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September 23, 2013

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**Re: Clarification Regarding the Monitoring and Discovery Plan and the California Public Utilities Commission Role on the East County Substation Project (ECSP) Related to Cultural Resources**

Dear Ms. Baker:

This letter serves to clarify the California Public Utilities Commission (CPUC) role in regards to the decision-making protocol described in the East County Substations Project's (Project) *Management Plan for Archaeological Monitoring, Post-Review Discovery, and Unanticipated Effects for the San Diego Gas & Electric Company (SDG&E) East County (ECO) Substation Project, Jacumba, San Diego County, California* (Monitoring and Discovery Plan) (Williams 2012, Rev. 2013), which is Appendix F of the Project Memorandum of Agreement (MOA). In accordance with the requirements of the Environmental Impact Statement and Environmental Impact Report (EIS/EIR) prepared for the Project (Dudek 2010), a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) was established to address adverse effects to historic properties per Section 106 of National Historic Preservation Act (NHPA), and significant impacts to historical resources in accordance with the California Environmental Quality Act (CEQA). This letter provides documentation that the previously mentioned Monitoring and Discovery Plan fulfills the requirements established in the MMCRP, specifically, deliverables for Mitigation Measures (MM) CUL-1A, -1D, -1E and -1H, which state:

MM-CUL-1A, Develop and Implement a Historic Properties Treatment Plan-Cultural Resources Management Plan: A Historic Properties Treatment Plan-Cultural Resources Management Plan (HPTP-CRMP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA shall be developed among all federal, state, and local agencies to implement the HPTP-CRMP. As part of the HPTP-CRMP, recorded cultural resources that can be avoided shall be listed and demarcated during construction as Environmentally Sensitive Areas (ESAs). All recommended NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 100 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained on SDG&E-owned property, easements, or ROW to protect ESAs from inadvertent trespass for the duration of construction in the vicinity (the ESA fencing should demarcate the limits of the construction

areas and where people have to stay within the easement, ROW, or SDG&E-owned property). An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs. The HPTP-CRMP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR eligible historic resources, including burials, cremations, or sacred features. These areas of high sensitivity shall also be monitored by qualified archaeologists during construction. If recommended NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRMP shall provide a process for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. Other treatment measures to resolve adverse effects could include but are not limited to historical documentation, photography, collection and publishing of oral histories, field work to gather information for research purposes or some form of public awareness or interpretation. A description of alternative treatments to resolve adverse effects other than data recovery excavations could also include:

- Relocation of construction component to portions of historic properties that do not contribute to the qualities that make the resource eligible for the NRHP and CRHR;
- Deeding cemetery of other sensitive areas outside of the substation property and related facilities into open space in perpetuity and providing necessary long-term protection measures;
- Public interpretation including the preparation of a public version of the cultural resources studies and/or education materials for local schools;
- Providing Native American tribes future access to traditional and cultural areas on the Project site, but outside of the substation property and related facilities, after completion of Project construction; and
- SDG&E financial support of existing cultural centers for the preparation of interpretive displays.

The HPTP-CRMP shall include provisions for reporting and curation of artifacts and data at a facility that is approved by the agency. The applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. As part of the HPTP-CRMP, processing of all collected cultural remains shall be described. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species. A Native American monitor may be required at culturally sensitive locations specified by the lead agency following government-to-government consultation with Native American tribes. The monitoring plan in the CRMP shall indicate the locations where Native American monitors shall be required.

CUL-1D, Construction Monitoring: Prior to issuance of grading permit(s), the SDG&E shall retain a qualified archaeologist, in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans. All construction activities in environmentally sensitive areas, or any other area of the project deemed sensitive for containing cultural resources, shall be monitored by a qualified archaeologist. Since significant portions of the project site contain sedimentary deposits that have the potential to contain buried cultural resources, then full-time cultural resources monitoring shall be implemented during all phases of ground-disturbing work in these areas. If ESA fencing has been established and the possibility of buried cultural deposits is determined to be

low after initial ground-disturbance, the on-site professional archaeologist may determine that full-time monitoring is no longer required in that area. A cultural resource monitor shall meet the Secretary of the Interior Standards Qualifications as a professional archaeologist and, as appropriate, shall be on the lead agencies approved consultants list. The archaeological monitor(s) shall also be familiar with the project area and, therefore, be capable of anticipating the types of cultural resources that may be encountered.

CUL-1E, Discovery of Unknown Resources: In the event that previously unknown cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of recommended significant cultural resources. The process for handling inadvertent discoveries shall be documented in the CRMP. It shall detail the methods, consultation procedures, and timelines for assessing register eligibility, formulating a mitigation plan, and implementing treatment should avoidance and protection of the resource not be possible. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and SHPO prior to implementation. The archaeologist in coordination with the BLM shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the CPUC and BLM, in consultation with other appropriate agencies and local governments, and the SHPO.

CUL-1H, Continue Consultation with Native Americans and Other Traditional Groups. SDG&E shall provide assistance to the BLM and CPUC, as requested by the BLM and CPUC, to continue required government to government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the National Historic Preservation Act) and other traditional groups to identify and assess or mitigate the impact of the approved project on traditional cultural properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM and CPUC, SDG&E shall undertake required treatments, studies, or other actions that result from such consultation. Actions that are required during or after construction shall be defined, detailed, and scheduled in the HPTP-CRMP and implemented by SDG&E and may include the following:

- Information regarding further developments in the project;
- Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities;
- Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists;
- The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and
- Copies of all site records, survey reports, or other environmental documents.

The historic properties treatment plan (HPTP) referenced in MM CUL-1A and -1H and referred to as *Research Design for Archaeological Data Recovery at Prehistoric Site CA-SDI-7074 for the San Diego Gas & Electric East County Substation Project, San Diego County, California* (Williams and Whitley 2011) is Appendix E to the MOA and is concerned primarily with treatment of a National Register of Historic Places and California Register of Historical Resources (NRHP/CRHR) eligible site, CA-SDI-7074. Native American participation is outlined in the Project's *Tribal Participation Plan for the East County (Eco) Substation Project, Jacumba, San Diego County, California*.

The Monitoring and Discovery Plan, to which this letter is appended, describes the monitoring approach, evaluation methodology and monitoring requirements and protection at ESAs, fulfilling stipulations in MM CUL-1A, -1D, -1E, and -1H. In addition, the Monitoring and Discovery Plan describes protocols, schedules,

and deliverables for post-review and/or unanticipated discoveries. While the CPUC is not a signatory to the MOA, the CPUC participated in consultation, was invited to participate as a Concurring Party, and is identified as the lead State agency for compliance with CEQA. In this role, the CPUC has responsibilities under state laws and regulations to take into account and mitigate the impacts on properties eligible for or included on the CRHR. As the CEQA lead agency, the CPUC is the lead for matters concerning cultural resources whenever they are located on lands other than those managed by the Bureau of Land Management. As the Monitoring and Discovery Plan states, the CPUC will be consulted by SDG&E on all matters concerning private lands and CEQA regulations, will approve evaluation and data recovery plans, and will review the findings of evaluation and data recovery reports.

Sincerely,

A handwritten signature in black ink that reads "Don Houston". The signature is written in a cursive, slightly slanted style.

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**MANAGEMENT PLAN FOR ARCHAEOLOGICAL  
MONITORING, POST-REVIEW DISCOVERY, *and*  
UNANTICIPATED EFFECTS**  
*for the*  
**SAN DIEGO GAS & ELECTRIC COMPANY (SDG&E)  
EAST COUNTY (ECO) SUBSTATION PROJECT,  
JACUMBA, SAN DIEGO COUNTY, CALIFORNIA**

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# 1. INTRODUCTION

This Management Plan for Archaeological Monitoring, Post-Review Discovery, and Unanticipated Effects (Management Plan or Plan) was prepared for the East County (ECO) Substation Project in eastern San Diego County, California (Figure 1). San Diego Gas & Electric Company (SDG&E) is proposing to construct and operate a new 500/230/138 kilovolt (kV) electrical substation and Loop-In of the existing 500 kV Southwest Powerlink (SWPL) transmission line, requiring the installation of new transmission structures outside of the fenced substation area and access road, an estimated total of 62 acres. The Project is located on a combination of lands administered by the Bureau of Land Management (BLM) and private parcels. Additionally, the Project will include a 14.1-mile 138 kV transmission line consisting of underground conduits and single-steel poles running from the ECO Substation to the Boulevard Substation, which will be rebuilt on an adjacent parcel (Figure 2).

ASM Affiliates, Inc. (ASM) is subcontracted to Insignia Environmental (Insignia); Insignia is contracted by SDG&E to provide environmental technical and permitting support for SDG&E's request for the BLM to authorize a Right-of-Way (ROW) permit for site access and clearance for the Project. The BLM is the lead agency for complying with the National Environmental Policy Act (NEPA); the California Public Utilities Commission (CPUC) is the lead agency for complying with the California Environmental Quality Act (CEQA).

A cultural resources inventory was completed for this Project in 2011, including a Class I records search and a Class III survey of approximately 498 acres considered as the Area of Potential Effect (APE) for the proposed and alternative alignments of the Project (Berryman and Whittaker 2010; Williams 2011). Additionally, ASM completed a survey of the historic built environment for a 0.5-mile radius around the Project APE (see and Krintz, et al. 2011), and an ethnographic and ethnohistoric background study (Laylander and Schaefer 2011).

Based on the cultural resources inventories, SDG&E modified the Project layout in an effort to achieve maximum avoidance of effects to cultural resources. These efforts resulted in the elimination of direct effects to all but four sites (SDI-7074, SDI-19261, ECO-1 and ECO-2) that were recorded within the proposed substation footprint. ASM conducted an evaluation of these resources to determine whether they contribute to the potential National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) eligibility of these resources (Williams & Whitley 2011).

This Management Plan describes methods to be implemented for the protection and avoidance of effects to all archaeological sites in the APE. This Management Plan also describes methods for the evaluation and treatment of inadvertent damage to previously recorded or newly discovered site, or unanticipated effects to a site due to a project change.



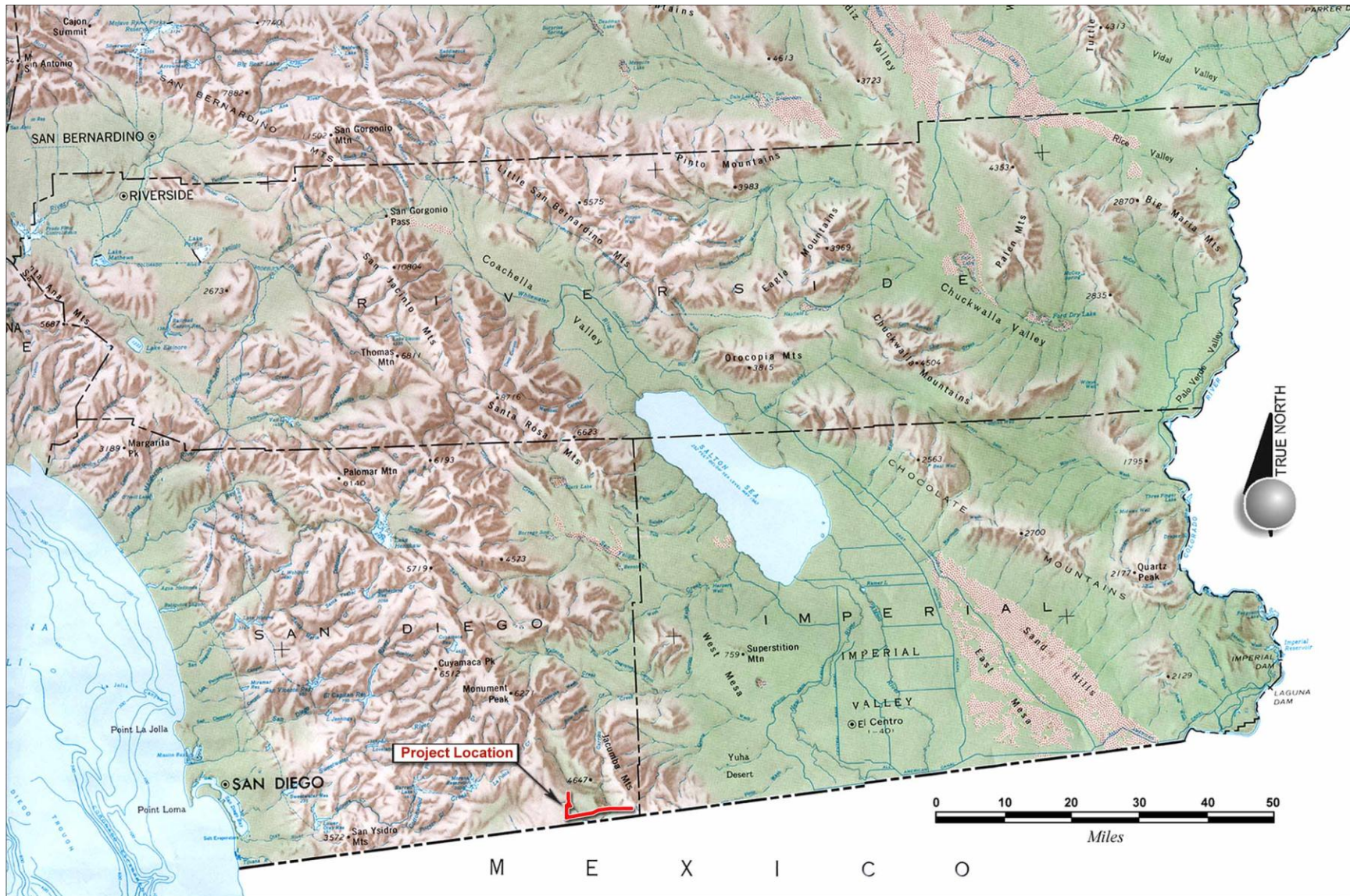


Figure 1 Project vicinity map.



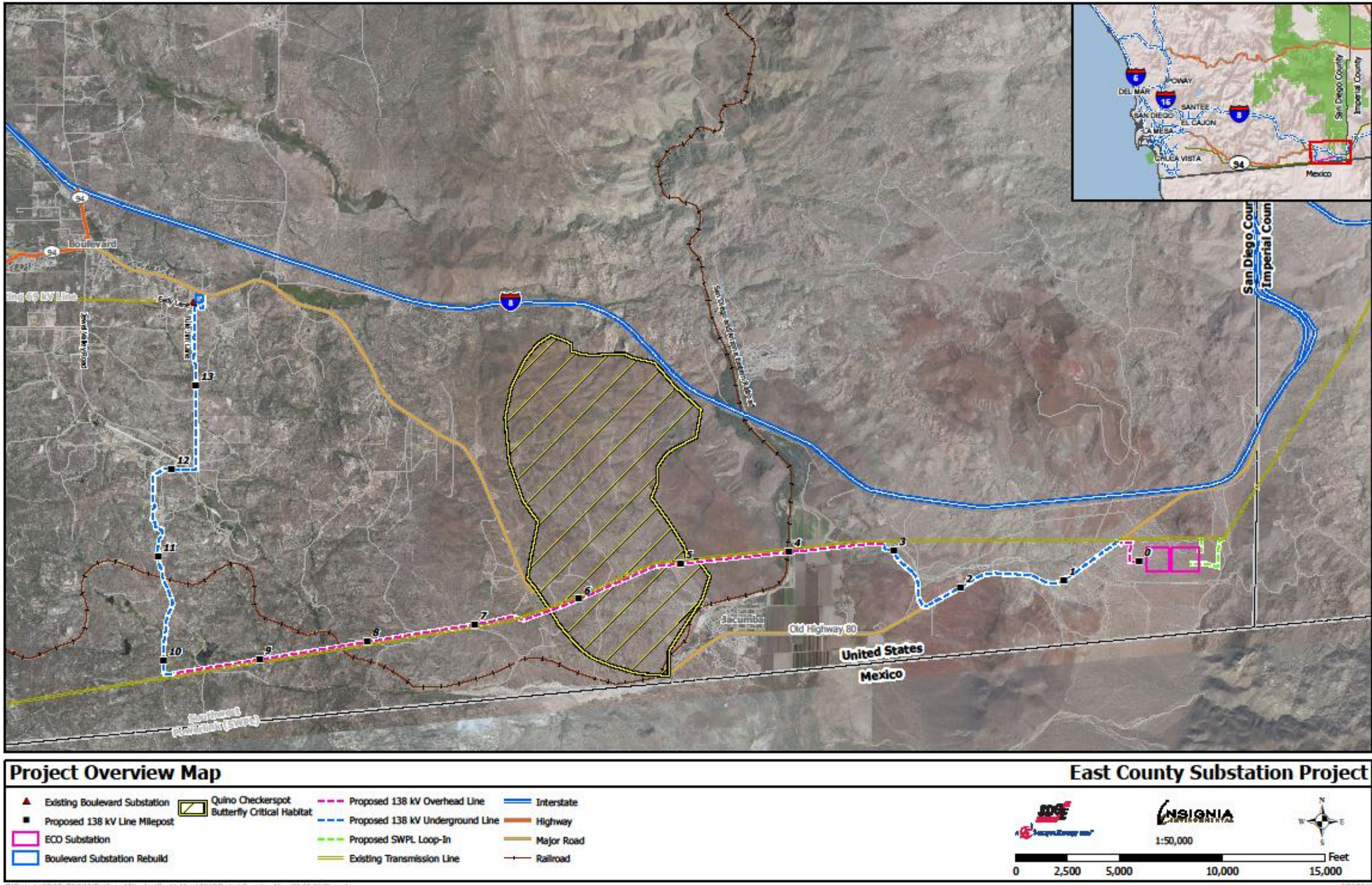


Figure 2 Project APE map.





## **1.1 APPLICABILITY**

The following Management Plan applies to all properties that are considered in the Project as it was approved by the BLM and defined below. The BLM has overall jurisdiction for ensuring the actions stipulated in this Plan are implemented to comply with Section 106 of the National Historic Preservation Act (NHPA), unless otherwise stipulated in the Memorandum of Agreement (MOA) or in the following plan. The CPUC will be consulted on all matters concerning private lands and the regulations set forth in the California Environmental Quality Act (CEQA).

## **1.2 PROJECT APE**

The Area of Potential Effects (APE) is the geographic area or areas, regardless of land ownership, within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The BLM has defined the APE for this Project as an area within which historic properties could sustain both direct and indirect effects. Considering direct effects, the APE includes the Project layout that defines all areas of disturbance (permanent and temporary)—i.e., the Project footprint (see Figure 2). The BLM has applied a 100-foot buffer to all archaeological sites within which a direct effect to a site is assumed. The APE for indirect effects is more expansive in that it considers more than just physical impacts. The indirect APE includes historic properties within one-mile of the direct effects APE identified through Class I and III inventories, those identified in the Native American Heritage Commission (NAHC) Sacred Lands Files, those identified by a consulting party as having significance, and built environment resources located within 0.5 mile of the Project footprint. The Project ROW is also depicted in Figure 2.

## **1.3 REGULATORY CONTEXT**

The Project APE encompasses federal and private land, thus requiring compliance with regulations set forth in the CEQA and the NHPA governing the discovery and treatment of cultural resources.

### **1.3.1 California Environmental Quality Act (CEQA)**

CEQA requires that all private and public activities not specifically exempted be evaluated for the potential to impact the environment, including effects to historical resources. Historical resources are recognized as part of the environment under CEQA. It defines historical resources as “any object, building, structure, site, area, or place, which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (Division I, Public Resources Code, Section 5021.1(b)).

Lead agencies have a responsibility to evaluate historical resources against the California Register criteria prior to making a finding as to a proposed project’s impacts to historical resources. Mitigation of adverse impacts is required if the proposed project will cause substantial adverse change. Substantial adverse change includes demolition, destruction,

relocation, or alteration such that the significance of an historical resource would be impaired. While demolition and destruction are fairly obvious significant impacts, it is more difficult to assess when change, alteration, or relocation crosses the threshold of substantial adverse change. The CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of an historical resource that convey its historical significance (i.e., its character-defining features) can be considered to materially impair the resource's significance.

The California Register is used in the consideration of historic resources relative to significance for purposes of CEQA. The California Register includes resources listed in, or formally determined eligible for some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory may be eligible for listing in the California Register and are presumed to be significant resources for purposes of CEQA unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) consisting of the following:

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

### **1.3.2 National Historic Preservation Act (NHPA)**

The NHPA established the NRHP and the President's Advisory Council on Historic Preservation (ACHP), and provided that states may establish State Historic Preservation Officers (SHPOs) to carry out some of the functions of the NHPA. Most significantly for federal agencies responsible for managing cultural resources, Section 106 of the NHPA directs that "[t]he head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP." Section 106 also affords the ACHP a reasonable opportunity to comment on the undertaking (16 USC 470f).

36 Code of Federal Regulations, Part 800 (36 CFR 800) implements Section 106 of the NHPA. It defines the steps necessary to identify historic properties (those cultural resources listed in or eligible for listing in the NRHP), including consultation with federally recognized Native American tribes to identify resources of concern to them; to determine whether or not they may

be adversely affected by a proposed undertaking; and the process for eliminating, reducing, or mitigating the adverse effects.

The content of 36 CFR 60.4 also defines criteria for determining eligibility for listing in the NRHP. The BLM evaluates the significance of cultural resources identified during inventory phases in consultation with the California SHPO to determine if the resources are eligible for inclusion in the NRHP. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association. The criteria for determining eligibility are essentially the same in content and order as those outlined under CEQA, but the criteria under NHPA are labeled A through D (rather than 1-4 under CEQA).

To facilitate the evaluation of cultural resources in California, the BLM has devised guidelines for inventory and determining the eligibility of prehistoric and historic sites. The guidelines supplement the NRHP criteria for evaluation and provide consistency on BLM lands across the state. These “Cultural Resource Inventory General Guidelines” have been revised to keep pace with current guidance in the field of cultural resource management.

All of described undertakings below will be implemented in accordance with the stipulations defined in the Memorandum of Agreement (MOA), in order to take into account the adverse effect of the undertaking on historic properties, resolve such adverse effects through the process set forth in the MOA, and provide the ACHP with a reasonable opportunity to comment in compliance with Section 106.



## **1.4 MANAGEMENT PLAN STRUCTURE**

Following this introduction, this Management Plan includes a protocol for monitoring in Chapter 2, followed by a protocol for post-review discoveries and treatment of inadvertent effects to a previously recorded or newly discovered site, or unanticipated effects to a site due to a project change in Chapter 3. This Plan describes activities to be performed by Secretary of the Interior-qualified archaeologists.



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## **2. AVOIDANCE MEASURES FOR SITES NOT IMPACTED BY CONSTRUCTION OF THE ECO SUBSTATION PROJECT**

Sites that can be protected from direct impacts, but are within close proximity (within 100 feet) of proposed construction activities will be identified and labeled as ESAs. These sites may include those determined eligible for NRHP or CRHR listing, or others that have not had formal eligibility evaluations.

The ESAs will be designated by marking the boundaries of sites with appropriate buffer zones (generally a buffer of 50 feet beyond the outer limits of the site extent, as demonstrated by surface and/or subsurface indications) using temporary fencing or other easily recognizable boundary defining materials. These areas will be shown on the engineering plans for the Project as off-limits to construction activities. Once established, an ESA will define areas where construction can occur while preventing construction activities and damage to archaeological resources within the marked ESA. ESAs will be established by a qualified archaeologist prior to initiation of ground-disturbing activities and will be maintained for the duration of the work effort in the ESA vicinity, with archaeological monitoring of construction activities required near all ESA locations.

Full-time monitoring by a professional archaeologist will occur during all new construction activities near ESAs. Once the potential for buried archaeological deposits is determined to be low, the professional archaeologist will assure that ESA fencing is maintained throughout the construction activities at the location. The monitors will be qualified archaeologists who are familiar with the types of historical and prehistoric resources that could be present in the Project and will be directly supervised by a Principal Archaeologist. The Principal Archaeologist will be approved by the BLM.

### **2.1 TRAIN CONSTRUCTION PERSONNEL**

Archaeological monitors will be present during initial ground disturbance and construction activity at selected locations based on the occurrence of recorded archaeological sites and ESAs. Training of all Project construction personnel will be conducted prior to the commencement of construction activities. The training program will be designed by ASM and SDG&E in consultation with the BLM, and must be completed by all Project personnel prior to entry into the Project area.

### **2.2 MONITORING BY ARCHAEOLOGISTS**

Full-time monitoring by a professional archaeologist and will occur during all initial ground disturbance and construction activities near ESAs, and in other areas determined appropriate for full-time monitoring. The archaeological monitors will be qualified archaeologists who are

familiar with the types of historical and prehistoric resources that could be present in the Project and will be directly supervised by a Principal Archaeologist. The Principal Archaeologist will be approved by the BLM prior to construction. A monitor can prevent damage to a site by being able to communicate well with others involved in the Project. Duties of the archaeological monitor might involve:

1. requesting excavation work to stop so that new discoveries can be evaluated;
2. sharing appropriate and non-confidential information so that others will understand the cultural importance of the features involved. Disclosure of information may be limited to protect the location of artifacts or features and other sensitive information;
3. ensuring excavation or disturbance of the site is halted and the appropriate laws are followed when human remains are discovered;
4. coordination with the tribal consultants consistent with the Tribal Participation Plan (TPP); and
5. helping to ensure that Native American human remains and any associated grave items are treated with culturally appropriate dignity, consistent with the Native American Graves Protection and Repatriation Act (NAGPRA) or applicable state law.

A monthly monitoring report will be submitted to the BLM for the duration of Project construction. In the event that ESAs require modification, all Project work in the immediate vicinity will be diverted to a buffer distance determined by the archaeological monitor until authorization to resume work has been granted by the BLM or CPUC. SDG&E will notify the BLM or CPUC of any damage to cultural resource ESAs. If such damage occurs, SDG&E will consult with the BLM or CPUC to mitigate damages and to increase effectiveness of ESAs. At the discretion of the BLM or CPUC, such mitigation may include, but not be limited to modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection within or outside the license area, at the discretion of the BLM or CPUC.

### **2.2.1 Monitoring at ESAs**

The establishment of ESAs is one non-destructive means to avoid impacts to recorded cultural resources within the Project area. An ESA will be established to mark areas with a known site that are within 100 feet or less of a proposed construction activity but can be avoided during construction. ESAs may also be established within specific work areas, such as foundation work areas, road segments, pull sites, and construction yards. A 50-foot buffer around these sites will be staked with construction fencing or stakes and flagging prior to construction and will be maintained and monitored during the life of the Project, including construction activities and restoration efforts, to maintain the protective barrier and to report on any violations of the protected areas.

The ESAs will be designated by marking boundaries of known sites or other identified areas with appropriate buffer zones (generally a buffer of 50 feet beyond the outer limits of the site extent, as demonstrated by surface and/or subsurface indications) using temporary fencing or other easily recognizable boundary defining materials. Once established, an ESA will define areas where construction and restoration can occur while preventing activities and damage to



archaeological resources within the marked ESA. ESAs will be established by a qualified archaeologist prior to initiation of ground-disturbing activities and will be maintained for the duration of the work effort in the ESA vicinity, with archaeological monitoring of construction and restoration activities required near all ESA locations.

All archaeological monitors are required to have the basic equipment needed to complete minimal documentation, preliminary evaluation, and recovery of post-review discoveries, including a screen, shovel, and bucket. If the evaluation or data recovery work prescribed is more extensive than the archaeological monitor alone can complete in an expeditious manner, the archaeological consultant will supply additional crew and equipment for the work. All recovered archaeological materials will be taken back to the consultant's laboratory for processing, analysis, reporting, and preparation for curation.

The construction foreman will notify the archaeological monitor at least five days prior to mobilization of work in all areas identified as requiring cultural resource monitoring.

### **2.2.2 Monitoring Reporting for ESAs**

Preliminary archaeological monitoring summaries will be submitted biweekly by the archaeological monitoring consultant to the BLM for review with the intended goal of distribution to all consulting parties by email along with the monthly verification report described below. Preliminary results will include the location of archaeological monitoring activities for the reporting time period, as well as a description of any cultural resources identified and appropriate actions taken. The archaeological consultant will prepare a monthly field monitoring verification report with the compiled archaeological monitor observations, results, and actions taken for submission to the BLM. The report will be submitted to SDG&E, the agencies, and other stakeholders after review by the BLM.

Upon completion of all monitoring tasks and requirements, the archaeological consultant will prepare a monitoring report for the BLM or CPCU and other stakeholders describing the monitoring program and the findings and results, and presenting a detailed professional description, analysis, and evaluation of any cultural resources that were encountered and evaluated during construction. A draft version of this report shall be submitted to the BLM for initial review within three months of completion of all archaeological monitoring tasks and requirements. Once it has been reviewed by the BLM, the draft report shall be provided to all consulting parties for a 30-day review period. The final report will be provided to all consulting parties along with the written documentation of any changes. Non-confidential data will also be disseminated to the public and other interested parties, as appropriate.



### **3. TREATMENT FOR POST-REVIEW DISCOVERIES AND UNANTICIPATED EFFECTS**

In the event of a post-review discovery of archaeological materials within a work area during construction monitoring, all ground-disturbing work at the work area will be suspended. The archaeological monitor will carefully inspect the ground surface around the discovery and the displaced dirt in order to determine whether the discovery constitutes an isolated find (fewer than three items) or a site (three or more items, or a feature). Inspection of the ground surface will consist of an intensive survey of the ground surface at one meter intervals radiating out from the identified artifacts to a minimum distance of 20m, or as limited by topographic features, and will include inspection of all trench sidewalls and spoils piles up to a distance of 20m. The purpose of surveying around the newly discovered artifact(s) is to determine if other artifacts or features are associated, thereby constituting an archaeological site. If no other artifacts or features are identified within 20 m of the find it will be determined to be an isolate (with the exception of human remains). All isolated artifacts will be documented, reported, and described in the monitoring report; all consulting parties will be apprised of such discoveries in the weekly monitoring summaries. All isolated artifacts will be collected.

If the discovery is determined to be a site, after securing the work area from additional disturbance, in concert with the Construction Foreman or Field Supervisor, the archaeological monitor will notify the Principal Investigator (PI), who will notify the BLM or CPUC archaeologist by telephone of the nature and extent of the discovery.

If a newly discovered site can be avoided, it will be designated as an avoidable new discovery (AND), explained in depth below. When post-review discoveries cannot be avoided, the site will be designated as an unavoidable new discovery (UND) and evaluated. Consultation between the PI and the BLM or CPUC will determine what additional fieldwork, such as limited test excavation, is necessary to determine the site's potential eligibility for the NRHP or CRHR. It may be determined that a site visit by the BLM or CPUC is necessary to make that determination. Avoidance and protection of the site is the first strategy; if avoidance is not possible, evaluation will be necessary.

If test excavation is required to evaluate a discovery, the PI in coordination with the BLM or CPUC will formulate and implement a testing program. In general, any evaluation effort will be focused on the area of discovery within the area of impact including a reasonable buffer (not more than 10 meters from the maximum extent of the find). The focus will be to determine the nature of the archaeological resource and to assess the quantity, quality, and variety of preserved archaeological items that are or may be present. Evaluation will include Shovel Test Pits (STPs) of a sufficient number to characterize the extent of subsurface archaeological deposits and a minimum of one Control Unit (CU) to evaluate the condition of the discovery and acquire a controlled sample of the preserved cultural materials.

After the site evaluation, the PI will have five business days in which to prepare a summary letter report assessing the site's eligibility and recommending appropriate treatment measures, such as the need for archaeological data recovery, if the site is recommended eligible. The letter report

will be submitted to the BLM or CPUC, and the consulting parties as appropriate, who will have 10 business days to review the report and evaluate the proposed treatment measures, if deemed necessary. Determinations concerning NRHP or CRHR eligibility and the implementation of proposed treatment measures will be made by the BLM or CPUC. If site areas within the area of direct impact on private property and BLM-administered lands meet the following conditions, they may be determined not contributory to the NRHP/CRHR eligibility of the larger site as a whole, by the BLM in consultation with the CPUC, where necessary, if:

1. The Area of Direct Impact (ADI) lacks intact subsurface archaeological deposits;
2. The ADI lacks chronological data;
3. No human remains are present within the ADI or known on the site as a whole;
4. No intact features are present within the ADI other than bedrock milling stations, lithic chipping stations or historical refuse scatters, determined to be single incident refuse dumps. In addition, prehistoric/Native American surface artifact densities within the ADI shall not exceed 0.5 archaeological specimens per meter square or contain more than three artifact types indicating a diverse assemblage.

No further SHPO consultation will be required for eligibility determinations for site areas that meet the above conditions. Findings that exceed these criteria will be submitted to the SHPO for concurrence for a 10-day review period. If the determination is that the discovered resource does not qualify for nomination to the NRHP or CRHR, the BLM or CPUC will issue written notice-to-proceed for all BLM-administered lands, or in consultation with the CPUC for private lands.

If a discovered site is determined to be eligible for the NRHP or CRHR, further treatment measures will be required. In consultation with the BLM, CPUC, and other consulting parties, the PI will prepare a data recovery plan for BLM review and approval for all BLM-administered land, and for review and consultation with the CPUC for private lands. After review and concurrence, the BLM or CPUC archaeologist will notify the PI that the proposed data recovery can proceed. Data recovery efforts will be focused only on that portion of the site within the area of impact with a reasonable buffer. To the degree possible, the construction and engineering teams will be included in discussions to avoid or minimize potential damage to the discovered resource.

The level of effort will be dictated by the nature and extent of the discovery and on the results of the initial evaluation effort. The focus will be on recovering a sufficiently large sample to characterize the discovery and to address regional research questions, as appropriate. Upon completion of any required fieldwork, the PI will prepare a brief interim letter report summarizing the results. The BLM or CPUC archaeologist will have five business days to review the report and determine whether or not construction work at the discovery can resume or if additional sampling is required. The BLM or CPUC archaeologist in consultation with the other stakeholders will notify SDG&E when work can resume. A final data recovery report will be prepared after laboratory studies and analyses.

The category of AND applies to sites that are identified by the cultural resources monitors during monitoring, but are not in areas of potential direct impact. These avoidable new sites may be an expansion of a previously recorded site or may be a wholly new resource. If the AND is part of

a previously recorded site, it will be mapped and described and the boundary of the site will be modified using a DPR Site Record Update. If the increased site size results in the new site boundary encroaching into a Project work area or into a portion of the Project with the potential for direct impacts, the first alternative will be to explore establishing or modifying the existing ESA to protect the enlarged site area from damage. If impacts to the newly described resource cannot be avoided, it will be treated as a UND and the processes described above will be implemented, as appropriate.

Alternatively, if the AND is not within a Project work area or an area that is vulnerable to direct ground or Project impacts, the data pertaining to the AND will be acquired by the cultural resources monitor and a DPR Site Record or Site Record Update, as appropriate, will be prepared and submitted to the South Coastal Information Center. It will also be described and presented in the final Monitoring Report. If the Avoidable New Discovery is within 100 feet of the Project, an ESA will be established to ensure protection during construction. Avoidable New Discoveries would not require immediate reporting or consultation with the SHPO or other agencies or consulting parties, but will be memorialized as part of the Project data record.

If a previously recorded or newly discovered site is inadvertently damaged, or unanticipated effects to a site due to a project change may occur, the site will be evaluated following the procedure described above for UNDs.

### **3.1 FIELD METHODS**

This section describes in more detail the methods used to conduct evaluations. These methods may also be utilized for site-specific data recovery.

#### **3.1.1 Sampling Approach**

Evaluation methods are essentially sampling methods geared toward recovering a reasonably-sized assemblage to estimate the density and diversity of the cultural deposit, and to expose enough of the site deposit to determine integrity. A general approach is described below, from surface inspection and collection, to the various kinds of subsurface investigation. Considerations of site-specific methods are described next, with particular attention paid to hypothetical plans for unit distribution relative to proposed areas of impact.

The first step in site evaluation is to relocate datums, artifact concentrations, features, and landforms noted on the original site forms. The next step is to conduct regular-interval sweeps of the site surface pin-flagging artifacts, concentrations, and features to confirm original mapped items and site boundaries and establish a real-time visual perspective of site properties. This phase is made more efficient with the use of color-coded pin flags representing diagnostic artifacts, features, etc.

After the site is defined with pin-flags, a surface collection strategy will be implemented; during this phase, prehistoric sites will be treated differently than historic sites. At prehistoric sites, areas containing high enough densities of surface artifacts will be sampled with 15-by-15-meter, controlled surface collections (called a CSC). Each of these CSC units will be divided into a 5-by-5-meter grid, and each grid collected and labeled (A through I). Enough whole grids, and or

portions thereof in some cases, will be collected to ensure the recovery of at least one half of all surface area in the dense artifact concentrations. The CSC units will be supplemented by collection of all formed artifacts identified outside the collected CSC grids. The pin flags will be left in place until site mapping is completed. On sites where there is either no artifact concentration sufficiently dense for the collection of a CSC, or the CSC collections are numerically small, a general site collection will be made to supplement the CSC collection, or in some cases to simply provide some data where the CSC units are not used. The general site collections are essentially random grab samples of the artifacts on the surface.

Four types of units will be used for subsurface excavation. All units have square corners to enable expansion of units to more thoroughly explore deposits. Shovel Test Pits (STPs) are small, 0.5-by-0.25-meter exploratory units excavated in 20-centimeter increments to depths of no more than 80 centimeters, and typically spaced at 10-meter intervals or subjectively placed. STPs are typically used to explore the edges of cultural deposits, providing a positive-negative indication with little reliability in terms of estimating depth of cultural deposits. The second type of excavation unit—Shovel Test Units (STU)—measures one by 0.5 meters in size; STUs can be excavated in 10-centimeter or 20-centimeter levels, generally to depths between 40 and 100 centimeters, and can provide a profile of sediments. The number and placement of STUs will depend upon the distributions of artifacts on the surface. In general, at least one STU will be excavated in each locus, with additional STUs excavated in the artifact concentrations. On most sites at least one STU will also be placed in the areas between the artifact concentrations. If an STU produces a high artifact yield, a larger Control Unit (CU) measuring one meter by one meter will be placed adjacent or near to the STU. CUs will be excavated in standard 10-centimeter levels. The third type of unit is the shovel scrape unit (SSU). Shovel scrape units are rectangular in shape, but vary in size depending on the deposit. Typically a SSU will not be more than 10 centimeters deep, and usually even shallower. These units will be placed where the terrain or other excavations suggested that the depth of deposits is very shallow. As a result, these units will cover larger areas than the STU or CU, with the idea being to increase the excavated volume from the shallow deposits, thereby increasing the quantity of artifacts recovered.

All excavated matrix, regardless of unit type, will be screened through 1/8-in (3 millimeter) mesh. Typically, most of the excavated prehistoric sites will terminate between 40 and 80 centimeters below the surface, when either a calcareous B-horizon or bedrock is typically encountered. Where deeper deposits are discovered, an auger with a 4-inch diameter blade will be used to examine deeper, sub-cultural strata below excavation levels when artifact yields drop to trace quantities. Sidewall profiles will be drawn and photographed where appropriate, with small soil samples taken for Munsell color and constituent classification.

The site will be mapped using a Trimble Pathfinder global positioning system (GPS) receiver with real-time correction capabilities and down to 10-centimeter accuracy to plot all formed artifacts, CSCs, excavation units (STUs and CUs), and the boundaries of any defined loci and features. The GPS will also be used to record site boundaries, landform edges, drainages, roads, and other relevant surface information. In addition to the mapping, a series of overview photographs will be taken to show the site landscape situation. Photographs will also be taken of features or other site attributes when appropriate.

## **3.2 LABORATORY METHODS**

Laboratory work will include standard processing and cataloging of the materials recovered in the field, and special studies to address the program's research issues.

### **3.2.1 Standard Processing, Cataloging, and Analysis**

Initial lab procedures include cleaning (as appropriate), sorting, and cataloging of all items. Each item will be individually examined and cataloged according to class, subclass, and material, counted (except for bulk invertebrate and vertebrate remains) and weighed on a digital scale. Very large items, such as oversized ground stone, will be weighed on a dial scale. All coded data will be entered into a Microsoft Access database. Data manipulation of a coded master catalog combining all sites will be performed in Microsoft Excel.

The cultural material will be sorted during cataloging into the following categories: 11 classes of prehistoric artifacts, two classes of ecofacts, ethnohistoric items, historic and modern items, and organic samples. The prehistoric artifact classes included debitage, cores, utilized flakes, retouched flakes, bifaces, percussing tools, ground stone, ceramics, bone artifacts, shell artifacts, and miscellaneous items.

When possible, cores will be separated by platform variability into subclasses such as multidirectional, unidirectional and bifacial types. Debitage, including both flakes and debris, will be sorted by material type and cortical variation (primary, secondary, and interior) during cataloging. The classification of flaked stone tools will be determined by typology and production technology. Simple Flake tools (i.e., unmodified utilized flakes) will be identified based on the presence of macroscopic use-wear traces. Retouched tools include scrapers, graters, notched pieces, and other edge-modified flakes. Bifaces include projectile points, drills, and standard non-patterned bifaces. Length, width, and thickness measurements will be taken for all tools and cores using a sliding caliper.

Percussing tools, including hammers and abraders, will be defined based on their morphology and the type of macroscopic use-wear they exhibit. Ground stone artifacts will be classified by type, including millstones and handstones. Length, width, and thickness measurements will be taken on complete ground stone items.

Organic artifact classes (ecofacts) consisted of vertebrate and bulk shell specimens. After bulk shell is cataloged, it will be sorted to taxon and coded into an Access subcatalog. Modified bone and shell artifacts will be separated from the unmodified bone and shell assemblages. Historic and modern items will be cataloged and identified as specifically as possible, but further study may not be undertaken if none are of ethnohistoric origin. Finally, other organic samples will be cataloged by type.

After preliminary cataloging of the material is completed, more detailed attribute analysis of lithics and groundstone will be performed. Stone artifacts (both flaked and ground) will be individually analyzed for selected morphological and technological attributes, as well as material

and condition, in an attempt to gain insight into the period of occupation and the range of activities undertaken. Specific analytical methods will be described in analytical results section. All artifacts, ecofacts and samples will be subject to appropriate conservation in the field and laboratory including proper packaging and handling.

### **3.2.2 Special Studies**

Special studies to address the research objectives of the data recovery program may include radiocarbon dating, obsidian hydration dating, x-ray fluorescence analyses, and protein residue analysis.

#### **Radiocarbon Dating**

If organic samples are recovered that are appropriate for dating either human activity at the site or natural Holocene depositional events at Lake Cahuilla, they will be submitted to an appropriate laboratory for radiocarbon measurement. A maximum of four samples may be submitted.

#### **Obsidian Hydration Analysis**

If suitable obsidian artifacts are recovered, samples will be submitted to an appropriate laboratory for hydration measurement. A maximum of four samples may be submitted.

#### **X-ray Fluorescence Analyses**

A sample of brownware ceramic sherds will be subject to x-ray fluorescence analysis to attempt to distinguish sherds produced in the Colorado Desert from sherds produced in the Peninsular Range. If obsidian or wonderstone artifacts are recovered, samples may be subject to x-ray fluorescence analysis to identify ratios of trace elements and to match these ratios to those for materials from the potential geologic sources. A maximum of five samples will be analyzed.

#### **Protein Residue Analysis**

If flaked or ground stone tools that are suitable for protein residue analysis are recovered, samples will be submitted to an appropriate laboratory. A maximum of four samples will be submitted.

## **3.3 REPORTS**

Documentation of sites will comply with the reporting specifications in the BLM 8100 Manual guidance as stipulated in the BLM Cultural Resources Use Permit and Field Authorizations for this Undertaking, and to every reasonable extent with the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-44740), as well as the *California Office of Historic Preservation Planning Bulletin Number 4(a)*, December 1989, *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (ARMR Guidelines) for the Preparation and Review of Archaeological Reports*.

All excavation unit and artifact locational information shall be placed in a separate, confidential appendix (or appendices) to the report. Reports shall first be submitted in draft form, in a format



as close to the final report as possible, including copies of photographs (photocopies are acceptable for the draft report), maps, figures, and tables. The BLM and other authorized interested parties will be afforded the opportunity to review the draft report and to access the evaluation data, as needed and when requested. This will be coordinated through the BLM. Based on review comments, the draft report shall be revised and a final report shall be submitted.

### **3.4 MANAGEMENT AND TREATMENT OF HUMAN REMAINS**

ASM will record the presence of the bone and make a tentative, unofficial assessment of the likelihood of its being human. If the bone is determined to be human by the PA, in coordination with the BLM or CPUC, the County Coroner or the appropriate federal official will be notified. All remains will be left in place and protected until it can be examined by the Medical Examiner.

If Native American human remains, sacred objects, or items of Native American cultural patrimony are encountered, direction will follow the Native American Graves Protection and Repatriation Act (NAGPRA) on federal property and the 36 CFR 800.4, as well as state laws (California Public Resources Code 5079.98) on non-federal property. All NAGPRA consultation will be carried out by BLM. Immediate telephone notification will be made to the appropriate agency, followed by written confirmation.

### **3.5 CURATION**

Prior to the commencement of construction, SDG&E will establish a curation agreement for the permanent curation of all cultural resources collected during archaeological work associated with the ECO Substation Project, preferably with the Imperial Valley Desert Museum or a federally recognized curation facility. Cultural materials recovered from private land will be covered by a waiver signed by the individual property owners as part of the right-of-way and easement negotiations with individual private property owners.



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## 4. SUMMARY

This Management Plan for Archaeological Monitoring, Post-Review Discovery, and Unanticipated Effects describes the protocol for construction monitoring of cultural resources and the evaluation and treatment of post-review archaeological discoveries. Qualified archaeological monitors will be present to observe all ground-breaking activity near archaeological sites to ensure adherence to exclusionary zones. Exclusionary fencing will be used to protect sites that have construction activity within or near to 100 feet around the site boundary. All construction personnel will receive cultural resources training to ensure awareness of the archaeological sensitivity of the Project area. Unavoidable post-review discoveries will undergo formal archaeological evaluation to determine the extent and character of newly identified cultural deposits for the purposes of supporting recommendations of NRHP or CRHR eligibility. This Management Plan also describes methods for the evaluation and treatment of inadvertent damage to previously recorded or newly discovered site, or unanticipated effects to a site due to a project change.



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