



TETRA TECH EC, INC.

DOCKET

11-AFC-3

DATE JUN 19 2012

RECD. JUN 20 2012

June 19, 2012

Siting Committee
Raoul Renaud, Hearing Officer
Eric Solorio, Project Manager
California Energy Commission
Docket No. 11-AFC-3
1516 9th St.
Sacramento, CA 95814

Cogentrix Quail Brush Generation Project - Docket Number 11-AFC-03, Quail Brush Generation Project (11-AFC-03) Results of a Supplemental Cultural Resources Survey for Quail Brush Genco, LLC's Quail Brush Generation Project, San Diego California Redacted Version Site Location Information Removed

Docket Clerk:

Per the request of Eric Solorio, California Energy Commission Project Manager, on behalf of Quail Brush Genco, LLC and pursuant to 20 California Code of Regulations (CCR) §2505, Tetra Tech hereby submits the Quail Brush Generation Project (11-AFC-03) Results of a Supplemental Cultural Resources Survey for Quail Brush Genco, LLC's Quail Brush Generation Project, San Diego California Redacted Version Site Location Information Removed. This document is a redacted version of the Quail Brush Generation Project (11-AFC-03) Results of a Supplemental Cultural Resources Survey for Quail Brush Genco, LLC's Quail Brush Generation Project, San Diego California docketed on April 26, 2012 under a request that the cultural resource information be designated confidential pursuant to 20 CCR §2505. The original document is redacted to remove site locations, areas of archaeological sensitivity, and areas of potential cultural significance. The Quail Brush generation Project is a 100 megawatt natural gas fired electric generation peaking facility to be located in the City of San Diego, California.

If you have any questions regarding this submittal, please contact Rick Neff at (704) 525-3800 or me at (303) 980-3653.

Sincerely,

Constance E. Farmer
Project Manager/Tetra Tech

cc: Lori Ziebart, Cogentrix
John Collins, Cogentrix
Rick Neff, Cogentrix
Proof of Service List

DECLARATION OF SERVICE

I, Constance Farmer, declare that on June 19, 2012, I served and filed a copy of the Quail Brush Generation Project (11-AFC-03) Results of a Supplemental Cultural Resources Survey for Quail Brush Genco, LLC's Quail Brush Generation Project, San Diego California Redacted Version Site Location Information Removed. This document is accompanied by the most recent Proof of Service list, located on the web page for this project at: <http://www.energy.ca.gov/sitingcases/quailbrush/index.html>.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit or Chief Counsel, as appropriate, in the following manner:

(Check all that Apply)

For service to all other parties:

- Served electronically to all e-mail addresses on the Proof of Service list;
- Served by delivering on this date, either personally, or for mailing with the U.S. Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "e-mail preferred."

AND

For filing with the Docket Unit at the Energy Commission:

- by sending an electronic copy to the e-mail address below (preferred method); **OR**
- by depositing an original and 12 paper copies in the mail with the U.S. Postal Service with first class postage thereon fully prepaid, as follows:

CALIFORNIA ENERGY COMMISSION – DOCKET UNIT

Attn: Docket No. 11-AFC-3
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OR, if filing a Petition for Reconsideration of Decision or Order pursuant to Title 20, § 1720:

- Served by delivering on this date one electronic copy by e-mail, and an original paper copy to the Chief Counsel at the following address, either personally, or for mailing with the U.S. Postal Service with first class postage thereon fully prepaid:

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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.





**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
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**APPLICATION FOR CERTIFICATION
FOR THE *QUAIL BRUSH GENERATION PROJECT***

DOCKET NO. 11-AFC-03

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(Revised 6/6/2012)

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**RESULTS OF A SUPPLEMENTAL CULTURAL RESOURCES SURVEY FOR
QUAIL BRUSH GENCO, LLC'S
QUAIL BRUSH GENERATION PROJECT, SAN DIEGO, CALIFORNIA**

DRAFT

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California Energy Commission
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TtEC Project #106-4346

April 2012

**REDACTED VERSION
SITE LOCATION INFORMATION REMOVED
JUNE 2012**

USGS 7.5' Topographic Quadrangle: La Mesa and Poway, California

Keywords: Quail Brush, Sycamore Landfill, Peaker Power Plant, San Diego Gas and Electric, Cogentrix, Quail Brush Genco, California Energy Commission, Tetra Tech EC, Little Sycamore Canyon, Sycamore Canyon, Mission Trails Regional Park, CA-SDI-13576 (P-37-013576), CA-SDI-13593 (P-37-013593), P-37-14101, P-37-15411, P-37-16210, P-37-16213, P-37-16215, Mission Dam, P-37-20910, CA-SDI-203

EXECUTIVE SUMMARY

In order to comply with the California Environmental Quality Act (CEQA), Tetra Tech EC, Inc. (TtEC) conducted cultural resources investigations in support of the construction of Quail Brush Genco, LLC's Quail Brush Generation Project (Project). The proposed plant is located adjacent to the Sycamore Landfill in the City of San Diego, California and just west of the City of Santee's western border. It is within Little Sycamore Canyon and crosses an unnamed drainage east of Little Sycamore Canyon, terminating at the Carlton Hill Substation on the western edge of the mouth of Sycamore Canyon. In general, the Project area is south and east of Marine Corps Air Station (MCAS) Miramar, north of Highway 52, and west of Mast Boulevard.

A cultural resources pedestrian survey was originally conducted in May 2011 and covered the Project area as it was designed at that time. These results were submitted to the California Energy Commission (CEC) in support of an Application for Certification (AFC) (docketed with the CEC on August 26, 2011). Subsequent to submission of the original survey report, the AFC, and a Supplement to the AFC, several Project components were redesigned to extend outside of the surveyed area, requiring additional survey effort. Further, as part of the CEC's data adequacy process, it was requested that TtEC conduct additional fieldwork to account for the poor ground surface visibility experienced during the May 2011 survey. This supplemental work was initiated in January 2012 and continued in March 2012 when additional access was granted by landowners. Each supplemental survey effort included participation of Native American monitors. This supplemental survey report documents the results of all survey efforts conducted to date. It also incorporates revisions and additional information provided during the data adequacy and data request processes of the CEC.

Table ES-1 summarizes the cultural resources identified by the survey efforts. The pedestrian surveys have identified four previously unidentified archaeological sites and eleven previously unidentified isolates. Two previously recorded archaeological sites within the survey area, CA-SDI-13576 (P-37-013576) and CA-SDI-13593 (P-37-013593), were also located and their site records updated. All other previously recorded cultural resources within the survey area could either not be found (P-37-14101, P-37-15411, P-37-16213, and P-37-16215) or were in inaccessible areas (P-37-16210). One previously recorded site (CA-SDI-13576), two newly recorded sites (TEMP-QB-3 and TEMP-QB-4), and two newly recorded isolates (TEMP-QB-ISO-9 and TEMP-QB-ISO-10) are within the area of potential effect (APE). CA-SDI-13576 was found to no longer exist and the remaining resources have been recommended as ineligible for listing on the California Register of Historical Resources. Given the dense vegetation and in consideration of the surficial geoarchaeological context of the study area, the APE is considered to have low to moderate surface archaeological sensitivity and none to low subsurface archaeological sensitivity.

The Sycamore Landfill is the only historic built environment resource identified within or adjacent to the APE. It has been recommended as CRHR-ineligible. The Mission Dam (P-37-20910) is approximately 0.6-mile west of the APE along the San Diego River and is listed on the National Register of Historic Places, the California Register of Historical Resources, and the County's Register. The Dam is also a National Historic Landmark. The Project will not be visible from the structure.

No Native American resources have been identified within or adjacent to the APE. Contacted individuals, however, have requested that a Native American monitor be present during construction.

Based on the analysis presented in this report, the Project may have significant impacts on unidentified cultural resources, including historical resources and unique archaeological resources, as a result of ground-disturbing activities. The presence or absence of human remains, although considered unlikely in the APE, is unknown. However, by implementing the recommended mitigation measures in Table ES-2, these impacts may be reduced to less than significant.

Table ES-1: Archaeological Resources Identified within the Overall Survey Area

Temporary Resource #	SHPO ID	Description	Prehistoric/Historic
Sites			
N/A	CA-SDI-13576	Light lithic scatter	Prehistoric
N/A	CA-SDI-13593*	Light artifact scatter (Destroyed)	Prehistoric
TEMP-QB-1	TBD	Sparse lithic scatter	Prehistoric
TEMP-QB-2	TBD	Sparse lithic scatter	Prehistoric
TEMP-QB-3*	TBD	Historic refuse scatter	Historic
TEMP-QB-4*	TBD	Sparse flake and tool scatter	Prehistoric
Isolates			
N/A	P-37-14101	Volcanic secondary flake	Prehistoric
N/A	P-37-15411	Quartzite core test cobble	Prehistoric
N/A	P-37-16210	Secondary quartzite flake (Previously collected)	Prehistoric
N/A	P-37-16213	Porphyritic core/cobble tool with bifacial edge	Prehistoric
N/A	P-37-16215	Core/Cobble tool with bifacial edge (Previously collected)	Prehistoric
TEMP-QB-ISO-1	TBD	Volkswagen bug bodies	Historic
TEMP-QB-ISO-2 [†]	TBD	Secondary and interior porphyritic flakes	Prehistoric
TEMP-QB-ISO-3 [†]	TBD	Quartzite core	Prehistoric
TEMP-QB-ISO-4	TBD	Secondary quartzite flake	Prehistoric
TEMP-QB-ISO-5	TBD	Secondary porphyritic flake and primary quartzite flake	Prehistoric
TEMP-QB-ISO-6	TBD	Possible survey marker	Historic
TEMP-QB-ISO-7	TBD	Porphyritic handstone	Prehistoric
TEMP-QB-ISO-8	TBD	Interior porphyritic flake	Prehistoric
TEMP-QB-ISO-9*	TBD	Quartzite core	Prehistoric
TEMP-QB-ISO-10*	TBD	Quartzite mano	Prehistoric
TEMP-QB-ISO-11	TBD	Ford Coupe	Historic

* Resource within APE.

† Resource less than 20 meters from APE.

Table ES-2: Recommended Mitigation Measures and their Efficacy

Proposed Mitigation Measure	Effect of Measure
<p>CUL-1. Continue Native American Consultations—On behalf of the CEC, Quail Brush Genco, LLC will continue to consult with Native Americans identified by the NAHC in order to identify potentially sacred sites and/or resources that may be impacted by the Project as well as to identify appropriate Native American monitors.</p>	<p>This mitigation measure is intended to avoid or minimize impacts on Native American resources, including traditional resources, religious sites, and Native American archaeological sites. Potential impacts on the data potential (CRHR Criterion 4) of unanticipated or adjacent resources may occur during construction. Incorporation of this mitigation measure would reduce the potential impact level on those cultural resources to less than significant by ensuring that Native Americans who have an interest in any unanticipated historic resources discovered during Project construction would have an opportunity to help identify how any such resource would be addressed.</p> <p>Although no additional input has been provided by consulted Native Americans since submittal of the AFC, continuing consultations will allow Quail Brush Genco, LLC to quickly identify and resolve potential impacts that may be identified at a later date by these represented communities. Maintaining these open lines of communication will better facilitate consultations should Native American-related historical resources be identified later in the planning process or during construction, and require avoidance, special treatment, or recovery. Successfully reaching an agreement with the Native American community as to how such resources should be handled would help ensure that there are no significant impacts on historical resources.</p>
<p>CUL-2. Education/Training—Prior to Project implementation, all non-archaeological Project personnel will be briefed by a trained archaeologist on the prehistoric and historic use of the Project area and the results of the Project’s cultural resources survey. Further, personnel will be briefed on the importance of, and the legal basis for, the protection of significant archaeological resources and how these resources contribute to modern society, which personnel participate in. All archaeological and Native American monitors will be introduced and their roles explained.</p> <p>Personnel will be instructed on the identification of archaeological materials, particularly materials indicative of the site types considered likely to occur within the APE (especially lithic deposits, military-related items or features, and prehistoric and historic isolates). In addition to a pocket brochure regarding identification of cultural resources and how to report finds, the training will include photographs of artifact classes likely to occur within the APE and, when possible, artifact samples that the personnel may handle and with which they may become more familiar.</p>	<p>This mitigation measure is intended to avoid and minimize potential impacts on unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Educating Project personnel as to the importance of prehistoric and historic cultural resources and training them how to identify such resources and the proper protocols to follow in the event of an unanticipated discovery will minimize the likelihood of a worker unknowingly or purposefully disturbing these resources. Educating workers as to the importance of cultural resources instills a sense of the significance of these resources to the Native American and scientific communities. Further, workers will come to understand how these resources contribute to our modern society and our understanding of history. With an understanding of these issues as well as the legal protections afforded historical resources, workers will develop an appreciation for cultural resources, thereby reducing the potential for workers to loot or damage the resources in the Project area. Incorporation of this</p>

Proposed Mitigation Measure	Effect of Measure
	mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.
<p>CUL-3. Monitoring—It has been requested by interested Native American tribes that a Native American monitor be present during ground-disturbing activities associated with the Project. Additionally, the APE is considered to have low to moderate archaeological sensitivity for surface resources and none to low subsurface archaeological sensitivity. Therefore, an archaeological monitor who meets the Secretary of the Interior’s Professional Qualification Standards for Archaeology as well as a Native American Consultant will be present onsite during initial ground disturbing activities. Given the geoarchaeological context of the proposed Project site and the proximity of the Stadium Conglomerate bedrock to the surface, cultural resource monitors will only be present during disturbance of the upper 20 cm. The monitors will be allowed to conduct a cursory survey of the proposed Project site following any initial mowing of vegetation. If any cultural resources are identified by the monitors during vegetation removal associated with construction, the resource will be treated as an unanticipated discovery and the protocols outlined in CUL-4 will be followed.</p>	<p>Similar to CUL-2, this mitigation measure is intended to avoid and minimize potential impacts on unanticipated archaeological resources during construction. Any archaeological resources discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Archaeological monitoring allows an opportunity to confirm that isolated artifacts identified during archival research and survey are not sites. Monitoring also insures that previously unidentified cultural resources are identified, recorded, and sufficiently treated or avoided during construction, thus minimizing the potential loss of data regarding historical resources. Further, monitoring acts as a deterrent in the event that education and training regarding cultural resources are not as effective as intended. Incorporation of this mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.</p>
<p>CUL-4. Unanticipated and Inadvertent Discoveries—If the archaeological monitors, construction staff, or others observe previously unidentified archaeological resources during construction, they will halt work in the vicinity of the find(s) and immediately notify the Project Archaeologist so that the resource value may be assessed as soon as possible and appropriate next steps determined in coordination with the CEC as the lead CEQA agency. Such finds will be formally recorded and evaluated for CRHR eligibility. The resource will be protected from further disturbance or looting pending evaluation and agreement from the CEC regarding the recommended CRHR eligibility status. Should the unanticipated discovery be determined to be a historical resource and cannot be avoided, Quail Brush Genco, LLC will provide justification as to why the resource cannot be avoided and recommend treatment options (i.e., data recovery) to the CEC and consulted Native American tribes and historical societies for agreement.</p> <p>If human remains and/or cultural items defined by the Health and Safety Code, Section 7050.5 are inadvertently discovered during construction activities, all work in the vicinity of the find will cease and the San Diego County Coroner will be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, work may be delayed in the vicinity of the find up to 30 days.</p>	<p>This mitigation measure is intended to avoid, minimize, or mitigate impacts on unanticipated archaeological resources during construction. Any archaeological resources discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Stopping construction work in the vicinity of a find and allowing time to assess and evaluate an unanticipated or inadvertent discovery reduces the potential of data loss from a potential historical resource. Additionally, this time allows for all parties involved in the Project (Quail Brush Genco, LLC, CEC, Native American monitors, and other consulted parties) to consult and determine if the resource can be avoided and, if not, appropriate treatments that would recover the data that will be destroyed. Incorporation of this mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.</p>

Proposed Mitigation Measure	Effect of Measure
<p>CUL-5. Additional Field Survey—If the finalized Project engineering design falls outside or beyond the overall survey area, Quail Brush Genco, LLC will, in coordination with the CEC and City of San Diego, complete a cultural resources survey of those areas (including any CEC-required buffers). The survey methodology will be agreed upon by Quail Brush Genco, LLC, the CEC, and City of San Diego. As appropriate, field methodologies shall be the same as described in Section 4.3.2 of this report. One to two paid Native American monitors will participate in the survey if interest is shown. Other interested Native Americans may participate in the survey on a voluntary basis. All cultural resources identified by the survey will be recorded on California DPR forms and mapped using a GPS unit with sub-meter accuracy. Results of the survey will be provided in a technical report conforming to the Archaeological Resource Management Report format (OHP 1990). The report will include maps of finalized engineering design and surveyed areas and any additional recommended mitigation measures will be provided to the CEC and the City of San Diego for comment and approval. If any resource identified by the survey cannot be avoided, it will be evaluated for CRHR eligibility and, if necessary to avoid significant impacts on the resource, additional treatments recommended. These recommendations will be submitted as a Historic Preservation Treatment Plan to the CEC, City of San Diego, and relevant consulting parties for agreement. Any recommended treatments will occur prior to the initiation of Project activities within the vicinity of a historical resource. Project construction may occur elsewhere within the APE during this period and with applicable archaeological monitoring efforts.</p>	<p>This mitigation measure is intended to avoid and minimize impacts on cultural resources that may be located in areas outside of overall survey area, should the final Project design result in the expansion of the APE or required survey areas. Also, the mitigation measure is intended to avoid and minimize impacts on cultural resources that may be located in areas overall survey area that were previously inaccessible or added following completion of field efforts. Conducting additional field survey allows opportunity to identify cultural resources within these areas, their recordation, evaluation for CRHR eligibility, and consideration for avoidance or appropriate treatment. Should any cultural resources in any additional survey area be determined to be historical resources, it would likely be under Criterion 4 (data potential). This mitigation measure will insure that the Project will not proceed unless and until an Historic Treatment Plan is developed, approved, and implemented, insuring that any eligible resource would be avoided or mitigated. Incorporation of this mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.</p>

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APPENDICES

Appendix A: Records Search Results
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Appendix C: Personnel Qualifications
Appendix D: Updated and Newly Recorded DPR Forms
Appendix E: Vegetation Removal Unit Forms

ABBREVIATIONS AND ACRONYMS

AFC	Application for Certification
amsl	above mean sea level
APE	area of potential effect
APN	assessor's parcel number
BP	before present
ca.	circa
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
cm	centimeter
CUP	Conditional Use Permit
CRHR	California Register of Historical Resources
DPR	California Department of Parks and Recreation
gen-tie line	generation tie-line
GPS	Global Positioning System
kV	kilovolt
LJS	LJS Cultural Monitoring, LLC
MCAS	Marine Corps Air Station
NAHC	California Native American Heritage Commission
NRHP	National Register of Historic Places
PRC	California Public Resources Code
Project	Quail Brush Genco, LLC's Quail Brush Generation Project
SCIC	South Coastal Information Center
SDG&E	San Diego Gas and Electric
SDSU	San Diego State University
SHPO	State Historic Preservation Office
TtEC	Tetra Tech EC, Inc.
USGS	United States Geological Survey
VRU	vegetation removal unit

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1.0 INTRODUCTION

In order to comply with the California Environmental Quality Act (CEQA), Tetra Tech EC, Inc. (TtEC) conducted cultural resources investigations in support of the construction of Quail Brush Genco, LLC's Quail Brush Generation Project (Project). The proposed plant is located adjacent to the Sycamore Landfill in the City of San Diego, California and just west of the City of Santee's western border (Figure 1-1). It is within Little Sycamore Canyon and crosses an unnamed drainage east of Little Sycamore Canyon, terminating at the Carlton Hill Substation on the western edge of the mouth of Sycamore Canyon. In general, the Project area is south and east of Marine Corps Air Station (MCAS) Miramar, north of Highway 52, and west of Mast Boulevard (Figures 1-2 and 1-3).

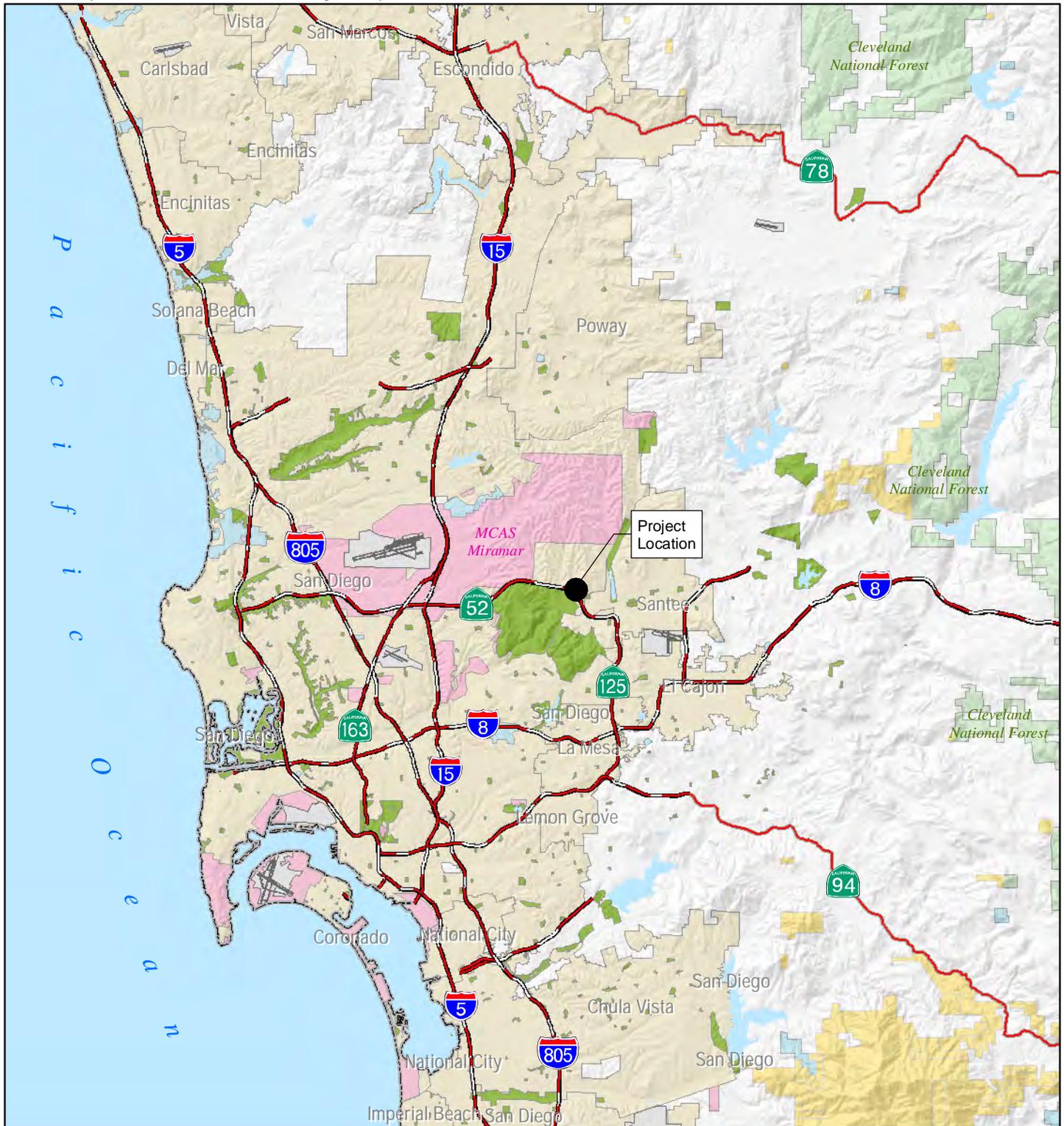
A cultural resources pedestrian survey was originally conducted in May 2011 and covered the Project area as it was designed at that time. The results of that survey were documented in a draft report submitted to the California Energy Commission (CEC) on August 29, 2011 in support of an Application for Certification (AFC) (Docket 11-AFC-3). A Supplement to the AFC was docketed with the CEC on October 24, 2011. The Commission determined that the AFC was adequate on November 16, 2011.

Subsequent to submission of the original survey report, the AFC, and the Supplement to the AFC, several Project components were redesigned to extend outside of the surveyed area, requiring additional survey effort. Further, as part of the CEC's data adequacy process, it was requested that TtEC conduct additional fieldwork to account for the poor ground surface visibility experienced during the May 2011 survey. This supplemental work was initiated in January 2012 and continued in March 2012 when additional access was granted by landowners. This supplemental survey report documents the results of all survey efforts conducted to date. It also incorporates revisions and additional information provided during the data adequacy and data request processes of the CEC.

1.1 OBJECTIVES OF THE CULTURAL RESOURCES SURVEY AND REPORT

The purpose of this cultural resources survey report is to review the proposed action in sufficient detail so that the CEC can determine the extent that the Project may affect historical resources within or near the area of potential effect (APE) (see Section 1.4). The goals of the survey and report are to:

- Identify and describe archaeological and historic built environment resources within the APE;
- Provide a cultural context for the APE;
- Identify any adverse effects that may occur as a result of the proposed Project; and
- Develop recommendations to mitigate the possible significant impacts on historical resources as defined by CEQA.



Legend

- Interstate
- State Highways
- Local Parks
- Cities/Places

Land Jurisdiction

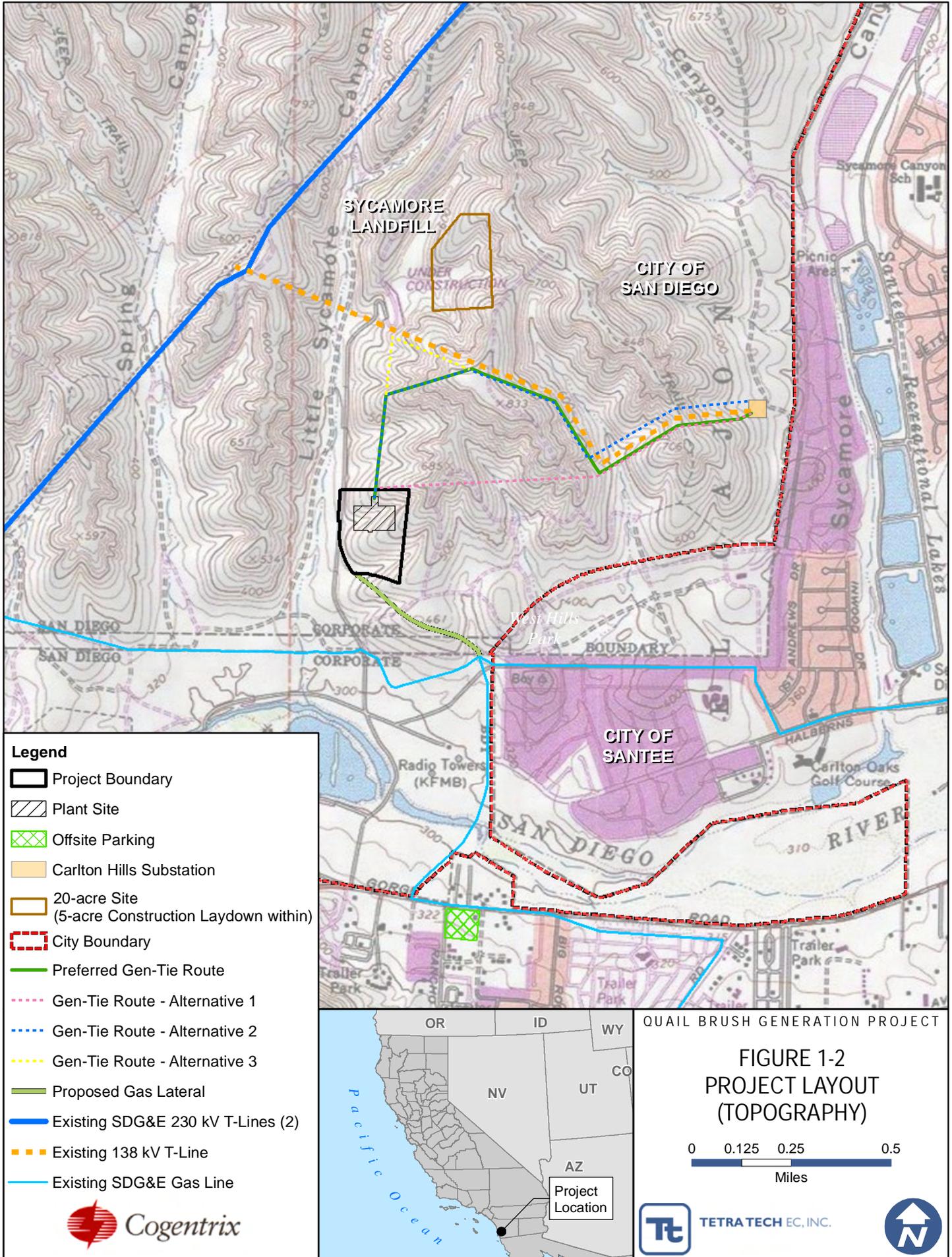
- BLM
- Military
- State Lands
- US Forest Service

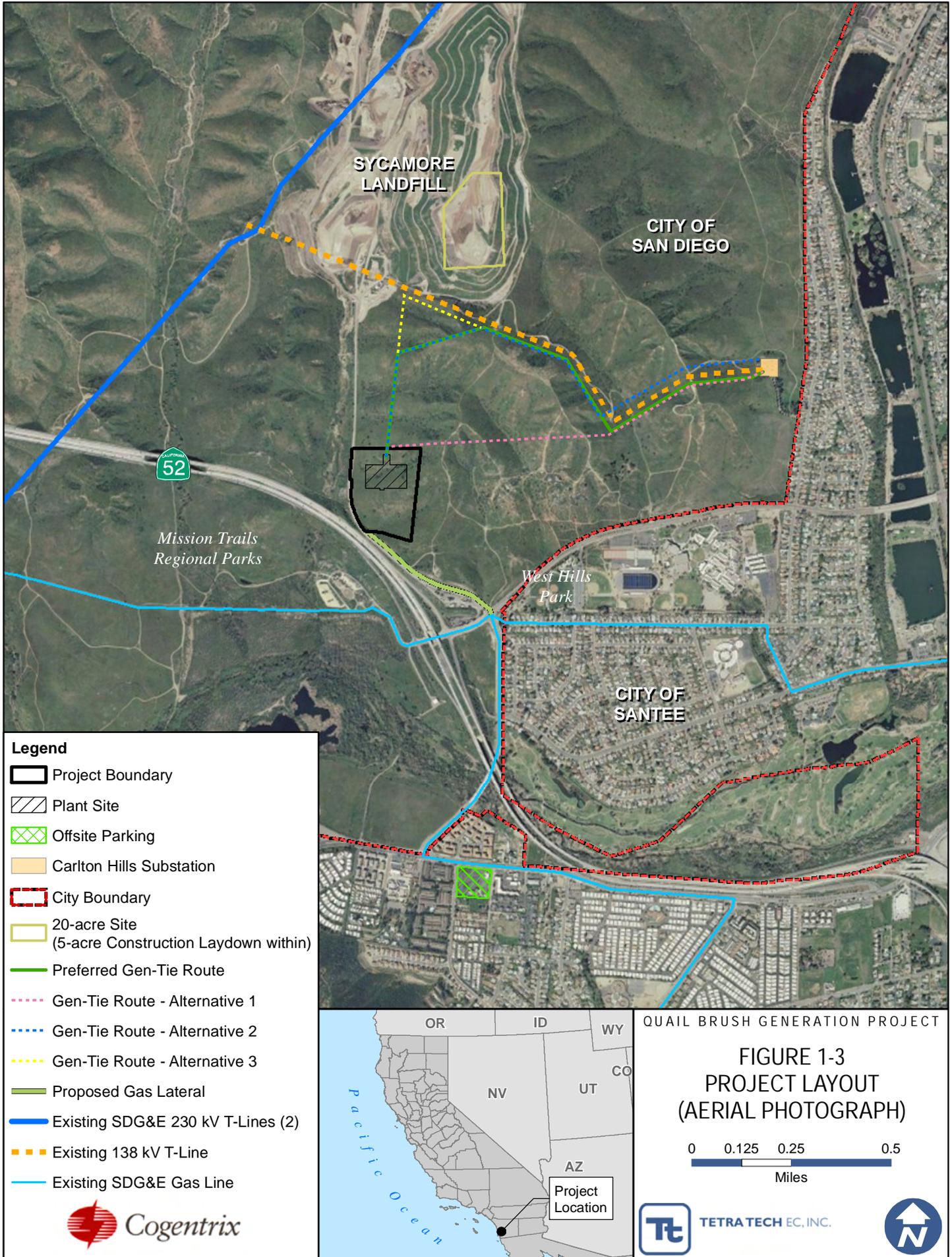
QUAIL BRUSH GENERATION PROJECT

FIGURE 1-1
REGIONAL PROJECT LOCATION

0 2.5 5 10
 Miles

TETRA TECH EC, INC.





1.2 PROJECT BACKGROUND

The proposed Project will be a nominal 100-megawatt intermediate/peaking load facility within Little Sycamore Canyon. This type of facility functions only in periods of high demand. The plant will use natural gas-fired reciprocating engine technology. The proposed plant site is located on a 21.7-acre parcel optioned by Development Land Holdings, LLC. Development Land Holdings is a wholly-owned subsidiary of Quail Brush Genco, LLC, the Project owner and operator. In general, the major components of the Project consist of a plant site, a generation tie-line (gen-tie line), and a gas lateral (Figures 1-2 and 1-3).

The features associated with the installation of the proposed Project include:

- Grading of the plant site (“Project Boundary”) and installation of new equipment foundations, piping, and utility connections;
- Construction of the plant, associated appurtenances, and associated facilities including 11 approximately 70-foot tall stacks;
- On-site fire water and potable water storage tanks;
- An on-site septic tank and tile field;
- Approximately 4,000 feet of 8-inch diameter natural gas pipeline lateral between the plant site and the existing San Diego Gas and Electric (SDG&E) 20-inch diameter high pressure natural gas pipeline located across Mast Avenue from the landfill entrance;
- Chain-link security fencing enclosing the plant site with a secured entrance on Sycamore Landfill Road;
- An approximately 5-acre temporary construction laydown area within a 20-acre area currently part of the active landfill;
- A temporary construction parking area at an existing parking lot located at 7927 Mission Gorge Road in Santee;
- An onsite 138 kilovolt (kV) facility switchyard including switchgear and the main voltage step-up transformer, switchgear, circuit breakers, and disconnects;
- Approximately 6,800 feet of 138-kV single-circuit gen-tie, within a 125-foot-wide corridor adjacent to an existing SDG&E 138-kV transmission line, between the plant site and a proposed point of intersection at the existing SDG&E 138-kV Carlton Hills Substation; and
- Spur roads to be constructed off of the existing SDG&E transmission access road that runs along the existing 138-kV transmission line.

The 138-kV gen-tie will run parallel to the existing SDG&E 138-kV transmission line and will utilize the existing access road with spurs to the new tower locations for construction and maintenance purposes. The gen-tie would be arrayed in a single-circuit configuration, supported by steel structures. This report examines a preferred gen-tie route and three alternative routes. The final design route will be within the survey buffer (see Table 1-1) of the selected route and will be a minimum of 50 feet from the survey boundary in order to comply with CEC requirements.

Onsite construction activities will include clearing of existing vegetation; grading; hauling and laydown of equipment, materials, and supplies; facility construction; and testing. The preliminary

grading plan indicates that the maximum cut will be approximately 50 feet into the existing grade of the plant site and the maximum fill will be approximately 80 feet above the existing grade. The total volume of soil excavation will be approximately 125,000 to 150,000 cubic yards. Actual quantities will be estimated from the final grading plans and the geotechnical report. Grading is designed to balance cut and fill volumes to the extent possible, so that there is no net import or export of common soil. Grading will be performed in accordance with the requirements of the proposed Project's geotechnical investigations. Site access and the required storm water management provisions will be constructed as part of initial grading so these facilities will be in place shortly after construction is initiated. The Project design is considered preliminary until final engineering designs are completed.

1.3 REGULATORY CONTEXT

With regard to cultural resources, the CEC environmental review process under the Warren-Alquist Act is considered functionally equivalent to that of CEQA (California Public Resources Code [PRC] §15000 et seq.). Historic- and prehistoric-era cultural resources are required to be assessed and protected to the extent feasible under CEQA (PRC §§21083.2 and 21084.1). As described below, other state and local requirements also apply to these resources. The City of San Diego will act as the lead CEQA agency with regard to Habitat Conservation Plan boundary changes and associated community plan amendments. Since the proposed Project has no federal nexus, it is not subject to federal laws and regulations, such as Section 106 of the National Historic Preservation Act. A full discussion of applicable laws, regulations, and ordinances included is below.

1.3.1 California Environmental Quality Act

The proposed Project is subject to CEQA. CEQA applies to discretionary projects causing a significant effect on the environment and a substantial adverse change in the significance of a historical or archaeological resource.

Resources listed on or determined to be eligible for listing on the California Register of Historical Resources (CRHR) (PRC §5024.1; Title 14, §4852 et seq., California Code of Regulations [CCR]) are those that must be given consideration in the CEQA process. Under CEQA, a historical resource is any object, building, structure, site, area, place, record, or manuscript considered eligible for listing on the CRHR. A resource is generally considered to be historically significant under CEQA if it meets the criteria for listing on the CRHR. A resource is historically significant if it "is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, economic, or cultural annals of California." (PRC §5020.1[jj]).

1.3.2 Warren-Alquist Act

The CEC is the lead agency for the Project under CEQA. The Warren-Alquist Act establishes the CEC's certified regulatory program under CEQA. Under this certified regulatory program, the CEC is exempt from having to prepare an Environmental Impact Report. As lead agency, the CEC will provide oversight for regulatory compliance. This regulatory context requires environmental analysis of projects and ensures compliance with noise levels, truck traffic, and biological and cultural resource requirements.

Cultural resources requirements for the AFC process are described in CEC's Rules of Practice and Procedure, Power Plant Site Certification and Designation of Transmission Corridor Zones (CEC 2008:Appendix B). Specifically, these protocols require:

- A summary of the ethnology, prehistory, and history of the region with an emphasis on a 5-mile radius of the project location;
- A literature search to identify cultural resources within no less than a 1-mile radius around the project site and not less than a 0.25-mile buffer on each side of any linear facilities;
- Field survey of project areas not surveyed in the past 5 years. The survey must include a 200-foot buffer around the project site, substations, and staging areas and a 50-foot buffer to either side of the right-of-way of any linear facility routes;
- New historic architecture field surveys in urban and suburban areas must include the project site and extend no less than one parcel from all proposed plant site boundaries;
- A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (OHP 1990); and
- Request of a sacred lands file search by the California Native American Heritage Commission (NAHC) and lists of Native Americans interested in the project vicinity. Identified Native Americans must be notified of the project.

1.3.3 California Public Resources Code

Several sections of the California PRC also provide protection of cultural resources. California PRC Section 5020-5029.5 3 establishes the criteria for the CRHR, creates the California Historic Landmarks Committee, and authorizes the Department of Parks and Recreation to designate Registered Historical Landmarks and Registered Points of Historical Interest. It also establishes criteria for the protection and preservation of historic resources. A resource is considered eligible for inclusion on the CRHR if it meets one of the following criteria and retains integrity (PRC §15064.5):

1. It is associated with events that have made a significant contribution to the broad patterns of California history and cultural heritage;
2. It is associated with the lives of persons important in our past;
3. It 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
4. It has yielded, or may be likely to yield, information important in prehistory or history.

Archaeological resources may qualify for significance under CEQA if they are determined to be unique archaeological resources as defined in PRC §21083.2. A unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- Has a special or particular quality such as being the oldest of its type or the best available example of its type; or

- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

PRC §5097.9-5097.991 establish regulations for the protection of Native American religious places and establishes the NAHC. They also require that California Native American remains and associated grave artifacts be repatriated and that notification of discovery of Native American human remains be made to a most likely descendant.

1.3.4 California Health and Safety Code

Several sections of the California Health and Safety Code provide protection of human remains. Section 7050.5 requires construction or excavation to be stopped near human remains until a coroner determines whether the remains are Native American, and requires the coroner to contact the NAHC if the remains are Native American. Section 7051 establishes removal of human remains from interment, or from a place of storage while awaiting interment or cremation, with the intent to sell them or to dissect them with malice or wantonness, as a public offense punishable by imprisonment in a state prison. Section 7052 states that willing mutilation of, disinterment of, removal from a place of disinterment of, and sexual penetration of or sexual contact with any remains known to be human are felony offenses.

1.3.5 California Code of Regulations

CCR §1427 recognizes that California's archaeological resources are endangered by urban development and that these resources need preserving. This section establishes as a misdemeanor the willful injury, disfigurement, defacement, or destruction of any object or thing of archaeological or historical interest or value by someone who is not the owner, whether situated on private lands or within any public park or place. It also states that it is a misdemeanor to alter any archaeological evidence found in any cave or to remove any materials from a cave.

1.3.6 Miscellaneous State Bill, Resolutions, and Codes

Various other California regulations pertain to the protection and preservation of cultural resources within the state.

Senate Bill 922 exempts from California Public Records Act information pertaining to Native American graves, cemeteries, archaeological sites, and sacred places in the possession of the NAHC and other state or local agencies.

Senate Bill 18 provides protection and preservation of Native American Traditional Cultural Places during city and county general plan development. The Bill is applicable to the Project because a community plan will require appending in relation to the adjacent Multiple Habitat Planning Area.

Senate Concurrent Resolution Number 43 requires all state agencies to cooperate with programs of archaeological survey and excavation, and to preserve known archaeological resources whenever reasonable.

Administrative Code, Title 14, §4307 prohibits individuals from removing, injuring, defacing, or destroying any object of paleontological, archaeological, or historical interest or value.

Government Code, §§6253, 6254, and 6254.10 states that disclosure of archaeological site information is not required for records that relate to archaeological site information maintained by the Department of Parks and Recreation, the State Historical Resources Commission, or the State Lands Commission.

Penal Code, Title 14, §622.5 establishes as a misdemeanor offense for any person, other than the owner, who willfully damages or destroys archaeological or historic features on public or privately-owned land.

1.3.7 City of San Diego General Plan

The Conservation Element of the City of San Diego's General Plan uses the CEQA Environmental Impact Report process to evaluate the potential impacts of proposed projects to cultural resources. It also prohibits excavation of archaeological sites except by qualified archaeologists. The Historic Preservation Element of the General Plan requires that any improvement, building, structure, sign, interior element and fixture, feature, site, place, district, area, or object may be designated a historical resource by the City's Historical Resources Board if it meets one or more of the following designation criteria for the San Diego Register of Historical Resources:

- a. Exemplifies or reflects special elements of the City's, a community's, or a neighborhood's, historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development.
- b. Is identified with persons or events significant in local, state or national history.
- c. Embodies distinctive characteristics of a style, type, period, or method of construction or is a valuable example of the use of indigenous materials or craftsmanship.
- d. Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist, or craftsman.
- e. Is listed or has been determined eligible by the National Park Service for listing on the National Register of Historic Places (NRHP) or is listed or has been determined eligible by the State Historical Preservation Office for listing on the CRHR.
- f. Is a finite group of resources related to one another in a clearly distinguishable way; or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value; or which represent one or more architectural periods or styles in the history and development of the City.

1.3.8 City of San Diego Municipal Code

Chapters 12 and 14 of the City's Municipal Code establish the cultural resource designation process including the nomination process, noticing and report requirements, appeals, recordation, amendments or rescission, and nomination of historical resources to state and national registers, and development regulations for historical resources. The purpose of these regulations is to protect, preserve, and, where damaged, restore the historical resources of San Diego. The historical resources regulations require that designated historical resources, important archeological sites, and traditional cultural properties be preserved unless deviation findings can be made by the decision-maker as part of a discretionary permit.

1.3.9 San Diego County Resource Protection Ordinance

County of San Diego, Resource Protection Ordinance (Ordinance No. 9842, County Code Chapter 6) requires that a resource protection study be performed to evaluate the potential for a project to impact cultural resources. It also provides for protection of archaeological and historic resources within the County, and prohibits impacts on resources considered significant under the County's guidelines. Although the Project has fulfilled the requirements of this ordinance, it is not applicable to the Project since CEC is acting as the lead CEQA agency and the Project is proposed on private lands.

1.3.10 San Diego County Zoning Ordinance

San Diego County Zoning Ordinance, §§5700-5749 requires a landowner to submit a site plan concerning changes to historic resources to the County for approval.

1.4 AREA OF POTENTIAL EFFECT, SURVEY AREA, AND PROJECT STUDY AREA

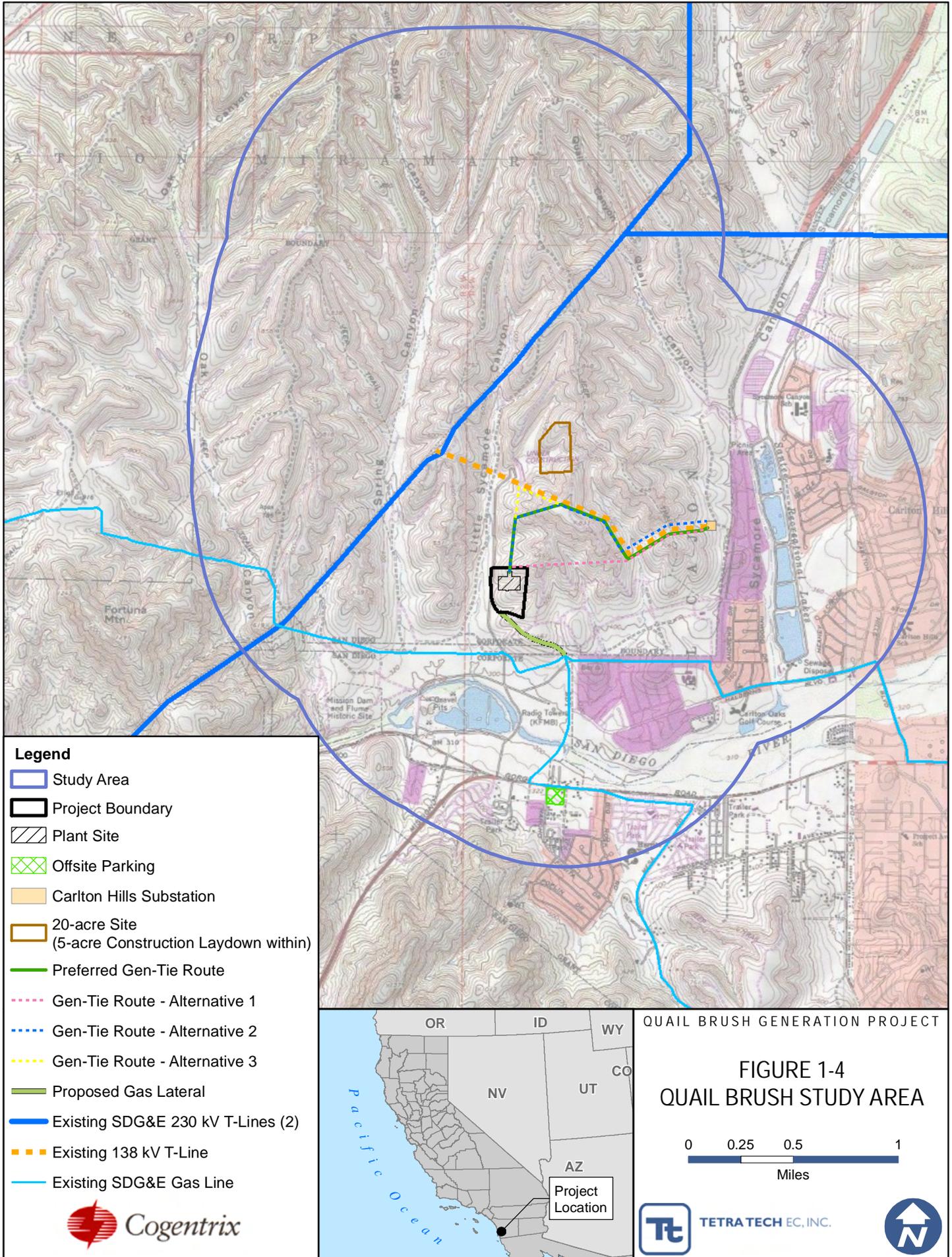
For the purposes of this report a study area, survey area, and APE were established (Table 1-1; Figures 1-4 and 1-5). The study area includes all areas included in the records search for this Project and as described in Chapter 4 of this report.

The survey area includes all areas subjected to field study and is based on the Project area and the CEC-required survey buffers described above in Section 1.3.2 (i.e., May 2011 and January 2012 surveys). It is important to note that survey corridors along the gen-tie lines are 300 feet (Preferred and Alternatives 2 and 3) to 400 feet (Alternative 1) wide, while the APE for the lines is only 125 feet wide. It is planned that in final design of the gen-tie lines the APE will be 50 feet or more away from the edge of the surveyed area and will therefore meet the required CEC buffers for linear project components. Not all of the survey area was accessible at the time of fieldwork. These areas are noted in Chapter 4 and a second attempt to access these areas will be made, likely in March 2012. If the CEC-required minimum buffers of the final engineering design of the proposed Project are found to extend outside of the overall survey area depicted on Figure 1-5, additional survey will be conducted.

The APE is based on the Project layout as proposed. It consists of the surfaces and depths that will be disturbed within the Project footprint. This includes a 25-foot-wide gas lateral corridor, 125-foot-wide gen-tie line preferred and alternative corridors, the area to be graded for the plant site ("Project boundary"), the plant site, the Carlton Hills Substation, the laydown area, and the temporary parking area at 7927 Mission Gorge Road in Santee.

Table 1-1: Definitions of the Project Study Area, Survey Area, and Area of Potential Effect

Term	CEC Requirement	Project Definition
Study Area	Identify cultural resources within an area not less than a 1-mile radius around the Project site and not less than one-quarter (0.25) mile on each side of the linear facilities.	<p>The May 2011 efforts defined the study area as a 1-mile buffer around assessor's parcel numbers (APNs) 36603110, 3603111, 36603117, 36603120, 36607031, 3660732, 36608057, 36608058, and 36608142. Additionally, the study area included a 1-mile buffer around portions of APNs 36603112, 36603116, 36603125, 36604101, 36607018, 36608144, 36608136, 36608148, and 36608149.</p> <p>The 2012 efforts added to this definition a 1-mile buffer around redesigned portions of the Project, primarily the preferred and alternative gen-tie corridors.</p>
Survey Area	New pedestrian archaeological surveys shall be conducted inclusive of the Project site and Project linear facility routes, extending to no less than 200 feet around the Project site, substations, and staging areas, and to no less than 50 feet to either side of the right-of-way of Project linear facility routes.	<p>The overall survey area includes all areas included in the May 2011 and January and March 2012 surveys.</p> <p>The original May 2011 survey included the entirety of APNs 36603110, 3603111, 36603115, 36603117, 36603120, 36607031, 3660732, 36608057, 36608058, and 36608142. Additionally, the survey area includes portions of APNs 36603112, 36603116, 36603125, 36604101, 36607018, 36607066, 36607133, 36608102, 36608126, 36608143, 36608144, 36608145, 36608136, 36608147, 36608148, and 36608149.</p> <p>The January and March 2012 supplemental surveys included the plant site with a 200-foot buffer, the gas lateral with a 50-foot buffer, and the redesigned preferred and alternative gen-tie corridors with the following buffers on either side:</p> <ul style="list-style-type: none"> • Preferred Route: 300 feet • Alternative 1: 400 feet • Alternative 2: 300 feet • Alternative 3: 300 feet
APE	The geographic area or areas within which the Project may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist (36 Code of Federal Regulations 800.16 (d)).	The surfaces and depths that will be disturbed within the proposed Project footprint outlined in Section 1.2 above (25-foot wide gas lateral corridor, 125-foot wide gen-tie corridors, Project/plant site area, laydown area, and temporary parking area).



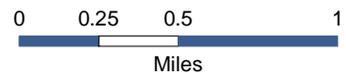
Legend

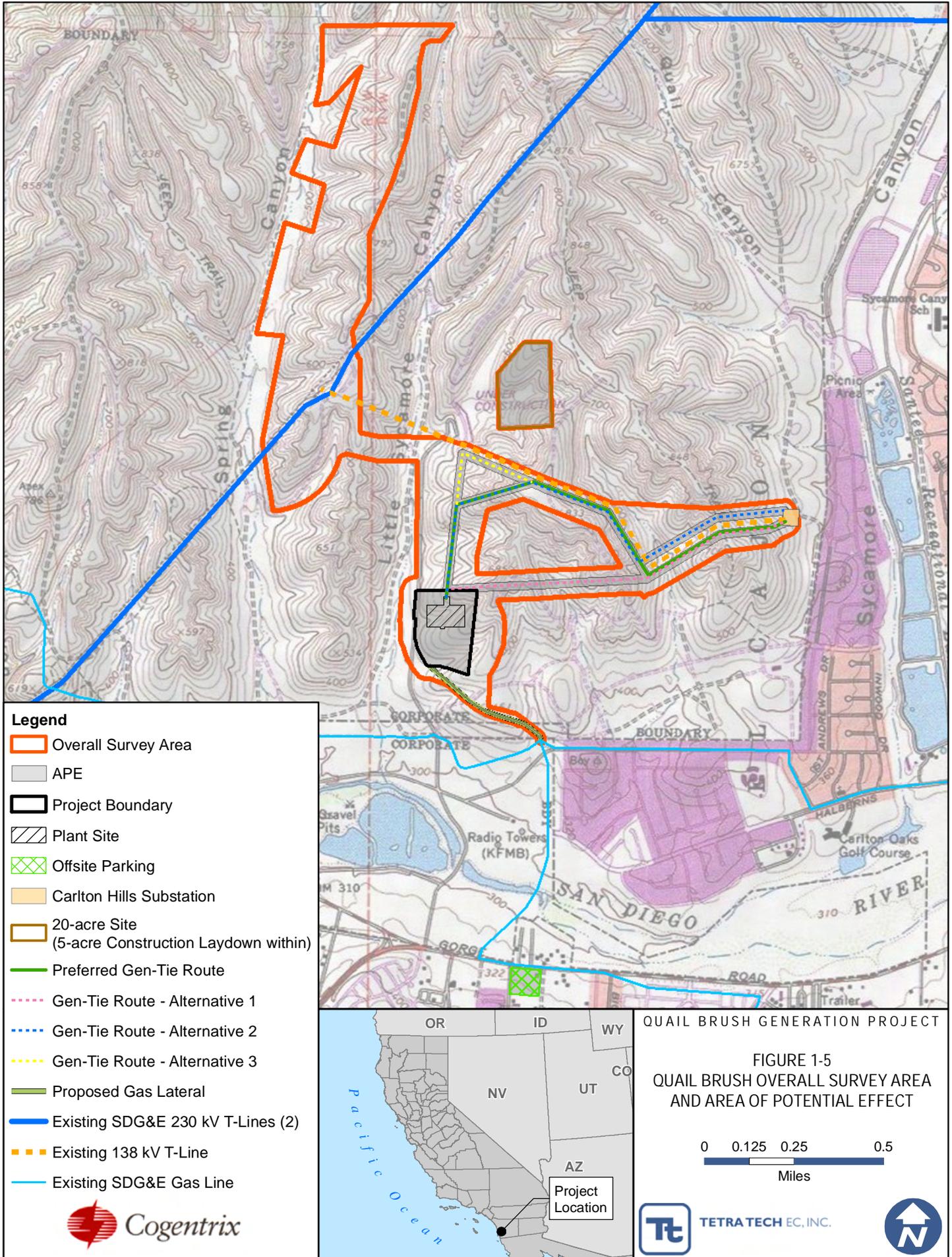
-  Study Area
-  Project Boundary
-  Plant Site
-  Offsite Parking
-  Carlton Hills Substation
-  20-acre Site
(5-acre Construction Laydown within)
-  Preferred Gen-Tie Route
-  Gen-Tie Route - Alternative 1
-  Gen-Tie Route - Alternative 2
-  Gen-Tie Route - Alternative 3
-  Proposed Gas Lateral
-  Existing SDG&E 230 kV T-Lines (2)
-  Existing 138 kV T-Line
-  Existing SDG&E Gas Line



QUAIL BRUSH GENERATION PROJECT

**FIGURE 1-4
QUAIL BRUSH STUDY AREA**



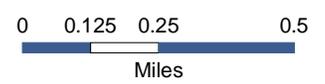


Legend

- Overall Survey Area
- APE
- Project Boundary
- Plant Site
- Offsite Parking
- Carlton Hills Substation
- 20-acre Site
(5-acre Construction Laydown within)
- Preferred Gen-Tie Route
- Gen-Tie Route - Alternative 1
- Gen-Tie Route - Alternative 2
- Gen-Tie Route - Alternative 3
- Proposed Gas Lateral
- Existing SDG&E 230 kV T-Lines (2)
- Existing 138 kV T-Line
- Existing SDG&E Gas Line

QUAIL BRUSH GENERATION PROJECT

**FIGURE 1-5
QUAIL BRUSH OVERALL SURVEY AREA
AND AREA OF POTENTIAL EFFECT**



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2.0 ENVIRONMENTAL SETTING AND CULTURAL AND ARCHAEOLOGICAL CONTEXTS

2.1 ENVIRONMENTAL SETTING

The Project area is located in the central uplands of southern San Diego County and is approximately 14.5 miles inland from the Pacific coast. Figures 2-1 through 2-4 depict the typical settings within the survey area.



Figure 2-1. Typical Vegetation and Topography in Plant Site Area



Figure 2-2. Typical Vegetation and Topography in Drainages



Figure 2-3. Typical Vegetation and Topography in Drainages



Figure 2-4. Typical Vegetation and Topography on Ridgetops

2.1.1 Topography

The APE is within Little Sycamore and Spring Canyons, roughly 1 mile north of the San Diego River valley. The area would have been closer to or farther from the river historically, depending on the river's meander path. Little Sycamore Canyon has been developed as the Sycamore Landfill, but still includes steep hillsides that range from 400 to 825 feet above mean sea level (amsl). Spring Canyon is an area of undeveloped moderately steep hillsides ranging in elevation from 400 to 800 feet amsl. Trails and dirt roads extend north into the canyon from Mission Trails Regional Park. The intermittent flowing canyons drain nearly due south and discharge into the west-flowing San Diego River.

Natural slopes generally range between 20-25 degrees (approximately 36-46 percent) (Davis and Weeraratne 2003). The slopes are well rounded and covered with grasses and chaparral. Unpaved roads follow the main ridge-lines and canyon bottoms. Paved Landfill Road follows the lower reaches of Little Sycamore Canyon's bottom. Toes extending from the main ridgelines are accessible by foot whereas many of the side drainages are choked with dense brush and are impenetrable.

2.1.2 Geomorphology

Prior to the middle of the Mesozoic era (about 180 million years before present [BP]), the region was covered by seas and thick marine sedimentary and volcanic sequences were deposited.

During the Cretaceous period (138 to 63 million years BP) extensive mountain building occurred along with the emplacement of the Southern California batholith (crystalline/granitic rocks). During the early Tertiary (Paleocene Epoch – 55 to 65 million years BP) the San Diego coastal margin underwent uplift and erosion until the middle Eocene (40 to 50 million years BP) when sedimentary sequences of siltstone, sandstone, and conglomerates were deposited as part of several transgressive-regressive cycles. In the Project region, the Cretaceous batholithic/granitic rocks are unconformably overlain by Tertiary sedimentary deposits. The present-day mountain ranges were faulted and uplifted during the late Tertiary and Quaternary (5 million years BP to present time) (Sutch and Dirth 2003).

2.1.3 Geology

The geologic context is based primarily on a geotechnical investigation completed in 2003 in support of an environmental analysis of actions associated with a proposed expansion of Sycamore Landfill (Davis and Weeraratne 2003).

The Stadium Conglomerate of the Eocene-age Poway Group is the only bedrock unit exposed throughout the APE and is visible in cuts associated with the landfill and a gravel processing facility near the head of Little Sycamore Canyon, as well as in erosional cuts. This massive to thickly bedded cobble conglomerate contains a fine- to coarse-grained sandstone matrix that is slightly cemented and considered dense. Where exposed in deep excavations it is difficult to pick with hand tools. Cobble-sized clasts are mainly subrounded and 2 to about 8 inches in diameter with rare small boulders up to 14 inches. The clasts consist predominantly of hard, mildly metamorphosed volcanic and volcanoclastic rocks and quartzite.

Sandstone lenses and interbeds from a few feet to tens of feet thick occur throughout the massive conglomerate. These sandstone subunits can be traced for hundreds of feet in deep cut exposures along the east perimeter of the current landfill area. Bedding is well defined by these sandstone interbeds with dip angles measured consistently at less than 5 degrees inclined toward the west and southwest with an average of 2 to 3 degrees.

The Eocene-age Friars Formation underlies the Stadium Conglomerate at the southern end of Spring and Little Sycamore Canyons. The formation is known to consist mainly of fine-grained sandstones and claystones. Based on geologic mapping and interpretation of data from boreholes completed as part of Davis and Weeraratne's investigation, the relatively fine-grained Friars Formation is interpreted to occur below about elevation 360 feet amsl well below the Little Sycamore Canyon floor.

Surficial units within the APE consist of Holocene-age alluvium in the main canyons, slopewash deposits mainly in the side drainages, and scattered man-made fill. Alluvium in the canyon floors consists chiefly of loose, cobble-rich, yellow-brown sands with gravelly sands and a few thin silt and clayey silt lenses and interbeds. The cobbles reportedly comprise 5 to 15 percent of the alluvium. The maximum depths of alluvium have been difficult to determine.

Slopewash deposits have been mapped in the side drainages, toes of slopes, and low-lying areas where soil and weathered bedrock have accumulated to an estimated three feet or thicker. These loose porous soil and cobble deposits have formed as result of slow downslope creep of weathered bedrock and soils due to gravity and shallow debris flows. In the larger side drainages slopewash may range to 10 feet or more in thickness.

Man-made fill not directly associated with the landfill operations has been placed locally throughout Little Sycamore Canyon in conjunction with road construction drill pads and landfill facilities. Natural slope degradation appears to be controlled by the imperceptibly slow soil creep within the upper 1 to 3 feet of the ground surface. Evidence of past surficial slumps and debris flows generally less than 50 feet wide on slopes and at the heads of side canyons has been noted. These surficial slides appear to have occurred periodically as result of storms during the past hundreds of years.

2.1.4 Climate

The climate in the San Diego region is typical of coastal southern California and is classified as Mediterranean, or “summer-dry subtropical.” It has dry, warm to hot summers and relatively mild, wet winters. Most of the rain falls between December and March. The fall season marks the commencement of San Diego’s fire season, as this time of year the warm Santa Ana winds blow from the inland deserts and create a condition of high fire hazards. The Project area sits on the western edge of the region’s dry backcountry. The APE burned in the large Cedar Fire of 2003.

2.1.5 Flora

The majority of the area contains a dense stand of non-native grasslands with patches of coastal sage scrub/non-native grassland mix and chamise chaparral. There are also several ecotones, which are areas with overlapping vegetation communities. The most common species observed by Project biologists is deer weed (*Lotus scoparius*). Isolated individual plants scattered within the patch of deer weed include California buckwheat (*Eriogonum fasciculatum*), wild cucumber (*Marah macrocarpus*), and white sage (*Salvia apiana*) (Crawford 2011:14).

Nine vegetation communities/habitat types occur within the survey area. These vegetation communities/habitat types include: Diegan coastal sage scrub, Diegan coastal sage scrub with non-native grassland, disturbed habitat, granitic chamise chaparral, granitic chamise chaparral with non-native grassland, granitic southern mixed chaparral, non-native grassland, non-vegetated channel, and southern sycamore-alder riparian woodland (Crawford 2011:14-18).

2.1.6 Fauna

Wildlife species observed or otherwise detected by Project biologists in the area include common species typically found in grassland, scrub, uplands and disturbed habitats. Invertebrate species commonly observed include mylitta crescent (*Phyciodes mylitta*), cabbage white (*Pieris rapae*), and tarantula hawk (*Pepsis chrysothemis*). Reptile species observed include western skink (*Eumeces skiltonianus skiltonianus*), western whiptail (*Aspidoscelis tigris*), and western fence lizard (*Sceloporus occidentalis*). Avian species observed or otherwise detected include house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), black phoebe (*Sayornis nigra*), bushtit (*Psaltriparus minimus*), wrentit (*Chamaea fasciata*), Anna’s hummingbird (*Calypte anna*), and California towhee (*Pipilo crissalis*). Mammal species observed or otherwise detected include desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), and California ground squirrel (*Spermophilus beecheyi*) (Crawford 2011:20).

The Project area is located within and immediately adjacent to a Multiple Habitat Planning Area that includes wildlife linkages and corridors that connect several large areas of habitat within the County of San Diego and would have facilitated wildlife movement in the past (Crawford 2011:24).

2.1.7 Present Land Use and Land Disturbance

The Project area is primarily open space; however, several features associated with the Sycamore Landfill are present. The paved Sycamore Landfill Road runs along the west and southern boundary of the plant site and parallel to the gas lateral on its way east to Mast Boulevard. To the north and east of the gen-tie corridor is the landfill itself as well as a gravel sorting facility near the head of Little Sycamore Canyon. The vast majority of upper Little Sycamore Canyon has been excavated and modified by these facilities. Along the top of the ridge that separates Little Sycamore and Spring Canyons is a graded dirt road associated with SDG&E transmission lines that also cross the area. Several barbed wire fences are also along the ridge.

2.2 CULTURAL SETTING

2.2.1 Prehistoric Context

For purposes of this report, “prehistory” is considered the period of human occupation prior to Spanish contact (AD 1542). The prehistoric cultural chronology developed for Southern California has been extensively detailed in numerous previous investigations (Basgall and True 1985; Moratto 1984; Erlandson and Colton 1991). Archaeological complexes within the San Diego region are focused upon here, although they are discussed chronologically. Prehistorically, the San Diego region, including the 5-mile area surrounding the Project, sustained varying sequences of population densities and utilization. Current California archaeological theory characterizes prehistoric human occupation of the region as one that evolved through adaptation of settlement and subsistence strategies to the environment and available resources.

2.2.1.1 Pleistocene Period

Pleistocene occupation prior to circa (ca.) 10,000 years BP in the region has been debated, although less so recently, and remains an unsettled topic. None have been identified within the 5 miles surrounding the Project area. Some have argued that assemblages consisting of “crude” cobble artifacts represent a very early human presence. However, without formal artifacts such as projectile points or ornamental items, or even human remains, this argument continues to be contested. Many believe the cobble artifacts to be of a natural origin. Laylander (2011) suggests that future archaeological investigations in the San Diego region, including observations of geological processes and materials, may be able to contribute additional information regarding the natural or cultural origin of such cobble assemblages.

A Late Pleistocene presence is generally more accepted due to the somewhat scarce occurrence of fluted points characteristic of the Clovis Pattern. However, even the temporal association of these is contested in the San Diego region due to their early use and potential to be traded through time periods. Of the three fluted points identified in the San Diego region (Laylander 2011), two have been reported as found in Cuyumaca State Park and Ocotillo Wells,

25 miles and 55 miles east of the Project, respectively. The third, made of obsidian, is the only one to be collected from a controlled archaeological excavation conducted in a mountain valley near Shingle Spring, approximately 44 miles northeast of the Project (Kline and Kline 2007). However, when the material was sourced it was found to be from the Casa Diablo source in Mono County of Northern California. The expansive distance between this material source and the artifact's final deposition suggests a comparable amount of time passed before it was brought into the San Diego region by a more recent, post-Pleistocene population. However, Kline and Kline (2007:58) argue that if this were the case "it would more likely have been intermingled with later artifacts closer to the surface levels." Thus, even with the rare presence of fluted points, the degree of Late Pleistocene occupation of San Diego, particularly along the coast and western mountains, remains debatable.

2.2.1.2 Early Period/Archaic Period

During this period between 10,000 and 1300 BP, people were highly mobile and their subsistence strategy focused on hunting large and small game and gathering seasonally available plants. A paucity of ground stone tools has led some to conclude that vegetal resources were not heavily utilized during this period (Rogers 1966; Warren 1967; Moratto 1984).

Two cultural complexes, San Dieguito and La Jolla, have been identified in the San Diego region, including the 5-mile area surrounding the Project. Distinguishing between these two complexes has presented much fodder for debate. Crescents, bifaces, and scrapers are believed to be more common in San Dieguito site assemblages. Further San Dieguito lithic technology appears to be based on a combination of percussion and pressure flaking techniques, with a material preference of fine-grained felsitic (fine-grained igneous rock consisting essentially of quartz and feldspar) rock. San Dieguito sites are typically found on mesas, ancient desert terraces, inland dry lakes, and near river valleys and coastal lagoons (Warren 1966). La Jolla assemblages on the other hand are dominated by more "crude" hammers/choppers, cores, and manos. Tools in this complex are considered inferior to San Dieguito tools and are typically made of water-worn cobbles (Laylander 2011). The La Jolla complex has been identified primarily in coastal settings, transverse valleys, sheltered canyons, benches, and knolls (Wallace 1955, Moriarty 1966).

The traditional view has placed La Jolla sites as later temporally than San Dieguito sites, but more recently this view has been challenged by new theories that propose the complexes are representations of different functions rather than cultural/population or temporal differences.

2.2.1.3 Archaic—Late Prehistoric Transition

There is also debate regarding the transition from Archaic to Late Prehistoric populations. In general, four theories have been postulated and have been summarized by Laylander (2011):

- Archaic populations persisted into the Late Prehistoric, their culture evolving independently and in place;
- Populations were influenced by neighboring groups and possibly by immigration of those groups into the San Diego region;
- Neighboring groups migrated into the San Diego area, displacing earlier populations; or

- An occupational hiatus occurred in the San Diego area as Archaic populations moved or died out and Late Prehistoric populations later migrated in.

In any case, there is a demonstrated scarcity of radiocarbon dates in the region surrounding the Project between 1300 BC and AD 200. Linguistic studies have identified a separation or transition of local, ethnographically-known languages at approximately the same time.

2.2.1.4 Late Prehistoric Period

The Late Prehistoric Period in southern San Diego County spanned between 1300 BP and Spanish Contact and is the most well-represented chronological period in the 5-mile region surrounding the Project. In this region, the period is represented by the Cuyamaca complex. Cuyamaca populations are regarded as the ancestors of the ethnohistorically documented Kumeyaay culture. This complex is defined by the use of the bow and arrow, smaller projectile points, presence of obsidian and pottery, changes in mortuary practices from inhumations to cremations, and an emphasis on inland/upland food gathering (e.g., acorns, piñon nuts) and processing. Settlement patterns in the San Diego and Project area range from permanent villages along or near water courses, or semi-permanent seasonal village sites, to temporary camps. Artifact assemblages include small, triangular pressure-flaked projectile points (Cottonwood and Desert Side Notched series), serrated projectile points, Butte obsidian, portable milling implements, bedrock milling features, buff and brownware pottery, bone awls, *Olivella* shell beads, and other stone and shell ornaments and cremations. Pictographs, petroglyphs, and geoglyphs are also associated with this complex (Meighan 1954; Moratto 1984).

During this period, numerous trail systems developed for short- and long-range travel as people continued to diversify their resource base by accessing nearby habitats and acquiring goods through long distance trading networks. One was noted by Gallegos (2002:Figure 3.2) as along the southern bank of the San Diego River, south of the Project. The numerous canyons and drainages of the 5 miles surrounding the Project were likely also used as travel routes between the more coastal environments west of the Project and the more mountainous, higher elevation environments to the east. Commodities such as obsidian, marine shell, fish, and salt were traded and purchased. Late Prehistoric sites are generally associated with water sources, aquatic resource areas, trails, pictographs, petroglyphs, bedrock grinding surfaces, permanent and temporary camps, caches, and rock shelters (Moratto 1984).

2.2.2 Ethnohistoric Context

The Project falls within the territory ethnographically inhabited by the Kumeyaay, a Yuman-speaking group of the Hokan language stock. The Kumeyaay occupied territory extending from the Batiquitos Lagoon in the north, south past Ensenada, Mexico, west to the Pacific Ocean, and east to near the Colorado River. They have typically been lumped with Diegueño groups and, as a result, are not specifically described in ethnohistoric documents (see Hedges 1975; Kroeber 1925; Luomala 1978). In the 20th century, the Yuman-speaking bands of southern California and northern Baja California acquired the tribal name of Kumeyaay. They are also referred to as the Ipai (northern region), Tipai (southern region), and the Kamia (eastern desert region) (Luomala 1978). Research efforts for this Project did not encounter an ethnographic study focused on the Project area and the surrounding 5 miles. Therefore, the following

discussion is based upon ethnographic information known from within the general San Diego region and traditional Kumeyaay territory.

Traditionally the Kumeyaay were mobile hunters and gathers that existed in autonomous bands, exploiting a variety of coastal, mountain, and desert environments, with occasional use of the Imperial Valley for agriculture (Hedges 1975:81). Ethnographic accounts identify four Kumeyaay groups: coastal, hill, mountain, and desert. Given the wide traditional Kumeyaay territory their available resource base and economy were equally as varied and could be based on maritime or terrestrial resources, depending on a village location (Gallegos 2002:31). Settlements were scattered although valley areas have been identified as the preferred setting for settlements, providing the widest range of available resources. Band size varied as people moved through a seasonal gathering round for available water, plant, and animal resources. Western and eastern Kumeyaay groups would meet in autumn in the mountainous regions to harvest acorns, trade, and conduct ceremonies (Hedges 1975; Luomala 1978; Gallegos 2002). In fact, Gallegos (2002: Figure 3.2) indicates a major trail leading from the coast, along the southern bank of the San Diego River past the Project area, and east into the mountains. Late Period settlements included multiple loci of activity. Most would have incorporated at least two permanent base camps and special-purpose sites, such as quarries or milling stations (Luomala 1978; Gallegos 2002:31).

As with most Native American groups, little is known regarding the religious practices of the Kumeyaay. Several peaks within their territory though are known to have sacred qualities. These include Kuuchamaa (Tecate Peak), Table Mountain, Mount Signal (Eagle Mountain), Jacumba Peak, Mount Woodson, Viejas Mountain, and Otay Mountain (Shipek 1985:67, 69, 71). Most of these are along the United States and Mexico border south of the Project or in the Imperial Valley or Colorado Desert, well east of the Project. Mount Woodson and Viejas Mountain are the nearest to the Project, approximately 11 miles north and 18 miles east, respectively.

Dwellings varied from windbreaks, caves, and rock shelters, and sunken, dome-thatched structures with wooden pole framework (Luomala 1978). The selected structure type depended on need, the season, locality, and available raw materials. Kroeber describes the structures as earth-covered with three posts in a row and connected by a short log balanced across the top. Additional poles were then leaned against the sides and covered with brush. The design of these structures has been attributed to an interaction sphere with Luiseno, Cahuilla, and the Colorado River tribes (Kroeber 1925:721).

Many of the technological changes seen in the ethnographically documented Late Period, including improvements in hunting technology and food storage, can be attributed to innovation and diffusion. These include several ethnographically documented features such as the brush-covered dwellings described above, sweat houses, small cooking hearths, roasting pits, heating platforms, granary bases, milling slicks, bedrock mortars, and pictographs (Gallegos 2002:37). Also during this time the bow and arrow were introduced, as evidenced by accounts that three of Cabrillo's sailors were wounded by such at San Diego Bay. The source of obsidian, obtained by trade and apparently rare in the Project and surrounding 5-mile region, also changed in the Late Period from the Coso source to the closer Obsidian Butte source, though access to Obsidian Butte varied with the water level in Lake Cahuilla. Burial practices were also altered, switching from burial to cremation, presumably for the purposes of public health (Gallegos

2002:35-36). Evidence of burial practices is present within the large sites of the San Diego River Valley south of the Project.

Hunting resources consisted of small game such as rabbit, rodents, and birds, and occasional bighorn sheep and deer. A wide variety of seeds and plants were gathered including acorns, rice grass, piñon nuts, wild plums, mesquite pods, yucca, agave (mescal), and cacti (Luomala 1978; Spier 1923). Being within proximity to the San Diego River (1 mile), Pacific coast (14.5 miles), and San Diego Bay (13 miles), the Kumeyaay of the Project area likely also made use of fish, shellfish, marine mammals, and aquatic plants for subsistence as well as tools, cordage, and adornments (Moratto 1984). Cultural use of resources, particularly coastal resources, would have been affected by the Medieval Climatic Anomaly during the Middle to Late Holocene (AD 900-1350) (Jones, et al. 1999; Gallegos 2002:27). The warming and arid climate during this time resulted in sedimentation of coastal lagoons, subsequently shifting settlement and subsistence patterns into canyons where resources were more dependable. Interpretations of San Diego's ethnographic record with respect to systems of settlement have varied based on location. As Laylander (2011) notes some studies suggest that eastern Kumeyaay groups moved seasonally through a range of habitats as groups combined and divided along the way. Other Kumeyaay communities are reported to have been distributed between permanent central villages and outlying, more temporary "homesteads." Laylander (2011) also describes regional debate that field camps would have been located within proximity to a few specific resources, while residential bases would have been located within proximity to a wide range of resources. Overall, however, it appears that most efforts to interpret the ethnographically documented Late Prehistoric settlement system focused on northern San Diego County. In general, it appears that the Kumeyaay had a relatively flexible system of nonpermanent settlements. Nevertheless, Gallegos notes that settlement of the San Diego River Valley has been continuous for the past 7,000 years (Gallegos 2002:27, 35). Little study regarding early settlement systems in San Diego has been conducted, including studies that would have covered the Project and surrounding 5 miles.

Today, the descendants of the Kumeyaay bands are divided among 12 reservations in the southern portion of San Diego County, and the Luiseño bands are divided among five reservations in the northern portion of the county. The traditional origin belief of the Kumeyaay people is expressed through the oral tradition of ceremonial song cycles, known as the Bird Songs. These songs describe how the Kumeyaay people were created within the region and have been there from the beginning of time. They believe there is continuity between the ancestral coastal, mountain, and desert people of the region and the Native descendants of today (Wilson 2001; Russell et. al 2007).

2.2.3 Historic Context

Written history in the area begins with early Spanish mission settlement and exploration, Euro-American settlement, railroad and mining development, and the military. The first Spanish mission and presidio was founded in 1769 at present day San Diego, followed by San Luis Rey (1798), the San Luis Rey Mission at Pala (1816), and Chapels of the San Diego Mission at Santa Ysabel (1818). Local Native American tribes were indoctrinated into the mission system as a source of forced labor under the auspices of religious conversion. One of the first Spanish expeditions through the region was Don Gaspar de Portola in 1769, headed north to Monterey. Portola's route remained along the coast, however, away from the Project area (Carrico 1977a).

Juan Bautista de Anza led another expedition in 1774 through what is now San Diego County to establish an overland route. This route remained well east of the Project, running through the western edge of the Colorado Desert (NPS 2011), but once established served as a route for supplies and personnel moving north from Mexico to the missions in California. Explorers such as Portola and de Anza introduced horses, cattle, agricultural tools and products, and new architectural and construction styles to the San Diego region, including the Project area and surrounding 5 miles. In 1821, Mexico successfully revolted against Spain, achieving independence and shifting control of southern California to Mexico. During this time, cattle ranching dominated agricultural activities in the region. After the signing of the Treaty of Guadalupe Hidalgo, California became a territory of the United States and in 1850 achieved statehood (Robinson 1948).

The 1849 California Gold Rush brought thousands of diverse immigrants to the state. By 1854, the San Diego Trail (formally Pedro Fages' Oriflamme Canyon route) became the main route for travelers coming from the east. In 1865, the San Diego to Fort Yuma Wagon Road was opened. This access road later became the basis of the Old Highway 80 alignment (Bates 1970; Rensch 1957).

During the 1860s through the 1870s, settlers were drawn yet again to the San Diego region due to the discovery of gold near Cuyamaca and Julian. The first lode was discovered in 1870 at the Julian Mine. The mines were worked by individuals and by corporations such as the Chariot Mining and Milling Corporation. Production for mining peaked between 1872 and 1873 and was only practiced at a small scale level after the rush (Cook and Fulmer 1981). The increase in population and migration created the need for efficient transportation corridors in the region. Several trails, stage roads, and eventually rail lines and automobile roads crossed the area, providing a means of travel and transportation of supplies for people.

Homesteading was also encouraged in the region in the late 1800s. The historic community of Linda Vista was established in 1886 as a dispersed settlement of farmsteads centered northwest of the Project area in San Clemente Canyon. However, the community was considered to cover farmsteads scattered across the immediate area practicing mixed farming, including cattle and chicken ranching and growing wheat. Residents constructed wells in canyons and pumped water up to the mesas to supplement the limited water supply in the area. Earthen dams were also constructed across drainages, and cisterns were used to store rainwater for household use. The community declined and eventually ceased when the community school closed in 1912 and devastating flooding occurred in 1916. The establishment of military facilities in the area displaced any remaining community members (Hector et al 2004:18-20).

Several military facilities have existed within the boundaries of what is now MCAS Miramar, north and west of the proposed Project. These included Camp Kearny (National Guard, 1917-1920), Camp Holcomb/Camp Elliot (1934-1960), Naval Auxiliary Air Station, Camp Kearny (1943-1946), and Miramar (1946-present) (Hector et al 2004:20-23). The activities of all of these bases were focused to the east and west of the Project area in Sycamore and San Clemente Canyons, respectively.

2.2.3.1 Old Mission Dam

Historically in California, the first Euro-Americans to construct irrigation systems were Spanish colonists and one of the first systems was Old Mission Dam and its associated aqueduct or flume. From the start of the Spanish Colonial period beginning around 1770, missionaries and rancheros conducted agriculture and cattle ranching in Southern California. Most of the missions the Spanish established in California included an irrigation system. The systems, however, were limited by the region's irregular and fluctuating water supply as well as the amenability of the local labor supply, Native Americans. This, combined with the agricultural orientation of the missionaries made irrigation technologies necessary, including dry farming, runoff irrigation, floodwater farming, and major irrigation projects (JRP and CalTrans 2000:8).

It is unclear when construction of Old Mission Dam was initiated, but it was likely not until after AD 1800. The NRHP Nomination for the dam (Heintzelman and Snell 1983) assumes an initial construction date of 1803, with the final form, 220 feet long, 12 feet high, and 13 feet thick, being achieved by 1817. The dam is constructed of local cobblestones and cement and was intended to control the flow of San Diego River, forming a lake behind it. A wooden gate in the dam was removed during dry periods to allow water in the lake to flow the 5 miles downstream to the San Diego Mission. At the mission, the water was used for milling and domestic use. Much of the water was lost in river sands between the dam and the mission. To resolve this issue, a small tiled aqueduct was constructed to transport the water. The system allowed for a year-round water supply at the mission. Although portions of the dam still exist, having been damaged by floods, the aqueduct no longer exists. The significance of the dam and aqueduct system lies in the possibility that they represent the first major irrigation-engineering project on the Pacific Coast of the United States.

The water distribution system of the San Diego region today mimics the technology of the Old Mission Dam irrigation system, utilizing a system of water reservoirs, water storage facilities, and transmission and distribution lines (City of San Diego 2008a:PF-32).

2.2.3.2 Camp Elliot

Camp Elliot, named for Major-General Elliot, the tenth Commandant of the Marine Corps, is the third iteration of today's MCAS Miramar. Prior to being known as Camp Elliot, the base was known as Camp Kearny (1917-1920) and Camp Holcomb (1934-1940). The base was not in use between 1920 and 1934. With each name change, base boundaries were re-drawn (Hector, et al. 2004:21). Camp Elliot (1940-1960) extended from Murphy Canyon Road on the west to Sycamore Canyon on the east, and from Pomerado and Beeler Canyon roads on the north to the San Diego River and Mission Gorge Road on the south (City of San Diego and Tierrasanta 2011:3). The Camp consisted of a 25,000-acre main cantonment and six auxiliary camps, and various training ranges. At the height of its operation, it included 25 ranges, five training areas for individual combat and tank maneuvers, two obstacle courses, a grenade court, a debarkation course, a combat reaction course, four bayonet courses, and a bayonet assault course (Hector, et al. 2004:21, 22). The Project area was within the southeast corner of the Camp and was used as range (USGS 1952, 1953). This area was known as East Elliot.

Following construction of Camp Elliot facilities in 1940, three regiments were stationed at Camp Elliot in 1941: the 8th Regiment, the 1st and 2nd Battalions of the 10th Regiment, and the 2nd Regiment of the Marines. An additional five commands were quartered there as well:

headquarters of the Fleet Marine Force, San Diego area; Fleet Marine Force Training Center; the Troop Training Unit, Amphibious Training Command, Pacific Fleet; the Marine Barracks; and the Base Depot. In 1942, the Camp was designated a fleet Marine Training Center and following the attack on Pearl Harbor, the Training Center rapidly grew. By 1943 over 50,000 Marines had trained there. However, when the Marines were transferred to nearby Camp Pendleton in 1944, the Navy took over the camp, using it as a training and distribution center for the remainder of World War II (Hector, et al. 2004:21-22).

After World War II, the National Guard's 251st Headquarters was based at the Camp. Over 150,000 naval recruits were trained at the Elliot Annex of the Naval Training Center between 1951 and 1953. Between 1953 and 1960, the Naval Retraining Command used the Camp. In 1961, 7,500 acres of Camp Elliot was acquired by adjacent Miramar (Naval Air Station at that time) (Hector, et al. 2004: 22, 23). Meanwhile, the 3,200 acres of the East Camp Elliot area was disposed of by the Navy the same (California Military Museum 2012).

2.2.3.3 Sycamore Landfill

This context for the Sycamore Landfill is based on more detailed information provided in the Draft Environmental Impact Report for the Sycamore Landfill Master Plan (BRG 2008).

Solid waste management is an important regional issue due to limited landfill capacity, urban encroachment, environmental concerns, environmental regulations, and the increased cost of developing and operating waste management facilities. Landfills and their role in refuse management are considered an essential government function in reducing health and safety threats. A primary component in the management of solid waste in the region and particularly in recent years is waste reduction.

In the early years of development and through the first half of the twentieth century, San Diego relied on two natural advantages to help with the disposal of its waste: the sea and abundant open space. During that period, waste disposal involved either dumping waste at the water's edge, taking it off shore to dump it in deeper waters, or burning it at dumps located in isolated areas (Kelly 2000). As the population in the city and surrounding areas grew, garbage disposal began to be a more pressing issue. Early approaches to waste disposal were refined over the years with old methods being abandoned and new methods being introduced. Waterside dumping was controlled and eliminated first. At the end of the nineteenth century, the City added more controlled burning of the waste (rather than the previous method of simply burning mounds of garbage at various dump sites). The first municipal incinerator was active by 1897 but archeological evidence suggests that the offshore dumping of waste continued through the 1930s (Buxton 2012). By the early 1950s, the City began experimenting with the then relatively new approach of "fill and cover" to create sanitary landfills. Beginning with the Chollas Sanitary Landfill, the city began employing a method pioneered at the Fresno Sanitary Landfill of burying garbage in order to keep down smells and vermin (San Diego Union 1952; NPS 1999, 2001). The Sycamore Landfill was the fourth sanitary landfill to be opened in the area. Since since the early 1990s, recycling and waste reduction have begun to play a larger role (County of San Diego 2011:3-38). The regional system of waste collection, removal, and disposal has evolved from the direct haul of waste to County or City-owned landfills, to a system that integrates waste management alternatives. The current methods include separate collection of refuse and

recyclables, and in certain cases removal of recyclables from waste at transfer stations (County of San Diego 2005:SP-18).

The City of San Diego operates its own solid waste management system, which includes solid waste collection at and operation of the Miramar Class III (non-hazardous) sanitary landfill. A composting facility called the Greenery, a recycling facility, and hazardous waste collection facility are also located at this landfill. Allied Waste Industries, Inc. operates four active Class III sanitary landfills in the County at Sycamore Canyon, Otay, Ramona, and Borrego. The company also operates seven rural bin site transfer stations in the County. Typically, cities in San Diego County use the regional landfills for their solid waste disposal. Some cities export varying portions of their solid waste to out-of-county disposal facilities (County of San Diego 2005:SP-16).

The majority of waste in the Project region (incorporated and unincorporated San Diego County) is disposed of at the Miramar Landfill west of the Project area. Remaining waste goes to six other landfills, including two privately-operated landfills: the Sycamore Landfill and the Otay Landfill (unincorporated San Diego County). The Sycamore Landfill is projected to last through 2033 and the Otay Landfill through 2025. All other landfills, including the Miramar Landfill, are owned by local jurisdictions. Two additional landfills are currently proposed in the region: the Gregory Canyon and Campo landfills (City of San Diego 2008a:PF-38; County of San Diego 2011:3-38). Table 2-1 outlines permitted disposal facilities in San Diego County indicated by the County's Integrated Waste Management Plan (County of San Diego 2005:Table 4.5). Figure 2-5 depicts the location of the facilities (County of San Diego 2005: Figure 4.1).

Table 2-1: Permitted Disposal Facilities in San Diego County

Facility	Description	Facility Address	Operator
Otay Annex SLF	Large Landfill	1700 Maxwell Road, Chula Vista	Allied Waste Industries, Inc.
Sycamore SLF	Large Landfill	14494 Mast Blvd., San Diego	Allied Waste Industries, Inc.
Borrego Springs SLF	Small Landfill	2449 Palm Canyon Dr., Borrego Springs	Allied Waste Industries, Inc.
Ramona SLF	Small Landfill	20530 Pamo Rd., Ramona	Allied Waste Industries, Inc.
Miramar SLF	Large Landfill	5180 Convoy St., San Diego	City of San Diego
Las Pulgas SLF	Small Landfill	TB 403-B Basilone Rd., Camp Pendleton	Camp Pendleton Marine Corps
San Onofre SLF	Small Landfill	TB 403-C Basilone Rd., Camp Pendleton	Camp Pendleton Marine Corps

Source: County of San Diego 2005:Table 4.5

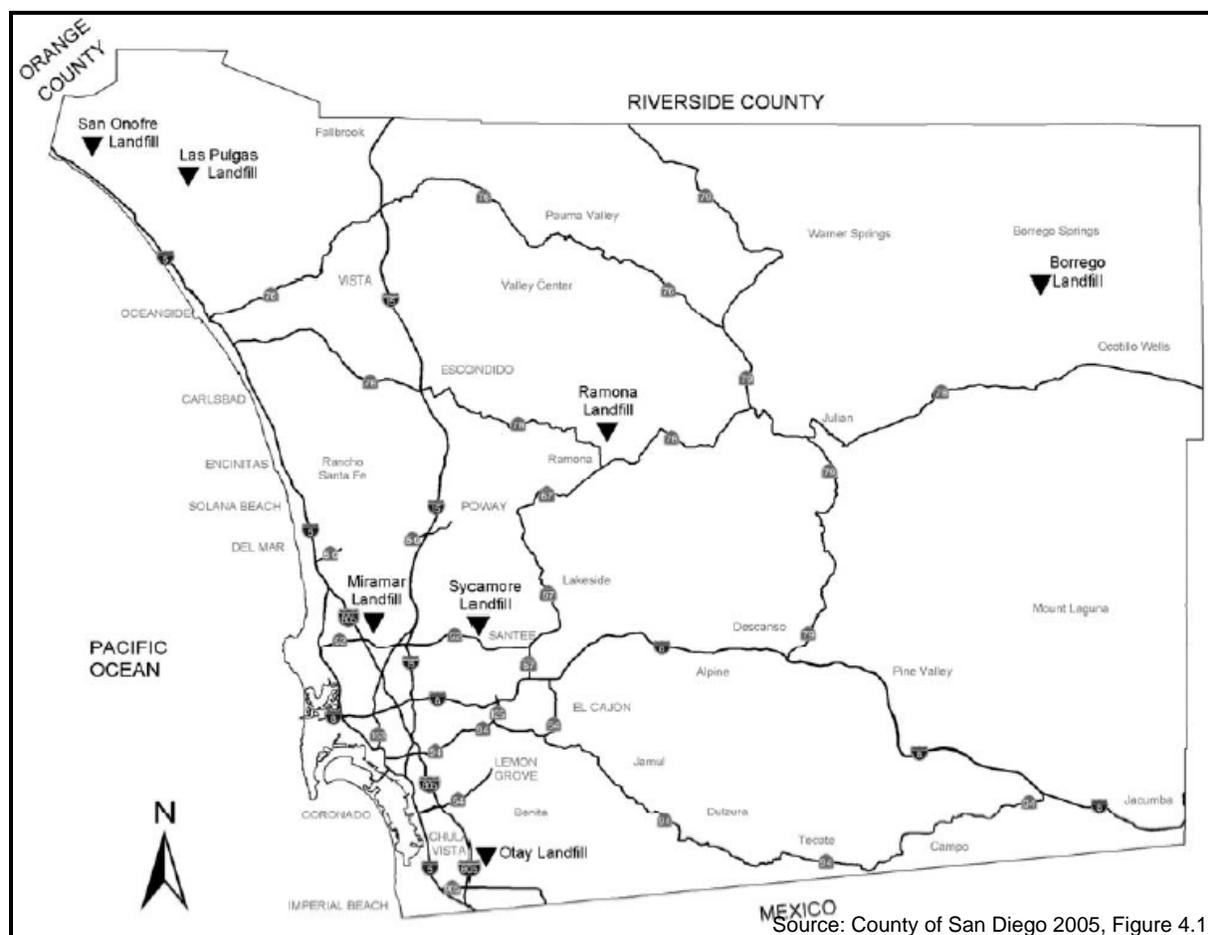


Figure 2-5. Permitted Landfill Locations in San Diego County

The Sycamore Landfill accepts City waste and handles approximately one-third of the current waste generated in the City of San Diego. The landfill was initially permitted in 1963 when the City issued Conditional Use Permit (CUP) #6066 to the County of San Diego, who owned the site at that time. The CUP authorized the County to construct and operate a sanitary landfill on 113 acres within Little Sycamore Canyon. The CUP was amended in 1974 to increase the size to 493 acres and approved a plan to eventually fill the entire canyon with solid waste. The County continued to operate the landfill until 1982. At that time, a private contractor was hired to operate the landfill. In 1997, Allied Waste Industries purchased the property and landfill business as part of a purchase of all County-owned solid waste assets. Today, the landfill is owned and operated by Sycamore Landfill Inc., a subsidiary of Allied Waste Industries pursuant to a Franchise Agreement with the City. This agreement states that Sycamore Landfill will provide capacity for City residential waste following closure of the City's Miramar Landfill, currently scheduled for 2012 (2017, pending approval of applications). Attachment D provides a list of granted permits and other government actions associated with Sycamore Landfill to document the landfill's history of development (BRG 2008:1-1, 2-1). As of 2008, approximately 150 acres have been disturbed by prior and on-going landfill operations (BRG 2008:2-1).

The landfill is operated as a Class III municipal solid waste landfill for disposal of non-hazardous waste. Class III landfills are defined as those that meet specific siting design and construction

criteria for geologic setting, flood protection, seismic environment, and liner and leachate collection systems. Such landfills are typically designated for municipal solid waste and inert waste disposal (BRG 2008:2-3 – 2-4).

The existing major support facilities at Sycamore Landfill include (BRG 2008:2-4, 2-8):

- Entrance facility consisting of two scales, a scale house, and administrative office buildings;
- A paved two-lane, 1-mile long landfill access road;
- Steel storage container to temporarily store intercepted hazardous materials;
- Equipment maintenance area, where routine maintenance on landfill operations equipment is performed from mobile service vehicles;
- Two sedimentation basins to capture surface runoff;
- Above-grade 12,000 gallon diesel fuel tank and a second diesel fuel tank;
- Landfill gas flare and cogeneration facility, operated by a third-party company;
- A recycling area near the main landfill entrance, operated by a third party;
- An aggregate processing facility within the landfill footprint, operated by a third party; and
- A greens/wood materials processing operation on the active landfill area where materials are ground and/or shredded for use as Alternate Daily Cover or other beneficial reuse.

2.2.4 Archaeological Context

The neighboring mesas and especially the valley to the south, known in Mission records as the Valle de San Luis (Robbins-Wade 2001:2), are rich in archaeological resources. Indeed several of the best known sites and sites with extensive time depth (CA-SDI-204, CA-SDI-8594, CA-SDI-9242, CA-SDI-9243, and CA-SDI-10148) are in this area as well as further upstream along the San Diego River. However, as several previous surveys have noted much of the archaeological record along the San Diego River has been destroyed by development (Robbins-Wade 2001).

Based on the literature review for the Project, archaeology in the 5-mile region surrounding the Project is dominated by prehistoric archaeological sites, specifically lithic scatters and bedrock milling sites. Both site types make use of the abundant naturally occurring and lithic resources of the Project area and surrounding 5 miles, including numerous eroding cobbles and rock outcrops. Further, sites in the environmental context of the Project do not appear to extend much below the surface (see Hector, et al. 2004 and Smith and Burke 1994). Within the 1-mile radius records search conducted, 53 prehistoric isolated artifacts (less than five within 50-meter radius) were identified, including at least 31 flakes, 19 cores, six tested cobbles, one hammerstone, one scraper, and one biface. Within the same radius, 56 prehistoric sites (28 lithic scatters, 15 bedrock milling sites, five habitation sites, four temporary camps, and four lithic scatters and with groundstone), two historic sites (a cistern and the San Diego Mission Dam), and one multicomponent site (prehistoric lithic scatter with historic refuse) were recorded.

Bischoff, et al. (1995) notes that MCAS Miramar, the eastern boundary of which is approximately 1.5 miles west of the Project, has conducted several large surveys that have

documented numerous archaeological sites within the Station's approximately 23,314 acres. At the time of Bischoff, et al.'s reporting, 135 archaeological sites (93 prehistoric and 42 historic) and nine isolates (all prehistoric) had been recorded on base. Prehistoric resources include 78 lithic scatters, five bedrock milling sites, and five habitation sites. Historic resources include 19 refuse deposits and 20 structures/features (foundations, stone concentrations, dams, military use areas, a farmstead, a cemetery, a well, and narrow gauge railroad tracks). A post brush-fire of 9,635 acres of the Station in 2004 following the 2003 Cedar Fire identified only 13 new archaeological sites and two isolates. These newly recorded sites consisted of three prehistoric bedrock milling sites, one prehistoric concentration of stone artifacts, a 1929-1930 pick-up truck, historic-era well, a homestead, a refuse deposit, military refuse, and military structures/features (Giacomini and Caudell 2004). A survey of a large portion of the base conducted by Gallegos and Associates in 1992 developed a sensitivity model for the area that indicates ridgelines, which dominate the topography of the region, have the highest resource density, with one site per 64 acres. As a result of the study the Station assigns a higher priority to ridgelines and drainages in reconnaissance level investigations (Bischoff, et al. 1995:18).

The best known site in the region is in the Valle de San Luis along the San Diego River, approximately 0.75 mile south of the Project. CA-SDI-203 was originally recorded by Malcolm Rogers as a permanent village site with deposits ranging from the Early Archaic to Protohistoric Period, when, Rogers asserts, the Native American occupants were used to construct the Mission Dam. Notably, the site included numerous cremations, some inhumations, bedrock mortars, a paucity of shellfish, glass beads, bow pipes, and projectile points (Robbins-Wade 2001).

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3.0 RESEARCH DESIGN

The objective of this survey investigation is to gather information to more fully evaluate the potential impact of the Project. This effort is part of Quail Brush Genco LLC's fulfillment of CEQA, requiring such an evaluation, on behalf of the CEC. Depending on the type of resource(s) encountered, a wide range of research topics could potentially be addressed by cultural resources identified by the investigation (or subsequently in the event of an unanticipated discovery). The cultural and archaeological contexts described in Chapter 2 and the results of the records search described in Chapter 4 suggest that the following site types have the highest potential of occurring in the APE: lithic scatters, habitation sites, milling sites, quarry sites, temporary camps, special use localities, historic refuse deposits, homesteads, military-related features, and isolates. The research topics discussed below are not inclusive of the full range of interests within the San Diego region, but are consistent with current and local research trends. Laylander (2011) suggests several research themes and future directions for San Diego archaeology. Similarly, past studies on MCAS Miramar have identified research questions that are more specific to the Project location. The following research themes and questions are based upon these current and nearby archaeological research efforts, but are limited to topics applicable to resources with the highest potential of being found in the APE based upon archival research conducted for the Project.

3.1 EXPECTED SITE TYPES

Archival research has revealed that the Project is adjacent to areas of high archaeological site density. However, relatively very few sites and isolates have been found within the Project area despite several surveys having been conducted. The resources that have been identified are primarily prehistoric in context and are typically found atop the ridgelines and toes of the topographic features present in the Project area. The potential site types described below are based upon the cultural, natural, and archaeological context of the Project.

Prehistoric and ethnographic background context, recorded archaeological site data, the topographic features of the Project, and the proximity of the Project to the Pacific Coast, San Diego River, and other freshwater sources suggest that the following prehistoric site types could be encountered during the survey: lithic deposits, habitation sites, milling sites, temporary camps, and isolates. Given that the Project area was historically within the boundaries of MCAS Miramar and based on the few historic sites that have been recorded in the area, expected historic site types include: military sites or features, refuse deposits, homestead remnants, rock cairns or alignments, foundations, and military-related isolates.

3.2 PREHISTORIC SITE RESEARCH THEMES AND QUESTIONS

3.2.1 Site Formation Processes and Distribution Patterns

A variety of post-depositional processes can affect the integrity of an archaeological site, including deposition, erosion, bioturbation, and modern disturbance (i.e., construction). Therefore, identifying a site's formation processes, natural or cultural, is key to delineating horizontal and vertical distribution of artifactual materials. This affects our understanding of the site's chronology, purpose of features, discard of refuse, and the role of the site in the larger site distribution pattern. As Hector, et al. (2004:27) note, inland sites in settings similar to the Project are typically surficial due to the lack of natural deposition along ridgelines. Further, sites are

typically dominated by lithic artifacts and lack temporally diagnostic artifacts and organic materials that could be dated.

Data Needs: An assessment of formation processes and distribution patterns requires identification of the occupied landform, depositional setting, and post-depositional disturbance factors (i.e., bioturbation, modern development).

3.2.2 Chronology

Understanding a site's chronology provides the foundation for addressing most other research themes and questions. Research questions include:

1. Is there evidence of Late Pleistocene/Early Holocene (Paleoindian/Early Archaic) use or occupation of the site?
2. Can the site provide data that would contribute to the debate regarding the San Dieguito and La Jolla complexes? Does the data suggest population replacement, acculturation, or transformation? Or does the data simply suggest the complexes represent differences in the function of the complexes, constrained seasonal use, or use based upon gender?
3. Can the site provide data that would contribute to the understanding of the Archaic/Late Prehistoric Period transition?
4. Does the site include evidence of ethnohistoric/historic use? Is there continuity with a preceding Late Prehistoric Period occupation?

Data Needs: Addressing questions of chronology requires the presence of materials suitable for absolute and relative dating, such as radiocarbon samples (organic materials including shell, bone, and charcoal), obsidian (for hydration dating), and diagnostic artifacts (tools, projectile points, beads and ornaments, ceramics).

3.2.3 Lithic Technology and Use

Laylander (2011) notes that there is wide diversity in the lithic material assemblages seen in San Diego's prehistoric archaeological sites. Differences in materials recovered between sites has been attributed to chronological changes in technology, mobility, or exchange systems or to differences in accessibility to lithic sources due to geographic constraint. Research questions regarding lithic materials include:

1. Do the lithic materials and tools present suggest a preference for specific materials used in making stone tools? If so, did these preferences change with time?
2. What is the nature of the lithic assemblage present at the site (i.e., formal vs. expedient) and in the Project area? Do the assemblages change over time? What do these characteristics suggest about the prehistoric use of the Project area?
3. Does toolstone selection appear to have been affected by geographic location or constraint? Is there a preference for local materials over more distant and perhaps better quality materials?

Data Needs: Analysis of assemblages can show if there is a preference for formal or expedient tools, methods of reduction and manufacture, raw material preferences, etc. Addressing questions of lithic material use and preference requires the site to contain formal stone tools and the identification of materials present, and knowledge of the underlying and surrounding

geologic formations. Chronological control using data described under the research theme of Chronology would also be required to determine changes through time.

3.2.4 Milling Sites

Bedrock mortars and portable milling stones can be numerous or scarce in San Diego County, depending on the site and location. Their contexts and forms are highly varied and several theories related to chronology, ethnicity, and function have been proposed. Research questions pertaining to milling implements focus on chronology, ethnicity, and function:

1. Do milling implements at the site contribute to an understanding of when the mortar was introduced? Does the density of milling implements at the site change with time? Does their form change?
2. Can residue analysis be used to identify what resources the milling implement was used on?

Data Needs: A site that contains milling implements will require chronological controls such as those discussed above in order to address these research questions. Further, standardized data regarding form (i.e., diameter, depth) and material, as well as standardized data regarding extent of use (the number and configuration of used surfaces, patterns of shaping and use wear, and tool condition) would be needed. Floral, faunal, and mineral surface residues would be required to determine function.

3.2.5 Inland Use of Marine Resources

Although the Project area is considered to be within a coastal region and experiences coastal weather patterns, it is still approximately 20 miles inland from the Pacific Ocean, which would have made obtaining marine resources more difficult. Terry Jones (1992:2) suggests that a coastal foraging strategy would become infeasible at approximately 6 miles from the coast. Inland from this a more terrestrial oriented hunting and foraging strategy would have been practiced. Marine resources are mostly found at processing and habitation sites within 0.5 to 1.25 miles of the San Diego coast. However, small quantities of marine resources, particularly shell, do occur at sites farther inland. The interpretation of marine resources found at inland sites may contribute to research themes of prehistoric mobility patterns, exchange systems, and the use or function of marine resources (Laylander 2011). Applicable research questions include:

1. What types of marine resources were used by site occupants? Were they used for subsistence, decoration, or other function?
2. From what coastal locality were the marine resources collected? What does this say about the method of obtainment?

Data Needs: In order to address questions related to inland use of marine resources, data regarding shell and sea mammal species present within the archaeological matrix are required as well as a standardized description of any modifications. Additionally, determining the most likely collection location would be necessary.

3.2.6 Villages and Camps

A wide variety of habitation sites have been identified in the archaeological record of southern San Diego County, including the 5 miles surrounding the Project. Such variety is noted in the various site sizes and the density and diversity of cultural materials present. Such differences between sites may be attributable to group sizes, period of occupation, and the range of activities practiced there. Identifying patterns in habitation site variability can help to reconstruct prehistoric social organization and economies. Laylander (2011) identifies several signatures that can be used to distinguish a habitation site type or settlement system: site size, presence or absence of midden, the presence and density of functional elements, presence or absence of exotic materials or trade items, degree of diversity in the artifact assemblage, indicators of season (i.e., floral or faunal remains), the natural setting of the site, and the spacing between contemporaneous sites. Questions related to villages and camps would include:

1. How does the village or camp fit into the settlement pattern of the area? Is there a preference for particular biotic communities/habitats in relation to site type? Were individual settlements located primarily to maximize access to a particular resource, or to maximize the diversity of the accessible resources?
2. What types of activities were practiced at the site? Is there indication of seasonality, trade, specialization?

Data Needs: In order to address issues of prehistoric social organization and economies at village sites and temporary camps, standardized observations of site size and soil characteristics will be necessary. The presence of exotic materials, features associated with storage and ceremonies, and indicators of seasonality will also be necessary. The density and diversity of the artifact assemblage as well as the variety of tools will also require standardized documentation. Mapping of the site relative to surrounding sites, resources (particular prehistoric distributions of those resources), and travel routes would also be necessary.

3.3 HISTORIC SITE RESEARCH THEMES AND QUESTIONS

3.3.1 Historic Refuse Deposits

Historic period refuse deposits are concentrations of intentionally abandoned domestic, construction, and industrial refuse that often lack association with a known habitation, or have no identifiable spatial association with remnants of other historic activity. Research questions include:

1. What was the chronological time frame of the deposit?
2. Does the deposit represent several dumping episodes over time?
3. Which functional domains are represented (e.g., homesteading, mining, railroad, military training activities)?
4. Is the deposit associated with an historic road or trail?

Data Needs: Analysis of historic-era records and documents of the properties near the refuse can provide information on occupants and activities in the region. Standardized dating of historic refuse materials (i.e., glass, ceramics, metal, cans, etc.) using industry accepted research sources (i.e., Lehner 1988, Toulouse 1971, and Rock 1989) would be necessary to determine the deposit's associated time period and duration of use.

3.3.2 Ranching and Homesteads

Historic period homesteads and farming/ranching features could include structural remains, wells, irrigation features, corrals, and watering troughs. Research questions include:

1. How was land acquired by settlers in the region? What was their ethnicity?
2. Is there a relationship between water availability, location of habitation sites, and the duration of occupation?
3. How did ranching and agricultural technology and practices change through time?

Data Needs: Analysis of historic-era records and artifacts (faunal remains, glass, ceramics, metal, cans, etc.) can allow the archaeologist to draw conclusions about the social class and ethnicity of the site inhabitants, duration of occupation, and quality of life, compared with the remains from other sites in the region. Ranching and agricultural technologies can be identified from features or artifact material such as machinery remnants, structures, windmills, and irrigation system remains.

3.3.3 Military-Related Activities

Archaeological sites associated with historic MCAS Miramar activities have been identified on Miramar. Given that the Project area was historically within the MCAS Miramar boundaries, similar resources may be present. Historic period military features could include refuse scatters, trails, track marks, rock alignments, and military-related isolates. Research questions include:

1. What type of military training activities (tactical, strategic, and logistical) took place in this portion of historic MCAS Miramar? How did that training prepare the troops for war? Is there evidence that the activities proved successful on the war field?

Data Needs: Data needs would be similar to those identified for historic refuse deposits. Military technologies can be identified from historic-era records and features or artifact material such as machinery remnants, military remnants, structures, trails, foundations, and rock features. Research can extend to primary sources such as unit histories and personnel records. Identification of specific units and individuals can also provide opportunities for oral history studies.

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4.0 METHODOLOGY

Identification efforts for this resource inventory included review of existing site records, previously conducted surveys in the area, and historic maps. Additionally, the NAHC and local Native American representatives were consulted. As noted in Chapter 1, two pedestrian surveys have also been conducted, with additional surveys of redesigned and previously inaccessible areas to come. The discussions below detail the efforts completed to date.

4.1 RECORDS SEARCH AND DOCUMENT REVIEW

A cultural resources record search was requested of the study area (as defined for the May 2011 survey) on May 9, 2011 and was completed by the South Coastal Information Center (SCIC), part of the California Historical Resources Information System, at San Diego State University (SDSU) on May 12, 2011. An additional records search was conducted on February 21, 2012 in order to cover the expanded study area of the supplemental survey following re-design of the Project. Full copies of existing survey reports within a ¼-mile radius of the APE (as defined for both the original and supplemental surveys) were requested. Figure 4-1 shows the study area.

The Santee Historical Society and the Museum of Man were also consulted to determine if they knew of any resources of concern that may not be on file with the SCIC. The Santee Historical Society did not know of any. The Museum of Man identified 73 resources within the study area, most of which were also on file at the SCIC and included in their results. Results of the records searches and consultations are included in Appendix A.

4.1.1 Previously Conducted Surveys

The entirety of the overall survey area has been previously surveyed at various times between 1973 and 2008. In addition to reviewing available survey reports, lists or registers of historic properties and local landmarks were reviewed to identify cultural resources within the APE and study area. United States Geological Survey (USGS) topographic maps and other historical maps were also reviewed to determine where unrecorded historic structures and features may be located.

Seventy-eight surveys have been conducted within the study area, 34 of which are within a 0.25-mile of the overall survey area (Table 4-1 and Figure 4-2; only those 29 within a 0.25-mile radius of the CEC-defined survey area for the APE are provided for CEC-review in Appendix A). It should be noted that one of the previous surveys (Ghabhláin 2001; SCIC Survey Report #1126014) mapped as within the study area was found to be mis-mapped. Another, City of San Diego (2001a; SCIC Survey Report #1124675), likely covered the survey area and portions of the APE, but is missing from the SCIC database and could therefore not be mapped or reviewed. Eighteen of the correctly mapped previous surveys included portions of the overall survey area.

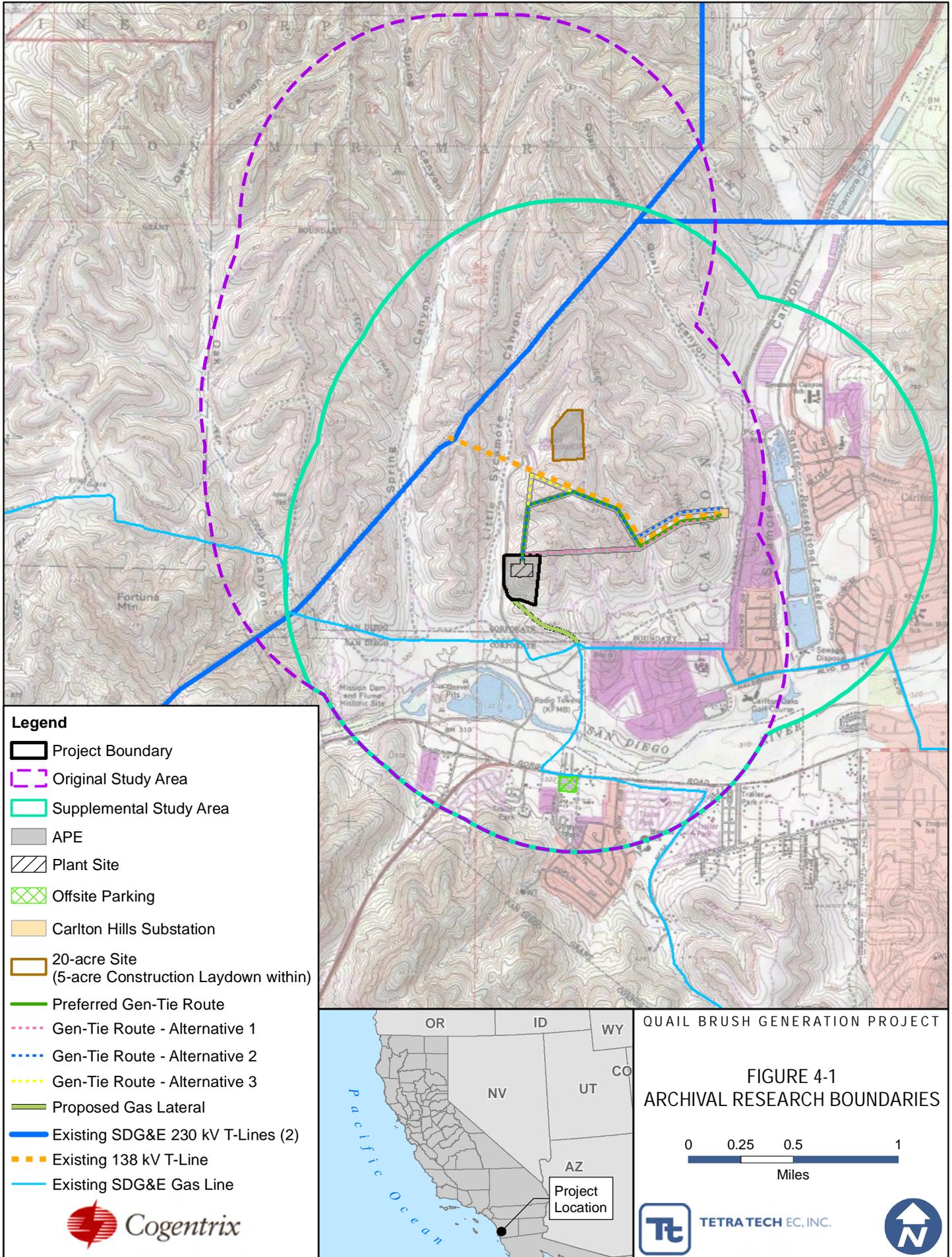


Table 4-1: Previous Surveys Conducted within the Quail Brush Study Area

Date	Report Title	Author(s) (Firm)	SCIC Survey Report #
1973a	<i>An Archaeological Survey of the Upper San Diego River Mosquito Abatement and Water Pollution Control Project Phase I</i>	Fink, Gary R. (San Diego County Engineering Dept.)	1120866
1973b	<i>An Archaeological Survey of the Sycamore Canyon Landfill Site</i>	Fink, Gary R. (San Diego County Engineering Dept.)	1120935 ^{*, d}
1974	<i>Mast Boulevard Archaeological Survey and Mitigation Report</i>	Cupples, Sue Ann, Ruth C. Tolles, and Dr. Larry L. Leach (SDSU Foundation)	1120517 ^d
1975	<i>An Archaeological Survey of the San Diego River Valley</i>	Cupples, Sue Ann (SDSU Foundation)	1120546 ^{*, d}
1976	<i>Archaeological and Historical Survey of the Proposed Grossmont Union High School District Sites</i>	Carrico, Richard L. (WESTEC Services, Inc.)	1120348 ^d
1976	<i>Archaeological Survey Report for the Carlton Hills Substation</i>	Hatley, Melvin Jay and Russell L. Kaldenberg (RECON)	1121244 ^{*, d}
1977b	<i>Archaeological Survey of the Carlton Hills Community Phase I</i>	Carrico, Richard L. (WESTEC Services, Inc.)	1120409
1977c	<i>Archaeological Survey of the Carlton Hills Community, Phase I Plan</i>	Carrico, Richard L. (WESTEC Services, Inc.)	1124324
1977	<i>Draft Environmental Impact Report, Woodside Meadows, TM 3710, Santee, County of San Diego</i>	Multi Systems Associates, Inc.	1122182
1977	<i>Preliminary Archaeology Survey Lakeview Carlton Hills Santee County of San Diego</i>	Underwood, Bradley R. and John Cook, Patrick H. A. Welch, Richard D. Glenn (Multi Systems Associates, Inc.)	1121521
1978a	<i>A Cultural Resource Study of the Murray, Cowles, and Fortuna Mountain Regional Park (Museum of Man Report #EIS-247)</i>	Hanna, David C. (RECON)	1120994 ^{*, d}
1978b	<i>Draft Environmental Impact Report for the Lake Murray, Cowles, and Fortuna Mountain Regional Park (Survey report appendix is same as Survey Report #1120994.)</i>	Hanna, David C. (RECON)	1124185 ^{*, d}
1980	<i>Draft Environmental Impact Report: Mission Dam Views, a Residential Project, Santee Community Planning Area, County of San Diego, TM4148 R80-39 P30-38 EAD LOG#80-13-34</i>	Multi-Systems Associates, Inc.	1122191
1980	<i>Padre Dam Municipal Water District, Santee California, Santee Lakes Initial Study</i>	Padre Dam Municipal Water District	1122198 ^d
1981	<i>NAS Miramar Initial Cultural Resources Study, Archaeology/History/Architecture</i>	Flower, Douglas and Linda Roth (Environmental Consultants)	1130704 [*]
1982	<i>Archaeological and Historical Survey of the Mast Boulevard Housing Project Site</i>	Carrico, Richard L. (WESTEC)	1120415 ^d
1984	<i>Southwest Powerlink Cultural Resources Management Plan</i>	Townsend, Jan (Wirth Environmental Services)	1123836

Table 4-1: Previous Surveys Conducted within the Quail Brush Study Area (Continued)

Date	Report Title	Author(s) (Firm)	SCIC Survey Report #
1985	<i>Archaeological Test Excavation at Sites CA-SDI-5655, 5658, 9239, 9240, 9246, 9247, 9913 in Shepherd Canyon, San Diego, California 11-SD-52 P.M. 7.3/17.2 11222-047050</i>	Corum, Joyce and Karen Crotteau (Caltrans)	1120779 ^d
1985a	<i>First Addendum Archaeological Survey Report for Proposed State Route 52 Santo Road to State Route 67 (Portion) 11-SD-52 P.M. 7.3/17.2 11222-047050</i>	Corum, Joyce (Caltrans)	1120780
1985b	<i>First Addendum Archaeological Survey Report for Proposed State Route 52 Santo Road to State Route 67 (Portion) 11-SD-52 P.M. 7.3/17.2 11222-047050</i>	Corum, Joyce (Caltrans)	1125043 ^d
1985	<i>Historic Property Survey Report for Proposed Santo Road to Santee Freeway Construction Project</i>	California Office of Historic Preservation	1125789
1985	<i>Negative Archaeological Survey Report 8-Fairmount Ave.-Westbound Auxiliary Lane</i>	Donovan, Mary	1126526 ^d
1986a	<i>Extended Phase I and Phase II Archaeological Test Excavations at Sites CA-SDI-205, 5053, 8594, 9242, 10148, Santee, CA 11-SD-52 P.M. 7.3/17.2</i>	Corum, Joyce (Caltrans)	1120771
1986b	<i>Extended Phase I and Phase II Archaeological Test Excavations at SDI-9243, Santee, California, 11-SD-52 P.M. 7.3/17.2</i>	Corum, Joyce (Caltrans)	1120778
1986c	<i>Extended Phase I and Phase II Archaeological Test Excavations at Sites CA-SDI-205, 5053, 8594, 9242, 10148, Santee, CA 11-SD-52 P.M. 7.3/17.2</i>	Corum, Joyce (Caltrans)	1124934 ^d
1986	<i>Fanita Ranch Property</i>	Hector, Susan (RECON)	1121855
1987	<i>Negative Archaeological Survey Report District II County of San Diego</i>	Kelsay, Richalene (San Diego State University Cultural Resource Management Center/Caltrans)	1125675 ^d
1988	<i>Second Addendum Phase I Archaeological Survey and Extended Phase I Investigation for Proposed State Route 52, Santo Road to State Route 67, 11-SD-52 P.M.7.3/17.2 11222-047040</i>	Corum, Joyce M. (Caltrans)	1121206 ^{*,d}
1988	<i>A Cultural Resources Survey of the Proposed East Elliott Community Planning Area (Museum of Man Report #EIS-1116)</i>	Wade, Sue & Susan Hector (RECON)	1124184 ^{*,d}
1989	<i>Cultural Resources Survey for the Proposed Sycamore Canyon Power Plant</i>	Collett, Russell O. and Dayle M. Cheever (RECON)	1122840
1989	<i>Cultural Resources Inventory: Mast Boulevard Extension, Santee, California</i>	Gross, Timothy, and Mary Robbins-Wade (Affinis)	1129427 ^d
1990	<i>An Archaeological Survey of the Santee Village Shopping Center Project</i>	Smith, Brian F. (Brian F. Smith & Associates)	1121904
1990	<i>Cultural Resources Assessment of AT&T's Proposed San Bernardino to San Diego Fiber Optic Cable, San Bernardino, Riverside, and San Diego Counties, California</i>	Peak and Associates, Inc.	1122916

Table 4-1: Previous Surveys Conducted within the Quail Brush Study Area (Continued)

Date	Report Title	Author(s) (Firm)	SCIC Survey Report #
1990	<i>Cultural Resources Survey of the Hollins Lake Campground, City of San Diego</i>	Tift, Larry (RECON)	1127735
1990	<i>Clean Water Program for Greater San Diego Santee Basin Water Reclamation Project Draft Environmental Report, Appendix E - Historic Properties Inventory Report for the Santee Water Reclamation Project, San Diego, California</i>	Gallegos, Dennis, Joyce Clevenger, & Anne Cooper (ERC Environmental & Energy Services Co.)	1124181 ^{*, d}
1991	<i>Cultural Resources Survey of the Mission Trails East Park Entrance Property</i>	Alter, Ruth (Affinis)	1122454
1991	<i>A Cultural Resource Survey of the Tierrasanta Norte Waterline, San Diego, California</i>	Bull, Charles (RECON)	1122625
1991	<i>Cultural Resources Testing, Evaluation, and Proposed Data Recovery Program for the East Mission Gorge Pump Station and Force Main Project</i>	Carrico, Richard, et al. (ERCE)	1122633
1991	<i>Cultural Resources Survey for Ordnance Clearance at Former Camp Elliot, Mission Trails Regional Park, San Diego, California</i>	Dames & Moore	1123331 ^d
1992	<i>Results of a Cultural Resource Study of the Padre Dam Municipal Water District Phase 1, Reclaimed Water System Project</i>	Smith, Brian F. (Brian F. Smith & Associates)	1123098
1993	<i>Cultural Resource Monitoring Sewer for East Mission Gorge Interceptor Sewer System Force Main Construction Project (DEP #880089)</i>	Kyle, Carolyn and Dennis Gallegos (Gallegos and Associates)	1122583
1993	<i>Draft Archaeological Evaluation of Prehistoric Sites CA-SDI-11606 AND CA-SDI-11057 Loci A and D, Kumeyaay Lake Campground, San Diego, California</i>	Gallegos, Dennis and Carolyn Kyle (Gallegos and Associates)	1122749
1993	<i>Data Recovery Program for a Prehistoric Site CA-SDI-110148, East Mission Gorge Pump Station and Force Main, San Diego, California</i>	Kyle, Carolyn, et al.	1122761
1993	<i>Results of a Cultural Resource Evaluation Study for the Padre Dam Municipal Water District Phase I Reclaimed Water System Project</i>	Smith, Brian F. (Brian F. Smith & Associates)	1122929
1994	<i>Phase III Data Recovery of CA-SDI-9243, Multicomponent Prehistoric Site in the San Diego River Valley, Santee, California</i>	McDonald, Meg, Carol Serr, and Daniel M. Saunders (Brian F. Mooney Associates)	1122905
1994	<i>Cultural Resources Survey of Sycamore Landfill Entrance Facility in San Diego, California</i>	Hanna, David C. (County of San Diego Dept. of Public Works)	1123073 ^d
1994	<i>Archaeological Evaluation of Prehistoric Sites CA-SDI-11606, CA-SDI-11057A, and CA-SDI-11057B, Kumeyaay Lake Campground, San Diego, California</i>	Kyle, Carolyn and Dennis Gallegos (Gallegos and Associates)	1123342
1994	<i>Proposed Mitigated Negative Declaration of PacTel Cellular Communications Facility East Elliot, San Diego County, California</i>	City of San Diego	1122822 ^{*, d}
1994	<i>A Cultural Resource Study for the PacTel Cellular-Fischer Project</i>	Smith, Brian F. & Stephen J. Burke (Brian F. Smith & Associates)	1122928 ^{*, d}

Table 4-1: Previous Surveys Conducted within the Quail Brush Study Area (Continued)

Date	Report Title	Author(s) (Firm)	SCIC Survey Report #
1995	<i>Draft Historic Properties Inventory for the East Mission Gorge Trunk Sewer Rehabilitation Project, City of San Diego</i>	Kyle, Carolyn and Dennis Gallegos (Gallegos and Associates)	1123110
1995	<i>Final Environmental Impact Report for the East Mission Gorge Trunk Sewer Rehabilitation Project, San Diego, California</i>	City of San Diego	1124769
1995	<i>Archaeological Survey off the SDG&E Power Line Relocation for Little Sycamore Canyon Landfill, San Diego County, California</i>	Robbins-Wade, Mary (Affinis)	1123039 ^{*, d}
1995	<i>Letter: Research Design for Realignment of NAS Miramar</i>	Widell, Cherilyn (State Historic Preservation Office [SHPO])	1126877 [*]
1995	<i>Draft Cultural Resources Inventory Survey, Naval Air Station Miramar, California</i>	Bischoff, Matt, William Manley, & Martin Rosen (William Manley Consulting)	1131976 [*]
1996	<i>Historical/Archaeological Survey Report for the Water Repurification Pipeline and Advanced Water Treatment Facility, City of San Diego, California</i>	Schroth, Adella B., Dennis R. Gallegos, Peti McHenry, & Nina Harris (Gallegos & Associates)	1123720 ^{*, d}
1996	<i>Letter: NAS Miramar Realignment</i>	Widell, Cherilyn (SHPO)	1126877
1997	<i>Impact Assessment for the Proposed Sycamore Tree Preservation Project at Old Mission Dam</i>	Phillips, Roxanna L. (Phillips Research Services)	1124142
1998	<i>Archaeological Monitoring for the East Mission Gorge Trunk Sewer Rehabilitation Project, San Diego, California</i>	Robbins-Wade, Mary (Affinis)	1129214 ^d
2000	<i>Cultural Resource Monitoring Report for the Magazine Road North Repair Project on Miramar Marine Corps Air Station, San Diego County, California</i>	Dietler, John and Andrew R. Pignolo (Tierra Environmental Services)	1123758
2001	<i>Archaeological Resources Survey - Mission Trails Regional Park, Multi-Use Staging Area, San Diego</i>	Robbins-Wade, Mary (Affinis)	1126377 ^d
2001a	<i>Mitigated Negative Declaration for Sycamore Landfill Continued Operations - Brushing and Clearing</i> (Report missing from SCIC database.)	City of San Diego	1124675 ^{*, d}
2001	<i>Cultural Resources Survey Report for the Mission City Parkway Bridge Project – Letter Report</i> (Report mis-mapped in SCIC database. Does not cover the study or survey areas.)	Sinéad Ní Ghabhláin (ASM Affiliates)	1126014 [†]
2002	<i>Cultural Resource Assessment: AT&T Wireless Services Facility #10046A, San Diego County, California</i>	Duke, Curt (LSA)	1126301
2002	<i>An Archaeological Report for the Mitigation Monitoring and Reporting Program at the Sewer Group 708 Project</i>	Pierson, Larry J. (Brian F. Smith & Associates)	1128019
2003	<i>Cultural Resource Survey for the Sycamore Landfill EIR Project, City of San Diego, California</i>	Guerrero, Monica C. & Dennis R. Gallegos (Gallegos & Associates)	1129570 ^{*, d}
2004	<i>Post-Fire Archaeological Survey of 9,635 Acres on Marine Corps Air Station Miramar, San Diego, California</i>	Giacomini, Barb and Chase Caudell (Anteon Corp.)	1129230

Table 4-1: Previous Surveys Conducted within the Quail Brush Study Area (Continued)

Date	Report Title	Author(s) (Firm)	SCIC Survey Report #
2004	<i>Archaeological Site Evaluations in Support for Marine Corps Air Station Miramar, San Diego County, California</i>	Hector, Susan M., Sinéad Ní Ghabhláin, Mark S. Becker, and Ken Moslak (ASM Affiliates)	1129397
2005	<i>Cultural Resources Survey of the Proposed West Hills High Cellular Communications Site, SD60XC105B, 8756 Mast Boulevard, Santee, San Diego County, California</i>	Wesson, Alex (SWCA Environmental Consultants)	1129661
2006	<i>Archaeological Survey of the Proposed Henry's Avocado Grove Cellular Communications Site, SAN-213-C, 3153 Purer Road, Escondido, San Diego County, California</i>	Clifford, Jim, Michael Hares, Shaina Seivers, and Alex Wesson (SWCA Environmental Consultants)	1130156
2006	<i>Cultural Resources Study for the Maintenance of Old Mission Dam, Mission Trails Regional Park, San Diego, California</i>	Hector, Susan (ASM Affiliates, Inc.)	1130416
2007	<i>A Programmatic Approach for National Register Eligibility Determinations of Prehistoric Sites within the Southern Coast Archaeological Region, California</i>	Reddy, Seetha N. (Statistical Research, Inc.)	1131460
2007	<i>Historical Resources Study for the Old Mission Dam Mitigation Project, San Diego, California</i>	Hector, Susan (ASM Affiliates, Inc.)	1131850
2008	<i>Archaeological Evaluation of 17 Sites on Marine Corps Air Station Miramar, San Diego County, California</i>	Iversen, Dave, Sinead Ni Ghabhlain, Sarah Stringer-Bowsher, and Mark S. Becker (ASM Affiliates, Inc.)	1131856
2008b	<i>Draft Environmental Impact Report for the Sycamore Landfill Master Plan</i>	City of San Diego Development Services	1131513 ^{*, d}
2009	<i>Cultural Resources Survey for the San Diego River Watershed Invasive Non-Native Plant Control and Habitat Restoration Program at the Carlton Oaks Golf Course, Santee, California</i>	Gardner, Jill and Brian Williams (ASM Affiliates, Inc.)	1132455
2009	<i>Archaeological Monitoring for the SDG&E Pole Replacement Project in Mission Trails Regional Park, San Diego County, California (ETS 8179)</i>	Gardner, Jill (ASM Affiliates, Inc.)	1132460
2009	<i>Cultural Resources Survey for the SDG&E Mission Trails Regional Park Access Road Repair Project, Fortuna Mountain, San Diego County, California (ETS 5428)</i>	Willis, Chad (ASM Affiliates, Inc.)	1132496
2010	<i>Final Inventory Report of the Cultural Resources within the Approved San Diego Gas & Electric Sunrise Powerlink Final Environmentally Superior Southern Route, San Diego and Imperial Counties, California</i>	Garcia-Herbst, Arleen, David Iversen, Don Laylander, and Brian Williams (ASM Affiliates, Inc.)	1132711
ND	<i>Old Mission Dam</i>	Various	1131037

*Denotes survey report mapped as within the overall survey area.

d Denotes survey report mapped as within ¼-mile of CEC-defined survey area for the APE and provided in Appendix A.

†Denotes survey report mis-mapped as within study and survey areas.

Most of the surveys in and around the landfill area did not identify cultural resources or only identified isolates. All indicated that ground surface visibility was “fair” to “poor” and topography was considered steep and unlikely to be suitable for habitation sites. Several surveys focused only on ridgetops and saddles, avoiding less “productive” steep slopes. Outside of the immediate survey area, the majority of surveys identified isolates, lithic scatters, milling stations, and few habitation sites.

4.1.2 Historic Map Review

Of the historical maps reviewed (Table 4-2), none indicated features, trails, or other notable locations within the survey area or APE. The 1953 USGS La Mesa quadrangle indicates that the entirety of the APE and most of the survey area are within the former boundaries of the “Miramar Naval Reservation.” On the 1978 USGS 1:250,000 topographic map of San Diego (USGS and National Ocean Survey 1978) gravel pits are depicted in Little Sycamore Canyon and at the southern end of the ridgeline separating Little Sycamore and Spring Canyons. The existing SDG&E transmission line corridor is shown on the 1979 San Diego, California-Baja California Norte USGS 1:250,000 topographic map (USGS and National Ocean Service 1979).

Table 4-2: Historical Maps Reviewed

Map Title (Author)	Date	Resources Shown Within Quail Brush Study Area
Official Map of the Western Portion of San Diego County, California (San Diego County Board of Supervisors & M.C. Wheeler Co. Survey)	1872	None
Map Showing Roads and Trails in Use from 1769-1885, San Diego County, California, 1:100,000 (San Diego County Office of County Assessor)	1955 (Indicating 1769-1885 Time Period)	None
La Jolla, 1:62,500 (USGS)	1903 (Reprinted 1913)	None
La Jolla, Calif., 1:62,500 (USGS)	1903 (Reprinted 1942)	None
La Mesa and Poway Valley, 1:24,000 (USGS, Compiled by SCIC)	1953 (La Mesa), 1952 (Poway Valley)	Naval Reservation Boundary inclusive of APE and Survey Area.
San Diego, 1:250,000 (USGS and National Ocean Survey)	1958 (Revised 1978)	Gravel Pits in Little Sycamore Canyon (presumably currently active gravel production area at landfill) and at southern toe of ridge separating Little Sycamore and Spring Canyons (in the current parking area for the Mission Trails Park).
San Diego, California-Baja California Norte, 1:250,000 (USGS, National Ocean Service)	1979	Transmission line crossing Spring and Little Sycamore Canyons.

4.1.3 Review of National, State, and Local Registers

There are no resources within the survey area or APE that are listed on the NRHP, CRHR, or San Diego County’s Historic Register. There is one historic property within the study area that is a National Historic Landmark and California Historical Landmark (listed on the CRHR) and is listed on the San Diego County Register: the Mission Dam (P-37-20910). The site is

approximately 0.6-mile southwest of the APE along the San Diego River. Although the Project components would not be visible from the dam structure, according to viewshed analyses the facilities will be visible from the eastern portion of the overall Mission Dam site, including three loci of associated archaeological site CA-SDI-203. Figure 4-3 demonstrates the view of the APE from the dam in January 2012. CA-SDI-203 is not listed on any of the above registers.



Figure 4-3. Photograph of Mission Dam Looking Northeast Toward APE, January 2012

4.1.4 Previously Recorded Cultural Resources

A total of 69 archaeological sites and 55 isolates were previously recorded within the study area. Four historic addresses are also within the study area. Of these, five isolates and two sites have been previously recorded within the overall survey area and one isolate and one site are within the APE. Table 4-3 lists these resources and Figure 4-4 depicts their locations. A review of resources recorded within the study area provides a more-informed overview of the archaeological landscape of the APE. Several of the resources have been subsequently determined to no longer exist or to have been mistakenly recorded (i.e., a lithic scatter was later found to consist of naturally-occurring stone). These are noted in Table 4-3.

The locations of two previously recorded archaeological sites (CA-SDI-13576 and CA-SDI-13593) and five previously recorded isolates (P-37-14101, P-37-15411, P-37-16210, P-37-16213, and P-37-16215) are within the overall survey area. The sites consist of lithic and artifact scatters while the isolates consist of debitage and cores. All noted materials appear to have been locally derived. The only resources recorded within the APE are CA-SDI-13593 and P-37-16210 (Figure 4-4), both of which have been collected. The area of CA-SDI-13593 has been graded, landscaped, and paved and no longer exists.

Table 4-3: Previously Recorded Cultural Resources within the Study Area

Primary Number	Trinomial	Recorder, Date Recorded	Notes
37-000140	CA-SDI-140	Treganza, nd	Unknown
37-000203	CA-SDI-203	Treganza, nd; RECON, 1978; Affinis, 1993	Habitation Site (Museum of Man Site #W-690)
37-000204	CA-SDI-204	Treganza, nd; ASM Affiliates, 2009	Bedrock Milling Site (Museum of Man Site #W-200)
37-000205	CA-SDI-205	Treganza, nd; Gallegos & Associates, 1992; ASM Affiliates, 2009	Possible Habitation Site (May be mis-mapped and subsequently recorded as SDI-9243. Museum of Man Site #W-200-A)
37-004353	CA-SDI-4353	RECON, 1975	Milling Station (Museum of Man Site #W-952)
37-004354	CA-SDI-4354	RECON, 1975; Gallegos & Associates, 1996	Lithic Scatter (Museum of Man Site #W-953)
37-005685	CA-SDI-5685	RECON, 1978	Bedrock Milling Site (Museum of Man Site #W-1713)
37-005686	CA-SDI-5686	RECON, 1978	Flake Scatter (Museum of Man Site #W-1714)
37-005687	CA-SDI-5687	RECON, 1978	Bedrock Milling Site (Museum of Man Site #W-1715)
37-005689	CA-SDI-5689	RECON, 1978	Bedrock Milling Site (Museum of Man Site #W-1717)
37-005982	CA-SDI-5982	Carrico, nd	Flake and Tool Scatter (Museum of Man Site #W-1451)
37-005985	CA-SDI-5985	Carrico, nd	Two tools (Museum of Man Site #W-1454)
37-009242	CA-SDI-9242	Anna Noah, 1982; Caltrans, 1986; Gallegos & Associates, 1992	Habitation Site (Previously recorded as a light lithic scatter.)
37-009243	CA-SDI-9243	Anna Noah, 1982; Caltrans, 1984, 1986; Ogden Environmental & Energy Services Company, 1992; ASM Affiliates, 2009	Flake and Bone Scatter with Milling Stations (NRHP-Eligible. Museum of Man Site #W-3180; possibly #W-200)
37-010026	CA-SDI-10026	Caltrans, 1984; Gallegos & Associates, 1996; Robert Case 1997	Flake and Tool Scatter with Bone and Shell
37-010052	CA-SDI-10052	Malcolm Rogers, nd	Milling Station (Museum of Man Site #W-3249)
37-010053	CA-SDI-10053	Malcolm Rogers, nd	Flake and Tool Scatter (Museum of Man Site #W-3250)
37-010054	CA-SDI-10054	Gallegos & Associates, 1996	Flake and Tool Scatter with Milling Stations (Museum of Man Site #W-1759)
37-011057	CA-SDI-11057	Caltrans, 1988; ERC Environmental, 1990; Gallegos & Associates 1993	Limited or Temporary Habitation Site with Bedrock Milling Slick. Previously recorded as sparse tool scatter. (Museum of Man Site #W-4412 A&B)
37-011459	CA-SDI-11459	Brian F. Mooney Associates, 1989	Sparse Lithic and Groundstone Scatter
37-011606	CA-SDI-11606	ERC Environmental, 1990; Gallegos & Associates, 1993	Milling Station. Previously recorded with Tizon Brownware and flake scatter. (Museum of Man Site #W-4413)
37-011607	CA-SDI-11607	ERC Environmental, 1990	Limited or Temporary Habitation Site
37-011608	CA-SDI-11608	ERC Environmental, 1990	Flake and Groundstone Scatter
37-011609	CA-SDI-11609	ERC Environmental, 1990	Flake and Tool Scatter with Milling Stations
37-011761	CA-SDI-11761	ERC Environmental, 1990	Possible Historic Cistern
37-013227	CA-SDI-13227	Ogden Environmental & Energy Services Company, 1993; William Manley Consulting 1995; Anteon Corp. 2002	Historic Refuse Deposit ca. 1870-1937 with Prehistoric Flake and Tool Scatter, NRHP-eligible

Table 4-3: Previously Recorded Cultural Resources within the Study Area (Continued)

Primary Number	Trinomial	Recorder, Date Recorded	Notes
37-013228 ^A	CA-SDI-13228	Ogden Environmental & Energy Services Company, 1993; ASM Affiliates, 2009	Originally recorded as lithic scatter with historic glass. Lithic material later determined to be natural and glass could not be re-located. Not considered a site for the purposes of this study.
37-013229	CA-SDI-13229	Ogden Environmental & Energy Services Company, 1993	Sparse Lithic Scatter
37-013230	CA-SDI-13230	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013231	CA-SDI-13231	Ogden Environmental & Energy Services Company, 1993	Temporary Camp, 2 Loci
37-013232	CA-SDI-13232	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013233	CA-SDI-13233	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013234	CA-SDI-13234	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013235	CA-SDI-13235	Ogden Environmental & Energy Services Company, 1993	Temporary Camp
37-013236	CA-SDI-13236	Ogden Environmental & Energy Services Company, 1993	Temporary Camp
37-013237 ^A	CA-SDI-13237	Ogden Environmental & Energy Services Company, 1993; ASM Affiliates, 2009	Originally recorded as lithic scatter. Lithic material later determined to be natural. Not considered a site for the purposes of this study.
37-013238	CA-SDI-13238	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013239	CA-SDI-13239	Ogden Environmental & Energy Services Company, 1993	Bedrock Milling Station
37-013240	CA-SDI-13240	Ogden Environmental & Energy Services Company, 1993, 1995	Temporary Camp with Bedrock Milling Station
37-013489	CA-SDI-13489	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013561	CA-SDI-13561	Ogden Environmental & Energy Services Company, 1993	Light to Moderate Lithic Scatter
37-013562	CA-SDI-13562	Ogden Environmental & Energy Services Company, 1993	Light to Moderate Lithic Scatter
37-013563 ^A	CA-SDI-13563	Ogden Environmental & Energy Services Company, 1993; ASM Affiliates, 2009	Originally recorded as lithic scatter with historic artifacts. Lithic material later determined to be natural and historic materials could not be re-located. Not considered a site for the purposes of this study.
37-013564	CA-SDI-13564	Ogden Environmental & Energy Services Company, 1993	Light to Moderate Lithic Scatter
37-013565	CA-SDI-13565	Ogden Environmental & Energy Services Company, 1993	Moderate Lithic Scatter
37-013566	CA-SDI-13566	Ogden Environmental & Energy Services Company, 1993	Moderate Lithic Scatter
37-013567 ^A	CA-SDI-13567	Ogden Environmental & Energy Services Company, 1994; ASM Affiliates, 2009	Originally recorded as lithic scatter. Lithic material later determined to be natural. Not considered a site for the purposes of this study.
37-013568	CA-SDI-13568	Ogden Environmental & Energy Services Company, 1994	Light to Moderate Lithic Scatter
37-013569	CA-SDI-13569	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013570	CA-SDI-13570	Ogden Environmental & Energy Services Company, 1993	Light Lithic Scatter
37-013571	CA-SDI-13571	Ogden Environmental & Energy Services Company, 1993	Light to Moderate Lithic Scatter

Table 4-3: Previously Recorded Cultural Resources within the Study Area (Continued)

Primary Number	Trinomial	Recorder, Date Recorded	Notes
37-013572	CA-SDI-13572	Ogden Environmental & Energy Services Company, 1994	Moderate to Dense Lithic Scatter
37-013573	CA-SDI-13573	Ogden Environmental & Energy Services Company, 1994	Light to Moderate Lithic Scatter
37-013574	CA-SDI-13574	Ogden Environmental & Energy Services Company, 1993	Light to Moderate Lithic Scatter
37-013575	CA-SDI-13575	Ogden Environmental & Energy Services Company, 1993	Cobble Testing Area
37-013576†	CA-SDI-13576	Ogden Environmental & Energy Services Company, 1994	Light Lithic Scatter
37-013592	CA-SDI-13592	Brian F. Smith & Associates, 1994	Light Lithic, Tool, and Groundstone Scatter
37-013593*	CA-SDI-13593	Brian F. Smith & Associates, 1994	Light Artifact Scatter. Within APE and previously destroyed by construction of landfill entrance. Not considered a site for the purposes of this study.
37-014092	CA-SDI-14031	Ogden Environmental & Energy Services Company, 1995	Temporary Camp/Possible Habitation Site
37-014093 ^Δ	CA-SDI-14032	Ogden Environmental & Energy Services Company, 1995; ASM Affiliates, 2009	Originally recorded as lithic scatter. Lithic material later determined to be natural. Not considered a site for the purposes of this study.
37-014094 ^Δ	CA-SDI-14033	Ogden Environmental & Energy Services Company, 1995; ASM Affiliates, 2009	Originally recorded as lithic scatter. Lithic material later determined to be natural. Not considered a site for the purposes of this study.
37-014095	CA-SDI-14034	Ogden Environmental & Energy Services Company, 1994	Bedrock Milling Stations
37-014096 ^Δ	CA-SDI-14035	Ogden Environmental & Energy Services Company, 1995; ASM Affiliates, 2009	Originally recorded as lithic scatter. Lithic material later determined to be natural. Not considered a site for the purposes of this study.
37-014097	CA-SDI-14036	Ogden Environmental & Energy Services Company, 1995	Sparse Lithic Scatter
37-014101†	None	Ogden Environmental & Energy Services Company, 1995	Volcanic Secondary Flake
37-014102	None	Ogden Environmental & Energy Services Company, 1995	Quartzite Chopper or Battered Core
37-014103	None	Ogden Environmental & Energy Services Company, 1995	Secondary Quartzite Flake
37-014104	None	Ogden Environmental & Energy Services Company, 1995	Unifacial Quartzite Scraper
37-014265 ^Δ	None	William Manley Consulting, 1995; Anteon Corp. 2002	Originally recorded as three volcanic flakes. Cultural material could not be subsequently relocated on surface or subsurface. Not considered a resource for the purposes of this study.
37-014266 ^Δ	None	William Manley Consulting, 1995; Anteon Corp. 2002	Originally recorded as lithic scatter. Cultural material could not be subsequently relocated on surface or subsurface. Not considered a resource for the purposes of this study.
37-014267	CA-SDI-15094	Unknown	Site record not provided. Site is approx. 0.7-mile northwest of the survey area and 1 mile northwest of the northwest corner of the APE.
37-014277	None	William Manley Consulting, 1995	Volcanic Micro-Flake
37-014278	None	William Manley Consulting, 1995	Volcanic Flake
37-014685	CA-SDI-14288	Gallegos & Associates, 1996	Milling Feature and Groundstone (Museum of Man Site #W-634)
37-014905	None	Caltrans, 1988	Porphyritic Flake Tool with Bifacial Retouching and Metavolcanic Flake

Table 4-3: Previously Recorded Cultural Resources within the Study Area (Continued)

Primary Number	Trinomial	Recorder, Date Recorded	Notes
37-014908	None	Affinis, 1989	Unifacial Fine-Grained Metavolcanic Core/Possible Scraper (probably associated with CA-SDI-10054)
37-014909	None	Affinis, 1989	Utilized Quartzite Flake
37-015342	None	Ogden Environmental & Energy Services Company, 1993	Aphanitic Volcanic Unifacial Core/Test Cobble with Three Flake Scars
37-015344	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Interior Flake and Porphyritic Secondary Flake
37-015345	None	Ogden Environmental & Energy Services Company, 1993	Aphanitic Volcanic Test Cobble
37-015346	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Unifacial Core
37-015347	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Unifacial Core and Porphyritic Secondary Flake
37-015348	None	Ogden Environmental & Energy Services Company, 1993	Porphyritic Secondary Flake
37-015349	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Interior and Secondary Flakes
37-015350	None	Ogden Environmental & Energy Services Company, 1993	Aphanitic Volcanic Secondary Flake
37-015352	None	Ogden Environmental & Energy Services Company, 1993	Porphyritic Interior Flake and Unifacial Quartzite Core with Three Flake Scars
37-015353	None	Ogden Environmental & Energy Services Company, 1993	Unifacial Quartzite Test Cobble and Porphyritic Secondary Flake
37-015354	None	Ogden Environmental & Energy Services Company, 1993	Unifacial Quartzite Core with Four Flake Scars
37-015355	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Interior Flake, Aphanitic Volcanic Secondary Flake, and Unifacial Quartzite Core with Five Flake Scars
37-015356	None	Ogden Environmental & Energy Services Company, 1993	Aphanitic Volcanic Flake
37-015357	None	Ogden Environmental & Energy Services Company, 1993	Aphanitic Volcanic Test Cobble with Two Flake Scars
37-015358	None	Ogden Environmental & Energy Services Company, 1993	Aphanitic Volcanic Unifacial Core and Quartzite Bifacial Core
37-015359	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Unifacial Core with Eight Flake Scars
37-015360	None	Ogden Environmental & Energy Services Company, 1993	Porphyritic Secondary Flake
37-015361	None	Ogden Environmental & Energy Services Company, 1993	Porphyritic Secondary Flake, Quartzite Interior Flake, and Quartzite Secondary Flake
37-015362	None	Ogden Environmental & Energy Services Company, 1993	Four Aphanitic Volcanic Secondary and Interior Flakes
37-015363	None	Ogden Environmental & Energy Services Company, 1993	Sparse Lithic and Tool Scatter
37-015364	None	Ogden Environmental & Energy Services Company, 1993	Heavily Used Porphyritic Hammerstone
37-015365	None	Ogden Environmental & Energy Services Company, 1993	Aphanitic Volcanic Secondary Flake
37-015399	None	Ogden Environmental & Energy Services Company, 1993	Two Quartzite Unifacial Cores/Core Tools
37-015400	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Secondary Flake
37-015401	None	Ogden Environmental & Energy Services Company, 1993	Porphyritic Secondary Flake
37-015402	None	Ogden Environmental & Energy Services Company, 1994	Quartzite Unifacial Core/Core Tool
37-015403	None	Ogden Environmental & Energy Services Company, 1994	Quartzite Interior Flake

Table 4-3: Previously Recorded Cultural Resources within the Study Area (Continued)

Primary Number	Trinomial	Recorder, Date Recorded	Notes
37-015404	None	Ogden Environmental & Energy Services Company, 1994	Rhyolite Primary Flake
37-015405	None	Ogden Environmental & Energy Services Company, 1994	Porphyritic Test Cobble
37-015406	None	Ogden Environmental & Energy Services Company, 1994	Quartzite Test Cobble
37-015407	None	Ogden Environmental & Energy Services Company, 1994	Volcanic Core
37-015408	None	Ogden Environmental & Energy Services Company, 1994	Quartzite Core/Core Tool
37-015409	None	Ogden Environmental & Energy Services Company, 1994	Quartzite Secondary Flake
37-015410	None	Ogden Environmental & Energy Services Company, 1993	Porphyritic Core and Possible Volcanic Test Cobble
37-015411†	None	Ogden Environmental & Energy Services Company, 1993	Quartzite Core Test Cobble
37-016207	None	Gallegos & Associates, 1997	Metavolcanic Secondary Flake
37-016208	None	Gallegos & Associates, 1997	Two Quartzite Secondary Flakes
37-016209	None	Gallegos & Associates, 1997	Porphyritic Secondary Flake (Collected)
37-016210*	None	Gallegos & Associates, 1997	Secondary Quartzite Flake (Collected)
37-016211	None	Gallegos & Associates, 1997	Large Secondary Porphyritic Flake (Collected)
37-016212	None	Gallegos & Associates, 1997	Porphyritic Core (Collected)
37-016213†	None	Gallegos & Associates, 1997	Porphyritic Core/Cobble Tool with Bifacial Edge
37-016214	None	Gallegos & Associates, 1997	Worn Volcanic Core (Collected)
37-016215†	None	Gallegos & Associates, 1997	Core/Cobble Tool with Bifacial Edge (Collected)
37-020910	None	Historic Address. NRHP- and CRHR-Listed. National Historic Landmark	Old Mission Dam, ca. 1800
37-025460	CA-SDI-16904	ASM Affiliates, 2001	Sparse Lithic and Groundstone Scatter
37-030866	CA-SDI-19604	ASM Affiliates, 2009	Bedrock Milling Site
N/A	N/A	Historic Address. NRHP-Ineligible.	9417 Via Zapador, Santee. Post-WWII (late 1940s) single-family residence (Ranch house).
N/A	N/A	Historic Address. NRHP-Ineligible.	9506 Via Zapador, Santee. Post-WWII (1947) single-family residence (Tract house).
N/A	N/A	Historic Address. NRHP-Ineligible.	9516 Via Zapador, Santee. Post-WWII (1953) single-family residence (Tract house).

†Denotes resources within the overall survey area, but outside APE.

*Denotes resources within the APE.

^Resource determined to be natural or could not be relocated. Not considered a site for the purposes of this study.

Figure 4-4. Cultural Resources Previously Recorded within the Quail Brush Study Area

REDACTED

4.1.5 Review of Built Environment

There are three historic architectural resources within the study area (see Historic Addresses in Table 4-3); however, none are within parcels adjacent to the APE. The only buildings and structures within the APE are mobile trailers used by Sycamore Landfill staff as offices, and the existing SDG&E Miguel-Mission 230 kV transmission line, reconstructed between 2004 and 2006 following the Cedar Fire (CPUC 2011:Figure A-1). The majority of adjacent parcels are open space associated with the landfill, MCAS Miramar, and Mission Trails Regional Park; however, to the east are residential subdivisions, the Carlton Oaks Community and Santee Lakes, as well as the West Hills High School. Both residential communities were constructed around 1973 according to the city's Property Assessor file (Angela Reeder, personal communication 2011). The high school was constructed in 1987 (WHHS 2012). These adjacent buildings are therefore not considered historic for the purposes of CEQA.

The temporary construction parking area at 7927 Mission Gorge Road in Santee is an existing paved parking lot associated with a Pinnacle Peak Steakhouse restaurant. All buildings adjacent to the parking lot are modern and not considered historic for the purposes of CEQA.

The Mission Dam (P-37-20910), discussed above, is considered a historical resource and a historic built environment resource. However, it is not within or adjacent to the APE and the proposed Project would not be visible from the dam structure (see Figure 4-3).

4.2 NATIVE AMERICAN CONSULTATION

The NAHC was contacted in writing on May 9, 2011 to request a sacred lands file search and a list of suggested Native American contacts who may have knowledge of cultural resources within the study area. A written response was received on June 1, 2011 (Appendix B). The response stated that their database indicates "Native American cultural resources" within Township 15S/Range 2 West, but not Range 1 West. A specific location or description of the resources was not provided. The dividing line of Range 1 West and 2 West divides the APE almost directly along the ridge that separates Little Sycamore and Spring Canyons. The NAHC also provided a list of 21 suggested individuals to contact.

Initial contact letters were sent to the list of suggested Native Americans on June 7, 2011. The letters were also sent via e-mail to those who provided e-mail addresses in their NAHC contact information. The letters requested any information and/or input the individuals may have regarding Native American concerns either directly or indirectly associated with the proposed Project. Follow-up phone calls were placed to unresponsive contacts on July 1, 2011.

To date, two responses have been received. A detailed contact log for all contacted Native Americans along with the original contact letters and the NAHC consultation results are provided in Appendix B. No Native American resources have been identified by contacted parties as being specifically within the APE or adjacent areas.

Mr. Clint Linton, Director of Cultural Resources for the Ipai Nation of Santa Ysabel, responded via e-mail on June 9, 2011. He requested that "a Kumeyaay Native Monitor [be present] for survey and all ground disturbing activities related to this project."

Mr. Louis Guassac, Executive Director of the Kumeyaay Diegueno Land Conservancy, responded via phone on July 1, 2011. Mr. Guassac is very concerned for archaeological sites in the area and stated that the Land Conservancy desires for archaeological sites to be duly recorded and treated properly. He strongly suggested a tribal monitor be present during construction. He stated that the Land Conservancy group has no problem with re-use of their ancestral lands; however, greater concern would be expressed should human remains or a sacred area become involved. Mr. Guassac noted the particular sensitivity of waterways and their historic use by the Kumeyaay as travel routes. He also noted that the Kumeyaay constructed the Mission Dam in the adjacent Mission Trails Regional Park. Mr. Guassac stated that he would visit the area the following week and may have further input to provide based on his visit.

In addition to the above contact with Native Americans, Native American monitors were included in the January 2012 pedestrian survey. Their involvement is detailed below in Section 4.3.2.

4.3 PEDESTRIAN ARCHAEOLOGICAL SURVEY

To date, three cultural resources pedestrian survey sessions have occurred. The overall survey area consists of 425.8 acres and is depicted in Figure 4-5. The initial survey covered 311.7 acres and occurred in May 2011. The supplemental survey covered 187.1 acres, some of which overlapped with the original May 2011 survey. Supplemental efforts in January 2012 covered 176.2 acres, 72.9 of which were surveyed in May 2011 with poor visibility. The March 2012 supplemental efforts covered an additional 10.9 acres, none of which were covered in the May 2011 survey. Figure 4-5 also depicts the areas surveyed during all three sessions. The supplemental survey efforts incorporated a new methodology to compensate for the poor ground surface visibility experienced during the original May 2011 survey.

Given the steep topography of the Project area, the surveys focused on slopes less than 35 percent (19.3 degrees) (see Figure 4-5). All slopes were calculated in a Geographic Information System and are based on the most recent USGS topographic mapping of the survey area, which does not include excavation, grading, and development of the Sycamore Landfill. A slope limit is commonly used during archaeological survey as a health and safety precaution. Moreover, steep slopes in the San Diego area typically do not contain in situ cultural deposits and, in fact, the City of San Diego does not require pedestrian survey of slopes greater than 25 percent for this reason (personal communication, Myra Herrmann; City of San Diego 2001b:57). Exceptions were made for areas such as rock outcrops within the APE or where structures may be visible from afar. In these cases, an effort was made to visually inspect the area. The tops of ridgelines and peaks of hills are understood to be of archaeological sensitivity, particularly for cairns, shrines, etc. Therefore, particular effort was made to intensively inspect these areas as well. Exceptions were also made for areas included in the 35 percent slope sample described below.

The survey area is primarily on privately owned land with small, developed, or paved portions owned by the City or County of San Diego. Therefore, landowner permission was necessary to conduct the surveys. TtEC worked with Quail Brush Genco, LLC to notify landowners of the proposed work and obtain their permission for access to their land. Where permission was not

granted by a landowner, survey work was not conducted within that portion of the survey area (Figure 4-5). The temporary construction parking area at 7927 Mission Gorge Road in Santee was not surveyed for archaeological resources since it is paved and no excavation will occur there; however, adjacent buildings were researched, as discussed above in Section 4.1.3, to determine the presence or absence of historical resources.

Given the developing nature of the Project layout, additional surveys may be necessary following finalization of the engineering design.

4.3.1 Original Survey

An initial survey area, as defined in May 2011 (see Table 1-1), was surveyed by qualified archaeologists on May 16 and 17, 2011. Figure 4-5 depicts the survey area. The survey was conducted by TtEC cultural resources staff Ms. Erin King, MA, RPA (Field Director/Project Archaeologist) and Ms. Kristina Gill, MA, under the guidance of the Principal Investigator, Mr. Reid Farmer, PhD. All staff meets the Secretary of the Interior's Professional Qualification Standards for Archaeology (Appendix C).

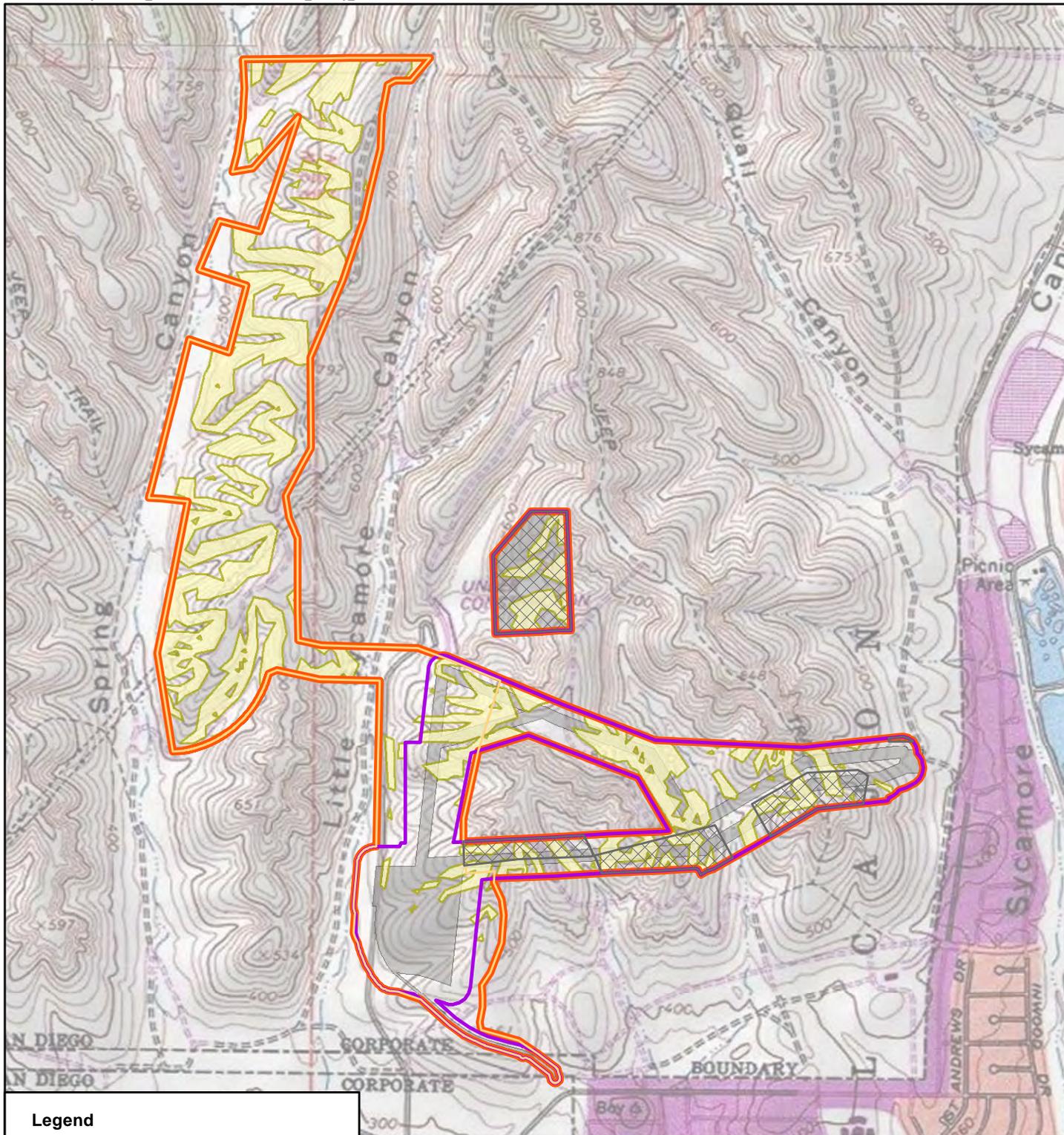
The survey was conducted in 10- to 15-meter transects. The survey crew relocated previously recorded sites and isolates using a Trimble Global Positioning System (GPS) unit. The California Department of Parks and Recreation (DPR) site records for these resources were then updated (Appendix D). The area around newly identified resources were intensively surveyed and then recorded on DPR forms and mapped using the GPS unit. No resources were collected during the survey. All newly recorded resources were given a temporary identification number starting with "QB." If the resource was an isolated find, its temporary identification number was appended with an "ISO."

4.3.2 Supplemental Survey

The supplemental survey included two field sessions January 3 through 10, 2012 and March 5 through 9, 2012. The survey was designed to address the issue of poor ground surface visibility and to cover redesigned Project areas and CEC-required buffers, which were incorporated following the original May 2011 survey.

The supplemental survey involved vegetation removal on a grid system in order to better view the surfaces where archaeological materials may exist. In order to confirm the archaeological site distribution patterning identified by the City of San Diego (City of San Diego 2001b:57), wherein resources are rarely encountered on slopes greater than 35 percent, a sample survey of such slopes was incorporated into this supplemental survey using the protocols described below. Any sample areas actually too steep to be safely traversed were excluded.

A 15-meter grid system was laid out across the supplemental survey area, with the exception of the 20-acre area within the active landfill where a 5-acre laydown area would be established for the Project. At each grid point the vegetation was removed within a 1-meter-by-1-meter area with each grid point at the northwest corner. Each 1-meter-by-1-meter area is referred to as a vegetation removal unit (VRU). VRUs avoided jurisdictional wetlands, sensitive plant species, and plants that host sensitive fauna species documented by the Project's biological resources survey (MBA 2011). This, as well as dense brush in some areas, required off-setting some VRUs. Offset VRUs were mapped in the field and are depicted in Figure 4-6.



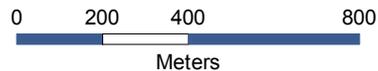
Legend

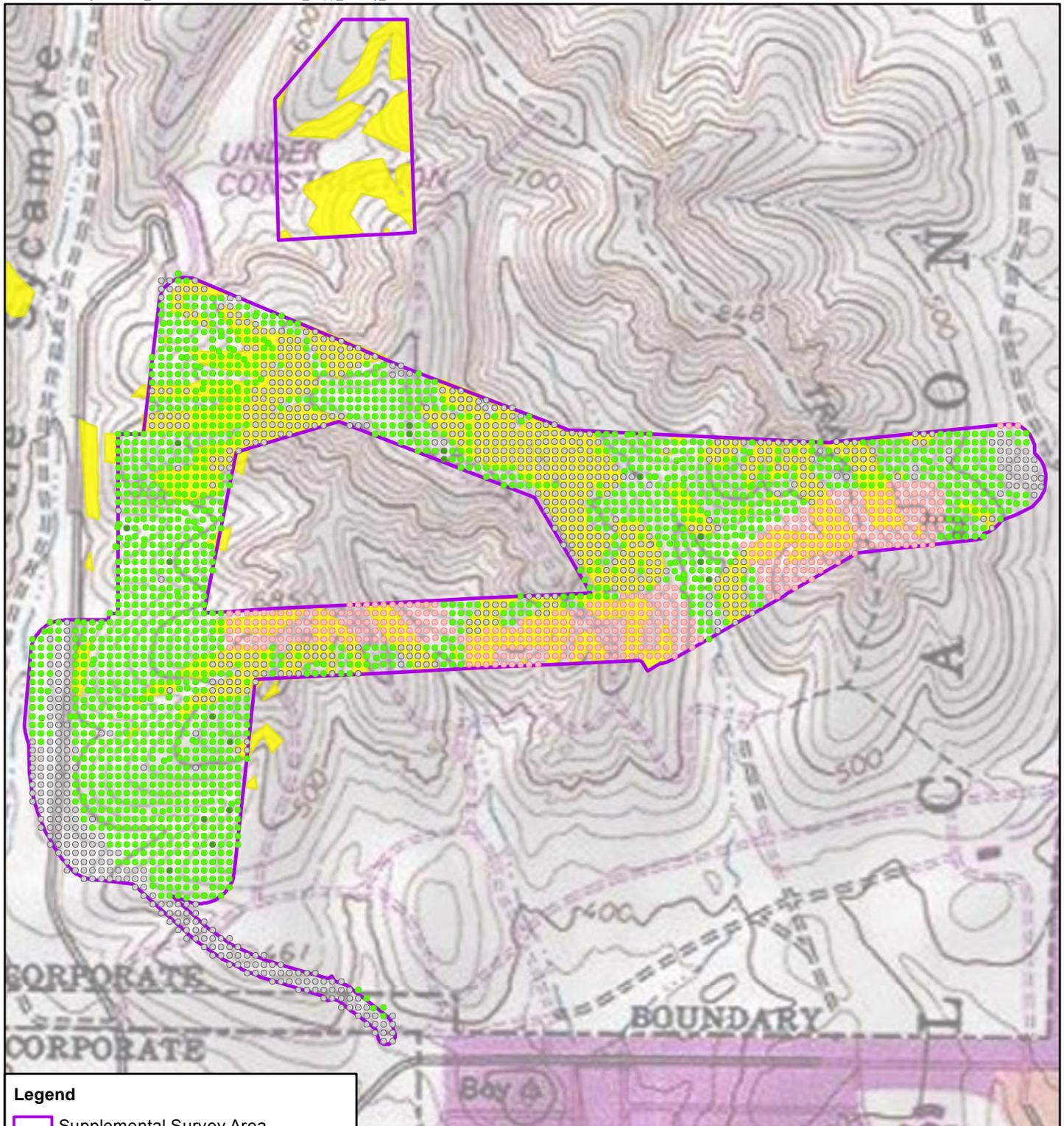
- Overall Survey Area
- Original Survey Area
- Supplemental Study Area
- APE
- Slope \geq 35%
- Inaccessible Portions of the Supplemental Survey Area



QUAIL BRUSH GENERATION PROJECT

FIGURE 4-5
QUAIL BRUSH SURVEY AREAS





Legend

Supplemental Survey Area

Slope \geq 35%

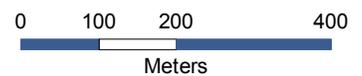
Vegetation Removal Units

- Negative VRU
- Positive VRU
- Inaccessible
- Not Completed



QUAIL BRUSH GENERATION PROJECT

**FIGURE 4-6
QUAIL BRUSH
SUPPLEMENTAL SURVEY
VEGETATION REMOVAL UNITS**



The 15-meter grid spacing was based on the archaeological site distribution pattern, the average site size in the Project and surrounding areas, and local survey guidelines and recommendations provided by the City of San Diego (City of San Diego 2001b). The density of eroding medium to large cobbles from the underlying Stadium Conglomerate makes removal of vegetation using a shovel difficult. Further, the thin Holocene soils of the Project area would be easily removed by a shovel, displacing the archaeological materials the survey was looking for. Therefore, a combination of hand shears and hand grubbing were used to cut grasses to a length where the ground surface was readily visible rather than using a shovel to scrape the grasses away (Figure 4-7). The results of each VRU were systematically documented on tracking forms (Appendix E).



Figure 4-7. A Typical Vegetation Removal Unit

When cultural materials were identified, the same documentation procedures described for the May 2011 survey were used (Section 4.3.1). When resources were identified, vegetation removal was expanded to the minimum extent possible around the artifact(s) to determine the nature and extent of the resource. No subsurface testing/screening or artifact collection occurred as part of this survey.

Both survey field sessions were conducted by four crews of two professional archaeologists, under the direction of Ms. Erin King, MA, RPA, as Field Director, Ms. Jenna Farrell as Assistant Field Director, and Mr. Reid Farmer, RPA, as Principal Investigator (Appendix C). Field technicians included Brady Berger, Nick Coppola, Shannon Cowell, Amanda Herron, Jason Kindinger, Sydni Kitchel, Erica Maier, Ryan McElhoe, Markus Murray, Cassie O'Neill, and Daniel Stanzak.

In addition to these individuals, two Native American monitors were present each day and participated in the recording of archaeological resources. Following standard practice in San Diego, the Kumeyaay Cultural Repatriation Committee was contacted for recommended Native American monitors. Monitors were provided by LJS Cultural Monitoring, LLC (LJS) of Alpine, California. LJS is a locally based, Native American-owned and operated business that provides cultural resource site monitoring services. Owners and co-founders, Larry Sutton and Gina Osuna-Sutton, are Tribal Members of the Viejas Band of Kumeyaay Indians and the Santa Ysabel Band of Diegueno Indians, respectively, both located in San Diego County. Native American monitors that participated in the supplemental survey were Charles Banegas, Kevin Carrizosa, Philip Espinoza, Livia Hopkins, Eva Salazar, Gina Osuna-Sutton, and Larry Sutton.

There are 3,076 VRUs within the supplemental survey area. Of these, 901 are on slopes greater than 35 percent. Therefore a 10 percent sample of VRUs on slopes greater than 35 percent would be 90.1 VRUs. A total of 1,758 VRUs were completed during the supplemental survey (1,741 having negative results and 17 having positive results). This is approximately 0.43-acre of the survey area and 57.15 percent of the total VRUs. The completed VRUs include 183 VRUs on slopes greater than 35 percent, or 20.31 percent of all VRUs on steep slopes. A total of 1,318 VRUs were not completed due to inaccessibility (i.e., landowner refusal or dense vegetation; 287 VRUs), developed (i.e., paved road or culvert) or unsafe ground surfaces (313 VRUs), or slopes greater than 35 percent (718 VRUs). Completed, not completed, and inaccessible VRUs are depicted on Figure 4-6.

4.4 HISTORIC BUILT ENVIRONMENT SURVEY

As part of the March 2012 supplemental archaeological survey, a reconnaissance-level historic built environment survey of the Sycamore Landfill was conducted by Dr. James Sexton, Architectural Historian (Appendix C). A field visit was undertaken on March 12, 2012. During the visit, the drivable roads within the landfill were traversed and the landfill was documented. Photographs of the resource were taken using a Canon EOS Rebel XSi digital single-lens-reflex camera. Documentary research on the history of waste disposal in the San Diego area was undertaken at the San Diego History Center, where subject files for dumps and photographs for the area around the landfill were examined. In addition, historic newspapers were reviewed at the San Diego Public Library. Internet resources consulted included:

- The San Diego History Journal;
- NRHP and National Historic Landmark Nominations for the Fresno Sanitary Landfill, the only nationally recognized landfill in California;
- Historic maps; and
- Aerial photographs.

Jean Vincenz, a nationally prominent sanitary engineer who directed the San Diego County Department of Public Works and was associated with the ground breaking Fresno Sanitary Landfill, was interviewed. Mr. Michael Buxton, an underwater archeologist who studies the early offshore waste disposal was also contacted and interviewed via telephone. Finally, secondary resources were located at Columbia University.

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5.0 REPORT OF FINDINGS

The pedestrian surveys identified four previously unidentified archaeological sites and eleven previously unidentified isolates. The two previously recorded archaeological sites within the survey area, CA-SDI-13576 (P-37-013576) and CA-SDI-13593 (P-37-013593), were also located (Figure 5-1). All other previously recorded cultural resources within the survey area could either not be found (P-37-14101, P-37-15411, P-37-16213, and P-37-16215) or were in inaccessible areas (P-37-16210). One previously recorded site (CA-SDI-13576), two newly recorded sites (TEMP-QB-3 and TEMP-QB-4), and two newly recorded isolates (TEMP-QB-ISO-9 and TEMP-QB-ISO-10) are within the APE. The Sycamore Landfill was identified and documented as an architectural resource.

Ground surface visibility within most of the survey area was generally poor (less than 10 percent), while visibility along ridgetops was good to excellent (70 to 100 percent). Visibility and accessibility in drainages varied due to the dense brush. Vegetation in the survey area appears to be rebounding following the 2003 Cedar Fire. Thick grasses dominate the landscape with small localities of coastal scrub and succulents scattered throughout. Understories in the latter areas were relatively clear and provided excellent visibility (greater than 90 percent). VRUs provided 100 percent visibility where completed. Table 5-1 summarizes VRUs with positive findings. Numerous naturally-occurring quartzite and porphyritic cobbles eroding from the underlying Stadium Conglomerate occur on the surface throughout the survey area. They were observed to accumulate and tumble downslope, resulting in a natural battering that produces blocky flakes easily mistakable for cultural artifacts. This is likely the type of materials originally identified as lithic scatters in the study area, and subsequently determined to be natural stones (see CA-SDI-13228/P-37-013228, CA-SDI-13237/P-37-013237, CA-SDI-13563/P-37-013563, CA-SDI-13567/P-37-013567, CA-SDI-14032/P-37-014093, CA-SDI-14033/P-37-014094, and CA-SDI-14035/P-37-014096 in Table 4-3).

Table 5-1: Positive Vegetation Removal Units and Associated Resources

VRU #	Identified Resource*
CG-85 and CH-85	TEMP-QB-2
CI-58	TEMP-QB-ISO-10
CJ-89 and CK-89 (between 2 units)	TEMP-QB-ISO-8
CM-112	TEMP-QB-ISO-11
CS-52	TEMP-QB-1
CT-119	TEMP-QB-ISO-9
CW-57	TEMP-QB-ISO-3
CW-119 and CY-120	TEMP-QB-3
DO-62 and DR-64	TEMP-QB-ISO-2
DZ-64, EA-61, and ED-62	TEMP-QB-4
EG-57	TEMP-QB-ISO-7

*The VRU methodology was implemented during the supplemental survey efforts only and therefore only those resources identified during that effort are included in this table.

Figure 5-1. Cultural Resources Within the Quail Brush Survey Area

REDACTED

5.1 PREVIOUSLY RECORDED ARCHAEOLOGICAL RESOURCES

The locations of two previously recorded archaeological sites (CA-SDI-13576 and CA-SDI-13593) and four previously recorded isolates (P-37-14101, P-37-15411, P-37-16210, P-37-16213, and P-37-16215) are within the survey area. These are summarized in Table 5-2 and are described in detail below. The location of P-37-16210 could not be accessed. CA-SDI-13593 is the only previously recorded resource within the APE, but was found during the surveys to no longer exist. Updated DPR forms for resources that were accessible during the surveys are included in Appendix D.

Table 5-2: Previously Recorded Archaeological Resources within Overall Survey Area

SHPO ID	Description
CA-SDI-13576	Light lithic scatter
CA-SDI-13593*	Light artifact scatter (Destroyed)
P-37-14101	Volcanic secondary flake
P-37-15411	Quartzite core test cobble
P-37-16210	Secondary quartzite flake (Previously collected)
P-37-16213	Porphyritic core/cobble tool with bifacial edge
P-37-16215	Core/Cobble tool with bifacial edge (Previously collected)

* Resource within APE.

5.1.1 Archaeological Sites

5.1.1.1 CA-SDI-13576 (P-37-013576): Light Lithic Scatter

The location of CA-SDI-13576, originally recorded by Ogden Environmental & Energy Services Company (James, et al. 1994) as a sparse lithic scatter, was relocated during the May 2011 survey. It is outside of the APE, approximately 630 meters northwest of the APE, along the ridgeline that separates Little Sycamore and Spring Canyons. The site was found to have been impacted by a bike trail along the east-west axis and construction of a graded dirt access road at the northern end of the site. The eastern portion of the site has also been severely impacted by erosion and ground slumping (Figure 5-2). Ground surface conditions were fair to excellent within the site boundaries (Figure 5-3). After an intensive survey within the mapped site boundaries, one quartzite core was found (Figure 5-4). This is likely the core originally hand-mapped by James, et al. (1994) in the southwest corner of the site. No other artifacts were observed. These results are similar to those of Garcia and Associates' subsequent reporting of the site (Kyle and Gallegos 1998). Kyle and Gallegos (1998:2-2) recommended testing to determine the presence or absence of a subsurface component, but it does not appear this testing was completed.

5.1.1.2 CA-SDI-13593 (P-37-013593): Light Artifact Scatter (Destroyed)

The location of CA-SDI-13593 was visited during both surveys. The site is mapped as near the eastern terminus of the gas lateral and within the landfill entrance. It is bisected by the proposed gas lateral route as well as an existing concrete ditch. As noted in the site record (Smith 1994) and subsequent data recovery reporting (Smith and Burke 1994), the site has been surface collected. Subsurface testing found a very sparse component. The area of the site was found during the surveys to have been landscaped, graded, and paved (Figure 5-5). The site appears to no longer exist.

Figure 5-2. Aerial Photograph of CA-SDI-13576

REDACTED



Figure 5-3. Overview of CA-SDI-13576 (West)



Figure 5-4. Quartzite Core at CA-SDI-13576

Figure 5-5. Aerial Photograph of CA-SDI-13593

REDACTED

5.1.2 Isolates

5.1.2.1 P-37-014101

Following intensive survey of the vicinity of this isolated volcanic secondary flake (Briggs, et al. 1995), it could not be relocated. This may be due to the vegetation cover, the natural movement of the artifact downslope, or misidentification of a natural stone as a cultural artifact. It may also have been impacted by the Cedar Fire. [REDACTED]

5.1.2.2 P-37-015411

Following intensive survey of the vicinity of this isolated quartzite core and test cobble (James, et al. 1993), the isolate could not be relocated. This may be due to the vegetation cover, the natural movement of the artifact downslope, or misidentification of a natural stone as a cultural artifact. It may also have been impacted by the Cedar Fire. The mapped location is [REDACTED]

5.1.2.3 P-37-16210

This isolated secondary quartzite flake was collected in 1997 by Gallegos and Associates (Tift, et al. 1997a). The location could not be accessed during the supplemental survey to inspect for additional artifacts. [REDACTED]

5.1.2.4 P-37-016213

Following intensive survey of the vicinity of this isolated porphyritic core/cobble tool with bifacial edge (Tift, et al. 1997b), it could not be relocated. This may be due to the vegetation cover, the natural movement of the artifact downslope, or misidentification of a natural stone as a cultural artifact. It may also have been impacted by the Cedar Fire. The mapped location is [REDACTED]

5.1.2.5 P-37-16215

This isolated large core/cobble tool with a bifacial edge was collected in 1997 by Gallegos and Associates (Tift, et al. 1997c). Intensive survey of the vicinity did not identify additional archaeological materials. [REDACTED]

5.2 NEWLY RECORDED ARCHAEOLOGICAL RESOURCES

Four newly discovered sites and eleven newly discovered isolates were recorded during the original and supplemental surveys. These are described below and summarized in Table 5-3. Of the newly identified resources, two of the archaeological sites and two of the isolates are within the APE. DPR forms for all newly recorded resources are included in Appendix D. No resources were collected during these surveys.

Table 5-3: Newly Identified Archaeological Resources within Overall Survey Area

Temporary Resource #	SHPO ID	Description
TEMP-QB-1	TBD	Sparse lithic scatter
TEMP-QB-2	TBD	Sparse lithic scatter
TEMP-QB-3*	TBD	Historic refuse scatter
TEMP-QB-4*	TBD	Sparse flake and tool scatter
TEMP-QB-ISO-1	TBD	Volkswagen bug bodies
TEMP-QB-ISO-2 [†]	TBD	Secondary and interior porphyritic flakes
TEMP-QB-ISO-3 [†]	TBD	Quartzite core
TEMP-QB-ISO-4	TBD	Secondary quartzite flake
TEMP-QB-ISO-5	TBD	Secondary porphyritic flake and primary quartzite flake
TEMP-QB-ISO-6	TBD	Possible survey marker
TEMP-QB-ISO-7	TBD	Porphyritic handstone
TEMP-QB-ISO-8	TBD	Interior porphyritic flake
TEMP-QB-ISO-9*	TBD	Quartzite core
TEMP-QB-ISO-10*	TBD	Quartzite mano
TEMP-QB-ISO-11	TBD	Ford Coupe

* Resource within APE.

† Resource less than 20 meters from APE.

5.2.1 Archaeological Sites

5.2.1.1 TEMP-QB -1: Sparse Lithic Scatter

TEMP-QB-1 is a sparse lithic scatter consisting of four pieces of debitage in an unnamed drainage leading to Little Sycamore Canyon (Figures 5-6 and 5-7). It is disturbed by an erosional gully. Debitage includes one secondary quartzite flake, one primary siltstone flake, one secondary siltstone flake, and one interior siltstone flake. [REDACTED]

Figure 5-6. Aerial Photograph of TEMP-QB-1

REDACTED



Figure 5-7. Overview of TEMP-QB -1 (West)

5.2.1.2 TEMP-QB-2: Sparse Lithic Scatter

TEMP-QB-2 is also a sparse lithic scatter consisting of four pieces of debitage and one ceramic fragment atop a ridgeline east of Little Sycamore Canyon (Figures 5-8 and 5-9). The site has been impacted by an access road and biological habitat conservation efforts, including plantings, installation of fencing, and replacement of rocks to hold protective netting down over plants. Debitage includes one primary metavolcanic flake, one secondary and one interior porphyritic flake, and one secondary wonderstone flake. [REDACTED]

Figure 5-8: Aerial Photograph of TEMP-QB-2

REDACTED



Figure 5-9. Overview of TEMP-QB-2 (Southwest)

5.2.1.3 TEMP-QB-3: Historic Refuse Scatter

TEMP-QB-3 consists of a refuse scatter including historic and modern materials within an unnamed drainage east of the landfill (Figures 5-10 and 5-11). Refuse items are primarily domestic and auto-related. Artifacts within the refuse scatter include historic and modern items. Historic items observed included an aluminum window screen frame with plastic screen; scrap sheet metal with Phillip screws and rivets; a rusted one-gallon paint can; twin size box spring; tar and gravel roofing shingle scraps; a T-post; possible top piece to a washing machine; and lumber. The refuse also includes what appears to be a modified wheel barrow or dolly. It is made of cast iron/sheet metal and wood and measures 53 inches long and 24 inches wide. There are two wooden handles with a wooden cross brace. Below the cross brace there is a metal rod. The remaining wooden frame is designed like a sled and has sheet metal placed on top of it that is secured with hex bolts and nuts. This sheet metal would either be the base of the wheel barrow or the back of the dolly. The wooden frame is constructed in a “tongue and groove” style. On one side of the frame the letters “IU-ARCA” are engraved. There are two metal brackets attached to the backs of the handles that served as rests for when the dolly or wheel barrow was laid down. Behind the sheet metal base plate there is an additional smaller, thicker base plate with the letters “CPC” hand-written using a welding torch. The site extends

Figure 5-10. Aerial Photograph of TEMP-QB-3

REDACTED



Figure 5-11. Overview of TEMP-QB-3 (Southeast)

5.2.1.4 TEMP-QB-4: Sparse Flake and Tool Scatter

TEMP-QB-4 is a sparse flake and tool scatter consisting of two pieces of debitage, a tested cobble, and a mano (Figure 5-12). Identified artifacts include one interior pink milky-colored quartz flake measuring approximately 3 centimeters (cm) long, 3 cm wide, and 1 cm thick (datum). The other piece of debitage is a reddish-brown-colored quartzite primary flake measuring approximately 5 cm long, 3.5 cm wide, and 2 cm thick. The tested cobble is made of a porphyritic volcanic material and appears to be fire affected, possibly a result of recent fires in the area. It appears to have been ground on one surface and pecked on the opposite surface. It measures approximately 10 cm long, 7 cm wide, and 7 cm thick. The mano is also made of porphyritic volcanic material and measures 10 cm long, 8.5 cm wide, and 5.5 cm. thick. The site

Figure 5-12. Aerial Photograph of TEMP-QB-4

REDACTED

5.2.2 Isolates

5.2.2.1 TEMP-QB-ISO-1: VW Bugs

TEMP-QB-ISO-1 consists of two abandoned Volkswagen (VW) Bug bodies (Figure 5-13). They were found near the head of a drainage approximately 110 meters east of the proposed Project site boundary. Both appeared to be 1965 or 1966 body styles and were devoid of any interior linings, seats, wiring, engine parts, identification plates, and paint. The nearest is approximately [REDACTED]



Figure 5-13a: QB-ISO-1, VW Bug Body #1



Figure 5-13b: WB-ISO-1, VW Bug Body #2

Figure 5-13. Photographs of TEMP-QB-ISO-1

5.2.2.2 TEMP-QB-ISO-2: Secondary and Interior Porphyritic Flakes

TEMP-QB-ISO-2 consists of one secondary and one interior flake of grey porphyritic material (Figure 5-14). The debitage pieces found were approximately 26.6 meters apart on the southern face of a toe along the eastern ridgeline of Little Sycamore Canyon. The secondary flake measures 8.5 cm in length, 4.8 cm in width, and 2.1 cm in thickness. The interior flake is very blocky in nature and triangular in shape, measuring approximately 4.5 cm in length, 2 cm in width, and 1 cm in thickness. The nearest flake, the secondary flake, [REDACTED]



Figure 5-14a: QB-ISO-2, Interior Porphyritic Flake



Figure 5-14b: QB-ISO-2, Secondary Porphyritic Flake

Figure 5-14: Photographs of TEMP-QB-ISO-2

5.2.2.3 TEMP-QB-ISO-3: Quartzite Core

TEMP-QB-ISO-3 consists of one light tan-colored quartzite cobble core (Figure 5-15) found along the midline of a toe on the eastern ridgeline of Little Sycamore Canyon. At least three flake scars were noticeable along one edge of the core. The isolate is approximately 3.5 meters

5.2.2.4 TEMP-QB-ISO-4: Secondary Quartzite Flake

TEMP-QB-ISO-4 is a secondary tan-colored quartzite flake (Figure 5-16) found along the top of the ridgeline that separates Little Sycamore and Spring Canyons. The isolate is approximately

5.2.2.5 TEMP-QB-ISO-5: Secondary Porphyritic Flake & Primary Quartzite Flake

TEMP-QB-ISO-5 consists of a secondary flake of light gray-colored porphyritic material and a primary flake of multi-colored quartzite (Figure 5-17). The porphyritic flake is approximately 5 cm long, 4.5 cm wide, and 2 cm thick. The quartzite flake is approximately 7 cm long, 2.5 cm wide, and 2 to 3 cm thick.



Figure 5-15. Photograph of TEMP-QB-ISO-3



Figure 5-16. Photograph of TEMP-QB-ISO-4



Figure 5-17a: QB-ISO-5, Secondary Porphyritic Flake



Figure 5-17b: QB-ISO-5, Primary Quartzite Flake

Figure 5-17. Photographs of TEMP-QB-ISO-5

5.2.2.6 TEMP-QB-ISO-6: Possible Survey Marker

TEMP-QB-ISO-6 consists of a single wood post with supporting cobbles at its base (Figure 5-18). The post is approximately 3 inches square and 2.5 feet tall. There are approximately nine moderately-sized quartzite and porphyritic cobbles surrounding the base.



although there is no indication of such on the feature. However, a 1999 Department of the Navy, MCAS Miramar metal survey marker is approximately 3 meters north of the post.

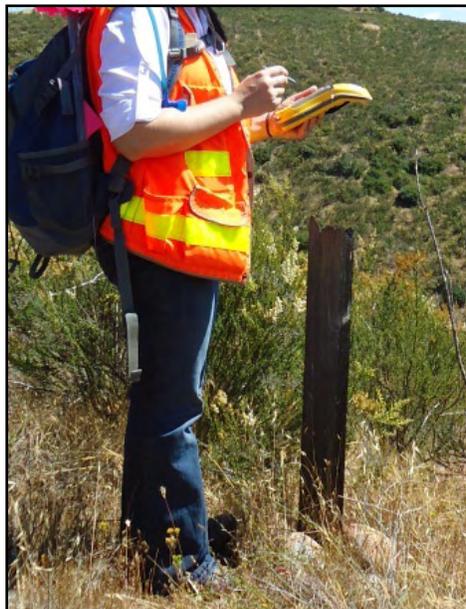


Figure 5-18. Photograph of TEMP-QB-ISO-6

5.2.2.7 TEMP-QB-ISO-7: Porphyritic Handstone

TEMP-QB-ISO-7 consists of one tan-colored porphyritic handstone (Figure 5-19) found along the northwest face of a toe on the eastern ridgeline of Little Sycamore Canyon. The ventral side of the stone has been moderately smoothed and flattened. The isolate measures 10 cm long, 8 cm wide, and 5 cm thick. [REDACTED]



Figure 5-19. Photograph of TEMP-QB-ISO-7

5.2.2.8 TEMP-QB-ISO-8: Interior Porphyritic Flake

TEMP-QB-ISO-8 is an interior gray-colored porphyritic flake (Figure 5-20) measuring approximately 4 cm long, 3.5 cm wide, and 1.5 cm thick. It was found in the vicinity of TEMP-QB-2 (approximately 63 meters southeast) atop a ridgeline east of Little Sycamore Canyon. The surrounding area has been impacted by an access road and biological habitat conservation efforts, including plantings, installation of fencing, and re-placement of rocks to hold protective netting down over plants. [REDACTED]



Figure 5-20. Photograph of TEMP-QB-ISO-8

5.2.2.9 TEMP-QB-ISO-9: Core

TEMP-QB-ISO-9 is a quartzite core (Figure 5-21). It exhibits seven flake scars and minimal cortex. The artifact measures 14 cm long, 8 cm wide, and 6 cm thick. It was found mid-way up an unnamed drainage between Little Sycamore and Sycamore Canyons, southeast of the landfill. TEMP-QB-3 and TEMP-QB-ISO-11 are within the same drainage. TEMP-QB-ISO-9 is situated on a south-facing 20 degree slope. [REDACTED]



Figure 5-21. Photograph of TEMP-QB-ISO-9

5.2.2.10 TEMP-QB-ISO-10: Mano

TEMP-QB-ISO-10 is a quartzite mano (Figure 5-22). The artifact has one ground facet and possible signs of pecking and battering on both ends. It measures approximately 14.4 cm. long, 6 cm wide, and 4.6 cm thick. The isolate is situated on a western-facing 14-degree slope along the midline of a toe just north of TEMP-QB-1 and TEMP-QB-ISO-3. The isolate is approximately



Figure 5-22. Photograph of TEMP-QB-ISO-10

5.2.2.11 TEMP-QB-ISO-11: Ford Coupe

TEMP-QB-ISO-11 a 1960s Ford Coupe (Figure 5-23). The vehicle has been flipped upside down, slightly crushing the body. The tires have been removed and the vehicle has been used as a shooting target. The vehicle measures approximately 18 feet long, 6 feet wide, and 4.5 feet tall less the height.



Figure 5-23. Photograph of TEMP-QB-ISO-11

5.3 BUILT ENVIRONMENT RESOURCES (SYCAMORE LANDFILL)

The Sycamore Landfill (Figure 5-24) is a roughly 493-acre sanitary landfill occupying most of Little Sycamore Canyon. In addition to the approximately 150-acre area along the eastern side of the canyon that has been used for waste disposal, the site contains the following features: an entrance facility consisting of two scales, a scale house, and administrative office buildings; paved two-lane, 1-mile-long landfill access road; equipment maintenance area, where routine maintenance on landfill operations equipment is performed from mobile service vehicles; two sedimentation basins to capture surface runoff; above-grade 12,000 gallon diesel fuel tank and a second diesel fuel tank; landfill gas flare and cogeneration facility (after August 1989); a recycling area near the main landfill entrance (after December 1982); an aggregate processing facility within the landfill footprint (after April 1985); and a greens/wood materials processing operation on the active landfill area where materials are ground and/or shredded for use as Alternate Daily Cover or other beneficial reuse.



Figure 5-24. Overview of Sycamore Landfill (South)

6.0 DISCUSSION AND INTERPRETATIONS

Archival research and survey efforts for the proposed Project have identified six archaeological sites and 16 isolates within the overall survey area (Table 6-1). Figure 6-1 depicts these resources in relation to resources identified within the larger study area. Five of the sites are prehistoric and one is historic. Thirteen of the isolates are prehistoric and three are historic. Three of the archaeological sites (CA-SDI-13593, TEMP-QB-3, and TEMP-QB-4) and two of the isolates (TEMP-QB-ISO-9 and TEMP-QB-ISO-10) are within the APE. A portion of the Alternative 1 gen-tie route was inaccessible during the surveys and may include additional resources. One previously recorded isolate, P-37-16210, is mapped by the SCIC as in this area; however, the resource was previously collected. Other previously recorded isolates within the overall survey area could not be relocated and may have been impacted by natural processes or misidentified as cultural artifacts by their original recorders. These resources are no longer within proximity to the APE due to redesigning of the Project.

The research design for this survey identified various expected site types, both prehistoric and historic. It also identified research themes and questions as well as data needs to address those questions. The resources identified within the overall survey area represent two of the expected prehistoric-era site types (lithic deposits and isolates) and two of the expected historic-era site types (historic refuse deposits and military-related isolates).

Table 6-1: Cultural Resources Identified by the Quail Brush Surveys

Temporary Resource #	SHPO ID	Description	Prehistoric/Historic
Sites			
N/A	CA-SDI-13576	Light lithic scatter	Prehistoric
N/A	CA-SDI-13593*	Light artifact scatter (Destroyed)	Prehistoric
TEMP-QB-1	TBD	Sparse lithic scatter	Prehistoric
TEMP-QB-2	TBD	Sparse lithic scatter	Prehistoric
TEMP-QB-3*	TBD	Historic refuse scatter	Historic
TEMP-QB-4*	TBD	Sparse flake and tool scatter	Prehistoric
Sycamore Landfill	TBD	Landfill/Engineering structure	Historic
Isolates			
N/A	P-37-14101	Volcanic secondary flake	Prehistoric
N/A	P-37-15411	Quartzite core test cobble	Prehistoric
N/A	P-37-16210	Secondary quartzite flake (Previously collected)	Prehistoric
N/A	P-37-16213	Porphyritic core/cobble tool with bifacial edge	Prehistoric
N/A	P-37-16215	Core/Cobble tool with bifacial edge (Previously collected)	Prehistoric
TEMP-QB-ISO-1	TBD	Volkswagen bug bodies	Historic
TEMP-QB-ISO-2 [†]	TBD	Secondary and interior porphyritic flakes	Prehistoric
TEMP-QB-ISO-3 [†]	TBD	Quartzite core	Prehistoric
TEMP-QB-ISO-4	TBD	Secondary quartzite flake	Prehistoric
TEMP-QB-ISO-5	TBD	Secondary porphyritic flake and primary quartzite flake	Prehistoric
TEMP-QB-ISO-6	TBD	Possible survey marker	Historic
TEMP-QB-ISO-7	TBD	Porphyritic handstone	Prehistoric
TEMP-QB-ISO-8	TBD	Interior porphyritic flake	Prehistoric
TEMP-QB-ISO-9*	TBD	Quartzite core	Prehistoric
TEMP-QB-ISO-10*	TBD	Quartzite mano	Prehistoric
TEMP-QB-ISO-11	TBD	Ford Coupe	Historic

* Resource within APE.

† Resource less than 20 meters from APE.

Figure 6-1. Previously and Newly Identified Cultural Resources Within the Quail Brush Study Area

REDACTED

6.1 PREHISTORIC-ERA RESEARCH THEMES AND QUESTIONS

Evidence of prehistoric use of the survey area is indicated by the dominant debitage, groundstone, and core isolates and several sparse lithic scatters. These include CA-SDI-13576, CA-SDI-13593, TEMP-QB-1, TEMP-QB-2, TEMP-QB-4, P-37-14101, P-37-15411, P-37-16210, P-37-16213, P-37-16215, TEMP-QB-ISO-2, TEMP-QB-ISO-3, TEMP-QB-ISO-4, TEMP-QB-ISO-5, TEMP-QB-ISO-7, TEMP-QB-ISO-8, TEMP-QB-ISO-9, and TEMP-QB-ISO10. While none of these resources include chronological indicators, their distribution and materials suggest a landscape of lithic procurement activities.

6.1.1 Site Formation Processes and Distribution Patterns

The resources identified within the overall survey area conform to the distribution pattern of resources within the study area. All are located near mid-line of a ridge or toe or near the bottom of a drainage. None were identified on the slopes between these two areas, including those areas that were a part of the 35 percent or greater slope sampling. The resources also conform to Hector, et al.'s (2004) observations regarding inland prehistoric sites. Identified prehistoric artifacts are entirely lithic in nature and none are chronological indicators.

The archival research conducted prior to the field surveys indicated a markedly higher density of archaeological resources along the ridgeline west of Spring Canyon compared to those within the survey area. The topography of the ridgelines within the survey area and APE are noticeably steeper and include smaller, narrower toes than in adjacent areas. This likely makes these areas less desirable for habitation or other use. However, several of the recorded lithic scatters in the adjacent area have been subsequently determined to be areas of naturally-occurring battered stone. This surveyor-bias may account for the marked difference as well. Removal of these adjacent misidentified sites from the inventory would reduce the site density in the study area.

6.1.2 Chronology

The survey effort did not identify data necessary to address research questions regarding chronology.

6.1.3 Lithic Technology and Use

All prehistoric resources identified by the survey consisted solely of lithic materials. Identified lithic artifact materials within the survey area are limited to quartzite and porphyritic materials. Artifacts identified include general debitage, cores, and milling implements. No formal or diagnostic tools have been recorded. This is likely indicative of Native American use of the locally available stone materials that originate in the Stadium Conglomerate and erode through the thin Holocene soils in significant numbers. It is theorized (Dr. George T. Gross, personal communication 2011) that the high density of isolated artifacts and lithic deposits in the study area (and presuming these resources are not misidentified natural stones) are indicative of the prehistoric opportunistic use and testing of the abundant materials as individuals traversed the landscape. Poor materials that were quickly tested would have been left in place, while promising materials were likely collected and transported to localities with comparatively low slopes.

6.1.4 Milling Sites

The survey effort did not identify data necessary to address research questions regarding milling sites.

6.1.5 Inland Use of Marine Resources

The survey effort did not identify data necessary to address research questions regarding inland use of marine resources.

6.1.6 Villages and Camps

The survey effort did not identify data necessary to address research questions regarding villages or camps.

6.2 HISTORIC-ERA RESEARCH THEMES AND QUESTIONS

There is also evidence of historic use of the survey area, indicated by refuse, including abandoned vehicles (TEMP-QB-3, TEMP-QB-ISO-1, and TEMP-QB-ISO-11), and a possible survey marker (TEMP-QB-ISO-6). The presence of these resources potentially suggest military use of the western, more isolated portion of the survey area and dumping of more recent refuse in the eastern, more publicly accessible portion of the survey area. It should be noted that the dumping does not appear related to the Sycamore Landfill.

6.2.1 Historic Refuse Deposits

Although weathered and deteriorated, the limited amount of historic refuse within TEMP-QB-3 is not indicative of specific time periods. It also includes modern debris. Both TEMP-QB-ISO-1 and TEMP-QB-ISO-11, abandoned vehicles, can be attributed to the 1960s. The isolates are obvious single-episodes of dumping. The use of TEMP-QB-ISO-11 as a shooting target indicates the use of the vehicle and area for recreational purposes.

TEMP-QB-3 is relatively localized and minimal in content. It likely represents a single or very few episodes of dumping. Without specific chronological indicators, this is difficult to determine. Identified refuse is primarily domestic and auto-related. Its location along an access road and within proximity to a densely populated area suggests opportunistic dumping, perhaps by nearby residents.

6.2.2 Ranching and Homesteads

The survey effort did not identify data necessary to address research questions regarding historic ranching and homesteads deposits.

6.2.3 Military-Related Activities

TEMP-QB-ISO-6, a possible survey marker, may be related to past military activities in the survey area. Given that the marker is located adjacent to a formal and modern metal survey marker for MCAS Miramar, it is considered likely that the wooden post marker is also associated with the Navy base. However, the marker does not provide information regarding military training activities. It likely simply marked a former base location.

6.3 ARCHAEOLOGICAL SENSITIVITY OF THE APE

Archaeological sensitivity is based on a variety of factors. Specifically, these factors include site density, survey coverage, proximity to prehistoric and historic-era natural resources, extent of disturbances, the presence of buried landforms suitable in age for human occupation in the San Diego region (Late Pleistocene, Holocene, or historic), and depositional environments suitable for preserving archaeological resources. Either all or a combination of these factors may suggest that an area is sensitive for either surface or subsurface archaeological resources.

The APE is in close proximity to three freshwater sources: two perennial streams within Little Sycamore Canyon and Spring Canyon to the west, and the San Diego River in Sycamore Canyon and the river valley. Natural slopes in the area are considered steep (approximately 36 to 46 percent). Underlying geologic units consist of the Eocene age Stadium Conglomerate and Friars Formation. Surficial units within the survey area consist of Holocene age alluvium in the main canyons, sloopwash deposits mainly in the side drainages, and scattered man-made fill. Along ridge tops, Holocene soils were observed during the field survey to be thin, with the Stadium Conglomerate cobble clasts eroding and exposed over the vast majority of the area.

The entirety of the APE has been surveyed numerous times in the past 29 years, although usually with poor ground surface visibility. There is a low density of archaeological resources within the landforms of the survey area, which may or may not be a factor of the poor ground surface visibility experienced by surveying archaeologists. The resources identified as within the APE are dominated by isolated artifacts and sparse lithic scatters. Although consideration must also be given to the bias of past surveyors who may have identified naturally-occurring cobbles and battered stones as cultural materials, the distribution of archaeological sites in the study area favors relatively flat slopes (less than 35 percent). Only the plant site covers similar topography, while minor portions of the gen-tie corridor alternatives cross ridgetops with similar topography. The overall steep nature of much of the APE contributes to the natural redeposition of artifacts from their original location. Further, Little Sycamore Canyon has been extensively disturbed by construction of the Sycamore Landfill, associated roads, and the gravel processing plant at the head of the canyon. Ridgetops in the APE have also been disturbed by construction of transmission lines, access roads, and trails. The entire area was disturbed by the Cedar Fire in 2003.

Based on the above factors and in consideration of the poor ground surface visibility within the survey area, the APE is considered to have low to moderate surface archaeological sensitivity and none to low subsurface archaeological sensitivity.

6.4 CRHR-ELIGIBILITY RECOMMENDATIONS FOR RESOURCES WITHIN THE APE

Resources listed on or determined to be eligible for listing on the CRHR are referred to as historical resources. A resource is historically significant and CRHR-eligible if it “is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, economic, or cultural annals of California” (PRC §5020.1[j]). Specifically, a resource is considered CRHR-eligible if it is at least 45 years old and meets at least one of the CRHR eligibility criteria, or it can be demonstrated that sufficient time has passed to understand its historical importance. The criteria for CRHR eligibility are as follows:

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

The following discussions assess the CRHR-eligibility of the two archaeological sites that extend into the Project's APE (TEMP-QB-3 and TEMP-QB-4).

6.4.1 CRHR-Eligibility of TEMP-QB-3

TEMP-QB-3 is a historic refuse scatter that also includes modern materials. It is situated at the bottom of an unnamed drainage. The refuse within the site consists primarily of domestic and auto-related materials. All materials are surface artifacts. No chronologically diagnostic items are included and the nearest buildings are the 1970s Carlton Oaks residential neighborhood and residences in the Santee Recreational Lakes area, approximately 0.3-mile and 0.4-mile away, respectively.

TEMP-QB-3 may be associated with the growth and development of the nearby Santee communities (Criterion 1); however, TEMP-QB-3 cannot be directly associated with this event nor is it the location of a significant event within the community. Rather it is likely a by-product of the area's development, representing opportunistic dumping. Therefore, TEMP-QB-3 is not considered eligible for inclusion on the CRHR under Criterion 1.

TEMP-QB-3 is not directly associated with any persons that are considered important in local, California, or national history (Criterion 2). The scatter does not embody the distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of a master or possess high artistic values (Criterion 3). Therefore, TEMP-QB-3 is not considered eligible for inclusion on the CRHR under Criteria 2 or 3.

With the nearest building or structure approximately 0.3-mile away and no direct connection between TEMP-QB-3 and a specific building or structure, it is difficult to determine to whom the refuse at TEMP-QB-3 belonged. The site also does not have potential to answer the research questions posed here, as indicated in Section 6.2.1 above. Due to the absence of any direct correlation with known persons or households, lacking any substantial deposit, and offering very little material remains, TEMP-QB-3 has no potential to yield information important to the prehistory or history of the local area, California, or the nation (Criterion 4).

Based on the above, TEMP-QB-3 does not appear to meet any of the criteria that would qualify it as eligible for listing on the CRHR.

6.4.2 CRHR-Eligibility of TEMP-QB-4

TEMP-QB-4 is a sparse flake and tool scatter consisting of two pieces of debitage, a tested cobble, and a mano. It is located on a northwest-facing slope near the head of a minor,

unnamed drainage overlooking Little Sycamore Canyon. Lithic materials observed at the site are native and readily available in the region. No chronologically diagnostic artifacts are included in the site. Given the geoarchaeological and geomorphological contexts of the site area, it is likely a surface scatter with no subsurface component. The site is considered to be representative of a larger pattern of prehistoric opportunistic use and testing of naturally-occurring lithic materials.

TEMP-QB-4 is not associated with the growth and development of the nearby Santee communities (Criterion 1) or persons considered important in local, California, or national history (Criterion 2). The scatter does not embody the distinctive characteristics of a type, period, region, or method of construction, nor does it represent the work of a master or possess high artistic values (Criterion 3). Therefore, TEMP-QB-4 is not considered eligible for inclusion on the CRHR under Criteria 1, 2, or 3.

TEMP-QB-4 does not include chronological indicators or a subsurface component. Mapping and recordation of the artifacts present within the site boundaries and addressing the research questions posed in Section 6.1 with this minimal information has exhausted the site's data potential. Lacking any substantial deposit and offering very little material remains, TEMP-QB-4 has no potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4).

Based on the above, TEMP-QB-4 does not appear to meet any of the criteria that would qualify it as eligible for listing on the CRHR.

6.4.3 CRHR-Eligibility of Sycamore Landfill

Sycamore Landfill is a sanitary landfill located within Little Sycamore Canyon and along the canyon's eastern ridge. It is evaluated here in the context of the local development of waste disposal systems. While the landfill opened in 1963, meeting the age requirement for inclusion in the CRHR, it was opened more than a decade after this waste disposal method was introduced in the area and was at least the fourth sanitary landfill in the City. It is not historically significant.

Sycamore Landfill is not associated with events that made a contribution to the broad patterns of local or regional history, or the cultural heritage of the California or the United States of America (Criterion 1). It is not associated with the lives of persons important to local, California, or national history (Criterion 2). It is not the embodiment of the distinctive characteristics of a type, period, region, or method of construction, or a representation of the work of a master, or possesses high artistic values (Criterion 3). And it is not likely to yield information important to the prehistory or history of the local area, California, or the nation (Criterion 4).

Based on the above, Sycamore Landfill does not appear to meet any of the criteria that would qualify it as eligible for listing on the CRHR.

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7.0 MANAGEMENT CONSIDERATIONS

Several factors have been considered in evaluating the impact of the Project on cultural resources as well as the appropriate mitigation measures to lessen or prevent those impacts. These factors are summarized in this section.

This report was prepared in accordance with guidance provided by the CEC, CEQA, and the California Office of Historic Preservation. The cultural resource records search was conducted by the SCIC, with supplemental information provided by the San Diego Museum of Man and the Santee Historical Society, and indicated the presence of 69 archaeological sites, 55 isolates, and four historic addresses within the study area. Several of the sites and isolates have been subsequently determined to no longer exist or to have been mistakenly recorded. Three surveys conducted for this Project have recorded four previously unidentified archaeological sites and 11 previously unidentified isolates. This brings the total site density of the study area to 73 archaeological sites and 66 isolates (see Figure 6-1). Portions of the overall survey area however, were inaccessible (see Figure 4-6). Of the inventory of resources within the study area, three archaeological sites (CA-SDI-13593, TEMP-QB-3, and TEMP-QB-4) and two isolates (TEMP-QB-ISO-9 and TEMP-QB-ISO-11) are within the APE; however, CA-SDI-13593 has been destroyed and both TEMP-QB-3 and TEMP-QB-4 have been recommended as CRHR-ineligible. Two additional isolates, TEMP-QB-ISO-2 and TEMP-QB-ISO-3, are within fewer than 20 meters of the APE. Therefore, no historical resources have been identified within the APE. Given the dense vegetation and in consideration of the surficial geoarchaeological context of the study area, the APE is considered to have low to moderate surface archaeological sensitivity and none to low subsurface archaeological sensitivity. The following discussions assess the potential impacts of the Project on these cultural resources and suggest mitigations measures to reduce the potential significance of impacts.

The Sycamore Landfill is the only historic built environment resource identified within or adjacent to the APE. It has been recommended as CRHR-ineligible. One NRHP-, CRHR-, and County Register-listed resource and National Historic Landmark, the Mission Dam (P-37-20910), was identified approximately 0.6-mile west of the APE along the San Diego River. The Project will not be visible from the structure.

The NAHC sacred lands file search identified one Native American resource within the Township and Range (T15S/R2W) that includes the western half of the study area. Given that the area is within an unsectioned historic rancho, no more specific location information was available from the NAHC. This is outside of the Township and Range (T15S/R1W) that the current design of the Project occupies. To date, two responses from consulted Native Americans have been received and Native American monitors participated in the supplemental survey. No sacred sites have been identified by those parties; however, a general concern for the archaeological resources of the APE has been expressed. Both consulted individuals requested that a Native American monitor be present during construction.

7.1 IMPACT SIGNIFICANCE CRITERIA

CEQA states that a project may have a significant effect on the environment if it will cause a substantial adverse change in the significance of a historical resource or have a significant effect on a unique archaeological resource. Appendix G, Environmental Checklist Form, of CEQA addresses significance criteria with respect to cultural resources (PRC Sections 21000 et

seq.). Under CEQA an impact on cultural resources would be considered significant if a project would either directly or indirectly:

- Cause a substantial adverse change in the significance of a historical resource;
- Cause a substantial adverse change in the significance of an archaeological resource; or
- Disturb any human remains, including those interred outside of formal cemeteries.

Historical resources are those cultural resources that are considered eligible or listed on the CRHR. Criteria for CRHR listing and eligibility are defined in PRC 5024.1, and CCR Title 14, Section 4850.3. Specifically, a resource may be eligible for the CRHR if it:

- a) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- b) Is associated with the lives of persons important in our past;
- c) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- d) Has yielded, or may be likely to yield, information important in prehistory or history.

If an archaeological resource does not fall within the definition of a historical resource it may meet the definition of a "unique archaeological resource" (PRC 21083.2(g)). Unique archaeological resources includes archaeological artifacts, objects, or sites that:

- a) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
- b) Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- c) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not meet the definitions of a unique archaeological resource or of an historical resource, the effects of the project on those resources are not considered a significant effect on the environment (CEQA Guidelines (15064.5 (c)(4))).

Significant effects on historical resources or unique archaeological resources can be eliminated by pursuing an alternative course of action or mitigating to less than significant levels. Preservation in-place (avoidance) is the preferred manner for mitigating impacts to archaeological resources (CCR 15126.4(b)(3)(A)). If preservation in-place is not feasible, data recovery excavation is an acceptable alternative pursuant to the provisions of CCR 15126.4(b)(3)(C).

Direct effects from a project could result from: vegetation clearing; grading of access roads; excavation and modification of the plant site; trenching for pipelines, electrical transmission lines, and drainage diversions; auguring for foundations for electrical towers or poles; and any other earth-moving activity that disturbs previously undisturbed or unevaluated cultural resources such as prehistoric objects or sites, making those objects and their cultural resources unavailable for future scientific investigation.

7.2 IDENTIFIED PROJECT IMPACTS ON CULTURAL RESOURCES

The following impacts on cultural resources may occur as a result of construction or operation and maintenance of the proposed Project. Based on these analyses, the Project may have significant impacts on unidentified cultural resources, including historical resources and unique archaeological resources, as a result of ground-disturbing activities. The presence or absence of human remains, although considered unlikely in the APE, is unknown. However, by implementing recommended mitigation measures, these impacts may be reduced to less than significant.

7.2.1 Construction Impacts

7.2.1.1 Archaeological Resources

Impacts on archaeological resources as a result of construction of the proposed Project, such as disturbance or destruction, would be less than significant with mitigation.

The location of one previously destroyed archaeological site (CA-SDI-13593), two newly identified archaeological sites (TEMP-QB-3 and TEMPQB-4), and two isolates (TEMP-QB-ISO-9 and TEMP-QB-ISO-11), are within the APE. Two additional isolates, TEMP-QB-ISO-2 and TEMP-QB-ISO-3, are within fewer than 20 meters of the APE. Given that CA-SDI-13593 was tested and collected prior to its destruction, the likelihood of encountering archaeological resources in this area is low. For the purposes of this analysis, the site is considered to no longer exist. Both TEMP-QB-3 and TEMP-QB-4 have been recommended as CRHR-ineligible and are therefore not considered historical resources. Construction impacts on these sites would not be considered significant. Debitage isolates such as those identified within and adjacent to the APE are generally not considered historical resources and impacts on them are not considered significant for the purposes of CEQA. However, it is possible that the remaining, unevaluated archaeological sites (TEMP-QB-1 and TEMP-QB-2) adjacent to the APE extend into the APE. For the purposes of this analysis, these sites are considered historical resources eligible for listing on the CRHR. Therefore, disturbance of these resources, should they extend into the APE, would be considered significant impacts.

Given the overall archaeological sensitivity of the APE (none to moderate), there is a potential for unidentified archaeological resources, which may include human remains, to exist. Further, the entirety of the APE has not been subjected to a pedestrian survey yet. One previously recorded and collected isolate, P-37-16210, is within this area. Also, given the developing nature of the Project, additional redesigning may occur that extend the APE outside of the survey area. Additional resources may be present in these unsurveyed portions of the APE. Such resources would likely be shallow. If intact, the resources may be CRHR-eligible. Impacts on these resources as a result of construction-related ground disturbance would be considered significant.

With incorporation of the mitigation measures listed below in Section 7.3, these significant impacts would be reduced to less than significant.

7.2.1.2 Native American Resources

No Native American resources were identified during the resource inventory and consultation process as being within or adjacent to the APE. However, specific concern regarding

archaeological resources was voiced during consultations. Therefore, impacts on Native American resources as a result of construction of the proposed Project are considered the same as those described for archaeological resources. With incorporation of the mitigation measures listed below in Section 7.3, these significant impacts would be reduced to less than significant.

7.2.1.3 Built Environment Resources

No engineered or architectural historical resources were identified during the resource inventory as within or adjacent to the APE. Sycamore Landfill has been researched and documented as a historic built environment resource. However, its lack of historical significance and its current use as an active landfill with several subsidiary uses suggest that the addition of Project will not impact the Landfill. The Mission Dam (P-37-20910) is a historical resource that is 0.6-mile west of the APE. The Project components will not be visible from the dam. Therefore, potential impacts on built environment cultural resources are not expected from the construction of the Project.

7.2.2 **Operation and Maintenance Impacts**

7.2.2.1 Archaeological Resources

If new ground disturbing activities were to occur during operation and maintenance of the Project, those activities would be within the survey area and areas monitored during construction (see CUL-3 in Table 7-1). Therefore no impacts on archaeological resources would be anticipated.

7.2.2.2 Native American Resources

Impacts on Native American resources as a result of operation and maintenance of the proposed Project would be similar to those described for archaeological resources. Since no Native American resources, including the one identified by the NAHC as within the larger Township and Range, were identified by consulted Native Americans as within or near the proposed Project, no visual impacts on such resources are anticipated.

7.2.2.3 Built Environment Resources

Impacts on historic built environment resources from the operation and maintenance of the Project would be the same as for construction-related impacts.

7.3 **RECOMMENDED MITIGATION MEASURES**

It is recommended that the protective measures outlined in Table 7-1 be implemented and adhered to prior to and during Project implementation in order to reduce potential impacts on cultural resources to less than significant under CEQA.

Table 7-1: Recommended Mitigation Measures and their Efficacy

Proposed Mitigation Measure	Effect of Measure
<p>CUL-1. Continue Native American Consultations—On behalf of the CEC, Quail Brush Genco, LLC will continue to consult with Native Americans identified by the NAHC in order to identify potentially sacred sites and/or resources that may be impacted by the Project as well as to identify appropriate Native American monitors.</p>	<p>This mitigation measure is intended to avoid or minimize impacts on Native American resources, including traditional resources, religious sites, and Native American archaeological sites. Potential impacts on the data potential (CRHR Criterion 4) of unanticipated or adjacent resources may occur during construction. Incorporation of this mitigation measure would reduce the potential impact level on those cultural resources to less than significant by ensuring that Native Americans who have an interest in any unanticipated historic resources discovered during Project construction would have an opportunity to help identify how any such resource would be addressed.</p> <p>Although no additional input has been provided by consulted Native Americans since submittal of the AFC, continuing consultations will allow Quail Brush Genco, LLC to quickly identify and resolve potential impacts that may be identified at a later date by these represented communities. Maintaining these open lines of communication will better facilitate consultations should Native American-related historical resources be identified later in the planning process or during construction, and require avoidance, special treatment, or recovery. Successfully reaching an agreement with the Native American community as to how such resources should be handled would help ensure that there are no significant impacts on historical resources.</p>
<p>CUL-2. Education/Training—Prior to Project implementation, all non-archaeological Project personnel will be briefed by a trained archaeologist on the prehistoric and historic use of the Project area and the results of the Project’s cultural resources survey. Further, personnel will be briefed on the importance of, and the legal basis for, the protection of significant archaeological resources and how these resources contribute to modern society. All archaeological and Native American monitors will be introduced and their roles explained.</p> <p>Personnel will be instructed on the identification of archaeological materials, particularly materials indicative of the site types considered likely to occur within the APE (especially lithic deposits, military-related items or features, and prehistoric and historic isolates). In addition to a pocket brochure regarding identification of cultural resources and how to report finds, the training will include photographs of artifact classes likely to occur within the APE and, when possible, artifact samples that the personnel may handle and with which they may become more familiar.</p>	<p>This mitigation measure is intended to avoid and minimize potential impacts on unanticipated archaeological resources during construction. Although no cultural resources have been identified within the APE, any discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Educating Project personnel as to the importance of prehistoric and historic cultural resources and training them how to identify such resources and the proper protocols to follow in the event of an unanticipated discovery will minimize the likelihood of a worker unknowingly or purposefully disturbing these resources. Educating workers as to the importance of cultural resources instills a sense of the significance of these resources to the Native American and scientific communities. Further, workers will come to understand how these resources contribute to our modern society and our understanding of history. With an understanding of these issues as well as the legal protections afforded historical resources, workers will develop an appreciation for cultural resources, thereby reducing the potential for workers to loot or damage the resources in the Project area. Incorporation of this</p>

Proposed Mitigation Measure	Effect of Measure
	mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.
<p>CUL-3. Monitoring—It has been requested by interested Native American tribes that a Native American monitor be present during ground-disturbing activities associated with the Project. Additionally, the APE is considered to have low to moderate archaeological sensitivity for surface resources and none to low subsurface archaeological sensitivity. Therefore, an archaeological monitor who meets the Secretary of the Interior’s Professional Qualification Standards for Archaeology as well as a Native American Consultant will be present onsite during initial ground disturbing activities. Given the geoarchaeological context of the proposed Project site and the proximity of the Stadium Conglomerate bedrock to the surface, cultural resource monitors will only be present during disturbance of the upper 20 cm. The monitors will be allowed to conduct a cursory survey of the proposed Project site following any initial mowing of vegetation. If any cultural resources are identified by the monitors during vegetation removal associated with construction, the resource will be treated as an unanticipated discovery and the protocols outlined in CUL-4 will be followed.</p>	<p>Similar to CUL-2, this mitigation measure is intended to avoid and minimize potential impacts on unanticipated archaeological resources during construction. Any archaeological resources discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Archaeological monitoring allows an opportunity to confirm that isolated artifacts identified during archival research and survey are not sites. Monitoring also insures that previously unidentified cultural resources are identified, recorded, and sufficiently treated or avoided during construction, thus minimizing the potential loss of data regarding historical resources. Further, monitoring acts as a deterrent in the event that education and training regarding cultural resources are not as effective as intended. Incorporation of this mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.</p>
<p>CUL-4. Unanticipated and Inadvertent Discoveries—If the archaeological monitors, construction staff, or others observe previously unidentified archaeological resources during construction, they will halt work in the vicinity of the find(s) and immediately notify the Project Archaeologist so that the resource value may be assessed as soon as possible and appropriate next steps determined in coordination with the CEC as the lead CEQA agency. Such finds will be formally recorded and evaluated for CRHR eligibility. The resource will be protected from further disturbance or looting pending evaluation and agreement from the CEC regarding the recommended CRHR eligibility status. Should the unanticipated discovery be determined to be a historical resource and cannot be avoided, Quail Brush Genco, LLC will provide justification as to why the resource cannot be avoided and recommend treatment options (i.e., data recovery) to the CEC and consulted Native American tribes and historical societies for agreement.</p> <p>If human remains and/or cultural items defined by the Health and Safety Code, Section 7050.5 are inadvertently discovered during construction activities, all work in the vicinity of the find will cease and the San Diego County Coroner will be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, work may be delayed in the vicinity of the find up to 30 days.</p>	<p>This mitigation measure is intended to avoid, minimize, or mitigate impacts on unanticipated archaeological resources during construction. Any archaeological resources discovered during construction may be considered historical resources, likely under CRHR Criterion 4 (data potential), or a unique archaeological resource (as defined by PRC 21083.2(g)(1)), likely under CRHR Criterion a (data potential to answer scientific questions with public interest). Ground disturbances resulting from construction activities may adversely affect these qualities. Stopping construction work in the vicinity of a find and allowing time to assess and evaluate an unanticipated or inadvertent discovery reduces the potential of data loss from a potential historical resource. Additionally, this time allows for all parties involved in the Project (Quail Brush Genco, LLC, CEC, Native American monitors, and other consulted parties) to consult and determine if the resource can be avoided and, if not, appropriate treatments that would recover the data that will be destroyed. Incorporation of this mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.</p>

Proposed Mitigation Measure	Effect of Measure
<p>CUL-5. Additional Field Survey—If the finalized Project engineering design falls outside or beyond the overall survey area, Quail Brush Genco, LLC will, in coordination with the CEC and City of San Diego, complete a cultural resources survey of those areas (including any CEC-required buffers). The survey methodology will be agreed upon by Quail Brush Genco, LLC, the CEC, and City of San Diego. As appropriate, field methodologies shall be the same as described in Section 4.3.2 of this report. One to two paid Native American monitors will participate in the survey if interest is shown. Other interested Native Americans may participate in the survey on a voluntary basis. All cultural resources identified by the survey will be recorded on California DPR forms and mapped using a GPS unit with sub-meter accuracy. Results of the survey will be provided in a technical report conforming to the Archaeological Resource Management Report format (OHP 1990). The report will include maps of finalized engineering design and surveyed areas and any additional recommended mitigation measures will be provided to the CEC and the City of San Diego for comment and approval. If any resource identified by the survey cannot be avoided, it will be evaluated for CRHR eligibility and, if necessary to avoid significant impacts on the resource, additional treatments recommended. These recommendations will be submitted as a Historic Preservation Treatment Plan to the CEC, City of San Diego, and relevant consulting parties for agreement. Any recommended treatments will occur prior to the initiation of Project activities within the vicinity of a historical resource. Project construction may occur elsewhere within the APE during this period and with applicable archaeological monitoring efforts.</p>	<p>This mitigation measure is intended to avoid and minimize impacts on cultural resources that may be located in areas outside of overall survey area, should the final Project design result in the expansion of the APE or required survey areas. Also, the mitigation measure is intended to avoid and minimize impacts on cultural resources that may be located in areas overall survey area that were previously inaccessible or added following completion of field efforts. Conducting additional field survey allows opportunity to identify cultural resources within these areas, their recordation, evaluation for CRHR eligibility, and consideration for avoidance or appropriate treatment. Should any cultural resources in any additional survey area be determined to be historical resources, it would likely be under Criterion 4 (data potential). This mitigation measure will insure that the Project will not proceed unless and until an Historic Treatment Plan is developed, approved and implemented, insuring that any eligible resource would be avoided or mitigated. Incorporation of this mitigation measure would reduce the level of potential impact on unanticipated cultural resources to less than significant.</p>

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APPENDIX A
RECORDS SEARCH RESULTS

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APPENDIX B
NAHC AND NATIVE AMERICAN CONSULTATIONS

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NAHC Response

STATE OF CALIFORNIA

Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION

815 CAPITOL MALL, ROOM 364
 SACRAMENTO, CA 95814
 (916) 653-8251
 Fax (916) 657-5390
 Web Site www.nahc.ca.gov
 ds_nahc@pacbell.net



June 1, 2011

Ms. Erin King, M.A., RPA

TETRA TECH, INC.

9777 Davona Drive
 San Ramon, CA 94583

Sent by FAX to: 916-852-0307
 No. of Pages: 5

Re: Sacred Lands File Search and Native American Contacts list for the "Quail Brush Energy Center Project;" located near the City of Santee; San Diego County, California.

Dear Ms. King:

The Native American Heritage Commission (NAHC) conducted a Sacred Lands File search of the 'areas of potential effect,' (APEs) based on the USGS coordinates provided and found **Native American cultural resources were identified** in the USGS La Mesa Quad, Township 15 South, Range 2 West, but not in Range 1 West. Based on the coordinates you specified. Also, please note, the NAHC Sacred Lands Inventory is not exhaustive; Native American cultural resources may be inadvertently discovered during ground-breaking activity.

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, even during Initial Study or First Phase surveys 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 of Native American Contacts we attach to this letter 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.

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 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq*), 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.

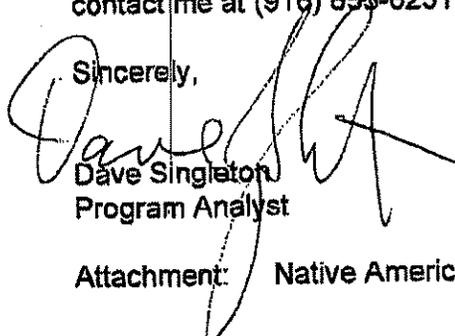
Also, California Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery 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 the 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
Program Analyst

Attachment: Native American Contact List

**Native American Contact List
San Diego County
June 1, 2011**

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

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

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

lipay Nation of Santa Ysabel
Virgil Perez, Spokesman
PO Box 130 Diegueno
Santa Ysabel, CA 92070
brandietaylor@yahoo.com
(760) 765-0845
(760) 765-0320 Fax

Sycuan Band of the Kumeyaay Nation
Danny Tucker, Chairperson
5459 Sycuan Road Diegueno/Kumeyaay
El Cajon , CA 92021
ssilva@sycuan-nsn.gov
619 445-2613
619 445-1927 Fax

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

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

Campo Kumeyaay Nation
Monique LaChappa, Chairperson
36190 Church Road, Suite 1 Diegueno/Kumeyaay
Campo , CA 91906
(619) 478-9046
miachappa@campo-nsn.gov
(619) 478-5818 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 only applicable for contacting local Native Americans with regard to cultural resources for the proposed Quail Brush Energy Center; located west of the City of San Diego in San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

**Native American Contact List
San Diego County
June 1, 2011**

Jamul Indian Village
Kenneth Meza, Chairperson
P.O. Box 612
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785
(619) 669-48178 - Fax

Diegueno/Kumeyaay

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

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

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

Kumeyaay Cultural Heritage Preservation
Paul Cuero
36190 Church Road, Suite 5 Diegueno/ Kumeyaay
Campo , CA 91906
(619) 478-9046
(619) 478-9505
(619) 478-5818 Fax

Ewiiapaayp 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

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

Ewiiapaayp Tribal Office
Michael Garcia, Vice Chairperson
4054 Willows Road Diegueno/Kumeyaay
Alpine , CA 91901
michaelg@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - 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 only applicable for contacting local Native Americans with regard to cultural resources for the proposed Quail Brush Energy Center, located west of the City of Santee in San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

**Native American Contact List
San Diego County
June 1, 2011**

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
Bernice Paipa, Vice Spokesperson
 P.O. Box 1120 Diegueno/Kumeyaay
 Boulevard, CA 91905
 (619) 478-2113

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

Kumeyaay Diegueno Land Conservancy
M. Louis Guassac, Executive Director
 P.O. Box 1992 Diegueno/Kumeyaay
 Alpine, CA 91903
 guassacl@onebox.com
 (619) 952-8430

Viejas Kumeyaay Indian Reservation
Frank Brown
 240 Brown Road Diegueno/Kumeyaay
 Alpine, CA 91901
 FIREFIGHTER69TFF@AOL.
 (619) 884-6437

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Quail Brush Energy Center, located west of the City of Santee in San Diego County, California for which a Sacred Lands File search and Native American Contacts list were requested.

Contact Letters



June 6, 2011

Mr. Steve Banegas, Spokesperson
Kumeyaay Cultural Repatriation Committee
1095 Barona Road
Lakeside, CA 92040

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Banegas:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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We appreciate your assistance in this matter. If you have any questions or require any further information please do not hesitate to call me at (916) 502-6044 (cell phone) or e-mail me at erin.king@tetrattech.com.

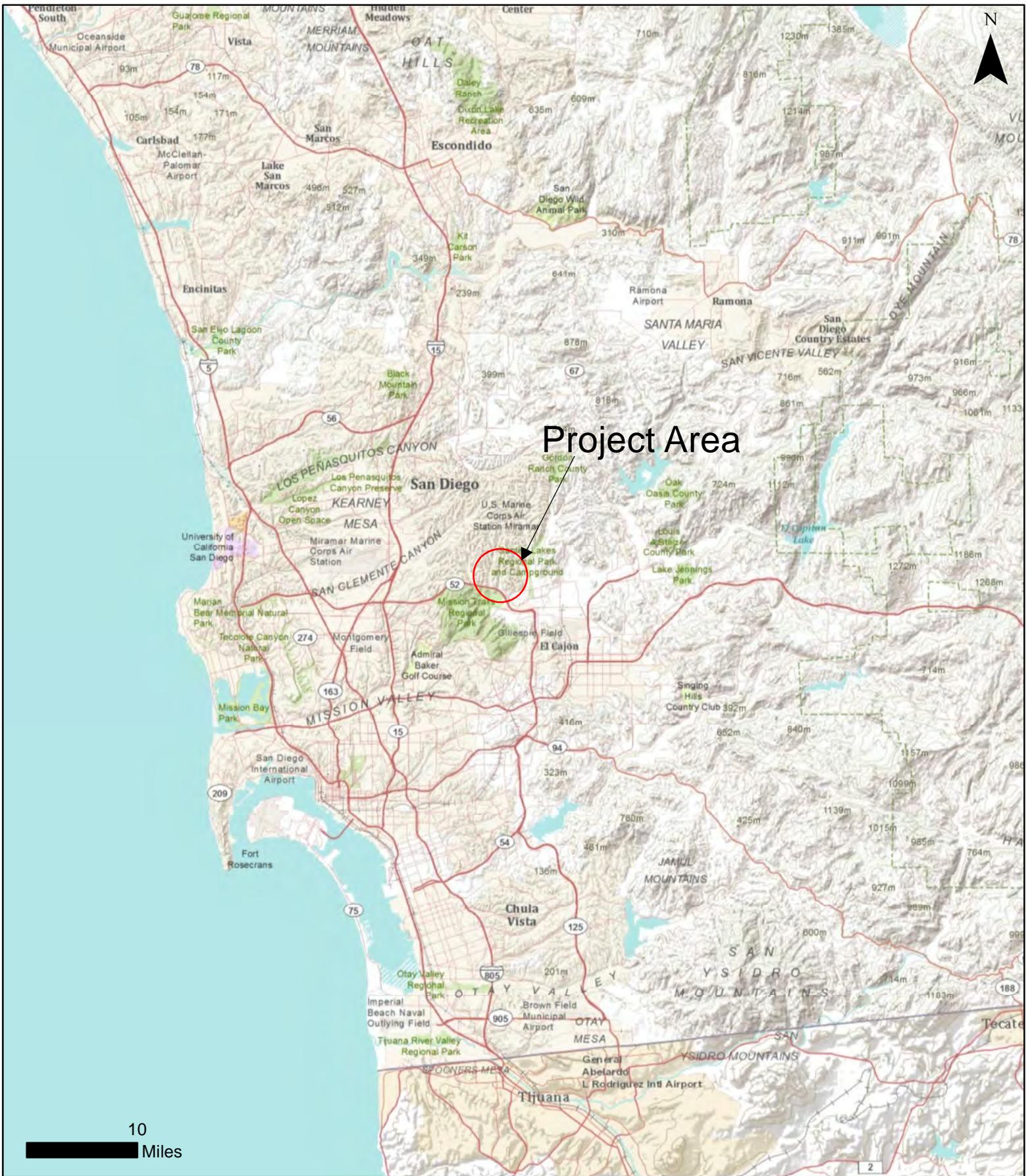
Best regards,

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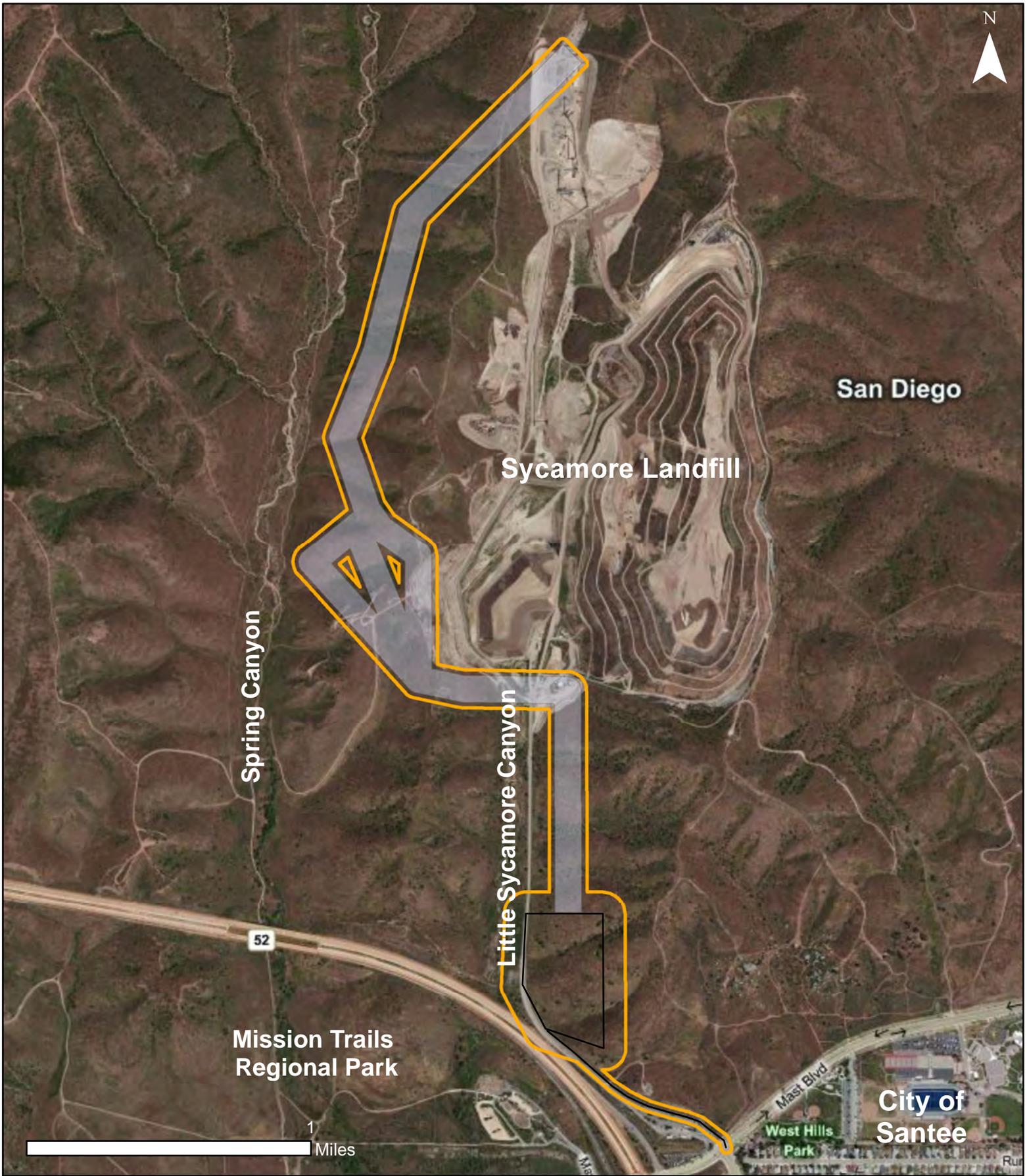
Erin King
Project Archaeologist

Enclosures





Regional Overview of Project Location



Legend

- Cultural Resources Survey Area
- GenTie Corridor
- Gas Lateral
- Plant Site

Project Overview



June 6, 2011

Mr. Frank Brown
Viejas Kumeyaay Indian Reservation
240 Brown Road
Alpine, CA 91901

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Brown:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,



Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Ron Christman
Kumeyaay Cultural Historic Committee
56 Viejas Grade Road
Alpine, CA 92001

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Christman:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,


Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Paul Cuero
Kumeyaay Cultural Heritage Preservation
36190 Church Road, Suite 5
Campo, CA 91906

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Cuero:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Leroy J. Elliott, Chairperson
Manzanita Band of the Kumeyaay Nation
PO Box 1302
Boulevard, CA 91905

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Elliott:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Michael Garcia, Vice Chairperson
Ewiiapaayp Tribal Office
4054 Willows Road
Alpine, CA 91901

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Garcia:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Louis Guassac, Executive Director
Kumeyaay Diegueno Land Conservancy
PO Box 1992
Alpine, CA 91903

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Guassac:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Ms. Monique LaChappa, Chairperson
Campo Kumeyaay Nation
36190 Church Road, Suite 1
Campo, CA 91906

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Ms. LaChappa:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,



Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Allen E. Lawson, Chairperson
San Pasqual Band of Mission Indians
PO Box 365
Valley Center, CA 92082

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Lawson:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Clint Linton, Director of Cultural Resources
Ipai Nation of Santa Ysabel
PO Box 507
Santa Ysabel, CA 92070

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Linton:

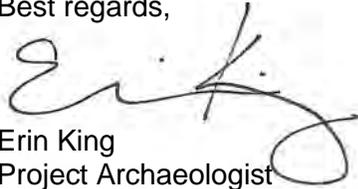
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Best regards,



Erin King
Project Archaeologist

Enclosures





June 6, 2011

Ms. Carmen Lucas
Kwaaymli Laguna Band of Mission Indians
PO Box 775
Pine Valley, CA 91962

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Ms. Lucas:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Kenneth Meza, Chairperson
Jamul Indian Village
PO Box 612
Jamul, CA 91935

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Meza:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,



Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Will Micklin, Executive Director
Ewiiapaayp Tribal Office
4054 Willows Road
Alpine, CA 91901

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Micklin:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Ms. Rebecca Osuna, Spokesperson
Inaja Band of Mission Indians
2005 S. Escondido Blvd.
Escondido, CA 92025

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Ms. Osuna:

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Enclosures





June 6, 2011

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Kumeyaay Cultural Repatriation Committee
PO Box 1120
Boulevard, CA 91905

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Ms. Paipa:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

The report will identify previously recorded cultural resources and cultural resources identified during a pedestrian survey that was conducted in May 2011. Additionally, the report will provide recommendations to protect cultural resources within the Project area. The May 2011 survey relocated one previously recorded lithic scatter, CA-SDI-13576, and recorded six isolated artifacts including debitage, cores, Volkswagen Bug bodies, and a possible historic survey marker. Three previously recorded isolated pieces of debitage had been previously recorded in the survey area, but were not relocated, likely due to the dense vegetation cover in the area.

We have contacted the California Native American Heritage Commission who identified "Native American cultural resources" within Township 15S/Range 2W. We respectfully request any information and/or input that you may have regarding Native American concerns either directly or indirectly associated with this Project. We are also interested in knowing if there are individuals in the area who should be contacted prior to completion of this study.

We appreciate your assistance in this matter. If you have any questions or require any further information please do not hesitate to call me at (916) 502-6044 (cell phone) or e-mail me at erin.king@tetrattech.com.

Best regards,

A handwritten signature in black ink, appearing to read 'Erin King', is written over a light blue circular stamp. The signature is fluid and cursive.

Erin King
Project Archaeologist

Enclosures





June 6, 2011

Ms. Gwendolyn Parada, Chairperson
La Posta Band of Mission Indians
PO Box 1120
Boulevard, CA 91905

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Ms. Parada:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,



Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Virgil Perez, Spokesman
Iipay Nation of Santa Ysabel
PO Box 130
Santa Ysabel, CA 92070

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Perez:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,



Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Anthony R. Pico, Chairperson
Viejas Band of Kumeyaay Indians
PO Box 908
Alpine, CA 91903

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Pico:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Edwin Romero, Chairperson
Barona Group of the Capitan Grande
1095 Barona Road
Lakeside, CA 92040

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Romero:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Mark Romero, Chairperson
Mesa Grande Band of Mission Indians
PO Box 270
Santa Ysabel, CA 92070

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Romero:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,



Erin King
Project Archaeologist

Enclosures





June 6, 2011

Mr. Danny Tucker, Chairperson
Sycuan Band of the Kumeyaay Nation
5459 Sycuan Road
El Cajon, CA 92021

Subject: Consultation Regarding the Quail Brush Power Project, Sycamore Landfill, San Diego

Dear Mr. Tucker:

Tetra Tech EC, Inc. is in the process of preparing a record search, literature review, and survey report for the proposed Quail Brush Generation Project (Project) at the Sycamore Landfill in the city of San Diego, California. The Project area is located in northern San Diego, east of Interstate 15 and north of State Route 52 near the community of Santee. Specifically it is located in Little Sycamore and Spring Canyons. It is depicted on the USGS La Mesa 7.5' quadrangle in Township 15S/Range 1W and 2W (unsectioned). A location map and Project drawing are attached for your reference.

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Best regards,

A handwritten signature in black ink, appearing to read 'Erin King', is written over a light blue circular stamp. The signature is fluid and cursive.

Erin King
Project Archaeologist

Enclosures



Contact Log

Contact	Street Address	City	State	Zip	E-mail	Phone	Phone (2)	FAX	Contact Log
Barona Group of the Capitan Grande									
Mr. Edwin Romero, Chairperson	1095 Barona Road Lakeside, CA 92040	Lakeside	CA	92040	sue@barona-nsn.gov	(619) 443-6612	(619) 443-0681		Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Leanna Trombino - Bernice Paipa in Campo office handles these requests and provides this kind of information. Contact her.
Campo Kumeyaay Nation									
Ms. Monique LaChappa, Chairperson	36190 Church Road, Suite 1 Campo, CA 91906	Campo	CA	91906	mlachappa@campo-nsn.gov	(619) 478-9046		(619) 478-5818	Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11; Read-receipt received 6/9/11. Left message on assistant's voice mail, 7/1/11. Toby Hatmaker returned my message on 7/1/11. He requested additional detail regarding the project, which I provided (location, peaker power plant, gen-tie line connecting to existing transmission line). Ms. LaChappa is out of the office until next Wednesday. Toby will inform her of my call and provide her with the information upon her return.
Ewiiapaayp Tribal Office									
Mr. Will Micklin, Executive Director	4054 Willows Road Alpine, CA 91901	Alpine	CA	91901	wmicklin@leaningrock.net	(619) 445-6315		(619) 445-9126	Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Left message, 7/1/11.
Mr. Michael Garcia, Vice Chairperson	4054 Willows Road Alpine, CA 91901	Alpine	CA	91901		(619) 445-6315		(619) 445-9126	Initial letter sent 6/7/11. Delivered 6/9/11. Left message, 7/1/11.
Iipay Nation of Santa Ysabel									
Mr. Virgil Perez, Spokesperson	PO Box 130 Santa Ysabel, CA 92070	Santa Ysabel	CA	92070	viapch@gmail.com brandietaylor@yahoo.com	(760) 765-0845		(760) 765-0320	Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Spoke with Mr. Perez on 7/1/11, who stated he had not received, or at least seen, the letter or e-mail. He provided a new e-mail address (gmail.com) and requested that I re-send the letter, which I did via e-mail on 7/1/11. In the e-mail I pointed out that the project footprint, specifically the Gen-Tie corridor alternatives, had been reduced.
Inaja Band of Mission Indians									
Ms. Rebecca Osuna, Spokesperson	2005 S. Escondido Blvd. Escondido, CA 92025	Escondido	CA	92025		(760) 737-7628		(760) 747-8568	Initial letter sent 6/7/11. Delivered 6/9/11. Left message, 7/1/11.
Ipai Nation of Santa Ysabel									
Mr. Clint Linton, Director of Cultural Resources	PO Box 507	Santa Ysabel	CA	92070	cjinton73@aol.com	(760) 803-5694			Initial letter sent 6/7/11. Delivered 6/10/11. Follow-up e-mail sent 6/7/11. E-mail response received on 6/9/11. Requested "a Kumeyaay Native Monitor [be present] for survey and all ground disturbing activities related to this project."
Jamul Indian Village									
Mr. Kenneth Meza, Chairman	PO Box 612	Jamul	CA	91935	jamulrez@sctdv.net	(619) 669-4785		(619) 669-48178	Initial letter sent 6/7/11. Delivered 6/13/11. Follow-up e-mail sent 6/7/11; Auto-response of undeliverable. 14191 Hwy. 94, Jamul, 91935 Called on 7/1/11, but extension for Mr. Meza only rang with no voice mail picking up. Attempted to leave message in general mailbox, but got a busy signal. No "receptionist" or "operator" option was given in the phone menu.
Kumeyaay Cultural Heritage Preservation									
Mr. Paul Cuero	36190 Church Road, Suite 5	Campo	CA	91906		(619) 478-9046	(619) 478-9505	(619) 478-5818	Initial letter sent 6/7/11. Delivered 6/9/11. Same as Monique LaChappa, Campo Kumeyaay Nation. Mr. Cuero does not work there anymore and they do not have a contact number for him.
Kumeyaay Cultural Historic Committee									
Mr. Ron Christman	56 Viejas Grade Road	Alpine	CA	91901		(619) 445-0385			Initial letter sent 6/7/11. Unclaimed as of 6/28/11. Called on 7/1/11. No voice mail available.
Kumeyaay Cultural Repatriation Committee									
Ms. Bernice Paipa, Vice Spokesperson	PO Box 1120	Boulevard	CA	91905		(619) 478-2113, ext. 100			Initial letter sent 6/7/11. Delivered 6/9/11. Message left in general mailbox, 7/1/11.
Mr. Steve Banegas, Spokesperson	1095 Barona Road	Lakeside	CA	92040		(619) 742-5587		(619) 443-0681	Initial letter sent 6/7/11. Delivered 6/9/11. Left message, 7/1/11.

Kumeyaay Diegueno Land Conservancy							
Mr. Louis Guassac, Executive Director	PO Box 1992	Alpine	CA	91903	guassacl@onebox.com	(619) 952-8430	Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Called Mr. Guassac on 7/1/11. He was appreciative of the phone call. Mr. Guassac is very, very concerned for archaeological sites in the area and strongly suggests a tribal monitor be present during construction. Their group has no problem with re-use of lands their ancestors used, unless human remains or a sacred area is concerned. They just want to make sure that other types of sites are duly recorded and treated properly. Noted particular sensitivity of waterways and their historic use by the Kumeyaay as travel routes. Also noted that the Kumeyaay constructed the Mission Dam in the adjacent Mission Trails Regional Park. Asked if I could meet him on site so he could see the project area. I told him that unfortunately I could not since I am in Sacramento, but he agreed that if I sent him directions he could go look at the area on his own. Mr. GUassac will do so and get back to me next week.
Kwaaymli Laguna Band of Mission Indians							
Ms. Carmen Lucas	PO Box 775	Pine Valley	CA	91962		(619) 709-4207	Initial letter sent 6/7/11. Delivered 6/11/11. Left message, 7/1/11.
La Posta Band of Mission Indians							
Ms. Gwendolyn Parada, Chairperson	PO Box 1120	Boulevard	CA	91905	gparada@lapostacasino.com	(619) 478-2113	(619) 478-2125 Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Called on 7/1/11. Name not recognized by answering system. Same number as Bernice Paipa. Was sent to same general mailbox as Ms. Paipa.
Manzanita Band of the Kumeyaay Nation							
Mr. Leroy J. Elliott, Chairperson	PO Box 1302	Boulevard	CA	91905		(619) 766-4930	(619) 766-4957 Initial letter sent 6/7/11. Delivered 6/16/11. Left message, 7/1/11. "John Elliott"
Mesa Grande Band of Mission Indians							
Mr. Mark Romero, Chairperson	PO Box 270	Santa Ysabel	CA	92070	mesagrandeband@msn.com	(760) 782-3818	(760) 782-9092 Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Left message in general mailbox, 7/1/11.
San Pasqual Band of Mission Indians							
Mr. Allen E. Lawon, Chairperson	PO Box 365	Valley Center	CA	92082	allenl@sanpasqualband.com	(760) 749-3200	(760) 749-3876 Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11; Auto-response of undeliverable. Left message, 7/1/11.
Sycuan Band of the Kumeyaay Nation							
Mr. Danny Tucker, Chairperson	5459 Sycuan Road	El Cajon	CA	92021	ssilva@sycuan-nsn.gov	(619) 445-2613	(619) 445-1927 Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Left message with Sheila, Executive Assistant, 7/1/11.
Viejas Band of Kumeyaay Indians							
Mr. Anthony R. Pico, Chairperson	PO Box 908	Alpine	CA	91903	jrothauff@viejas-nsn.gov	(619) 445-3810	(619) 445-5337 Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11; Auto-response of undeliverable. Left message for Shenay Rotraub (sp?), Assistant, 7/1/11.
Viejas Kumeyaay Indian Reservation							
Mr. Frank Brown	240 Brown Road	Alpine	CA	91901	firefighter69tff@aol.com	(619) 884-6437	Initial letter sent 6/7/11. Delivered 6/9/11. Follow-up e-mail sent 6/7/11. Left message, 7/1/11.

Response from Mr. Clint Linton

From: cjlinton73@aol.com
To: [King, Erin](#)
Subject: Re: Consultation Regarding the Quail Brush Generation Project, Sycamore Landfill, San Diego
Date: Thursday, June 09, 2011 1:51:07 PM

Hi Erin,

Thank you for the inquiry. My only comments and requests are that you have a Kumeyaay Native Monitor for Survey and all ground disturbing activities related to this project.

Thank you,

Clint

-----Original Message-----

From: King, Erin <Erin.King@tetrattech.com>
To: cjlinton73 <cjlinton73@aol.com>
Sent: Tue, Jun 7, 2011 9:51 am
Subject: Consultation Regarding the Quail Brush Generation Project, Sycamore Landfill, San Diego

Mr. Linton –

The attached consultation letter regarding the subject project was sent to you via certified mail today. Since you provided an e-mail address in your California Native American Heritage Commission contact information, I am sending an electronic copy to you as well. The text of the letter is copied below for your reference. The maps referred to in the letter can be viewed in the attached PDF. If you have any questions or have difficulties with the attachment, please do not hesitate to contact me via e-mail or the cell phone number listed below. Thank you for your time.

Respectfully,
Erin King

Erin King, MA, RPA | Archaeologist
Cell: (916) 502-6044
Erin.King@tetrattech.com

*Note new contact information.

Tetra Tech EC, Inc.

Home Office: 9777 Davona Drive | San Ramon, CA 94583
Main Office: 2969 Prospect Park Drive, Suite 100 | Rancho Cordova, CA 95670 | 916.852.8300 | Fax: 916.852.0307
www.tteci.com

PLEASE NOTE: This message, including any attachments, may include privileged, confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

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Best regards,

Erin King
Project Archaeologist

Enclosures

Completion Report from LJS Consulting

LJS CULTURAL MONITORING LLC

April 15, 2012

Erin King, MA, RPA
Tetra Tech EC, Inc.
2969 Prospect Park Dr. Ste. 100
Rancho Cordova, Ca 95670

Re: Native American Monitoring Services or Quail Brush Survey, Santee Ca – Job #106-4346

Dear Ms. King,

Thank you for choosing LJS Cultural Monitoring (LJS) for your Native American cultural monitoring service during the Quail Brush Survey Project in Santee, California. In December LJS was contacted and entered into an agreement with Tetra Tech EC to perform monitoring services alongside archaeologists for a supplemental site survey to implement a nominal 100-megawatt intermediate/peaking load facility within Little Sycamore Canyon in Santee, California. This letter is meant to summarize our monitoring activities while we were on location for the subject project.

The Quail Brush project was done in two phases. On January 3rd – 12th two LJS Native American monitors accompanied four teams of archaeologists each day to the project location and monitored in dense brush areas and some hillsides. During our monitoring there were four prehistoric artifacts discovered and recorded by Tetra Tech. Also noted were milling feature areas and a popular waterway which inhabits the surrounding area.

The second phase of the Quail Brush project was conducted from March 5th – 9th. Since there was only a small portion of private land to survey two LJS Native American monitors accompanied two teams of archaeologists to the project location. During our monitoring there were three prehistoric artifacts and two historic artifacts discovered and recorded by Tetra Tech.

We believe the project location has been accurately surveyed and conclude there was a definite presence of Native Americans in the area at one time with evidence of various isolates that have been discovered on this survey and other artifacts already established in the SCIC database. We believe it is important for any future activity in the area to still be monitored as a precaution in case of any prehistoric artifacts that may still be and/or unearthed during the construction phase when the loading station and access roads are implemented.

It was a pleasure working with you and please contact me at 619.571.7119 with any questions. We are committed to maintain a reputable working relationship with your company and help our local tribes protect and preserve our Native American culture.

Sincerely,



Gina Sutton, Owner
LJS Cultural Monitoring, LLC

APPENDIX C
PERSONNEL QUALIFICATIONS

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Experience Summary

Mr. Farmer has 30 years of relevant experience in cultural resource management, program management, and contract administration. Mr. Farmer's pertinent experience includes cultural resource studies in support of NEPA and CEQA compliance projects in California and 16 other states. Mr. Farmer has held Antiquities Permits as a Principal Investigator in seven western states. He has participated in projects involving the USFS, USACE, NPS, BLM, BIA, Bureau of Reclamation, and Department of Energy and is a former NPS employee. Mr. Farmer has managed a wide variety of CRM projects ranging from literature and records reviews to complex, large-scale inventories and data recovery efforts. He has managed multi-disciplinary teams of up to 40 individuals on previous CRM projects. In addition to his advanced degree in Anthropology, he also holds an M.B.A. in Finance.

Education

MBA (Master of Business Administration), Finance, Regis University, 1985
MA (Master of Arts), Anthropology, University of Colorado, 1977
BA (Bachelor of Arts), Anthropology, Tulane University, 1973

Registrations/Certifications

Registered Professional Archaeologist

Professional Affiliations

Member, Society for American Archaeology

Training

Basic First Aid/CPR; 2006
Project Permitting in NEPA and CEQA; 2002

Corporation Project Experience

Principal Investigator and Task Leader

Silverado Solar Project, Silverado Power, Fresno, Tulare, Los Angeles, Riverside, San Bernardino, and San Diego Counties, California

Principal Investigator and Task Leader for cultural resource inventories of a series of small-scale solar projects totaling 10,900 acres. Responsible for management and conduct of fieldwork and preparing CEQA cultural resource documents for a variety of jurisdictions.

Principal Investigator and Task Leader

Colorado Blue Wind Farm Project, Shell Wind Energy, Huerfano County, Colorado

Principal Investigator and Task Leader for cultural resource inventory for a 2000 acre wind farm site. Responsible for management and conduct of fieldwork and preparing cultural resource documents for Huerfano County.

Principal Investigator and Task Leader

Boardman to Hemingway Transmission Line, Idaho Power, Owyhee County, Idaho and Malheur, Baker, Union, Umatilla, and Morrow Counties, Oregon

Principal Investigator and Task Leader of cultural resource inventory required for Section 106 compliance for 550 miles of 500 kV transmission line and access road right of way. Responsible for management and conduct of fieldwork and preparing cultural resource documents for Bureau of Land Management and US Forest Service.

Principal Investigator and Task Leader

United Power II Transmission Line, Tri-State Generation and Transmission, Adams County, Colorado

Principal Investigator and Task Leader of cultural resource inventory required for Section 106 compliance for 11 miles of 115 kV transmission line and access road right of way. Responsible for management and conduct of fieldwork and preparing cultural resource documents for Rural Utilities Service.

Principal Investigator and Task Leader

Cedar Creek II Wind Farm Project, BP Wind Energy, Weld County, Colorado

Principal Investigator and Task Leader for cultural resource inventory, test excavation, and data recovery (5WL6465) for a 3800 acre wind farm site. Responsible for management and conduct of fieldwork and preparing cultural resource documents for Weld County and State of Colorado.

Task Leader

Hermosa West Wind Farm Project, Shell Wind Energy, Albany County, Wyoming

Task Leader for preparation of EIS cultural resources section for EIS and Section 106 compliance for a 2200 acre wind farm site. Responsible for quality control of fieldwork documents and preparing EIS related documents for Western Area Power Administration.

Task Leader

Loveland Pipeline Replacement Project, Xcel Energy, Larimer County, Colorado

Task Leader for Class I records search required for county permits. Responsible for preparing cultural resource reporting document for Larimer County.

Task Leader

Fremont Butte Wind Farm Project, enXco Wind Energy, Washington County, Colorado

Task Leader for cultural resources section of critical issues analysis for a potential wind energy site

Task Leader

Briscoe County Wind Energy Facility, Shell Wind Energy, Briscoe County, Texas

Task Leader for cultural resources section of critical issues analysis for a potential wind energy site

Task Leader

Auwahi Wind Farm Project, Sempra Global, Maui County, Hawaii

Task Leader for preparation of cultural resources reporting documents section for EIS, Section 106, and HRS 13-275-6 compliance for a 1450 acre wind farm site. Responsible for subcontractor management, quality control of fieldwork documents and preparing documents for Maui County and State of Hawaii.

Principal Investigator and Task Leader

Genesis Solar Energy Project, NextEra Energy, Riverside County, California

Principal Investigator and Task Leader for NEPA/CEQA required cultural resource inventory of a 2500 acre solar power project site and associated 6-mile transmission line right-of-way as well as data recovery program on 11 prehistoric and 16 historic sites. Responsible for preparing all cultural resource reporting documents for submission to BLM and California Energy Commission.

Principal Investigator and Task Leader

Black Butte Solar Power Project, Cogentrix Solar Services, San Bernardino County, California

Principal Investigator and Task Leader for CEQA required cultural resource inventory of a 2000 acre solar power project site. Manager for cultural resource literature review and feasibility study.

Principal Investigator and Task Leader

Silurian Valley Solar Power Project, Cogentrix Solar Services, San Bernardino County, California
Principal Investigator and Task Leader for NEPA required cultural resource inventory of a 2500 acre solar power project site and associated 7-mile transmission line right-of-way. Manager for cultural resource literature review and feasibility study.

Task Leader

Saguache Solar Thermal Site Environmental Report, NextEra Energy, Saguache County, Colorado
Task Leader for cultural resources section of environmental background report for a 6200 acre potential solar power site

Task Leader

NextEra Energy Project Study, NextEra Energy, Alamosa County, Colorado
Task Leader for cultural resources section of critical issues analysis for a potential solar power site

Task Leader

Cogentrix Solar Services Project Studies, Cogentrix Solar Services, San Bernardino County, California, Clark and Nye Counties, Nevada
Task Leader for critical issues analyses at a number of potential solar power sites in California and Nevada.

Previous Experience

Project Manager

URS Corporation, Union Wind Energy Project, Clipper Wind Energy, Morrow County, Oregon
Project Manager for critical issues analysis for proposed wind energy project. Responsible for all aspects of this multi-disciplinary project.

Task Leader

URS Corporation, Gateway West Transmission Line Project, Idaho Power, Bear Lake, Franklin, Bannock, Power, Blaine, Minidoka, Lincoln, Jerome, Cassia, Goodling, Twin Falls, Elmore, Ada, Owyhee, and Canyon Counties, Idaho and Converse, Natrona, Carbon, Sweetwater and Lincoln Counties, Wyoming
Task Leader for NEPA required cultural resource inventory of a 1300-mile transmission line right-of-way and associated substation sites. Manager for cultural resource inventory. Responsible for preparing all cultural resource reporting documents and EIS section for submission to BLM.

Principal Investigator and Task Lead

URS Corporation, Hydrogen Energy California Project, BP Alternative Energy, Kern County, California
Principal Investigator and Task Leader for CEQA required cultural resource inventory of a 340 acre power plant site and associated 10-miles of linear facility rights-of-way. Manager for cultural resource inventory. Responsible for preparing all cultural resource reporting documents for submission to California Energy Commission.

Principal Investigator and Task Leader

URS Corporation, Stirling Energy Systems, Solar 2 Project, Stirling Energy Systems, Imperial County, California
Principal Investigator and Task Leader for NEPA/CEQA required cultural resource inventory of a 6500 acre solar power project site and associated 7-mile transmission line right-of-way. Manager for cultural resource inventory. Responsible for preparing all cultural resource reporting documents for submission to BLM and California Energy Commission.

Principal Investigator and Project Manager

URS Corporation, Hyundai/Kia Automotive Test Course, Hyundai America Technical Center, Kern County, California

Principal Investigator and Project Manager for CEQA required cultural resource test excavation, monitoring, and limited data recovery program (CA-KER-6134) for 48 archaeological sites located in a 4500 acre project site. Manager for cultural resource test excavation, data recovery and construction monitoring of track construction and associated facilities. Responsible for preparing all cultural resource reporting documents for submission to California City.

Project Manager and Principal Investigator

URS Corporation, Crystal Energy Pipeline Project, Crystal Energy LLC, Ventura and Los Angeles Counties, California

Project Manager and Principal Investigator for NEPA/CEQA required Phase I cultural resource inventory of a 60-mile gas pipeline right-of-way. Responsible for project management and preparing all cultural resource reporting documents for submission to US Coast Guard.

URS Corporation, Oak Valley Substation System Project PEA, Southern California Edison, Riverside County, California

Project Manager for the preparation of a Proponent's Environmental Analysis (PEA) for submission to the California Public Utilities Commission for a new substation and 40 miles of 115 kV transmission line. Responsible for all aspects of the preparation of this multidisciplinary report required for CEQA compliance of the project

Cultural Resources Task Manager

URS Corporation, Southern Basin and Range GPS Network, California Institute of Technology, Inyo County, California

Cultural Resources Task Manager for the preparation of an EA for submittal to the BLM and NPS for permitting the site location of 14 stationary GPS units for seismic studies. Managed literature search, field inventory, analysis, and report writing.

Project Manager and Principal Investigator

URS Corporation, Santa Barbara Airport Airfield Safety Project, Santa Barbara Municipal Airport, Santa Barbara County, California

Project Manager and Principal Investigator for NEPA required Phase I cultural resource inventory of 50 acre area. Responsible for project management and preparing all cultural resource reporting documents for submission to FAA.

Principal Investigator and Cultural Resource Task Manager

URS Corporation, Glendale Grayson Power Project, City of Glendale, Los Angeles County, California

Principal Investigator and Cultural Resource Task Manager for CEQA required cultural resource inventory program. Manager for cultural resource construction inventory of five acre plant and associated linear facilities. Responsible for preparing all cultural resource reporting documents and EIR section for submission to City of Glendale.

Principal Investigator and Cultural Resource Task Manager

URS Corporation, Agua Mansa Power Project, City of Colton, San Bernardino County, California

Principal Investigator and Cultural Resource Task Manager for CEQA required cultural resource inventory and monitoring program. Manager for cultural resource inventory of 40 acre project site and construction monitoring of plant construction and associated linear facilities. Responsible for preparing all cultural resource reporting documents and EIR section for submission to City of Colton.

Principal Investigator and Cultural Resource Specialist

URS Corporation, Panoche Energy Center, Duke Energy, Fresno County, California

Principal Investigator and Cultural Resource Specialist for California Energy Commission administered project. Manager for cultural resource inventory and responsible for preparing all cultural resource reporting documents for submission to California Energy Commission.

Cultural Resources Task Manager

URS Corporation, Newhall Ranch EIS/EIR, Newhall Land and Farming Company, Los Angeles County, California

Cultural Resources Task Manager for this EIS/EIR. Preparing NEPA and CEQA required resource background information and evaluation of potential impacts and mitigation measures for 8,000 acre housing project. Coordination of Section 106 consultation requirements with USACE for the project. Authored Historic Properties Treatment Plan for mitigation measures for the project

Principal Investigator and Cultural Resource Specialist

URS Corporation, Bullard Energy Center, Duke Energy, Fresno County, California

Principal Investigator and Cultural Resource Specialist for California Energy Commission administered project. Manager for cultural resource inventory and responsible for preparing all cultural resource reporting documents for submission to California Energy Commission.

Cultural Resources Task Manager

URS Corporation, Santa Barbara Ranch EIR, County of Santa Barbara, Santa Barbara County, California

Cultural Resources Task Manager for this EIR. Prepared CEQA required resource background information and evaluation of potential impacts and mitigation measures for cultural resources on this 3000 acre project.

Principal Investigator and Cultural Resource Specialist

URS Corporation, Magnolia Power Project, City of Burbank, Los Angeles County, California

Principal Investigator and Cultural Resource Specialist for California Energy Commission administered monitoring program. Manager for cultural resource construction monitoring of plant construction and associated staging areas. Responsible for preparing all cultural resource reporting documents for submission to California Energy Commission.

Crew Member

URS Corporation, Pastoria Energy Facility Power Project, Calpine, Kern County, California

Crew member on cultural resources inventory and test excavation program for this California Energy Commission administered project.

Principal Investigator and Cultural Resource Specialist

URS Corporation, Niland Power Project, Imperial Irrigation District, Imperial County, California

Principal Investigator and Cultural Resource Specialist for California Energy Commission administered monitoring program. Manager for cultural resource construction monitoring of plant construction and associated staging areas. Responsible for preparing all cultural resource reporting documents for submission to California Energy Commission.

Principal Investigator and Cultural Resource Specialist

URS Corporation, Mountainview Power Project, Southern California Edison, San Bernardino County, California

Principal Investigator and Cultural Resource Specialist for California Energy Commission administered monitoring program. Manager for cultural resource construction monitoring of plant construction and

associated staging areas. Responsible for preparing all cultural resource reporting documents for submission to California Energy Commission.

Cultural Resources Task Manager

URS Corporation, Big West Clean Fuels Project EIR, Big West of California LLC, Kern County, California
Cultural Resources Task Manager for this EIR for a refinery expansion. Preparing CEQA required resource background information and evaluation of potential impacts and mitigation measures for submission to Kern County.

Crew Member

URS Corporation, Gaviota State Park Bridge Replacement Project, Federal Emergency Management Administration, Santa Barbara County, California

Crew member on cultural resources inventory for this NEPA required program. Participated in field survey and prepared cultural resource reporting documents for submission to FEMA.

Crew Member

URS Corporation, Rancho Guadalupe Dunes Parking Lot and Overlook Project, Federal Emergency Management Administration, Santa Barbara County, California

Crew member on cultural resources inventory for this NEPA required program. Participated in field survey and prepared cultural resource reporting documents for submission to FEMA.

Crew Member

URS Corporation, Sunrise II Power Project, Texaco and Edison Mission Energy, Kern County, California

Crew member on cultural resources test excavation program and construction monitor for this California Energy Commission administered program.

Principal Investigator and Project Manager

Huerfano Consultants, Test Excavations at 39LM57 and 39BR11, National Park Service, Lyman and Brule Counties, South Dakota

Principal Investigator and Project Manager for cultural resources test excavations at two multi-component sites located along the Missouri River. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to National Park Service.

Principal Investigator and Project Manager

Huerfano Consultants, Colorado Forest Highway 20 Inventory, National Park Service, Routt County, Colorado

Principal Investigator and Project Manager for cultural resources inventor for widening of 10 miles of highway right of way. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to National Park Service.

Principal Investigator and Project Manager

Gilbert/Commonwealth, Times Mirror Microwave Western Microwave Tower System, Times Mirror Microwave, Dona Ana, Luna, Grant and Hidalgo Counties, New Mexico, Greenlee, Cochise, Pinal, Maricopa and La Paz Counties, Arizona; San Bernardino and Riverside Counties, California

Principal Investigator and Project Manager for cultural resources inventory for microwave tower system stretching from El Paso, Texas to Los Angeles, California. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to state and Federal agencies.

Project Manager

Gilbert/Commonwealth, Frontier Pipeline Project, Amoco Pipeline Company, Uinta, Sweetwater, Fremont and Natrona Counties, Wyoming

Project Manager for cultural resources inventory, testing/evaluation, and field monitor program for 260 mile petroleum pipeline right of way. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to state and Federal agencies. Provided compliance coordination for Amoco with BLM and Wyoming State Historic Preservation Officer.

Principal Investigator and Project Manager

Metcalf, Zier Archaeologists, Cordero Mine Inventory, Cordero Mining Company, Campbell County, Wyoming

Principal Investigator and Project Manager for cultural resources inventory of 1500 acre expansion area of surface mine. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to state and federal agencies.

Project Manager

SAIC, John Martin Reservoir Inventory Project, US Army Corps of Engineers, Bent County, Colorado
Project Manager for cultural resources inventory and testing/evaluation program for 8000-acre reservoir area. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to USACE.

Principal Investigator and Project Manager

SAIC, Test Excavations at Ft. Davy Crockett (5MF605), National Park Service, Moffatt County, Colorado
Principal Investigator and Project Manager for test excavations at an 1840's era fur trade post located in Browns Park National Wildlife Refuge. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to National Park Service.

Assistant Project Manager

SAIC, New Melones Reservoir Project, US Army Corps of Engineers, Tuolumne and Calaveras Counties, California

Assistant Project Manager for mitigation/data recovery for a major reservoir salvage project involving recovery at more than 75 historic and prehistoric sites. Managed a large multi-disciplinary team of more than 40 professionals with a \$2M budget.

Principal Investigator and Project Manager

Gilbert/Commonwealth, Grass Rope Planning Unit/Lower Brule Reservation, Cultural Resource Inventory, BIA/Lower Brule Reservation, Lyman County, South Dakota

Principal Investigator and Project Manager for cultural resources inventory program for 800 acre irrigation project. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to BIA and South Dakota State Historic Preservation Officer and provided compliance coordination.

Principal Investigator and Project Manager

Gilbert/Commonwealth, WyoDak-Hot Springs 230 kV Transmission Line Project, Campbell, Black Hills Power and Light, Crook and Weston Counties, Wyoming, Custer and Fall River Counties, South Dakota
Principal Investigator and Project Manager for cultural resources inventory of 75-mile power line right of way. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to state and Federal agencies. Provided compliance coordination for BHPL with Forest Service, BLM, and State Historic Preservation Officers in Wyoming and South Dakota.

Principal Investigator and Project Manager

Gilbert/Commonwealth, Custer to Edgemont 115 kV Transmission Line Project, Black Hills Power and Light, Custer County, South Dakota

Principal Investigator and Project Manager for cultural resources inventory of 30-mile power line right of way. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to state and Federal agencies Provided compliance coordination for BHPL with Forest Service, BLM, and South Dakota State Historic Preservation Officer.

Principal Investigator and Project Manager

Gilbert/Commonwealth, Glenharold Mine Project, Consolidated Coal Company, Oliver County, North Dakota

Principal Investigator and Project Manager for cultural resources inventory program for 2000 acre coal surface mine. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to North Dakota State Historic Preservation Officer and provided compliance coordination for Consol with this agency

Principal Investigator and Project Manager

Gilbert/Commonwealth, Routt National Forest Timber Sales, US Forest Service, Grand, Jackson and Routt Counties, Colorado

Principal Investigator and Project Manager for cultural resources inventory of timber sales. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to US Forest Service.

Principal Investigator and Project Manager

Gilbert/Commonwealth, Sunoco Drill Pads and Access Roads, Sunoco Exploration, Jackson County, Colorado

Principal Investigator and Project Manager for cultural resources inventory of drill pads and access roads. Managed field crew for duration of the fieldwork. Responsible for preparing all cultural resource reporting documents for submission to Federal agencies.

University of Northern Colorado, Excavations at 5AL78 and 5AL83 in Blanca Wildlife Refuge, US Fish and Wildlife Service, Alamosa County, Colorado

Conducted artifact analysis and wrote technical report on data recovery excavations at two prehistoric sites. Responsible for preparing all cultural resource reporting documents for submission to US Bureau Fish and Wildlife Service.

Field Supervisor

University of Northern Colorado – Wildcat Reservoir Inventory, Public Service Company of Colorado, Morgan County, Colorado

Field Supervisor for cultural resources inventory of proposed reservoir pool area of 1000 acres. Managed field crew for duration of the fieldwork.

Field Supervisor

University of Colorado – Data Recovery Excavations at 5MTURM2785, Bureau of Indian Affairs, Montezuma County, Colorado

Field Supervisor for cultural resources data recovery at prehistoric Ancestral Pueblo site located on Ute Mountain Ute Reservation. Managed field crew for duration of the fieldwork.

Assistant Field Supervisor

University of Colorado, Data Recovery Excavations at 5MTURM2350, 2559, 2741, and 2743, Bureau of Indian Affairs, Montezuma County, Colorado

Assistant Field Supervisor for cultural resources data recovery at four prehistoric Ancestral Pueblo sites located on Ute Mountain Ute Reservation. Helped manage field crew for duration of the fieldwork, supervised laboratory analysis, and authored technical report for submission to Bureau of Indian Affairs.

Field Supervisor

University of Colorado, Mancos Road Inventory, Bureau of Indian Affairs, Montezuma County, Colorado

Field Supervisor for cultural resources inventory of 12 miles of right of way for road construction on Ute Mountain Ute Reservation. Managed field crew for duration of the fieldwork, supervised laboratory analysis, and authored technical report for submission to Bureau of Indian Affairs.

Field Crew Member

University of Colorado, Dolores Archaeological Project Inventory, Bureau of Reclamation, Montezuma County, Colorado

Field crew member for cultural resources inventory for McPhee Reservoir.

Field Crew Member

University of Colorado, Curecanti National Recreation Area Inventory, National Park Service, Gunnison County, Colorado

Field crew member for cultural resources inventory of the reservoir area.

Laboratory Technician

University of Colorado, Two Forks Reservoir Project Inventory, National Park Service Douglas and Jefferson Counties, Colorado

Laboratory technician for analysis of artifacts collected in the cultural resources inventory.

Experience Summary

Ms. Farrell has 14 years of experience in cultural resource management including prehistoric and historic archaeology, traditional cultural properties, and historic architecture and structures. Among this experience are three years in a supervisory capacity in support of regulatory compliance programs for energy, transportation, mineral and water resources development, commercial, public utility, and state and federal agency clients. She has conducted cultural resources management analyses, treatment plans, surveys, and monitoring associated electric transmission lines, and natural gas and water pipeline routes, and wind and solar projects.

Ms. Farrell has past experience in Cultural Resource Management with the USDA Forest Service, the Bureau of Land Management, and private-sector companies, and she is particularly knowledgeable about Forest Service and BLM permit requirements. She is permitted in California, Nevada, Oregon, and Idaho. She uses GIS and GPS field technologies to assist with the mapping and analyses of cultural resources and compiling inventories. She has conducted extensive literature reviews to assist with cultural/archaeological evaluations and inventories and has consulted with State Historic Preservation Offices.

Ms. Farrell has consultation experience with Native American tribes and the Native American Heritage Commission and has received specialized training by the U.S. Department of Interior on consultation with Native American tribes and serves as tribal liaison for TtEC's cultural resources staff. Ms. Farrell is experienced with the California Environmental Quality Act (CEQA) process and with state and federal regulations (NEPA, NAGPRA, NHPA) pertaining to cultural resource management. She also has experience with CEQA/NEPA permitting and compliance with large scale energy projects (solar, wind, transmission lines).

Ms. Farrell has graduate archaeological experience abroad, as a field director assistant, in South America (Peru) assisting university students with archaeological field methods. She has conducted cultural resources management analyses on a number of proposed development projects throughout California, and in Nevada, Utah, Oregon, Colorado, Washington, and Texas, including proposed and approved energy projects.

Education

BA, Anthropology/Archaeology (Minor: Native American Studies), Humboldt State University, 1997

Training

AEP CEQA Workshop - Understanding the California Environmental Process; CEQA; 2009

CEQA: An Introduction; CEQA; 2006

Consultation with Indian Tribes on Cultural Resources Issues; National Preservation Institute; 2003

Integrating Cultural Resources in NEPA Compliance; National Preservation Institute; 2001

Section 106: An Introduction; National Preservation Institute; 2006

Corporation Project Experience

Historic Trails Lead/Archaeologist, 2011 – Ongoing

Idaho Power Company: Boardman to Hemingway Transmission Line Project, ID and OR

The purpose of this study is to assist Idaho Power in complying with the requirements of NEPA for a 299 mile transmission line. Duties include conducting documenting assessments of the proposed Project's direct and indirect effects on historic trails and indirect effects on historic properties, field surveys, crew leader, co-author of study plan, documentation, and visual assessments. This study will evaluate effects along the IPC proposed route and alternative routes identified by the BLM and USFS.

Principal Archaeologist - 2011-ongoing**BP Wind Energy, Fortynine Mountain-Hayes Canyon Wind Project, Surprise Valley, CA**

The purpose of the study is to assist BP Wind Energy in complying with the requirements of NEPA for a proposed SODAR unit and eventual wind farm in northeastern CA. Duties include consultation and coordination with the BLM lead Federal agency, conduct literature and records review, field survey, and author of all associated reports.

Archaeologist/Senior Review, 2011-ongoing**Silverado Power, Silverado Solar, throughout Southern California**

Assisting with preliminary record searches and senior review of cultural reports for several proposed solar facilities throughout Southern California.

Archaeologist/Author, 2010-2011**Ridgeline Energy, LLC, Pah Rah Ridge Wind Resource Area, near Reno, Nevada, Washoe County**

The purpose of the study was to assist Ridgeline Energy, LLC, in planning for a large scale wind farm. Duties included conducted a BLM approved Class I desktop study to identify potential key cultural resource issues that could have cost and schedule impacts on obtaining required permits to build and operate the facility.

Cultural Resource Specialist/Field Director, 2008-2011**Genesis Solar, LLC, Ford Dry Lake and McCoy Wash Solar Projects, Riverside County, CA**

The purpose of the study was to assist Genesis Solar, LLC, in complying with the requirements of the California Energy Commission lead agency for CEQA and the BLM lead agency for NEPA for a large solar facility in southeastern California. Duties include: acquired federal cultural resource permits, assisted Archeological Principal Investigator with all aspects of cultural resource coordination and planning. Directed and conducted Class I literature review, Class II sample survey, and Class III field surveys, conducted Archaeological Testing of Seven Prehistoric sites, co-authored Cultural Resources reports and research design, data request, mappings, conducted public and agency presentations regarding project and cultural resources, consultation with BLM Palm Springs Field Office archaeologist and the CEC at several meetings, attend CEC/BLM workshops, respond to comments, and is a point of contact for field crew, clients, and agencies.

Deputy Project Manager/Principal Investigator, 2008-2010**Blythe Energy Project Transmission Line, Riverside County, CA**

The purpose of the study was to assist Blythe Energy, LLC in complying with the requirements of the California Environmental Quality Act (CEQA) and assist with compliance under the Application for Certification, California Energy Commission's (CEC) final staff assessment (CEC), Docket # 99-AFC-8c) for a 67.4 mile, 230kV overhead transmission line. Duties include: preconstruction permitting, construction compliance, state and federal agency consultation, developing, writing, and assisting disciplines with several treatment, mitigation and monitoring plans (e.g. lighting mitigation, surface treatment, paleontological and cultural resources mitigation and monitoring, etc.). Coordinating meetings, schedules, document production, and other project related task with Client, Contractors, CEC Cultural Resources staff, Bureau of Land Management Cultural Staff, and County of Riverside. Assist Archeological Principal Investigator with Cultural Resource survey planning, cost estimates, and producing a Cultural Resource Mitigation and Monitoring Program for project construction.

Principal Investigator, 2009**NextEra, Salt Creek Solar Project, San Bernardino, CA**

Obtained cultural resource permits and performed a literature review and a Class III Cultural Resources Survey on BLM land (Barstow field office) for one Irradiance Meter Site and associated access routes.

The purpose of this study was to assist NextEra in complying with the requirements of NEPA. Prepared Environmental Assessment and the Class III Survey Cultural Resources Management Report.

Cultural Resource Specialist/Principal Investigator, 2008-2009

eSolar, Los Angeles, San Bernardino, Kern, and Riverside County, CA

The purpose of the study was to assist eSolar in complying with the requirements of CEQA for several 1000 acres project within the southern California Desert. Duties include cultural resource planning and coordination of staff, literature searches, field survey, and reporting for eventual CEC certification.

Field Director/Author, 2007

Dillon Wind LLC, Palm Springs, CA

Performed a literature review and a Class III cultural resource survey of approximately 1,500 acres of vacant land for Dillon Wind LLC's (LLC) proposed 45 megawatt (MW) wind energy conversion system (WECS) project, located near the San Geronio Pass, north of the City of Palm Springs and west of Desert Hot Springs, Riverside County, CA (within the Coachella Valley of the Colorado Desert). The purpose of the study was to assist LLC in complying with the requirements of the California Environmental Quality Act (CEQA). Other duties included, conducted Native American Consultation and coordination with Native American Cultural Construction Monitors, prepared Final Cultural Report for submittal to the County of Riverside, CA, and prepared the Cultural Resources Mitigation and Monitoring Plan, coordinated and supervised archaeological construction monitors, coordinated with construction staff and the County of Riverside and resolved any cultural issues efficiently and in a timely manner.

Project Manager/Field Director/Author, 2007-2008

Bonneville Power Administration, Ferry and Stevens County, Washington

Performed a literature review and a Class III cultural resource survey of approximately 24.14 (210 power pole locations) and prepared the Section 106 Report. Other duties included coordination with client, land owners, recordation of archaeological sites and National Register of Historic Places evaluations, and final report preparation.

Field Director/Author, 2007

Catamount Energy, Clark County, NV

Performed a literature review and a Class III Cultural Resources Survey on BLM land (Barstow field office) for 12 Meteorological Tower sites and associated access routes. The purpose of this study was to assist Catamount and BLM in complying with the requirements of NEPA. Prepared Environmental Assessment and the Class III Survey Cultural Resources Management Report, conducted Native American Consultation, BLM consultation.

Field Director/Author, 2007

enXco, San Bernardino County, CA

Obtained cultural resource permits and performed a literature review and a Class III Cultural Resources Survey on BLM land (Barstow field office) for two Meteorological Tower sites and associated access routes. The purpose of this study was to assist enXco in complying with the requirements of NEPA. Prepared Environmental Assessment and the Class III Survey Cultural Resources Management Report.

Field Director/Author, 2007

Boulevard Energy, Kern County, CA

Performed a literature review and a Class III cultural resource survey (BLM Ridgecrest Field office) for Boulevard Associates, LLC's (Boulevard) proposed four meteorological (MET) tower locations near the town of Tehachapi, in Kern County, California. The purpose of this study was to Boulevard in

complying with the requirements of NEPA. Prepared the Class III Survey Cultural Resources Management Report.

Archaeological Field Lead, 2006**SkyRiver MET Towers, LLC, Tehachapi, CA**

Obtained appropriate permits from BLM (State and Ridgecrest, CA offices); performed a literature review, survey, and reporting for over 4 linear miles and one acre of land for the Sky River project's proposed MET tower locations and access route in the Southern Sierra Nevada, CA (15 miles northeast of Tehachapi, CA). Prepared Final Cultural Resource Report for submittal to the BLM and client.

Field Director, November 2004**Beehive Telephone Company, Grouse Creek Project, UT**

Served as Field Director for a 230-mile linear heritage resource inventory of a proposed fiber optic line that runs across BLM, DOT, and State lands in Northwestern Utah. Duties included obtaining permits from agencies, archaeological survey, and detailed site recording procedures. Future work associated with this project includes full Section 106 compliance documentation and reporting as mandated by the BLM, DOT and the Utah SHPO.

Crew Chief, January 2005**Eurus Energy America Corporation, Combine Hills Project, Phase II, OR**

Served as Crew Chief for a 484 acre development corridors for constructing interconnections and access corridors for the Combine Hills Turbine Ranch Phase II project (wind-power project). Duties included a heritage resources inventory of the 484-acre development corridors, recordation and GPS mapping of archaeological sites, photographic documentation, and incorporating final survey results and documentation into an existing report.

Archaeologist, January 2005 – Present**Sound Energy Solutions, Long Beach LNG C2 Pipeline Project, CA**

Served as Section 106 compliance report author for a C2 pipeline route that extends from proposed Long Beach Liquid Natural Gas import terminal to the ConocoPhillips Los Angeles Refinery, Carson Plant in southern California to satisfy regulator (Federal Energy Regulatory Commission) compliance. Duties also included Native American Consultation, photographic documentation, review of literature research, and heritage resource inventory of the project area.

Archaeological Technician, May 2004**Pacific Legacy, Old Sacramento County Hospital Cemetery, Sacramento, CA**

Served as an archaeological technician for a Phase III burial excavation and relocation of the old Sacramento County Hospital Cemetery (c.1880s-1920s). Duties included identifying features, implementation of burial excavation methods, exhuming human remains, data collection and excavation documentation.

Crew Chief/Collections Manager, 12/2003**Edwards Air Force Base Evaluation of Archeological Sites, Edwards AFB, CA**

Served as a Crew Chief for Phase I EAFB southern boundary survey. Duties included field supervision of crew, implementation of survey techniques, site relocation and documentation, and new site recording, and collection of artifacts. Served as Collection Manager/Crew Chief for Phase II excavation of 15 prehistoric sites duties include standard excavation practices, lithic characterization, daily collection of artifacts and excavation documentation, artifact and sample preparation, curation.

Archaeologist/Author, 9/2003**Roseville Energy Center, City of Roseville, CA**

Roseville Energy in complying with the requirements of the California Environmental Quality Act (CEQA) and assist with the Application for Certification under the California Energy Commission's (CEC) permitting process for a natural gas-fired power plant, and associated pipelines, Docket # 03-AFC-1. Duties included: conducted extensive record searches (at the California Historical Resources Information Center, State Library, and City Offices) literature review, and historic map reviews, consulted with city and county Historic Resource personnel, the Native American Heritage Commission, the Native American tribes, and the State Historic Preservation Office, preparation of cultural resource report, replied to response, comments, and any data request requirements, consulted with interested parties regarding cultural resources, and conducted archaeological and architectural field inventories for prehistoric and historic archaeological properties and historic buildings and structures.

Crew Chief, 5/2003-7/2003**Buena Vista Project, Chillon Valley, Peru**

Crew Chief for the University of Missouri summer archaeological field school in northern Peru, 2003. Supervised student crew excavation of a Preceramic and Initial period archaeological site. Assisted students with archaeological field methods including, excavation, mapping, unit documentation and photography, artifact identification and collection, soil samples, and unit profiles. Lab work consisted of lithic and ceramic analyses and a study of human remains from biological specimens collected from the site.

Archaeologist/Author, October 2003 – Present**Silicon Valley Power, Pico Power Project, Santa Clara, CA**

Author of the Cultural Resources Section for the Initial Study, and the Cultural Resource Section for the Application for Certification under the California Energy Commission's permitting process for a natural gas-fired power plant, and assisted in the development of a Cultural Mitigation and Monitoring Plan. Conducted extensive record searches (at the California Historical Resources Information System, State Library, and City Office) literature review, historic map reviews, and oral interviews. Consulted with city and county Historic Resource personnel, the Native American Heritage Commission, Native American tribes, and the State Historic Preservation Office. Conducted archaeological and architectural field inventories for prehistoric and historic archaeological properties and historic buildings and structures. Recorded historic structures and completed site documentation. Completed and provided data requests to the CEC.

Archaeologist/Author, 2001**Russell City Energy Center (01-AFC-07)**

Author of the cultural resources section for the environmental assessment for the reconductoring of the transmission line. Conducted a cultural resource literature search and prepared the cultural resources inventory and historical background information.

Archaeologist/Author, November 2003 – February 2004**USDA Forest Service, Clear Creek Kings Canyon Landscape Analysis, Humboldt-Toiyabe National Forest, CA**

Served as a technical author for the Cultural Resource section of a detailed, large-scale watershed/landscape analysis in western Nevada. This multi-task assignment included significant archival research to determine the extent and adequacy of existing cultural resources (sites, landscapes, etc.), including their National Register of Historic Places (NRHP) status. Other tasks included determining the desired conditions for cultural resource management, analysis and synthesis of collected data, preparing

prehistoric and historic background contexts for the affected area, and the development of recommendations to reconcile current and desired conditions for the analysis area.

Archaeologist/Author, 2002

USDA Forest Service, Hidden Valley Watershed Analysis Project, Shasta Trinity National Forest, CA

Served as a technical author for the Cultural Resource section of a detailed, large-scale watershed/landscape analysis in northern California. This multi-task assignment included significant archival research to determine the extent and adequacy of existing cultural resources (sites, landscapes, etc.), including their National Register of Historic Places (NRHP) status. Other tasks included determining the desired conditions for cultural resource management, analysis and synthesis of collected data, preparing prehistoric and historic background contexts for the affected area, and the development of recommendations to reconcile current and desired conditions for the analysis area.

Archaeologist, 2002

Upper Slate DFPZ Project, Plumas National Forest

Conducted archaeological surveys, recorded historic and prehistoric archaeological sites, and site form preparation.

Author/Archeologist, 2002

Calpine Corporation, Calpine Eureka Project Critical Issues Review, Humboldt Co., CA

Conducted literature searches, analyzed data, and authorship of the cultural resource section for the Critical Issues Review for the project area.

Author/Archaeologist, October 2001

Calpine Corporation, Pajaro Energy Center, Monterey Co., CA

Conducted literature searches, analyzed data, and authorship of the cultural resource section for the Critical Issues Analysis for the project area. Collected archaeological field data from technical staff and authorship of the Archaeological Resources Management Report for submittal to client and the California Historical Resource Information Center.

Author/Archeologist, October 2001

Calpine Corporation, Hesperia Energy Center Critical Issues Review, San Bernardino Co., CA

Conducted literature searches, analyzed data, and authorship of the cultural resource section for the Critical Issues Review for the project area.

Author/Archeologist

Calpine Corporation, Antioch Energy Center Critical Issues Review, Antioch, CA

Conducted literature searches, analyzed data, and authorship of the cultural resource section for the Critical Issues Analysis for the project area.

Author/Archeologist, January 2002

Calpine Corporation, Milpitas Energy Center Critical Issues Review, CA

Conducted literature searches, analyzed data, and authorship of the cultural resource section for the Critical Issues Analysis for the project area.

Author/Archaeologist, April 2001 – June 2001

Calpine Corporation, Southport Peaking Power Project Critical Issues Review, CA

Conducted literature searches, analyzed data, and authorship of the cultural resource section for the Critical Issues Analysis for the project area.

Author/Archeologist, 2002**City of Modoc, Alturas Power Project Critical Issues Analysis, CA**

Conducted literature searches, analyzed data, and authorship of the cultural resource section for the Critical Issues Analysis for the project area.

Archaeologist, April 2002 – 2003**Midway Power, LLC, FPL Energy, Tesla Power Project, CA**

Conducted archaeological surveys and recorded historic resources and conducted literature search for the proposed project site and pipeline linear routes. Completed data adequacy request for the California Energy Commission. Author of sections for an Archaeological Resource Management Report (including maps and graphic profiles), and completed archaeological site forms for submittal to the California Historical Resources Information Center.

Archaeologist/Author, 2001 – Present**Calpine Corporation Gilroy City LM6000 Phase I and Phase II Projects, CA**

Author of the Cultural Resources Section of the Application for Certification under the California Energy Commission's 21-day Process and four-month process for a natural gas-fired LM6000 peaking power plant. Planned and conducted cultural resources literature searches and archaeological and architectural field inventories for prehistoric and historic archaeological properties and historic buildings and structures. Conducted archaeological literature search and field inventory for the proposed power plant site and linear pipeline routes in Santa Clara County. Consulted with the Native American Heritage Commission and Native American tribes. Served as a liaison between construction personnel, tribal monitors, and agency representatives. Assisted in the development of an archaeological resource treatment plan. Performed archaeological excavation for data recovery.

Archaeologist/Author, 2001-2002 King City Project, Calpine Corporation

Author of the Cultural Resources Section of the Application for Certification under the California Energy Commission's 21-day Process for LM6000 natural gas-fired turbines at the existing power plant facilities, for submittal to the California Energy Commission. Planned and conducted cultural resources field inventory and archaeological literature search of the proposed power plant project site in Santa Clara and Monterey counties. Consulted with the Native American Heritage Commission and Native American tribes. Authorship of sections (including graphics, maps, profiles) of the Data Recovery Investigations of the Buried Hearth KC-01-01.

Archaeologist, October 2001**Rio Linda/Elverta Power Project, Florida Power and Light**

Conducted archaeological and architectural surveys within project area and along linear pipelines, recorded historic structures, and prepared site form documentation.

Senior Archaeological Technician, August 2001**Inland Empire Power Project, Calpine Corporation**

Conducted archaeological surveys and site recordation of the proposed project area, and pipeline linears. Senior Archaeological Technician, 2001 Edwards Air Force Base: Management Region 5, Palmdale, CA Senior Archaeological Technician for Phase II detailed mapping and test excavation of 29 archaeological sites chosen from various sub-areas of Management Region 5 on the installation's Precision Impact Range Area. Operated high-precision global positioning system equipment for detailed site mapping, conducted test excavations, and laboratory analyses to determine National Register eligibility of the 29 archaeological sites.

Senior Archeological Technician, 2001

Edwards Air Force Base: Management Region 5, Palmdale, CA

Senior Archaeological Technician for Phase II detailed mapping and test excavation of 30 archaeological sites chosen from various sub-areas of Management Region 5 on the installation's Precision Impact Range Area. Operated high-precision global positioning system equipment for detailed site mapping, conducted test excavations, and laboratory analyses to determine National Register eligibility of the 30 archaeological sites.

Cultural Resource Technician, June 2000 – January 2003

360 Networks Incorporated, Oregon and Northern California Fiber Optics Installation Project

Cultural Resources Technician providing technical and professional support in monitoring compliance for the protection of cultural resources for a fiber optic conduit installation program in southern Oregon and northern California. Monitored construction activities and conducted archaeological surveys and test excavations. Worked closely with Native American monitors. Ensured that all construction activities are performed in accordance with California Public Utilities Commission (CPUC) mitigation requirements and Forest Service/agency permit conditions. Served as a liaison between construction personnel, tribal monitors, and agency representatives

Previous Experience**Archaeologist GS-7, 10/99-05/00**

Bureau of Land Management, Elko, NV

Duties included: assisting with Heritage Resource Surveys, on-site archaeological investigation, Native American consultation, site recordation, report writing, prefield research, GIS/GPS sites, create maps in ArcView/GIS, and complete associated projects.

Archaeologist GS-193-07, 06/99-10/99

U.S.D.A Forest Service, Humboldt-Toiyabe National Forest, Elko, NV

Supervisor: Fred Frampton 775-738-5171

Duties included: assisting with heritage resource surveys, prefield research, Native American consultation, on-site archaeological investigation, site recordation, report writing, and completed associated projects, supervised a crew of volunteers during a three-week Passport In Time excavation.

Archaeological Technician, 02/99-05/99

Holman & Associates, San Francisco, CA, Crissy Field Project

Supervisor: Mathew Clark 650-726-6269

Duties included: Assisting with field and lab work pertaining to the archaeological investigation of a historic site (some prehistoric), excavation, screening, sketching stratigraphic profiles, data recovery, tabulation, historic artifact analysis (c. 1776-1940) and artifact preservation.

Archaeological Technician GS-04, 06/98-11/98

USDA Forest Service: Modoc National Forest, Alturas, CA

Supervisor Gerry Gates 530-233-8730

Duties included assisting with the heritage resource survey, on-site archaeological investigation, site recordation, prefield research.

Archaeological Technician, 07/97-03/98

Roscoe & Associates; Eureka, CA

Phase I and II survey and excavation along the north coast of California. Duties included: field survey, drafting maps, data entry, pre-and post-field research, site testing (excavation), site form and authorship of a section for a cultural resource report.



Professional Accomplishments

Inducted into Pi Gamma Mu, the International Honor Society for Social Science
Forest Service Spot Award, 9/1998
Employee Recognition Award, Bureau of Land Management, 2000
Tetra Tech Spot Bonus Awards 2006-2007

Professional Affiliations

Member, Society for American Archaeology
Member, Society for California Archaeology

Experience Summary

Ms. King has practiced in the fields of archaeology and cultural resource management since 2000, focused primarily on prehistoric archaeology. Ms. King meets the Secretary of the Interior's Professional Qualifications for Archaeology. Her experience has been gained through work primarily in coastal California (including the Channel Islands) and the Sierra Nevada Mountain Range. Additionally, she has participated in surveys in southern Utah and various parts of Oklahoma. She has experience with Section 106 of the National Historic Preservation Act, National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), the Native American Graves Protection and Repatriation Act, the Archaeological Resources Protection Act, American Indian Religious Freedom Act, and various other federal and state agency-specific cultural resources management directives. She has consultation experience with State Historic Preservation Offices, Native American tribes, the California Native American Heritage Commission, and local cultural resources specialists. Ms. King has successfully lead and assisted in the completion of Section 106, NEPA, and CEQA documents for Federal agencies, including Bureau of Reclamation, Bureau of Land Management, US Air Force, and US Army Corps of Engineers; State agencies, including the California State Lands Commission and California Army National Guard; and for third-party customers such as municipalities, energy companies, and Native American groups. Ms. King has extensive experience in cultural resource surveys, testing, and sensitivity assessments. Her specialties lie in coastal hunter-gatherer societies, site formation processes, historic preservation, Native American resources, Indian Trust Assets, and cultural resource law.

Education

MA, Cultural Anthropology (Emphasis: Public Archaeology), California State University, Northridge, 2005

BA, Cultural Anthropology (Emphasis: Archaeology), University of California, Santa Barbara, 2001

Registrations/Certifications

Registered Professional Archaeologist, Earned 9/27/05

Professional Affiliations

Member, Register of Professional Archaeologists

Member, Society for American Archaeology

Member, Society for California Archaeology

Training

Adult CPR; American Red Cross Bay Area; 2007

CEQA Basics Workshop Series; Association of Environmental Professionals; 2005

Crew Chief; Eel Point Field School, San Clemente Island, California State University, Northridge; 2003

Cultural Resources Pro-Seminar & Orientation Class; Riverside County; 2011

Defensive Driving Training Course; US Forest Service; 2007

Field School; University of California, Santa Barbara Region and Channel Islands; 2000

Standard First Aid; American Red Cross Bay Area; 2007

The Section 106 Essentials; Advisory Council on Historic Preservation; 2006

Corporation Project Experience

Archaeologist, 2011

Idaho Power, Boardman to Hemingway Transmission Line, Owyhee County, ID and Malheur, Baker, Union, Umatilla, and Morrow Counties, OR

Ms. King acted as co-crew chief for a portion of the cultural resource inventory required for Section 106 compliance for a 550-mile 500 kV transmission line and access road right-of-way. Survey corridors crossed BLM, US Forest Service, and private lands, portions of which included segments of the Oregon Trail. Ms. King's responsibilities included crew safety, planning survey activities, and recordation of cultural resources on Oregon site record forms.

Archaeologist/Crew Chief, 2011

Shell Wind Energy, Colorado Blue Wind Farm Project, Huerfano County, CO

Ms. King acted as crew chief for a cultural resource inventory of a 2,000-acre wind farm site on private lands. The area was previously unsurveyed. She was responsible for crew safety, daily coordination with the Field Director, and detailed recordation of prehistoric and historic archaeological sites, including one townsite, and isolated finds.

Archaeologist/Field Director, 2011

Cogentrix Quail Brush Generation Project, San Diego, CA

Ms. King acted as Field Director for a cultural resources survey required by the California Energy Commission and City of San Diego as part of the CEQA process associated with the proposed construction of an approximately a 100 megawatt (MW) natural gas-fired peaking facility near the eastern boundary of the city of San Diego, California. Project facilities include the peaking plant, a transmission line, switchyard, and natural gas pipeline. Ms. King was responsible for completion of archival research, consultations with Native Americans and local historical societies, pedestrian and enhanced pedestrian surveys, and development of a cultural resources technical report and impact analysis for the Application for Certification submitted to the California Energy Commission.

Archaeologist/Lab Director, 2010-2011

NextEra, Phase II Site Testing, Survey Data Recovery, Archaeological Monitoring, and Artifact Processing for the Genesis Solar Energy Project, Colorado Desert, CA

Ms. King assisted with NRHP-eligibility testing of seven prehistoric archaeological sites within the footprint of NextEra's Genesis Solar Farm project on public land managed by the BLM near Blythe, California. Her work included excavation of shovel test pits, assisting the Principal Investigators with GPS mapping, and providing guidance to archaeological technicians. She also participated in data recovery of five additional prehistoric sites (surface collection and mapping) and two historic sites (detailed GPS mapping) and survey of approximately 120 acres, recording four newly discovered historic refuse deposits. Ms. King met stringent California Energy Commission requirements for an archaeological monitor for this project and monitored ground disturbance associated with desert tortoise fence installation and access road grading. She also conducted all lab and artifact processing activities, including cleaning, cataloging, and analyses.

co-Principal Investigator/Project Manager, 2010-2011

Army Corps of Engineers, Sacramento District and US Air Force, Edwards AFB, Supplemental Range Evaluation: Damage V, NRHP Evaluation of 13 Historic-Era Homesites, Edwards Air Force Base, CA

This project was supplemental work performed under an existing ACOE-Sacramento District contract to evaluate an additional 13 historic-era homesites as part of the Section 110, NHPA program at Edwards AFB. Ms. King acted as Project Manager and co-Principal Investigator for this project, coordinating with the Program Manager, the Base Historic Preservation Officer, and a subconsultant

hired to conduct fieldwork. She provided oversight of all aspects of the evaluations, including leading a kick-off meeting, drafting a work plan and research design for approval by the BHPO, conducting all archival research, providing input for field efforts, quality review of site record forms, and evaluating the significance of each of the 13 sites in a standard Phase II Archaeological Resource Management Report.

Principal Investigator/Project Manager, 2010-2011

US Navy Base Realignment and Closure Program Office, Archaeological Monitoring Oversight and Reporting for the Crisp Road Pipeline Removal and Remedial Actions, Hunters Point Naval Shipyard, San Francisco, CA

Ms. King supervised archaeological monitors for sanitary and storm drain removal and remediation as part of the US Navy's Base Realignment and Closure Program at the Former Hunters Point Shipyard (HPS). Monitoring was conducted in accordance with a Basewide Monitoring Plan Ms. King authored for HPS. She conducted weekly site inspections, ensured monitors completed daily logs of construction activities and observations, and inspected possible archaeological deposits when encountered. Ms. King authored the monitoring report documenting monitoring activities and findings, outlining implications for archaeological sensitivity based on the monitoring results, and provided recommendations for future monitoring activities in the project area.

Principal Investigator/Project Manager, 2010-2011

US Navy Base Realignment and Closure Program Office, Archaeological Monitoring Oversight and Reporting for Remedial Actions at Installation Restoration Sites 07 and 18, Hunters Point Naval Shipyard, San Francisco, CA

Ms. King supervised archaeological monitors for remediation activities and shoreline reconstruction as part of the US Navy's Base Realignment and Closure Program at the Former Hunters Point Shipyard (HPS). Monitoring was conducted in accordance with the Basewide Monitoring Plan Ms. King authored for HPS. She conducted weekly site inspections, ensured monitors completed daily logs of construction activities and observations, and inspected possible archaeological deposits when encountered. One historic refuse deposit was encountered during shoreline reconstruction and was recorded. Additionally, historic architectural debris within the original rip-rap was documented. Ms. King authored the monitoring report documenting monitoring activities and findings, outlining implications for archaeological sensitivity based on the monitoring results, and provided recommendations for future monitoring activities in the project area.

Principal Investigator/Project Manager, 2009

US Navy Base Realignment and Closure Program Office, Archaeological Monitoring Oversight and Reporting for the Fisher and Spear Avenues Pipeline Removal, Hunters Point Naval Shipyard, San Francisco, CA

Ms. King supervised archaeological monitors for sanitary and storm drain removal and remediation as part of the US Navy's Base Realignment and Closure Program at the Former Hunters Point Shipyard (HPS). Monitoring was conducted in accordance with a Basewide Monitoring Plan Ms. King authored for HPS. She conducted weekly site inspections, ensured monitors completed daily logs of construction activities and observations, and inspected possible archaeological deposits when encountered. She also acted as the archaeological monitor on site, when necessary. No cultural resources were encountered or disturbed, and no historic properties were affected. No noncompliance incidents occurred. Ms. King authored the monitoring report documenting monitoring activities and findings, outlining implications for archaeological sensitivity based on the monitoring results, and provided recommendations for future monitoring activities in the project area.

Principal Investigator/Project Manager, 2009

US Navy Base Realignment and Closure Program Office, Basewide Archaeological Monitoring and Discovery Plan for Former Hunters Point Naval Shipyard, San Francisco, CA

As part of the Department of Defense's removal and remedial actions under the US Navy's Base Realignment and Closure Program, the government determined that the Former Hunters Point Shipyard (HPS) would be closed. The Navy used it as a repair facility, but it also was the location of the Naval Radiological Defense Laboratory (NRDL) between 1948 and 1969. The NRDL decontaminated ships exposed to atomic weapons testing and to research and experiment with radiological decontamination, the effect of radiation on living organisms, and the effects of radiation on materials. The Navy closed HPS and placed it in reserve in 1974. Given the archaeological sensitivity of HPS, monitoring by a qualified archaeologist is required on a case-by-case basis, as determined by the Navy in consultation with the SHPO. Ms. King completed this AMDP for activities agreed upon between the US Navy and the California SHPO that will occur at HPS under the 1998 BRAC program. It summarizes the environmental and cultural setting of HPS as well as the archaeological sensitivity (locations, site types) and provides instruction for the monitoring program, including roles, duties, communication protocols, a construction staff training program, the monitor's authorities, unanticipated discovery procedures and treatments, and post-excavation activities and reporting. The AMDP is applicable to US Navy and SHPO agreed-upon activities throughout HPS.

Principal Investigator, 2009

Army Corps of Engineers, Sacramento District and National Park Service, Golden Gate National Recreation Area, Archaeological Monitoring and Reporting for the FUDS Site Inspections at Former Forts Barry, Cronkhite, and Funston and Former San Francisco Nike Battery 59, Marin Headlands and San Francisco, CA

Ms. King provided archaeological monitoring services during Army Corps of Engineers, Sacramento District's site inspections at three formerly used defense sites (FUDS) managed by the National Park Service, Golden Gate National Recreation Area. The monitored sites included selected areas at former Fort Barry and Fort Cronkhite in the Marin Headlands and at former Fort Funston and San Francisco Nike Battery 59 in San Francisco, California. Monitored locations at Fort Funston and Nike Battery 59 were selected based upon a letter report authored by Ms. King who assessed the likelihood for significant cultural resources within or near inspection sites. Ms. King conducted monitoring of ground disturbing activities associated with the removal of underground storage tanks and soil contamination testing, collected and processed artifacts, and authored a report documenting monitoring activities and results. Monitored areas were within the Golden Gate National Recreation Area and several historic districts, managed by the National Parks Service, requiring close coordination with the NPS Archaeologist.

Principal Investigator, 2007

San Francisco Public Utilities Commission and Planning Department, Archaeological Monitoring for Soil Sampling for the Bay Division Pipelines 3 and 4 Crossover Facilities Project, Santa Clara, CA

Ms. King acted as the archaeological monitor for San Francisco Public Utilities Commission (SFPUC) soil sampling activities at a location along the Bay-Division Pipelines 3 & 4 near the Guadalupe River in Santa Clara, California. The sampling locations were within meters of a poorly defined boundary of CA-SCL-6, an Ohlone village site that included burials. Ms. King maintained a monitoring log of each sample augur hole, noting stratigraphic changes and soil characteristics. No cultural resources were noted and it was determined that all augur samples were likely within an area of fill. Monitoring logs were provided to the SFPUC.

co-Principal Investigator/Project Manager, 2008-2009

Army Corps of Engineers, Sacramento District and US Air Force, Edwards AFB, Range Evaluation:

Damage V, NRHP-Evaluation of 45 Prehistoric and Historic-Era Archaeological Sites, Edwards Air Force Base, CA

This project was part of an overall program to protect archaeological sites at Edwards AFB under Section 110 of the NHPA, via an ACOE-Sacramento District contract. In order to better manage EAFB's archaeological resources and assess impacts from looting and vandalism at the most threatened sites on base, more information is needed; therefore, the goal of this project was to support site protection by evaluating 45 unevaluated prehistoric and historic archaeological sites for NRHP eligibility. Ms. King acted as Project Manager and Principal Investigator for this project, coordinating with the Program Manager, the Base Historic Preservation Officer, and a subconsultant hired to conduct fieldwork. She provided oversight of all aspects of the evaluations, including leading a kick-off meeting, drafting a work plan and research design for approval by the BHPO, conducting all archival research, providing guidance regarding site testing, quality review of site record forms and curation, and evaluating the significance of each of the 45 sites in a standard Phase II Archaeological Resource Management Report.

Archaeologist/Deputy Project Manager, 2009

Army Corps of Engineers, Sacramento District and US Air Force, Edwards AFB, PIRA Infill Inventory Survey, Edwards Air Force Base, CA

Under contract to the ACOE-Sacramento District, Ms. King acted as the technical specialist for this Phase 1 survey of selected "priority" areas of Edwards AFB where future activity or use is anticipated and in areas where significant sites are anticipated. This project required Phase 1 survey of up to 3,880 acres (dependent upon ground-truthing of site density) within several of these priority areas, one of which was in an active range. The survey recorded all identified cultural resources using Base site record forms and collected and curated all "at risk" (i.e. diagnostic) artifacts. In addition survey summary forms were completed for each contiguous survey area. As the lead technical specialist for the project, Ms. King completed most project management tasks, coordinated with the project's subconsultant to insure compliance with the contracted scope of work, and provided peer-review of all deliverables, including site and survey forms and curation.

Principal Investigator, 2009-2010

San Francisco Department of Recreation and Parks and Planning Department, Archaeological Sensitivity Assessment in Support of the Significant Natural Resource Areas Management Plan EIR, San Francisco and San Mateo Counties, CA

Ms. King completed an archaeological sensitivity assessment of 32 natural resource areas included in the San Francisco Department of Recreation and Parks' controversial Significant Natural Resource Areas Management Plan (SNRAMP). The SNRAMP is intended to guide natural resource protection, habitat restoration, trail and access improvements, other capital projects, and maintenance activities over the next 20 years. The archaeological sensitivity assessment was prepared to support the cultural resource impacts analysis in the associated EIR that addresses implementation of the SNRAMP, required by the San Francisco Major Environmental Analysis Division of the Planning Department. The assessment of each Natural Area was based on records searches, archival and literature research, and review of historic maps, environmental data, and geologic landforms of the San Francisco Peninsula. Her efforts required close coordination with SFDRP and the Planning Department's Archaeologist.

Principal Investigator, 2008

San Francisco Public Utilities Commission and Planning Department, Historic Context and Archaeological Properties Assessment for the San Andreas Pipeline No. 3 Installation, San Francisco and San Mateo Counties, CA

Ms. King completed a Historic Context and Archaeological Properties Assessment (HCAPA) for the San Francisco Public Utilities Commission assessing the types of archaeological properties likely to occur within the fully developed project area and the likelihood of those resources to occur. Research involved understanding the historic environment of the San Francisco Peninsula, types of archaeological deposits on the Peninsula, distribution of sites, and preservation of sites given the historic development of the area. The HCAPA was used to assess the potential impacts and provide recommendations for project implementation in the project's IS and EIR.

Principal Investigator, 2009

US Bureau of Land Management, Modified Class I of the BLM Bakersfield Field Office in Support of an RMP/EIS, Central California

This report presents the results of a modified Class I data inventory for the BLM Bakersfield Field Office (BKFO) in Central California. The document supports a resource management plan (RMP) and environmental impact statement (EIS), the purpose of which is to guide management of public lands within the administrative boundary of the BKFO. This FO boundary encompasses about 17 million acres throughout Kings, San Luis Obispo, Santa Barbara, Tulare, Ventura, Madera, eastern Fresno, and western Kern Counties, of which 610,588 acres are public lands managed by BLM. Ms. King synthesized cultural resources overviews, studies, and surveys for each of three planning units within the BKFO. The documents used primarily focused on research themes and questions, as well as settlement patterns and predictive models for BKFO public lands. The site- or area-specific surveys and studies, as well as BLM documentation of areas of critical environmental concern with cultural resources, were used to broaden the understanding of each planning unit's prehistory and history. The Class I cultural resources inventory is an initial step in complying with the NHPA and will allow managers to assess potential compliance issues, develop methods and models to address future concerns, develop historic contexts for evaluating resources for listing on the NRHP, and propose a consistent regional resource management program in the RMP/EIS.

Field Director, 2008

Vasco Wind, LLC and Florida Power and Light, Cultural Resource Survey of Proposed Vasco Wind Farm, Contra Costa County, CA

Vasco Wind, LLC proposed replacement of approximately 400 existing and aging turbines with a small number of new, larger turbines. The proposed project, located primarily along the Vasco Ridge within the Coast Ranges in Contra Costa County, California, would entail decommissioning old turbines and associated transmission lines and infrastructure, installing 40 new wind-generating turbines, and restoring portions of the land to its original natural character. The project would also include an interconnecting road system, underground and overhead electrical transmission lines to collect energy from the turbines, and a substation to transmit energy from the Project to the regional power grid. Ms. King acted as Field Director for this project, leading a crew of two in surveying the APE within a larger 2,900-acre study area. She ensured crew safety in a hazardous environment, coordinated on a daily basis with the Principal Investigator, and provided daily field notes, photographs, a photo log, and a survey coverage map to the Principal Investigator. Additionally, all previously recorded cultural resources were monitored during the survey and site record updates completed.

Principal Investigator, 2010

US Postal Service, Cultural Resources Survey and Letter Report for Transfer of USPS Land, Lancaster, CA

Ms. King acted as Principal Investigator for a cultural resources survey of a 4.04-acre USPS property to be possibly transferred out of federal ownership. This review was requested to meet the requirements of the NHPA, Section 106 (36 CFR 800). The report relied on a prehistoric and historic site record and literature search as well as on historic maps. In addition, Ms. King directed a field technician who completed a pedestrian survey of the property to identify cultural resources on or next to the property. One historic-period archaeological resource was identified during the survey and recommended NRHP-ineligible. Results of the research and field effort were documented in a letter report to USPS.

Archaeologist, 2008

EM-Assist and US Bureau of Land Management, Cultural Resources Re-survey of Lower Hurricane Mesa UXO Cleanup Activities, Washington County, UT

Ms. King acted as an archaeologist for this resurvey of approximately 110 acres at the base of Hurricane Mesa near the town of Hurricane and the Virgin River in southern Utah. The resurvey was conducted under contract to EM-Assist to confirm the findings a previous survey, comply with Section 106 of the NHPA, and to determine if any cultural resources were damaged during detonations of unexploded ordinance. Ms. King was responsible for coordinating the survey and contributing to a survey report sufficient for Section 106 compliance and clearance by the BLM St. George Field Office.

Archaeologist/Project Manager, 2006

US Army Corps of Engineers, Mobile District and California Army National Guard, Archaeological Survey and Test Excavations at Fort Hunter Liggett and Moffett Field in Support of BRAC Actions, Monterey and Santa Clara Counties, CA

Ms. King managed archaeological surveys and subsurface testing programs while participating as a crew member in an effort to determine the extent of possible impacts on cultural resources at Fort Hunter Liggett, Monterey County and Moffett Federal Airfield, Santa Clara County in support of Section 106 compliance for Base Realignment and Closure (BRAC) 2005 activities. She conducted pedestrian surface survey of archaeologically sensitive areas, subsurface testing via shovel test pits, monitoring mechanical excavation, and coordinating Native American monitoring. She also provided significant contribution to the field methods proposals, post-field letter reports, and the draft and final survey reports for each location. Ms. King also contributed to the Environmental Assessments for both locations.

Co-Principal Investigator, 2008

San Francisco Public Utilities Commission and Planning Department, Historical Architecture Survey and Historic Context Archaeological Survey Report for the Proposed Seismic Upgrade of Bay Division Pipelines 3 and 4, Alameda County, CA

This report documents the cultural resources survey and inventory for San Francisco Public Utilities Commission's Seismic Upgrade of Bay Division Pipelines 3 and 4 at the Hayward Fault Project in Fremont, Alameda County, California. The pipelines are two of the SFPUC's four major transmission pipelines that deliver water from the Hetch Hetchy Reservoir to the San Francisco Bay Area. It would serve as the basis for an assessment of the potential effects on paleontological, archaeological, and historic architectural resources for the project environmental evaluation, with the assumption that identified historic resources or potential archeological resources are potentially eligible to be listed on the NRHP and the California Register of Historical Resources. Ms. King served as Principal Investigator for the archaeological resources portion of the report. Along with an architectural historian, she drafted a work plan for the project, conducted a records search, facilitated consultation for the client with California NAHC and local Native Americans, designed a pedestrian survey, and authored archaeological

resource sections of the report. She also assessed the potential for intact subsurface deposits within a region known to contain human remains and a large archaeological site.

Principal Investigator, 2007

San Francisco Public Utilities Commission and Planning Department, Archaeological Survey for the Moccasin Penstocks Relining and Replacement Project, Tuolumne County, CA

The San Francisco Public Utilities Commission proposed to recoat, reline, and possibly replace portions of the Moccasin Penstocks located in Moccasin, California. The penstocks consist of a system of four pipes delivering water from Priest Reservoir to the Moccasin Powerhouse and are part of the Hetch Hetchy Water Delivery System. Ms. King made preliminary suggestions to the client regarding necessary cultural resources studies that would be needed to comply with CEQA. Ms. King conducted pedestrian archaeological survey of the project area and access routes, documented previously unidentified railroad ties associated with the historic Hetch Hetchy Railroad, and provided a supplemental site record form for the railroad. Additionally, she provided a survey report documenting the survey results to the San Francisco Public Utilities Commission and Hetchy Hetchy Water and Power.

Principal Investigator, 2009

US Forest Service, Data Inventory for Potential Geothermal Leasing Interests in the Alkali Valley, Steamboat Hills, and Whisky Flats Areas, Humboldt-Toiyabe National Forest, Bridgeport and Carson Ranger Districts, NV

Although no undertaking had yet been proposed, an interest in three study areas within the Humboldt-Toiyabe National Forest Bridgeport and Carson Ranger Districts had been expressed by potential geothermal developers. These areas are in the Alkali Valley, Steamboat Hills, and Whisky Flats areas of western Nevada. The Alkali Valley and Whisky Flats study areas are within the Bridgeport District of the Humboldt-Toiyabe National Forest, and the Steamboat Hills area is in the Carson District. On behalf of the US Forest Service, Ms. King conducted research and authored a data inventory report documenting known cultural resources and cultural resource studies within the three study areas. Data was obtained from HTNF District Archaeologists, NVCRIS, and publicly available sources. The report was intended to support NHPA Section 106 compliance.

Principal Investigator, 2006

Brannan-Andrus Levee Maintenance District and US Army Corps of Engineers, Sacramento District, Cultural Resources Survey for Levee Maintenance Activities on Brannan Island, Sacramento County, CA (2006)

Ms. King conducted a cultural resources survey of thirteen levee maintenance sites on Brannan Island in the San Joaquin-Sacramento River Delta on behalf of the Brannan-Andrus Levee Maintenance District and ACOE-Sacramento District. The proposed undertaking included stabilization and repair of erosional areas along the levees. The survey included a pre-field records search, research using archival and literature resources, and a pedestrian inspection of the thirteen sites. An unanticipated discovery of a submerged historic barge at one site required coordination with SHPO, recordation, and evaluation by Ms. King, with assistance from a staff Historian. For the purposes of this project, the levee system itself was considered a historic property.

Field Technician, 2007

Oklahoma Department of Transportation, Historical Architecture Survey for the US 70 Categorical Exclusion, Durant, OK

Ms. King assisted the staff Architectural Historian in recording and evaluating over 50 buildings along an Oklahoma Department of Transportation roadway improvement corridor in Durant, Bryan County, Oklahoma. She also assisted in the completion and production of a survey report as part of Section 106 compliance for the project.

Archaeologist/Peer-Reviewer, 2007-2009

US Bureau of Reclamation, New Melones Lake Cultural Resources Overview, Tuolumne and Calaveras Counties, CA

Ms. King provided peer-review and quality assurance of a subconsultant's cultural resources overview (similar to a Class I study) of the US Bureau of Reclamation's New Melones Lake Area. The region is particularly sensitive for archaeological resources. Ms. King also completed the final revision of the overview based on comments from Reclamation's Project Archaeologist. The overview was utilized by Ms. King to complete the cultural resource analysis in a RMP/EIS.

Archaeologist /Peer-Reviewer, 2006-2007

US Army Corps of Engineers, Mobile District and US Army Garrison – Hawai'i , Cultural Resources Survey for Military Housing and Privatization at Schofield Barracks, O'ahu, HI

Ms. King provided peer-review and quality assurance of a subconsultant's historic architectural building survey and Phase I cultural resource survey at Schofield Barracks Military Reservation, Hawai'i.

Additionally, she provided support and guidance to US Army Corps of Engineers, Mobile District and US Army Garrison – Hawai'i in the Section 106 process and updated the cultural resources analysis of an associated EA based on the survey findings. Properties included in the survey area and addressed in the report may be brought into the Army's Residential Communities Initiative (RCI) program in Hawai'i. Eighteen historic buildings were inventoried and 40 acres surveyed for archaeological resources.

Previous Experience

Padre Associates, Inc.

Archaeological Monitor, 2003

Chevron Texaco, CPL Atascadero to El Estero Piggings at Devil's Gap, San Luis Obispo County, CA

Ms. King conducted an archaeological records search for this pre-existing Chevron Texaco pipeline right-of-way along California Highway 46 in San Luis Obispo County. The project accessed three subsurface bundled pipelines for piggings operations at specific locations. One location, within feet of archaeological site CA-SLO-1891 and known to be a sensitive area for Native American concerns, was surveyed prior to project activities and monitored for subsurface cultural materials.

Archaeological Monitor/County Representative, 2001

San Luis Obispo County, Santa Ysabel Ranch Home Construction and Development, Paso Robles, CA

Ms. King represented San Luis Obispo County as an environmental and archaeological monitor for construction of a gated community in an environmentally and archaeologically sensitive area being developed by Weyrich Wineries. She documented the contractor's daily activities and environmental incidents and assisted a separate cultural resources consultant with documenting archaeological monitoring activities.

Archaeologist, 2003

Carpinteria Sanitary District, Archaeological Investigations for the Rincon Point Sanitary Sewer System Project, Ventura and Santa Barbara Counties, CA

Ms. King provided oversight of a cultural resources subcontractor and participated in presence/absence testing and NRHP-eligibility excavations at a large ethnohistoric village site (CA-SBA-1/CA-VEN-62) on Rincon Point in Santa Barbara and Ventura Counties, California. Testing involved monitoring mechanical auguring and backhoe trenching as well as excavation of units in a particularly dense portion of the site. The proposed project, part of Carpinteria Sanitary District's larger South Coast Beach Communities Septic to Sewer Project, would provide sewer service to a gated community that had been using septic systems, possibly contributing to pollution of Rincon Creek. Ms. King also provided

coordination with the community's Home Owners Association as well as contributions to the associated Initial Study and Environmental Impact Report.

Principal Investigator, 2003

Carpinteria Sanitary District, Archaeological Survey and Presence/Absence Testing for the Carpinteria Sanitation District's Proposed Beach Communities Septic to Sewer Project - Padaro Lane and Beach Club Road, Carpinteria, CA

The Carpinteria Sanitary District proposed construction of a sewage collection system and conveyance facilities that would connect the Padaro Lane and Beach Club Road communities with the District's sewer system as part of the larger South Coast Beach Communities Septic to Sewer Project in Santa Barbara County. Ms. King conducted an archaeological pedestrian survey of the Padaro Lane and Beach Club Road portion of the South Coast Beach Communities Septic to Sewer Project, including archival research, site records search, and Native American consultations. She also designed and conducted mechanical presence/absence testing to determine if archaeological site CA-SBA-13 extended into the subsurface of the project area. Results were provided in a survey report as part of the project's NHPA Section 106 compliance.

Principal Investigator, 2004

Ventura County Watershed Protection District, Archaeological Survey for the Tapo Canyon Debris Basin, Ventura County, CA

The Ventura County Watershed Protection District proposed excavation and grading of a debris basin in Tapo Canyon near Simi Valley in anticipation of erosion debris from extensive fires that had occurred in the area. Ms. King conducted archival research, a site records search, Native American consultation, and a field survey of the APE. The survey also involved relocating previously recorded NRHP-ineligible historic structural remains within the APE.

Principal Investigator, 2003

County of Ventura Public Works Agency, Archaeological Survey for Proposed Well No. 4, Ventura County, CA

Ms. King conducted archival research, a site records search, Native American consultations, and a Phase 1 archaeological survey of a small orchard and roadway for the proposed installation of a well in an unincorporated portion of Ventura County, California. Results were provided in a survey report as part of the project's CEQA compliance. The proposed project included drilling and operation of a replacement water well to be located partially on County of Ventura Waterworks District 19 property.

Principal Investigator, 2003

Santa Barbara County Flood Control and Water District, Archaeological Survey for the West Green Canyon Drainage Improvement Project, Santa Maria, CA

Ms. King conducted archival research, a records search, Native American consultation, and an archaeological survey of the West Green Canyon Drainage Improvement Project near several historical resources in the floodplain of the Santa Maria River in northern Santa Barbara County, California. Results were provided in a survey report as part of the project's CEQA compliance. The project proposed various drainage improvements to be located in the Santa Maria Valley area, west of the City of Santa Maria.

Principal Investigator, 2002

Cachuma Operations & Maintenance Board, South Coast Conduit Reconnaissance - Goleta Section, Santa Barbara County, CA

The purpose of this investigation was to identify any cultural resources within 50 feet of an existing South Coast Conduit pipeline leading from Lake Cachuma in the Santa Ynez Valley to the Goleta/Santa

Barbara area; identify the potential for any fatal flaws; and determine the plausibility for the Cachuma Operations and Maintenance Board to install a second, parallel pipeline. Ms. King conducted a site records search, archival research, and a reconnaissance survey for the project. Results of the research and survey were provided in a letter report.

Principal Investigator, 2004

Ventura County Watershed Protection District, Archaeological Survey of Proposed Canyon #2 and Castro-Williams Debris Basins, Ventura County, CA

This project proposed excavation and grading of two debris basins near Simi Valley, Ventura County, California in anticipation of erosion debris from extensive fires that had occurred in the area. Ms. King conducted archival research, a site records search, Native American consultation, and a field survey of the APE. Results were provided in a survey report as part of the project's Section 106 compliance.

Principal Investigator, 2004

Ventura County Waterworks District No. 16, Archaeological Survey for the Proposed Piru Wastewater Treatment Plant Expansion, Piru, CA

This project proposed expanding a wastewater treatment plant near Piru, Ventura County, California. Ms. King conducted archival research, a site records search, and Native American consultation for the project. Results were provided in a research report as part of the project's NHPA Section 106 compliance.

US Forest Service

Field Director, 2007

Eldorado National Forest, Placerville District, Cultural Resources Survey for the Marshall Mine Vegetation Treatment Project, Eldorado County, CA

The Eldorado National Forest, Placerville District proposed a vegetation treatment undertaking on approximately 7,000 non-contiguous acres with a high density of historic and prehistoric archaeological sites. Proposed treatments consisted of controlled burning and various levels of logging. As part of the Forest's compliance with Section 106 of the NHPA, Ms. King acted as Field Director leading her crew on surveys of previously unsurveyed areas of the project, recording new sites, and monitoring previously recorded sites to establish a baseline condition prior to project implementation. The majority of sites were related to historic logging, mining, and homesteading in the Sierra Nevada mountain range. Ms. King provided the District Archaeologist with daily field notes, the Forest version of California's DPR site records, and Forest monitoring forms. Additionally, she was responsible for updating the Forest's GIS with survey coverage and locations of newly recorded sites.

Master's of Arts Candidate

MA Candidate, 2003-2005

The Anatomy of 8,500 Years: Site Formation Processes at Eel Point (CA-SCLI-43), San Clemente Island, CA

Ms. King's Master's Thesis research focused on site formation processes at Eel Point, San Clemente Island, CA (CA-SCII-43). Eel Point, an extensive and complex prehistoric archaeological site, was almost continuously occupied between about 10,000 and 500BP and extends in areas to 6 meters below ground surface. The site has been used to demonstrate theories of optimal foraging theory and prehistoric environmental adaptations. Strata indicated a changing depositional environment over time and a variety of uses, including as a water source, as an occupational site, and as a "trash" deposit. With the assistance of the US Navy Region Southwest, she organized and directed all field activities, transportation, and housing for crews of up to 10 people under her supervision. Work included archival and literature research; site documentation including sidewall profiling, detailed stratigraphic



descriptions, and mapping with a Total Station and GIS; excavation by natural strata; augur testing; sorting, cleaning, inventorying, and curating materials; and developing graphic representation of the site's stratigraphy and layout.

Publications & Presentations

8,400 Years of Site Formation Processes at Eel Point. Poster presented at the 2005 Annual SCA Meeting in Sacramento, CA.

Preliminary Observations of the Site Formation Processes at Eel Point, San Clemente Island, California. Presented at the 2003 SCA Southern Data Sharing Meeting in San Diego, CA.

Paige, Peter, Richard Denniston, Diana Dyste, Erin King, John Otte, Jr., Kevin Scott, and Lisa Surynt. "The Development of Middle Period Food Procurement Practices of the Island Chumash." Grant proposal for Special Programs in Undergraduate Research Genesis Award.

Presentation: Girls, Inc. Presentation on Education and Careers in Archaeology. Presented at Padre Associates, Inc., Ventura, CA, May 21, 2003.

Padre Associates, Inc.'s Archaeology Training Day for Environmental Sciences Group - Training for Padre Associates Staff in Archaeological Material Identification and Regulations. Presented at UCSB and El Capitan State Beach, October 3, 2002.

Experience Summary

Twenty years' experience in the investigation and documentation of historic structures. Responsibilities have included designing and implementing field investigations and surveys, researching and writing Historic Structure Reports for culturally and historically significant properties, preparing National Register of Historic Places and National Historic Landmark nominations for significant historic properties and districts, and providing research for proposed Local Historic Districts. Clients have included state and municipal agencies as well as cultural institutions and private interests. Funding sources have included federal, state and local programs.

Education

PhD, Department of the History of Art, Yale University, 1999

MA, Department of the History of Art, Yale University, 1999

BA, Yale University, 1988

Registrations/Certifications

NPS Standards for Professional Practice, Number Architectural Historian/Historian (36 CFR 61)

Training

Cultural Architectural Resource Management Archive; Maine Historic Preservation Commission

Cultural Architectural Resource Management Archive; Maine Historic Preservation Commission

Project Review (Section 106): Architectural Historian Continuing Education; New Hampshire

Department of Historic Resources

Corporation Project Experience

Architectural Historian, 2010 – 2011

Cimarron Wind Farm, CPV, Mitigation Plan/National Register of Historic Places Nomination Form, KS
Performed research and fieldwork for a Historic Architectural Resource Investigation to identify historic resources within a 0.5 mile Area of Potential Effect. These resources were documented in a report approved by the Kansas SHPO. Prepared a mitigation plan for the client to submit to the Lead Federal Agency. As part of the approved Memorandum of Agreement that resulted from the Mitigation Plan, completed a National Register of Historic Places nomination form for a farmstead within the study area, using guidelines put forth in the Historic Agriculture-Related Outbuildings of Kansas MPDF.

Architectural Historian, 2010 – 2011

Ashley Wind Farm, CPV, Historic Architecture Reconnaissance Survey, ND

Research and fieldwork for a Historic Architecture Reconnaissance Survey Study in compliance with guidelines of the State Historical Society of North Dakota. Served as client representative and GPS technician during Traditional Cultural Properties Survey. Provided GPS support and guidance to a Native American team looking for TCPs while ensuring that the survey remained within the project area.

Architectural Historian, 2010

Baldwin Wind Farm, Nextera, Historic Architecture Reconnaissance Survey, ND

Research and fieldwork for a Historic Architecture Reconnaissance Survey Study in compliance with guidelines of the State Historical Society of North Dakota. In response to a request from the National Park Service, undertook research and fieldwork for a Visual Impact Analysis of the effect of nearby wind farms, including the proposed Baldwin Wind Farm, on the Lewis and Clark National Historic Trail.

Architectural Historian, 2009-present**Hardin Wind Farm, Invenergy, Historic Architecture Reconnaissance Survey, OH**

Research and fieldwork for a Historic Architecture Reconnaissance Survey Study in compliance with Ohio Power Siting Board regulations. Documented 194 resources using a stratified, multi-phase approach agreed upon with the Ohio Historic Preservation Office. Submitted Ohio Historic Inventory forms using on-line IForms. Contributed to the drafting of the Memorandum of Agreement which was subsequently approved by all parties. In process.

Architectural Historian, 2009-2011**Saddleback Ridge Wind Farm, Patriot Renewables, Historic Architecture Reconnaissance Survey, ME**

Research and fieldwork for a Historic Architecture Reconnaissance Survey Study in compliance with Maine Historic Preservation Commission's Above Ground Cultural Resources Survey Manual, Guidelines for Identification: Architecture and Cultural Landscapes, Section 106 Specific. Surveyed more than 190 buildings within a preliminary five-mile Area of Potential Effect. Received concurrence of the Maine Historic Preservation Commission.

Architectural Historian, 2009-2010**Spruce Mountain Wind Farm, Patriot Renewables, Historic Architecture Reconnaissance Survey, ME**

Research and fieldwork for a Historic Architecture Reconnaissance Survey Study in compliance with Maine Historic Preservation Commission's Above Ground Cultural Resources Survey Manual, Guidelines for Identification: Architecture and Cultural Landscapes, Section 106 Specific. Surveyed more than 300 buildings within an eight-mile Area of Potential Effect. Received concurrence of the Maine Historic Preservation Commission.

Architectural Historian, 2008-2010**Arkwright Summit Wind Farm, Horizon Energy, Historic Architectural Resource Investigation, NY**

Research and fieldwork for a Historic Architectural Resource Investigation 5-mile Ring Area of Potential Effect Study in compliance with New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work. Surveyed more than 6,000 buildings and documented nearly 300 resources. Researched and prepared Mitigation Report for submission to lead agency. Received concurrence of the New York State Historic Preservation Office.

Architectural Historian, 2007-2008**Jericho Rise Wind Farm, Horizon Energy, Historic Architectural Resource Investigation, NY**

Research and fieldwork for a Historic Architectural Resource Investigation 5-mile Ring Area of Potential Effect Study in compliance with New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work. Documented 22 resources and incorporated data from three previous studies. Received concurrence of the New York State Historic Preservation Office.

Architectural Historian, 2007-2008**WM Transmission Line Rebuild, Central Hudson Gas & Electric, Historic Architectural Resource Investigation, NY**

Research and fieldwork for a Historic Architectural Resource Investigation that includes a 1-mile Ring Area of Potential Effect Study. Surveyed and documented 90 resources and prepared report summarizing fieldwork, providing historical background, and assessing the potential impact of the proposed project. Implemented a new approach to defining the APE and defended this to the New York State Historic Preservation Office.

Architectural Historian, 2006-2008

CL Transmission Line Rebuild, Central Hudson Gas & Electric, Historic Architectural Resource Investigation, NY

Research and fieldwork for a Historic Architectural Resource Investigation that includes a 1-mile Ring Area of Potential Effect Study. Surveyed and documented 22 resources and prepared report summarizing fieldwork, providing historical background, and assessing the potential impact of the proposed project. Received concurrence of the New York State Historic Preservation Office.

Architectural Historian, 2006-2007

St. Lawrence Wind Energy Project, St. Lawrence Windpower, LLC, Historic Architectural Resource Investigation, NY

Research and fieldwork for a Historic Architectural Resource Investigation that includes a 1-mile Ring Area of Potential Effect Study and a 5-mile Ring Area of Potential Effect Study in compliance with New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work. Surveyed and documented more than 500 resources. Received concurrence of the New York State Historic Preservation Office.

Architectural Historian, 2006-Present

Alabama Ledge Wind Farm, Horizon Energy, Historic Architectural Resource Investigation, NY

Research and fieldwork for a Historic Architectural Resource Investigation 1-mile Ring Area of Potential Effect Study and a 5-mile Ring Area of Potential Effect Study in compliance with New York State Historic Preservation Office Guidelines for Wind Farm Development Cultural Resources Survey Work. Surveyed and documented more than 450 resources. Received concurrence of the New York State Historic Preservation Office.

Previous Experience

2006

Trinity-on-Main, New Britain, CT

Prepared National Register nomination for historic church. Listed.

2006

Fodor Farm Local Historic District Study Committee

Prepared background material for Study Committee Report.

2006

Madison Historical Society

Provide site visits and architectural interpretation for house plaque program.

2005-2007

Darien Historical Society

Consultant on reinterpretation of the Bates-Scofield House and Barn.

2005-2008

The City of Norwalk, CT

National Register nomination for the Wall Street Historic District. Listed.

2005

The Noah Webster House and Museum of West Hartford History, West Hartford, CT

Consultant on stabilization and renovation of the historic house in conjunction with Paul B. Bailey Architect, LLC.

2005

Coalition for Preservation of the Abel Bradley House, Westport, CT

Retained as expert witness in litigation to prevent the demolition of a historic house in Westport.

Lead Historian, 2005

The Connecticut Trust for Historic Preservation Barns Survey, Hamden, CT

Lead Historian on a documentation survey of historic barns throughout Connecticut.

Lead Historian, 2005

Webb-Deane-Stevens Museum, Wethersfield, CT

Lead historian on Historic Structures Report for Webb House prepared with Building Conservation Associates.

2005

Alliance to Conserve Old Richmond Neighborhoods, Richmond, VA

Performed documentary research on the Hotel Richmond as part of an effort to preserve the building.

2005

Rowayton Historical Society, Rowayton, CT

Prepared National Register nomination for the Five Mile River Landing Historic District.

2005

Clara Barton Birthplace Museum, North Oxford, MA

Prepared Historic Structures Report.

2004

Historical Society of the Town of Greenwich, Greenwich, CT

Prepared feasibility study for re-use of the Thomas Lyon House in conjunction with Paul B. Bailey Architect, LLC.

2004

New London County Historical Society, New London, CT

Wrote Historic Structures Report for the 18th century Shaw Mansion.

2004-2006

Westport Historical Society, Westport, CT

Speaker in Old House School program.

2004

Madison Historical Society, Madison, CT

Re-surveyed town to examine changes since Historic Resources Inventory compiled in 1980.

2004

Private Client, New York, NY

Worked with client and their architect to create period appropriate trim package for Colonial Revival townhouse.

2004

Madison Green Local Historic District Study Committee, Madison, CT

Provided research for LHD Study Committee report.

Expert Reader, Historic Houses of the Hudson River Valley (NY: Rizzoli Books).

Photographer, 2003-Present

The Connecticut Trust for Historic Preservation, Hamden, CT
Contributing photographer to Connecticut Preservation News.

2003

New Haven Colony Historical Society, New Haven, CT
Researched exhibition on Margaret Brewster and Edgerton, the estate she and her husband, Frederick Foster Brewster, created in New Haven.

2003

Connecticut Trust for Historic Preservation, Hamden, CT
Researched and wrote reports on threatened structures.

2003-Present

New Canaan Historical Society, New Canaan, CT
Provided architectural research for house dating program.

2003

Private Client, Cheshire, CT
Analyzed structures for developer so that historic material could be preserved.

2003

Israel Putnam House Association, Greenwich, CT
Researched and wrote Interpretive Plan for Putnam Cottage.

2002-2003

Israel Putnam House Association, Greenwich, CT
Created Historic Structures Report for Putnam Cottage.

2002

New Haven Colony Historical Society, New Haven, CT
Researched and wrote Historic Structures Report for the Pardee-Morris House.

2002

Connecticut Trust for Historic Preservation, Hamden, CT
Speaker at the Annual Preservation Conference.

2002

Town of Enfield, CT
Established a date of construction for the Terry House, 3-5 Elm Street, for the Town Planning Department.

2001-Present

Connecticut Trust for Historic Preservation, Hamden, CT
Provided documentation for historic easements.

2001-Present

Norwalk Historical Society, Norwalk, CT
Research Consultant for the Society's House Dating Program.

2001-Present

Connecticut Trust for Historic Preservation, Hamden, CT
Panelist for House Talk programs.

2001-2002

Historical Society of the Town of Greenwich, Greenwich, CT

Provided Restoration assessment for the Back Kitchen Chamber at Bush-Holley House.

2001

The Connecticut Trust for Historic Preservation, Hamden, CT

Prepared brief history of Trinity United Methodist Church, New Britain.

2001

The Bridgeport Conservancy, Bridgeport, CT

Helped to establish a date of construction for the Tom Thumb House.

2001

Holy Apostles College and Seminary, Cromwell, CT

Researched and wrote Restoration Assessment Report for the Ranney house.

2001

Friends of Boothe Park, Stratford, CT

Prepared preservation suggestions for early 20th century house.

"Case Histories," Connecticut Preservation News, Volume XXIII, No. 4 (July/August 2000).

2000

Historical Society of the Town of Greenwich, Greenwich, CT

Prepared "Bush-Holley House: A Historic Structure Report."

2000

Connecticut Trust for Historic Preservation, Hamden, CT

Wrote six case studies and guide to researching town greens.

CPTV, Research Consultant for "The Green" episode of the Connecticut Experience.

CPTV, On-camera expert for "The Green" episode of the Connecticut Experience.

Photographer, 1999-2003

The Fairfield County Times and The Westchester County Times

Contributor/Photographer, AIA Guide to New York City (4th edition), 1999

Research Consultant, 1992-1999

The Society of Architectural Historians' Buildings of the United States, Connecticut Volume.

APPENDIX D
UPDATED AND NEWLY RECORDED DPR FORMS

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APPENDIX E
VEGETATION REMOVAL UNIT FORMS

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