

**ENERGY AND PERSISTENCE CONQUER ALL THINGS:
ASSESSING THE CULTURAL RESOURCES ALONG THE
SUNRISE POWERLINK TRANSMISSION LINE CORRIDOR**

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The Sunrise Powerlink project is a 190-km 230-kV/500-kV transmission line traversing from San Diego Gas & Electric Company's (SDG&E) Imperial Valley Substation near El Centro in Imperial County to SDG&E's Sycamore Canyon Substation near Interstate 15 in coastal San Diego County. Seven hundred and twenty-one (721) cultural resources (436 sites and 285 isolates) were identified along the route, including prehistoric artifact scatters, habitation sites, bedrock milling sites, rock features, and isolates, as well as historic sites and isolates, and multicomponent sites. While there was little evidence of Early-period (Paleoindian or Archaic) occupation along the route, Late-period occupation and landscape use was documented. This paper will use information from ethnographic sources to inform us about Late Prehistoric landscape use along the project route.

The Sunrise Powerlink (SRPL) Final Environmentally Superior Southern Route (FESSR), a 190-km 230kV/500kV transmission line that will traverse from SDG&E's Imperial Valley Substation near El Centro, Imperial County, to its Sycamore Canyon Substation near Interstate 15 in coastal San Diego, was approved by the California Public Utilities Commission (CPUC) in December 2008 and by the U.S. Department of the Interior (USDI) Bureau of Land Management (BLM) in January 2009 (Figure 1). The approved SRPL consists primarily of new electrical transmission lines between the Imperial Valley Substation and the western portion of SDG&E's service area in San Diego, as well as a new substation (Suncrest) in central San Diego County and a number of other system upgrades and modifications. The BLM, in consultation with the State Historic Preservation Officer (SHPO) and other consulting parties, determined and documented the APE as consisting of an alignment encompassing approximately 8,478 acres.

The Area of Potential Effect (APE) included an 800-m (1/2-mi.) area around the approved project centerline to address indirect visual impacts on potentially eligible historic structures. Within this APE, the survey corridor or Area of Direct Impact (ADI) for the project is defined as encompassing a minimum of 90 m (300 ft.) (45 m on each side of centerline for the right-of-way). ASM's Class III intensive pedestrian survey corridor totaled approximately 10,181 acres and consisted of the portions of the survey corridor not previously intensively surveyed by SWCA Environmental Consultants (SWCA) and Gallegos and Associates from 2006 to 2008 as part of the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) studies (Aspen Environmental Group 2008; Hunt 2008; Noah and Gallegos 2008). However, the data collected by SWCA and Gallegos is incorporated into this study.

METHODS

A detailed research design was developed for a previous phase of the project by Anna C. Noah and Dennis R. Gallegos (2008). Issues relating to prehistoric regional chronology, settlement and subsistence, trade and travel, lithic technology, and cultural identity were discussed.

For the SRPL FESSR Project, an intensive cultural resources inventory was completed in order to adequately identify and describe specific cultural resources in the proposed survey corridor. These surveys were used to precisely document the locations of surface (horizontal) cultural resource boundaries within the SRPL survey corridor. Such surveys entailed the documentation of the types of resources that

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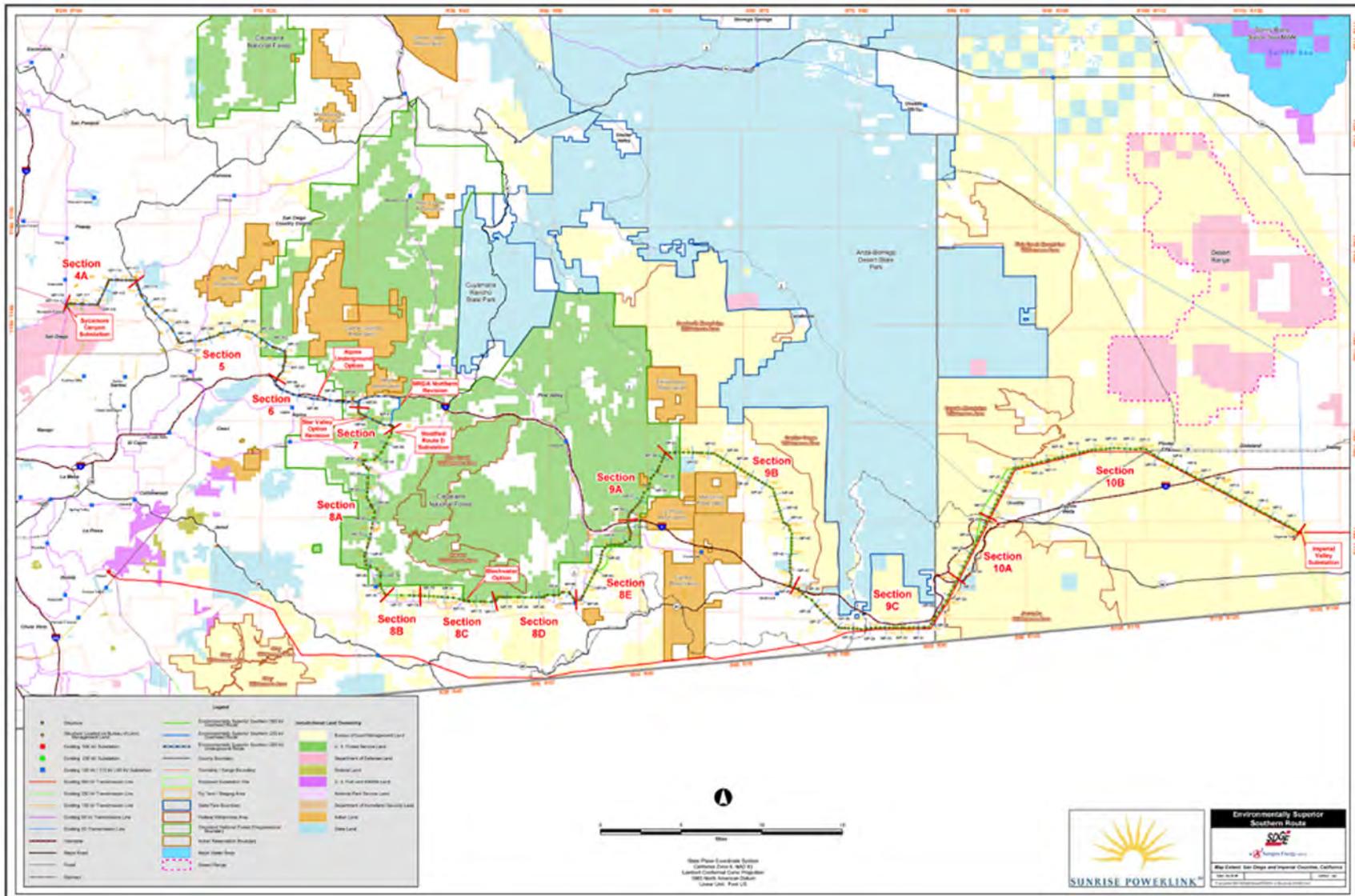


Figure 1. Project location.

are present, the precise locations and boundaries of all identified properties, the method of survey (including the extent of survey coverage), and data on the appearance, significance, and integrity of each resource based on surface observations (National Park Service 2009). For this project, full-coverage (100 percent), systematic surveys with transect intervals no greater than 15 m were completed. In areas where previously recorded sites are mapped, a survey interval of less than 5 m between team members was used as a means of identifying previously recorded surface artifacts and features.

High-precision Trimble global positioning system (GPS) units aided in navigation. Together with hard-copy field maps, GPS units were used to keep the field crew aware at all times of the limits of the survey corridor, locations of previously recorded sites, and areas of non-BLM land ownership. This field device was also used to record the datums of cultural resources encountered during the survey, to a decimeter level of accuracy.

Local Native American representatives participated in this Class III field survey for the SRPL Project. Multiple tribes expressed interest in having tribal consultants involved with Class III survey. With their consent, Native American input during the survey was documented in the daily survey logs. Two Tribal consultants accompanied each of ASM's two four-person crews. The participating Native American consultants walked along with crews during the pedestrian survey and provided ASM with information regarding specific areas of tribal concern encountered during the survey, as appropriate. Although the consultants themselves did not survey, they did assist ASM staff with the identification of cultural resources. Representatives from the Campo, La Posta, Manzanita, and Viejas reservations participated in the field survey. Their comments are addressed in the SRPL inventory report (Garcia-Herbst et al. 2010).

In addition to the survey process, several consultation meetings have been held by the BLM with consulting tribes to disseminate the results of the inventory as well as to discuss the project's Historic Properties Management Plan. Additionally, the BLM has hosted several site visit field trips for tribal representatives. As a result, several areas have been identified as areas of tribal concern. Tribal members have expressed a desire to participate in monitoring of fieldwork and are concerned that surveys and buried site testing take place prior to any construction. Tribes indicated that they would like cultural resources protected and would like to continue to participate in the process regarding the identification and evaluation of cultural resources within the project. Tribes indicated that all sites should be avoided, most especially those with human remains, although some representatives expressed a desire to have human remains carefully removed and repatriated. Geographic areas of concern include the Plaster City area, Coyote Mountain, Sugarloaf Mountain, the Jacumba Valley and Jacumba Peak areas, McCain Valley, the Border Patrol Station area near La Posta, the Long and Round Potrero areas, the Suncrest Substation area, and El Capitan Mountain. The meeting notes and site visit comments are compiled in Confidential Appendix G in the inventory report (Garcia-Herbst et al. 2010).

SITE CLASSIFICATION

The primary objective of the survey was to provide descriptive information on the cultural resources in the project area, rather than to propose interpretations of them. However, the use of a basic typological framework to characterize the sites helped in efficient management of the diverse resources that are present in the study area.

Prehistoric site types in the survey area include:

- *Habitation Sites*. These are relatively substantial deposits, typically including at least three different types of cultural evidence, such as flaked lithics, ground stone, ceramics, faunal remains, features, fire-affected rock, and midden. They are likely to represent overnight occupations by a social unit larger than an individual, more likely a small task group, probably over an extended period or on repeated occasions. There are different types of habitation sites considered, including 1) short-term-use "locations or stations" that were occupied for a short duration, such as a hunting

party camping overnight, and 2) medium- and long-term-use habitation sites, which would generally represent the most complex type of archaeological assemblage and would typically be expected to include subsistence debris in the form of animal bone, and under many circumstances, developed midden.

- *Bedrock Milling Sites.* These are sites that consist primarily or exclusively of bedrock milling features (mortars, basins, and/or slicks) developed on naturally occurring, low-lying boulder surfaces. They are interpreted as work stations used to process materials, probably in most cases hard plant food resources such as seeds or acorns.
- *Lithic Scatters.* These consist primarily or exclusively of flaked lithic materials, such as debitage, cores, and tools. They represent areas where stone tool raw materials were procured (such as quarries), as well as where stone tools were manufactured or reworked, ranging from heavily used workshops to flaking stations where activity was more casual and transient.
- *Ceramic Scatters.* These consist primarily or exclusively of ceramic potsherds. They may range from potdrops, where a single vessel was dropped or pieces were discarded, to extensive, multiple-vessel scatters that may represent habitation, resource processing, or pottery manufacturing.
- *Artifact Scatters.* These sites generally contain a combination of lithic, ceramic, and/or ground stone scatters, but do not contain additional debris indicative of longer-term habitation, such as faunal remains or fire-affected rock.
- *Rock Features.* Rock rings, cleared circles, cairns, and roasting pits may occur in isolation from other remains, or they may be found as elements within other site types, such as habitation sites.
- *Trails.* Sections of trails are most likely to be observable in the eastern extreme of the project area. They occur as linear features within desert pavements that are largely cleared of larger rocks through repetitive trampling. Trails may be associated with other remains, such as potdrops or small lithic scatters, and they may cross more substantial habitation sites or work areas.
- *Isolates.* Occurrences of one or two prehistoric artifacts within a 25-m² area are classified as isolates. As a rule, such remains do not require formal recording or further consideration within the resource management process. Isolated artifacts do provide some indication of the presence or intensity of prehistoric human presence in an area, however.

Historical-period sites are likely to be both functionally more diverse and more readily interpretable. Among the types that occur in the study area are buildings and structures, refuse scatters, transportation routes and facilities, mining sites, and historical isolates. Remains that are not recognizably more than 45 years old are not normally treated as potential historic properties and are not recorded.

Another type of resource that may be present in the survey area is the Traditional Cultural Property (TCP). A TCP is defined generally as one that is eligible for inclusion in the National Register of Historic Places (NRHP) because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (Parker and King 1998). Examples of properties possessing such significance would include:

- a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
- a rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents;
- an urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;

- a location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and
- a location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historical identity.

FINDINGS

During the current survey, of the 522 previously recorded cultural resources (both sites and isolates) in the ADI, based on the records search, 213 were identified by ASM (186 are sites, and 27 are isolates). An additional 54 previously recorded cultural resources were identified by SWCA and Gallegos in the ADI but were not revisited, visually inspected, or updated by ASM (50 are sites, and four are isolates). ASM newly documented 454 cultural resources within the ADI (200 are sites, and 254 are isolates).

Of the 200 sites newly identified by ASM in the ADI, 158 are prehistoric (56 lithic scatters, 49 bedrock milling sites, 32 artifact scatters, 10 ceramic scatters, 6 rock features, and 3 habitation sites), 35 are historical sites, and 9 are multicomponent sites. Of the 254 isolates newly identified by ASM in the ADI, 223 are prehistoric, 28 are historical, and three are multicomponent isolates.

Combining the 213 cultural resources previously recorded by Gallegos or SWCA that were identified by ASM in the ADI, the 54 cultural resources previously documented in areas surveyed by Gallegos or SWCA within the ADI that ASM did not revisit, and the 454 resources newly recorded by ASM, there are a total of 721 cultural resources within the ADI (436 sites and 285 isolates).

Preliminary assessments of the significance of cultural resources identified during the present study were made to the extent possible, in order to provide recommendations for avoidance of project impacts to resources that are likely to be significant. For the purposes of the current study, all of the previously unevaluated archaeological sites within the ADI of the APE have been categorized as “unevaluated,” and for management purposes are being treated as eligible under NRHP criteria, and “historically significant” or potentially eligible under California Register of Historical Resources (CRHR) criteria. The isolated finds in the ADI are considered ineligible for the NRHP and “historically not significant” or ineligible for the CRHR. Based on the current analysis, of the 721 cultural resources within the SRPL FESSR ADI, 307 (primarily isolated finds) are recommended as ineligible; 407 have not been evaluated as to their eligibility; five sites are recommended as eligible; one site, CA-SDI-5933, is ineligible for the CRHR and unevaluated for the NRHP; and one is listed in the NRHP/CRHR (P-13-012244, the Fages-De Anza Trail).

Additionally, the Table Mountain and Yuha Basin archaeological districts that are listed on the NRHP are near the SRPL project APE, and the proposed Jacumba archaeological district that has been recommended as eligible for the NRHP is within the ADI.

The Coyote Mountain and Table Mountain (north of Jacumba) areas have been designated by the BLM as Areas of Critical Environmental Concern (ACECs), affording them protection. An ethnographic study for the Southwest Powerlink project (Woods 1982) and government-to-government consultation with local tribes regarding the current project have identified the Coyote Mountain, In-Ko-Pah Gorge, Sugarloaf Mountain, Jacumba, and Round Potrero areas as areas of tribal concern; however, only the Jacumba area has been previously evaluated and recommended as an archaeological district. The other areas have not yet been evaluated for eligibility to the NRHP.

As currently designed, a total of 30 cultural resource sites are within the ADI and cannot be avoided by project redesign. The remaining sites are within the project ADI, but because of the nature of this project, they are not within areas where there is any anticipated direct construction or maintenance related impact, or the proposed construction actions can be limited to avoid direct ground disturbance

within the site boundary. The two listed districts are not affected by this project; however, the one proposed district (Jacumba) will be impacted by the project.

Site Type Summaries by Project Link and Segment

The discussion of the findings is organized according to SDG&E's link and section naming conventions for this transmission line. It begins with Link 1, Section 10B at the eastern limit, which is the existing Imperial Valley Substation, and ends with Link 5, Section 4A at the west, which is the existing Sycamore Substation.

The most commonly represented prehistoric site types recorded for the Link 1 sections (10B, 10A, 9C, and 9B), primarily on BLM property, are lithic scatters. There is more limited evidence of artifact scatters, bedrock milling sites, habitation sites, ceramic scatters, rock features, and rock art in Link 1. The lithic scatters, ceramic scatters and artifact scatters tend to occur more frequently in Sections 9B, 9C, and 10B, at either end of the link. Five segments of trail documented in Sections 10B and 10A run generally in an east-west direction, implying transit between the desert and the mountains. Section 10A has the lowest frequencies of all site types in this link, probably due to the formidably rugged landscape in this area (Mountain Springs Grade). Historical site types include refuse scatters, mines, trails, rock features, railroads, roads, bridges, dams, structures and markers.

Bedrock milling sites are the most commonly represented site types recorded for the Link 2 sections (9A, 8E, 8D, 8C, 8B, and 8A), primarily located on U.S. Forest Service property. However, lithic scatters were also documented, as well as limited evidence of artifact scatters, ceramic scatters, and rock features. Habitation sites are scarce in this link. The lithic scatters, ceramic scatters, and artifact scatters tend to occur more frequently in the eastern sections (9A, 8E, 8D, and 8C). The western sections (8B and 8A) have the lowest frequencies of all site types in this link. Historical site types in this area of the project include refuse scatters, rock features, structures, trails, water features, and roads.

The most common site type in Link 3, the Suncrest Substation project area, is prehistoric bedrock milling sites. The historical site type is a refuse scatter.

There is no single site type that is the most commonly represented in Link 4. Prehistoric lithic scatters, ceramic scatters, artifact scatters, bedrock milling sites, and habitation sites are present in this link in low numbers (one each). There are no prehistoric trails or rock features, or historical sites, identified in this link.

Bedrock milling sites are the most commonly represented site types recorded for the Link 5 sections (7, 5, and 4A), primarily in Sections 7 and 5, but they are present in all sections. However, limited evidence of lithic scatters, ceramic scatters, artifact scatters, and habitation sites is also present. There are no trails or rock features identified in this link.

DISCUSSION

This section provides a discussion of prehistoric site formation processes, chronology, prehistoric subsistence-settlement organization and site function, trade and travel, lithic technology, prehistoric cultural identity, and documented ethnographic and historic Native American landscape use.

Evaluation of Prehistoric Site Formation Processes

Many types of postdepositional processes can alter the context and character of prehistoric sites (e.g., Gross and Robbins-Wade 2008; Schiffer 1987; Waters 1992). Processes such as alluvial deposition, fluvial erosion, bioturbation of sediments by rodents, cattle ranching (trampling), and farming (plowing) can alter site integrity. Therefore, a careful delineation of the horizontal and vertical archaeological contexts of sites through subsurface testing is often necessary to assess their research potential. At the Class III inventory level, only surface horizontal context data regarding site integrity were collected,

although some assessments were made of the apparent condition (integrity) of the archaeological resources in the study area.

Such postdepositional processes may have destroyed site constituents entirely or partially in several cases, where cultural resource finds that were originally identified as sites were reclassified by ASM as isolates during this survey. However, these same processes may have also helped to uncover additional artifacts in several cases, where finds were once identified as isolates, and ASM documented additional artifacts and reclassified these locations as sites.

Chronology

Chronological issues are an important part of any archaeological research strategy and provide a basis for examining other research issues, including behavioral processes (Binford and Binford 1968; Schiffer 1987; Thomas 1979). Accurate dating estimates provide an important means by which to address a variety of research topics. During this project, considerable attention was placed on the recovery of data regarding time-sensitive artifacts. Site age was assigned based on the presence of diagnostic artifacts and/or features.

There was minimal evidence of Early-period (Pleistocene and Early/Middle Holocene; Paleoindian or Archaic) occupation in the project area. Only one site identified within the survey corridor (SDI-17,829) produced diagnostic artifacts that are characteristic of the Archaic period.

However, Late-period occupation indications are extensively documented among the identified sites in the study area. All of the other prehistoric sites with diagnostic artifacts on the surface date to the Late period, including brownware and buffware ceramics that date to after A.D. 600 (Griset 1996), Cottonwood points that date to after A.D. 900 (Heizer and Hester 1978; Warren 1984), and Desert Side-notched points that date to the Late period, most likely after A.D. 1100 (Heizer and Hester 1978; Jennings 1986). In order to complete a more accurate assessment of chronology, collection of representative samples of buffware and brownware from representative sites is recommended. In addition, this assessment of associated occupation period is solely based on surface indications, and it is possible that these sites represent multiple cultural traditions, with only the most recent, Late Prehistoric, represented on the surface.

Prehistoric Settlement, Subsistence, Trade, and Travel

General patterns concerning prehistoric subsistence strategies across the project alignment arise from site types identified within different environmental contexts and discussed in a previous section, organized by section and link.

Link 1, Sections 10B, 10A, 9C, and 9B. The site type pattern recorded for the Link 1 sections appears to be consistent with Late-period resource processing and tool making sites, as well as more limited evidence of habitation. Ceramic scatters may be indicative of water or material transport (or possibly cremation). However, food processing was also incorporated into the land use in the Link 1 sections where bedrock surfaces were available and suitable for milling (primarily in Sections 9B and 9C). Five sections of trail documented in Sections 10B and 10A run generally in an east-west direction, implying travel between the desert and the mountains. Historical land use focused primarily on mining activities and is discussed in a separate report (Ní Ghabhláin et al. 2010).

Link 2, Sections 9A, 8E, 8D, 8C, 8B, and 8A. The site type pattern recorded for the Link 2 sections appears to be consistent with Late-period food processing where bedrock surfaces were readily available and suitable for milling. However, resource processing and tool making were also incorporated into the settlement system in the Link 2 sections, as well as more limited evidence of temporary camps. Formal village sites are sparse in this link. Historical land use focused primarily on homesteading and is discussed in a separate report (Ní Ghabhláin et al. 2010).

Link 3, Suncrest Substation. The prehistoric land use in this link is consistent with Late-period food processing in an area where bedrock surfaces are readily available and suitable for use as milling surfaces. Evidence of historical land use is sparse and consists of a single refuse scatter.

Link 4, Section 6. The site type pattern recorded for the Link 4 sections appears to be consistent with a mixed settlement practice. Limited evidence for resource processing, tool making, and use of temporary camps was incorporated into the settlement system in Link 4. Evidence of historical land use was not recorded in this section.

Link 5, Sections 7, 5, and 4. The site type pattern recorded for the Link 5 sections appears to be consistent with Late-period food processing where bedrock surfaces are readily available and suitable for milling (primarily in Sections 7 and 5, but present in all sections). However, resource processing and tool making were incorporated into the land use in the Link 5 sections, but limited evidence of habitation is present. Historical land use focused primarily on transportation, mining, and residential use and is discussed in a separate report (Ní Ghabhláin et al. 2010).

Lithic Technology

There were insufficient data collected during the current study to test hypotheses about lithic technology based on survey-level field observations. Sites such as quartz quarries (SDI-7044, SDI-8440, SDI-12,838A, SDI-19,865 [BC-25], SDI-19,870 [BW-85], and BW-I-125) were few, and ground stone manufacturing sites were nonexistent in the project area. Sites with the potential to address the research questions were rarely documented during the survey. In general, quartz was obtained locally at outcrops along the project corridor. Metavolcanic raw materials were likely transported to sites in the project area from the Santiago Peak Formation of the western foothills of the Peninsular Ranges or obtained locally in the Jacumba area, while obsidian likely was transported from the Obsidian Butte source in the Imperial Valley. The San Diego Archaeological Center was consulted by ASM staff about the clear chert with orange and black speckles that was recorded at IMP-10852 (BC-50) and was shown on the 2010 California Archaeology Month poster. They noted that this chert type was Santa Barbara chert and sourced to Palos Verdes. Steatite was most likely transported from a source on Mount Laguna. A deposit of hematite near the mouth of Carrizo Canyon is an ethnographically documented source of pigment (Woods 1982).

Cultural Identity

There are limited data within the SRPL FESSR to discriminate differences in roasting pit designs between regions ($n = 88$; all in Link 1, Sections 9C and 10A, within four sites), based on the research design that was developed for an earlier phase of this project (Noah and Gallegos 2008; Iversen et al. 2009). SDI-6115 has 18 roasting pits documented on the original site form with no descriptive information or dimensions. ASM was able to identify only one of four roasting pits originally recorded at SDI-6116 (measuring 7.4 by 6.3 m), and its shape is roughly round. ASM identified all 50 roasting pits documented by SWCA at SDI-7074. Of these, 17 are oval-shaped and 33 are round, and they range in size from 2 by 2 m to 16 by 11 m. IMP-10,859 (BW-20) has one documented roasting pit (measuring 5 by 5 m) that is round in shape. With the bulk of this sample coming from three archaeological sites in the Jacumba area ($n = 87$) and one site in the Mountain Springs Grade area ($n = 9$), there are not enough data to address regional differences in roasting pit design.

Additionally, there are limited data within the SRPL FESSR to discern ethnographic territory delineation based on projectile point type ratios ($n = 50$), but some generalizations can be made about culture contact between mountain Kumeyaay and desert Quechan, based on the research design. In section 10B, the one projectile point identified does not align with a definitive point type (IMP-4354). Section 10A has one Cottonwood Triangular point at IMP-10,852 (BC-50) and three untyped points at IMP-4724. Section 9C has a slightly higher number of projectile points overall ($n = 9$), with four untyped points at SDI-6893/16,823, SDI-7043/7044, SDI-7073/7083/8306, and SDI-9153; two Cottonwood

Triangular points at SDI-4701 and SDI-7060; and three side-notched points at SDI-6904, SDI-19,882 (9C-3), and SDI-19881 (9C-20). This concentration of a diversity of point types in the Jacumba area is consistent with the area's ethnographic use as a trade center for the mountain Kumeyaay and is suggestive of culture contact or trade with the desert Quechan.

Section 9B saw a decrease in the presence of point types, with three points with no identified point types at SPBB-S-1, one dart point that is likely from the Archaic period at SDI-17,829, and three Desert Side-notched points at SDI-19,001/19003 and SDI-19,865 (BC-25). Section 9A has no recorded projectile points, but Section 8E has one side-notched point at SDI-19,837 (SPNB-S-3). Section 8D also has no recorded points, while Section 8C has one point with no identified point type at SDI-19,804 (BW-112). Section 8B contains no recorded projectile points, but Section 8A has one point with no identified point type at SDI-19,787 (BW-88) in the Hermes reroute, and one Cottonwood point at SDI-19,792 (BW-163).

The Modified Route D Alternative in Section 7 has the highest number of recorded projectile points (n = 23) along the entire SRPL project area, all located at one site (SDI-6706, Viejas Village). There are 11 Cottonwood Triangular points, one Desert Side-notched Point, one Sonoran point, and 10 points with no identified point type. Sections 6 and 4 have no recorded projectile points, but Section 5 has one Desert Side-notched point (SDI-13,652). This distribution of Desert Side-notched points suggests that culture contact or trade between the mountain Kumeyaay and desert Quechan may have extended as far west as the Peninsular Range foothills within the SRPL project area.

In addition, the extensive number of bedrock milling (n = 102) and habitation sites (n = 18) identified in the SRPL project area has the potential to address questions of ethnographic territorial boundaries and distribution, based on the research design. However, gathering data to address these questions would require subsurface testing.

Native American Landscape Use

Kumeyaay and Quechan landscape use in the eastern part of the project area was documented as part of the Southwest Powerlink project (SWPL) (Woods 1982). The area from the Imperial Valley to Mountains Springs Grade in the eastern part of the project area was used primarily as a travel and transition zone between the Colorado Desert area and the mountains for the mountain Kumeyaay and desert Quechan people. This was an area to roast agave, hunt mountain sheep, and camp while traveling along established trails running through the Mountain Springs Grade. The valley of Jacumba and surrounding mountains was one of the most important Kumeyaay resource extraction, trade, and primary habitation areas. There were major village sites, sacred springs, and evidence of a major trade conduit. The valley and surrounding regions in Jacumba were used for agriculture, plant gathering and extraction of mineral products. The remainder of the project area crosses the Peninsular Ranges, and land use by the Kumeyaay in this region was focused primarily on gathering of acorns, pine nuts and grass seeds, as well as hunting, during the summer months. These patterns of landscape use are useful in helping archaeologists interpret the prehistoric cultural remains documented along the project area, as well as to assess how much has been destroyed over time due to modern development in San Diego and Imperial counties.

CONCLUSION

The opportunity to learn more about the prehistory and history of this region through the study of the Sunrise Powerlink project area could help archaeologists better understand the dynamics of regional and seasonal transhumance, as well as long-distance exchange networks in the region over time. It is ASM's hope that with future planned surveys along SDG&E transmission lines that our understanding of San Diego and Imperial county prehistory will continue to grow.

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