-SDI-8125/H	76	STP	7	10-20		Debitage	com	Metavolcanic			2				0.9		
CA-SDI-8125/H	77	STP	7	10-20		Faunal	frag	Bone		Bulk					0.1		
CA-SDI-8125/H	78	STP	7	10-20	Consumer	Bottle Glass	frag	Aqua			2				1.7		
CA-SDI-8125/H	79	STP	7	20-30	Consumer	Bottle Glass	frag	Aqua			1				0.3		
CA-SDI-8125/H	80	STP	9	0-10		Debitage	com	Metavolcanic			1				2.6		
CA-SDI-8125/H	81	STP	9	0-10		Faunal	frag	Shell		Bulk					0.1		
CA-SDI-8125/H	82	STP	9	0-10	Consumer	Bottle Glass	frag	Colorless			1				0.3		
CA-SDI-8125/H	83	STP	9	10-20	Kitchen	Historic Ceramic	frag	Ironstone	Plate		1				2.8		
CA-SDI-8125/H	84	STP	9	10-20	Garment	Button	frag	Porcelain			1				0.5		
CA-SDI-8125/H	85	STP	9	10-20	Consumer	Bottle Glass	frag	Colorless			3				7.7		
CA-SDI-8125/H	86	STP	9	20-30		Debitage	com	Metavolcanic			1				5.5		
CA-SDI-8125/H	87	STP	9	20-30		FAR	frag	Granitic			1				29.9		
CA-SDI-8125/H	88	STP	9	20-30	Consumer	Bottle Glass	frag	Colorless			2				1.5		
CA-SDI-8125/H	89	STP	9	20-30	Consumer	Bottle Glass	frag	Amber			1				1.4		
CA-SDI-8125/H	90	STP	9	20-30	Consumer	Bottle Glass	frag	Green			1				0.2		
CA-SDI-8125/H	91	STP	9	30-40		Debitage	com	Metavolcanic			1				2.6		
CA-SDI-8125/H	92	STP	9	30-40		FAR	frag	Granitic			1				43.5		
CA-SDI-8125/H	93	STP	9	40-50	Prehistoric	Ceramic	frag	Tizon Brown Ware			1				3		
CA-SDI-8125/H	94	STP	9	40-50		FAR	frag	Granitic			2				486.6		
CA-SDI-8125/H	95	STP	9	50-60		FAR	frag	Granitic			4				1427.9		
CA-SDI-8125/H	96	STP															Culled
CA-SDI-8125/H	97	STP	9	60-70	Consumer	Bottle Glass	frag	Amber			1				0.2		
CA-SDI-8125/H	98	STP	9	60-70	Consumer	Bottle Glass	frag	Green			1				0.3		

The Los Peñasquitos Adobe Drainage Project
Artifact Catalog
CA-SDI-8125/H

ACCESSION	CAT NO	UNIT TYPE	UNIT	LEVEL (cm)	ACTIVITY	ARTIFACT	PORTION	MATERIAL	MOD 1	MOD 2	QUAN	LENGTH	WIDTH	THICK	WEIGHT (g)	Box #	COMMENTS
CA-SDI-8125/H	99	STP	9	70-80		Debitage	com	Metavolcanic			1				0.5		
CA-SDI-8125/H	100	STP	9	70-80		Faunal	frag	Shell		Bulk					0.5		
CA-SDI-8125/H	101	STP	9	70-80	Building Materials	Window Glass	frag	Aqua			1				1.8		
CA-SDI-8125/H	102	STP	3	40-50		Bone Tool	frag	Bone			1				1		
CA-SDI-8125/H	103	STP	3	40-50		Bone Tool	frag	Bone			1				1.8		
CA-SDI-8125/H	104	STP	3	50-60		Bone Tool	frag	Bone			1				0.2		
CA-SDI-8125/H	105	STP	3	50-60		Bone Tool	frag	Bone			1				1.3		
CA-SDI-8125/H	106	STP	3	50-60		Bone Tool	frag	Bone			1				0.8		
CA-SDI-8125/H	107	STP	3	20-30		Flake Tool	com	Metavolcanic			1	92	55.9	23.4	135.5		