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Project Title:	Soda Mountain Solar
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Document Title:	Section 3-5 Cultural Resources
Description:	This Section evaluates the direct, indirect and cumulative impacts the Project may have on cultural resources and identifies any required Applicant-Proposed Measures (APM) and any required Mitigation Measures.
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3.5 CULTURAL RESOURCES

This section evaluates impacts to cultural resources that may result directly or indirectly from the project. The analysis in this section describes the applicable regulations, presents an overview of existing conditions, identifies the criteria used for determining the significance of environmental impacts, lists applicant-proposed measures (APMs) that would be incorporated into the project to avoid or substantially lessen potentially significant impacts to the extent feasible, and describes the potential cultural impacts of the proposed project. The analysis is based on a review of existing resources, technical data, and applicable laws, regulations, plans, and policies, as well as the following technical reports prepared for the project:

- *Archaeological Resources Assessment of the Soda Mountain Solar Project for an Environmental Impact Report*, SWCA Environmental Consultants (under review with BLM) (Appendix F)
- *Historical Resources Assessment Report for the Soda Mountain Solar Project*, San Bernardino County, California (under review with BLM) (Appendix G)

It should be noted that the two SWCA reports are currently under review by BLM, and the data contained within them pertaining to SWCA's field studies are excluded from this EIR. Instead, the EIR relies on prior studies, as described below. The section will be updated with the results of the studies once the reports are approved and released by BLM.

3.5.1 Regulatory Setting

3.5.1.1 Federal

NATIONAL HISTORIC PRESERVATION ACT SECTION 106

The principal federal law addressing historic properties is the NHPA, as amended (16 USC §470), and its implementing regulations (36 CFR Part 800). Section 106 requires a federal agency with jurisdiction over a proposed federal action (referred to as an "undertaking" under the NHPA) to take into account the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the undertaking (16 USC §470f). The Soda Mountain Solar Project is an undertaking with the potential to affect historic properties (36 CFR 800.3(a)), and therefore is subject to compliance with the requirements of the Section 106 process.

The term "historic properties" refers to "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register" (36 CFR 800.16(l)(1)). The implementing regulations (36 CFR Part 800) describe the process for identifying and evaluating historic properties, for assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies take into account effects to historic properties from an undertaking prior to approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer (SHPO), federally recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects to such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties.

The agency also must provide an opportunity for public involvement (36 CFR 800.1(a)). Consultation with Indian tribes regarding issues related to Section 106 and other authorities (such as NEPA and Executive Order No. 13007) must recognize the government-to-government relationship between the Federal government and Indian tribes, as set forth in Executive Order 13175, 65 FR 67249 (Nov. 9, 2000), and Presidential Memorandum of Nov. 5, 2009 (74 FR 57881).

NATIONAL REGISTER OF HISTORIC PLACES

The National Register was established by the NHPA, as "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2). The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, state, and local levels. As indicated in NHPA Section 101(d)(6)(A) (16 USC §470a(d)(6)(A)), properties of traditional religious and cultural importance to a tribe are eligible for inclusion in the National Register.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (36 CFR 60.4):

1. Are associated with events that have made a significant contribution to the broad patterns of our history;
2. Are associated with the lives of persons significant in our past;
3. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional importance, it must be at least 50 years old to be eligible for National Register listing (36 CFR 60.4).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (National Park Service [NPS] 1995). The National Register recognizes seven qualities that, in various combinations, define integrity: location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance (36 CFR 60.4).

AMERICAN INDIAN RELIGIOUS FREEDOM ACT

AIRFA (42 USC §1996), enacted in 1978, establishes a policy of federal protection and preservation of traditional religions of Native Americans, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

EXECUTIVE ORDER 13007

Executive Order 13007 (61 FR 26771; May 29, 1996) directs federal agencies, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions: to accommodate access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of sacred sites. It also requires agencies to maintain the confidentiality of sacred sites, where appropriate.

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT

Requirements for responding to discoveries of Native American human remains and associated funerary objects on federal land are addressed under the NAGPRA (Public Law 101-601, 25 USC §3001) and its implementing regulations found at 43 CFR Part 10. If a planned activity may result in the excavation of Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony on federal or tribal lands, a federal agency must prepare a written Plan of Action (POA), in consultation with Indian tribes, which outlines the planned treatment, care, handling, and disposition of human remains, funerary objects, sacred objects, or objects of cultural patrimony (43 CFR 10.3(c)(2)). Should human remains, funerary objects, sacred objects, or objects of cultural patrimony be inadvertently discovered on federal lands, activity must immediately cease and a reasonable effort be made to protect the discovery. The implementing regulations of NAGPRA (43 CFR 10.4) describe the procedures to be undertaken in such an event, which include notification of and consultation with Indian tribes, and proper disposition of the human remains or funerary objects, sacred objects, or objects of cultural patrimony.

ARCHAEOLOGICAL RESOURCES PROTECTION ACT

If federal or Indian lands are involved, the Archaeological Resources Protection Act may impose additional requirements on an agency. The act (1) prohibits unauthorized excavation on federal and Indian lands, (2) establishes standards for permissible excavation, (3) prescribes civil and criminal penalties, (4) requires agencies to identify archeological sites, and (5) encourages cooperation between federal agencies and private individuals.

ANTIQUITIES ACT OF 1906

The Antiquities Act of 1906 states, in part, that any person who shall appropriate, excavate, injure or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court.

CALIFORNIA DESERT CONSERVATION AREA PLAN

The CDCA Plan requires that all areas within the CDCA be managed to preserve and protect archaeological values and that, where applicable, NHPA implementing regulations, described above, be implemented. Additionally, the CDCA Plan requires that Native American cultural and religious values be preserved where relevant and protected where applicable, and that Native American groups be consulted (BLM 1999).

BLM MANUAL 6280, MANAGEMENT OF NATIONAL SCENIC AND HISTORIC TRAILS AND TRAILS UNDER STUDY OR RECOMMENDED AS SUITABLE FOR CONGRESSIONAL DESIGNATION (PUBLIC)

This manual provides the line manager and program staff professionals with policies for the management of National Scenic and Historic Trails (e.g., the Old Spanish National Historic Trail). Specifically, this manual identifies requirements for the management of trails undergoing National Trail Feasibility Study; trails that are recommended as suitable for National Trail designation through the National Trail Feasibility Study; inventory, planning, management, and monitoring of designated National Scenic and

Historic Trails; and data and records management requirements for National Scenic and Historic Trails (BLM 2012a).

3.5.1.2 State

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (Public Resources Code §5024.1(a)). The criteria for eligibility for the California Register are based upon National Register criteria. Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historical-period property must be significant at the local, State, and/or federal level under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. 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. Has yielded, or may be likely to yield, information important in prehistory or history (Public Resources Code §5024.1(c)).

A resource eligible for the California Register must meet one of the criteria of significance described above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance (14 Cal. Code Regs. §4852(c)). It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

1. California properties listed on the National Register and those formally Determined Eligible for the National Register;
2. California Registered Historical Landmarks from No. 770 onward; and
3. Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion in the California Register (Public Resources Code §5024.1(d)).

Other resources that may be nominated to the California Register include:

1. Historical resources with a significance rating of Category 3 through 5 (Those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
2. Individual historical resources;
3. Historical resources contributing to historic districts; and

4. Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone (Public Resources Code §5024.1[e]).

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Under CEQA (Public Resources Code §21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA Guidelines Section 15064.5 recognize that an historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register; (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the CEQA lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

If a CEQA lead agency determines that an archaeological site is a historical resource, the provisions of Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5 apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, then the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines §§15064.5(b)(1), 15064.5(b)(4)).

If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated as a unique archaeological resource in accordance with the provisions of CEQA (Pub. Res. Code §21083). As defined in Section 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:

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

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Pub. Res. Code §21083.1(a)). If preservation in place is not feasible, mitigation measures are required.

If an archaeological resource is neither a unique archaeological nor a historical resource, then the effects of the project on those resources are not considered to be a significant effect on the environment for purposes of CEQA (CEQA Guidelines §15064.5(c)(4)).

TREATMENT OF HUMAN REMAINS

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code 7050.5. More specifically, remains suspected to be Native American are treated under CEQA in CCR 15064.5, and PRC 5097.98 illustrates the process to be followed in the event that remains are discovered. If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (CCR 15064.5 and PRC 5097.98).

SECRETARY OF THE INTERIOR STANDARDS

Under CEQA, a project that follows the SOI's Standards for the Treatment of Historic Properties (Standards) is considered "as mitigated to a level of less than a significant impact on the historical resource" (14 CCR 15064.5). Thus, an impact may be adverse if it is inconsistent with the Standards. The Standards were codified in 1995 (36 Code of Federal Regulations [CFR] 68) and provide professional guidance for four treatment approaches to historic properties: preservation, rehabilitation, restoration, and reconstruction. While the project does not propose direct alterations to any historical resources, within the SOI Standards, consideration of the project against the Standards for Rehabilitation is an effective method for determining whether the project may indirectly cause adverse impacts to historical resources. Ten criteria, listed below, comprise the Standards for Rehabilitation:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

3.5.1.3 Local

The project is located on federally owned land managed by the BLM. While it is not subject to County of San Bernardino land use plans and ordinances, local plans were reviewed for informational purposes.

SAN BERNARDINO COUNTY GENERAL PLAN

The following policies identified in the Cultural Resources element of the San Bernardino County General Plan are relevant to this analysis (San Bernardino County, 2020).

- **Goal CR-2 Historic and Paleontological Resources** Historic resources (buildings, structures, or archaeological resources) and paleontological resources that are protected and preserved for their cultural importance to local communities as well as their research and educational potential.
- **Policy CR-2.1 National and state historic resources**. We encourage the preservation of archaeological sites and structures of state or national significance in accordance with the Secretary of Interior's standards.
- **Policy CR-2.2 Local historic resources**. We encourage property owners to maintain the historic integrity of resources on their property by (listed in order of preference): preservation, adaptive reuse, or memorialization.
- **Policy CR-2.3 Paleontological and archaeological resources**. We strive to protect paleontological and archaeological resources from loss or destruction by requiring that new development include appropriate mitigation to preserve the quality and integrity of these resources. We require new development to avoid paleontological and archeological resources whenever possible. If avoidance is not possible, we require the salvage and preservation of paleontological and archeological resources.

3.5.2 Cultural Resources Setting

3.5.2.1 Cultural Resources Study Area

The project site is located within the north-central portion of the Mojave Desert in the southwestern Great Basin physiographic province, east of Cronise Valley and near the southern flank of the Soda Mountains. The project site is defined as 2,670 acres of BLM-administered land in a rural area of the Mojave Desert. The environmental setting for this region was described in the cultural resources inventory report for this project and can be found in Duke and Patterson (2009:4). Similarly, the cultural setting for this area, including an archaeological overview, is also provided in the cultural resources inventory report for this

project. For the prehistoric context and overview of the project site see Duke and Patterson (2009:5–7), and for the historic context and overview see Duke and Patterson (2009:7–10).

3.5.2.2 Ethnographic Setting

The project site is in the northeastern extent of the traditional territory of the Mojave and Serrano and approaches the traditional territories of the Kawaiisu and the Southern Paiute/Chemehuevi. A brief discussion of the four groups is presented below.

MOJAVE

The Mojave were river agriculturalists who lived along the lower Colorado River and spoke a Yuman language of the Hokan linguistic stock; their traditional territory encompassed the river valley that now spans California, Nevada, and Arizona (Kroeber 1925; Moratto 2004). Hunting and collecting wild plant foods was practiced along with agricultural activities centered on the seasonal flooding of the Colorado River from May to June, and small settlements were established along the riverbank with adjacent agricultural fields. Dwellings consisted of semi-subterranean winter houses made of cottonwood log frames and arrow-weed wattling covered with earth, along with flat-topped ramadas that were used for shade in the summer months. The Mojave had a strong tribal identity with patrilineal clans, thus residences were patrilocal (Kroeber 1925; Moratto 2004). Their material culture was more complex than some of their neighboring desert groups, and they had a significant influence on their neighbors in the California deserts, introducing new ideas and technologies (Moratto 2004). Farming implements consisted of a hard, heavy stick similar to the common California root-digging stick, though it was larger and flattened at the sharp end, along with a cultivator consisting of another stick with broad piece of wood where the square edge was pushed flat on the ground to cut weeds (Kroeber 1925). Large wooden pestles were used by the Mojave, and fish were caught with seines and scoops. Pottery was the primary type of container fashioned by the Mojave, who had myths associating pottery with agriculture, though coiled and twined basketry items were also crafted (Kroeber 1925).

Kroeber (1925:727) notes a primary difference between the Mojave and nearby California groups in that the Mojave placed primary importance on tribal identity with the tribe as a larger unit and their land as a country, perceiving "themselves as a national entity, the *Hamakhava*." The Mojave clan system most closely resembles that of other Yuman groups who inhabited the lower Colorado region, being composed of patrilinear, exogamous groups with totemic reference. The status of chief was inherited through the male line, though the exact role of the chief, compared with a war leader or shaman, is not well understood (Kroeber 1925). Dreaming is an integral component of Mojave culture as it is believed that dreams form the basis for everything in life and it is through dreams that special powers of healing and foresight are received (Butler 1994; Kroeber 1925).

At the time of Spanish arrival in the region (sixteenth century), the Mojave had one of the largest native populations in the area, estimated at 7,000 members (Butler 1994; Fort Mojave Indian Tribe 2021). Mojave guides were instrumental to travelers on their way to the Pacific Coast, leading them through the harsh mountain and desert terrain via springs located along the Mojave Trail (Butler 1994). In 1859, a U.S. military outpost was established on the banks of the Colorado River to provide safe passage for immigrants moving into the west (Fort Mojave Indian Tribe 2021). When the fort was closed in 1981, the buildings were used as a boarding school until 1930. Remains of Fort Mojave are situated on a bluff overlooking the Colorado River, south of Bullhead City (Fort Mojave Indian Tribe 2021).

The Fort Mojave are a federally recognized tribe. The Fort Mojave Reservation was established by the War Department General Order No. 19 in 1870, and by Executive Order in 1911 (Butler 1994). The reservation is situated along the Colorado River and stretches across California, Arizona, and

Nevada, making the Mojave one of the few tribes still residing on their traditional lands today, although they inhabit only a small fraction of their traditional territory. They call themselves Ahamakav, or Pipa Aha Macav, meaning "the people who live along the river," or "the people by the river" (Butler 1994; Fort Mojave Indian Tribe 2021). The tribe maintains its own police force and courts with jurisdiction over civil and some criminal cases. Housing is provided through the Fort Mojave Tribal Housing authority, and as of the mid-1990s, there were more than 180 homes on the reservation (Butler 1994). Agriculture remains a prominent tribal business, with agricultural lands comprising roughly 40 percent of reservation lands (Butler 1994).

SERRANO/VANYUME

The Serrano people once occupied the southwestern Mojave Desert and Inland Empire region of San Bernardino and Los Angeles Counties. The Serrano language is part of the Serran branch of the Takic family of the Uto-Aztecan linguistic stock (Mithun 2004). The two Serrano languages, Kitanemuk and Serrano, are closely related, with the traditional lands of the Kitanemuk located to the northwest of the Serrano. The term "Serrano" appears to have acquired an ethnic definition during the ethnohistoric period as pertaining to the Indigenous people who inhabited the San Bernardino Mountains, with the term "Serrano" meaning "mountaineers, or those of the Sierras" (Kroeber 1925:611). The traditional territory of the Serrano is believed to have encompassed much of the Mojave Desert and San Bernardino Mountains, including the base and north of the San Bernardino Mountains east of Cajon Pass near Victorville, east to Twentynine Palms, and south to the Yucaipa Valley, with the Vanyume territory extending northward along the Mojave River (Bean and Smith 1978; Bean and Vane 1994). The Serrano called themselves the Maara'yam, with multiple clans, including the Yuhaaviatam, or "People of the Pines" (San Manuel Band of Mission Indians 2021).

The Vanyume lived along the Mojave River and associated Mojave Desert areas and are also referred to as the Desert Serrano. Whether they spoke a dialect of Serrano or a separate Takic language is unclear from the few known words (Mithun 2004); however, Kroeber (1925) placed the Vanyume language closer to the Kitanemuk than to the Serrano of the San Bernardino Mountains. The traditional territory of the Vanyume was only vaguely known during the ethnohistoric period and no clear delineation was recorded, but it was suggested to begin several miles east of the Mojave River sink and continue to Daggett or Barstow (Kroeber 1925).

According to the records of Fr. Francisco Garcés, the first European to travel in this region in 1776, the name *Vanyume* is derived from the term for "them" (*Beñeme*) used by the Mojave (Coues 1900:240). Very little is known of the Vanyume-speaking people because their cultural traditions and lifeways were severely disrupted by Spanish missionaries beginning in the early 1820s. By the 1900s, reports indicated that very few Vanyume people remained in their traditional territory (Bean and Smith 1978:570; Kroeber 1925:614). Therefore, much of what we know about the Vanyume is derived from accounts of the larger Serrano group. Kroeber (1925:614–615), however, suggests there were political distinctions between the Serrano and Vanyume as the Vanyume were friendly with the Chemehuevi and Mohave to the east, whereas the Serrano maintained mutual animosity with these groups. The area of combined Serrano/Vanyume occupation—the San Bernardino Mountains, the southwestern portions of the Mojave Desert, and the Mojave River area—has become known as the Serrano area, though this distinction may be a result of early historical disruptions to the Vanyume as a distinct culture group and inherent biases of ethnographers and historians during the Historic period.

Most Serrano lived in small village-hamlets in the foothills, though some resided out on the desert floor near water sources (Bean and Smith 1978:571). Kroeber (1925:617–618) considered the organization of Serrano lineage sets similar to that of political groups. He defined a lineage set as occupying one village, representing at least two moieties, and coordinating its hunting and gathering activities according to the

religious deliberations and scheduling determined by two leaders (one from each of the moieties), with one leader occupying the ceremonial house and the other possessing the ceremonial bundle. Often, a lineage set had the exclusive power to forge and maintain economic ties to other villages of neighboring Serrano, Cahuilla, Chemehuevi, Gabrielino, and Cupeño. Desert Serrano villages are mentioned in the 1776 account of the Spanish Franciscan missionary Fr. Francisco Garcés and in the records dating to the early 1800s by Fr. Joaquín Nuez. Fr. Garcés mentions villages along the Mojave River near today's city of Barstow and the community of Daggett (Coues 1900:241–248). Beattie (1955) suggests the average village population was around 70 people and that these settlements were generally spaced at 10-mile (16-kilometer [km]) intervals along the river.

The fundamental economy of the Serrano was one of subsistence hunting and collecting plant goods, with occasional fishing (Bean and Smith 1978). Serrano territory was a trade nexus between inland tribes and coastal tribes, and trade and exchange were important aspects of the Serrano economy. Those living in the lower-elevation desert floor villages traded foodstuffs with people living in the foothill villages who had access to a different variety of edible resources due to the considerable topographic variation and resultant differences in bio-geographic zones in the vicinity. In addition to intervillage trade, ritualized communal food procurement events, such as rabbit and deer hunts and piñon, acorn, and mesquite nut-gathering events, integrated the economy and helped distribute resources that were locally available in different ecozones.

A variety of materials were used for hunting, gathering, and processing food, many of which were also used for shelter, clothing, and ceremonial items. Technological similarities have been noted between the Serrano and their neighbors, particularly the Cahuilla (Bean and Smith 1978). Shell, wood, bone, stone, and plant fibers were used to make a variety of implements, along with highly decorated baskets (Smith and Simpson 1964). The Serrano made pottery and used it daily to carry and store water or foodstuffs; and ceramics were also used as ceremonial objects. They also made bone awls, sinew-backed bows, arrows, arrow straighteners, throwing sticks (for hunting), traps, fire drills, stone pipes, musical instruments of various types (rattles, rasps, whistles, bull-roarers, and whistles), yucca fiber cordage (for snares, nets, and carrying bags), and clothing (Bean and Smith 1978; Bean and Vane 2002). A strong tradition of basket weaving incorporated the use of multiple materials, including juncus sedge, deergrass, and yucca fiber.

Mainly due to the inland territory that the Serrano occupied beyond Cajon Pass, contact between the Serrano and Euro-Americans was relatively minimal prior to the early 1800s, though European diseases began decimating Native populations in the Mojave Desert and Antelope Valley beginning in the late 1700s (San Manuel Band of Mission Indians 2021). As early as 1790, the Serrano began to be drawn into mission life and were involuntarily marched to the Asistencia in Redlands, an outpost of the San Gabriel Mission (Bean and Vane 2002; San Manuel Band of Mission Indians 2021). More Serrano were relocated to Mission San Gabriel Arcángel in 1811 after a failed Indigenous attack on that mission. In the 1860s, a smallpox epidemic decimated many Indigenous people from southern Californian, including the Serrano (Bean and Vane 2002). Oral accounts of a massacre in the 1860s at Twentynine Palms indicate that it may have been part of a larger American military campaign that lasted 32 days (Bean and Vane 2002:10).

Some of the surviving Serrano sought shelter at Morongo with their Cahuilla neighbors, which later became a formal reservation and is currently known as the Morongo Band of Mission Indians (Bean and Vane 2002). Other survivors followed the Serrano leader Santos Manuel down from the mountains and across the valley floors, eventually settling what later became the San Manuel Band of Mission Indians Reservation, which was established in 1891 (San Manuel Band of Mission Indians 2008). Although ethnographers considered the Vanyume to be a sparse and mostly unknown population during the early 1900s (Bean and Smith 1978; Kroeber 1925), recent genealogical research, combined with mitochondrial DNA analysis, indicates that three lineages from the Fort Tejon area were originally from the village of

Topipabit downstream from Victorville (California Energy Commission 2008:4.3–4.11). These lineages are currently part of the San Fernando Band of Mission Indians, located in Newhall. This group, which includes Kitanemuk, Inland Chumash, Tataviam, and Vanyume, has applied for formal federal recognition (San Fernando Band of Mission Indians 2021).

KAWAIISU

The Kawaiisu stem from the Chemehuevi, one of the Shoshonean Plateau divisions, who spoke numerous dialects of remarkable uniformity, considering the vastness of the territory they inhabited. The Chemehuevi were considered a branch of the Southern Paiutes by early ethnographers and the name itself was believed to be more a geographically defined term rather than an ethnic designation (Kroeber 1925). The Kawaiisu appear to have become differentiated from the larger Chemehuevi family due to localized environmental differences affecting resource availability in the region they inhabited (Kroeber 1925). Their traditional territory encompassed the Tehachapi Mountains and associated watersheds along the timbered mountains and foothills, including Tehachapi Pass, Walker Basin, and some southern affluents of Kern River between the Mojave Desert and the San Joaquin Valley, as well as the lower part of Death Valley (Kroeber 1925; Grosscup 1977; Steward 1938). Kroeber (1925) describes multiple names for this group derived from many of the Indigenous neighboring groups and notes that their own name for themselves was Nuwu, Nuwuwu, or Newooah, meaning "people." He also notes that ethnohistorically, they were referred to as the Tehachapi or Caliente Indians.

The Kawaiisu were mobile hunter-gatherers who primarily resided in a core area in the southern Sierra Nevada and Tehachapi Mountains and made frequent forays into the Mojave Desert to exploit seasonal resources (Zigmond 1986). Linguistically, Kawaiisu has been identified as a part of the Southern Numic branch of the extensive Uto-Aztecan language family, which includes most languages of the Great Basin, extending south from southern Idaho into Mexico and east into Arizona (Mithun 2004; Zigmond 1994).

Although there is general agreement about the location of the Kawaiisu core area, the extent of their territory in the Mojave Desert is less clearly understood. Zigmond (1986) depicts an area of seasonal use that extends east of the Granite Mountains, in present-day Fort Irwin. Kroeber (1925) cites an account of a Kawaiisu group on the upper Mojave River and in the southern Panamint Range. Steward (1970:71) also places the Kawaiisu in the southern Panamint Valley, the Argus Range, the town of Trona, and an undetermined area to the south and west. He notes further that although the Shoshone occupied the northern Panamint Valley, the Kawaiisu and Shoshone were mixed in the southern part of the valley and perhaps near Trona.

Dietary staples for the Kawaiisu included piñon, juniper, yucca, chia, wild rice, sunflower, buckwheat, and screwbean. Deer were a major source of meat when the Kawaiisu were residing in the mountainous core area, supplemented by small game, and hunters also pursued pronghorn and bighorn sheep. Salt was an important component of the diet and was collected from Koehn Lake or from Proctor Lake in the Tehachapi Valley when water levels at Koehn Lake were high. Ethnobotanical studies indicate that at least 120 types of plant resources were used for food and to make beverages, while more than 100 types of plants were used for medicinal purposes, and at least 40 plants had ritualistic associations (Zigmond 1994). Acorns, a variety of seeds, and tobacco leaves were ground and pounded in the hundreds, if not thousands, of bedrock mortars and bedrock milling stations that continue to be encountered and documented across their traditional territory (Zigmond 1994). As repeated use enlarged a hole beyond the desired dimensions, such mortars were abandoned, and new holes were initiated in another part of the same boulder or on nearby bedrock boulders, resulting in the formation of milling stations composed of multiple grooves/holes along a single bedrock surface.

Pottery is rare in sites attributed to the Kawaiisu and was probably primarily acquired through trading. Basket making was a strong tradition among the Kawaiisu, who used numerous types of baskets for food collecting, processing, and storage, including seedbeaters, burden baskets, winnowers, trays, hoppers, and a variety of containers (Zigmond 1986). Lithic materials for tool making, such as cherts, were likely obtained from areas near Red Rock Canyon, whereas obsidian appears to have been acquired through trade with groups who inhabited the area in the vicinity of the Coso Volcanic Field (east of the Sierra Nevada). Long-distance exchange with coastal areas is also evidenced by the presence of marine shell artifacts in some sites attributed to the Kawaiisu.

During the winter months, the Kawaiisu lived in *tomo-kahni*, circular, aboveground structures with vertical and transverse poles bound together and covered with brush, bark, and tule mats (Zigmond 1986). Other structures included open, flat-roofed shade houses (*havakahni*) used for summer habitation, sweathouses (*tivikahni*), circular brush enclosures, and small granaries.

The Kawaiisu practiced a distinctive style of polychromatic (multicolored) rock art that shares many attributes with that of the Chumash (Lee and Hyder 1991). Teddy Bear Cave (CA-KER-508) is the best studied Kawaiisu rock art site, located along the west edge of Sand Canyon, approximately 12 miles (19 km) northeast of Tehachapi. The site is in the Nettle Spring archaeological complex, which also includes a large habitation area (CA-KER-230), along with numerous other localities. CA-KER-230 is characterized by numerous rock rings, more than 400 bedrock mortars, and numerous panels of rock art. Nearby sites include small camps, additional rock art localities, and a cremation site, all of which are potentially related to the Nettle Spring complex. Teddy Bear Cave is important in the oral history of the Kawaiisu as the place where their people and the world were created (Sutton 2001).

Euro-Americans began flocking to the area in 1849 with the start of the California Gold Rush; and gold was actually "discovered" in Kawaiisu territory in the 1850s, resulting in a scatter of mining claims across their traditional lands (Zigmond 1994). Today, the Kawaiisu consist of approximately 250 members living in California's Sierra Nevada foothills. The Kawaiisu have never been consigned to a reservation and are not federally recognized, though they continue to seek federal recognition (Zigmond 1994). The remaining Kawaiisu speakers are predominantly elders who have been working to keep their culture alive with language and cultural revitalization programs. The Kawaiisu Language and Cultural Center was established as a 501(c)3 nonprofit organization in 2007. The center's mission is to have the Kawaiisu native language spoken in their Native communities once again (Kawaiisu Language and Cultural Center 2018). They currently refer to themselves as the Kawaiisu Tribe of the Tejon Indian Reservation, or the Kawaiisu Tribe of Tejon, although the Tejon Indian Tribe is a federally recognized tribe (Kawaiisu Tribe of Tejon 2021; Tejon Indian Tribe 2021). The Kawaiisu Tribe is also part of the Kern Valley Indian Community, along with the Tübatulabals of Kern Valley, and the Nuui Cunni Inter-Tribal Cultural Center, which includes tribal members from several local tribes, in addition to a number of other tribal associations and organizations (Audubon California, Kern River Preserve 1998; Nuui Cunni 2021; Tübatulabals of Kern 2021).

SOUTHERN PAIUTE/CHEMEHUEVI

Southern Paiute is a linguistic and cultural group who inhabited the northern Southwest and the southeastern Great Basin regions and are distinctly separate from the Northern Paiute, who speak a mutually unintelligible language (Bunte and Franklin 1994). The Southern Paiute also are related to the Shoshonean Plateau and belong to the Southern Numic branch of the Uto-Aztecan linguistic family, which includes 15 subgroups: Antarianunts, Kaiparaowits, San Juan, Kaibab, Shiwits, Uinkaret, Saint George, Gunlock, Cedar, Beaver, Panaco, Pahranagat, Moapa, Las Vegas (including Pahrump), and Chemehuevi (Kelly and Fowler 1986). Some ethnographers consider the Chemehuevi a separate group from the Southern Paiute, though the differences between them and other Southern Paiute groups are

minimal and are generally attributed to cultural adaptations to localized environmental variation (Theodoratus et al. 1998). Additionally, Kroeber (1925:593, 595) considered the Chemehuevi to be "Southern Paiutes," suggesting close ties and cultural similarities between these groups; noting that the Chemehuevi and Southern Paiute called themselves Nüwü, meaning "people," and corresponding to the Mono and Northern Paiute term Nümü. The traditional territory of the Southern Paiute is vast, ranging from the Colorado Plateau to the Mojave Desert, including the Colorado River basin and multiple small mountain ranges, and encompasses a great deal of environmental variation (Kelly and Fowler 1986).

Southern Paiute subsistence was centered on gathering and hunting what was available in their local environments. The inherent environmental differences of the territories occupied by various Southern Paiute groups were reflected in the resources they exploited for subsistence as well as in the procurement strategies they employed (Theodoratus et al. 1998). Primary dietary resources included mostly small-game animals, such as rabbits and tortoises, in addition to rodents, lizards, and possibly other reptiles, as well as fish and mountain sheep, along with a variety of seeds and mescal (Kelly and Fowler 1986; Kroeber 1925). The Southern Paiute exploited a variety of flora, including piñon nuts and agave, for food. Additionally, some groups practiced small-scale agriculture, growing maize, squash, and winter wheat among other things (Kelly and Fowler 1986; Kroeber 1925). By the time of European contact, the Southern Paiute had optimal irrigation systems and had been farming for centuries along the Colorado River (Stoffle and Zedeño 2001:234). The Southern Paiute were skilled basket weavers. They used baskets to carry a wide variety of resources, ranging from seeds to berries, and they carried water in finely woven baskets sealed with pine pitch (National Park Service 2018). The basic socioeconomic unit of the Southern Paiute was the family household. Centralized political hierarchy was not recorded for this group during the ethnohistoric period, though it was noted that households would cooperate during hunting and gathering activities. Immediately after marriage, matrilocal residence was common, though in the longer term most would permanently settle near the husband's relatives (Kelly and Fowler 1986).

At the time of Euro-American contact, Southern Paiute territory stretched across Arizona, Utah, Nevada, and California, though the 10 modern Paiute groups retain only a small portion of their traditional territory, with tribal members living in many varied communities both on and off reservations (Bunte and Franklin 1994). Five Utah based bands or groups united to form a larger tribal entity, the Paiute Tribe of Utah; the San Juan Paiute Tribe maintains communities in Arizona and Utah; the Kaibab Paiute Tribe has a reservation in Arizona, north of the Grand Canyon; and the Moapa, Las Vegas, and Pahrump Tribes reside in southern Nevada, with the Pahrump being the only non–federally recognized modern Southern Paiute group. In California, the Twenty-Nine Palms Band of Mission Indians are a federally recognized tribal entity, including many descendants of the Chemehuevi people (Twenty-Nine Palms Band of Mission Indians 2021).

The Chemehuevi culture was closely tied to the Shoshone of the Great Basin; however, Kroeber (1925) notes strong Yuman influence in material culture, and religious similarities with the Mohave. Chemehuevi were hunter-gatherers for the most part though some were river agriculturalists who moved into the Colorado River valley during the Early Historic period (Moratto 2004). Their social organization was generally flexible and based on the nuclear family with kinship ties uniting several families for annual rounds and seasonal gatherings to harvest particular resources, possibly forming small villages during winter. The economy was based on seasonal movements to harvest available plant and animal resources, often spanning large distances. The agriculturalists who settled along the lower Colorado baked pots; however, they are better known for making a variety of basketry items similar in coiling style to the people from the San Joaquin Valley as they used a similar type of woody willow fibers, rather than the reedy Juncus used by the Cahuilla and Luiseño to the west (Kroeber 1925). Although no known specimens survive, accounts indicate the Chemehuevi fashioned a unique style of bow that was distinctly shorter than the Mohave self-bow with recurved ends, painted back, the middle wrapped, and a sinew-backing (Kroeber 1925).

At the turn of the twentieth century, the Chemehuevi lived on Cottonwood Island, around Beaver Lake, the Needles area, and Chemehuevi Valley (Bean and Vane 1994). Some tribal members were also living on the Colorado River Indian Tribes Reservation, the Twentynine Palms Reservation, and in the Coachella Valley. The Special Committee on Chemehuevi Affairs was formed in the late 1960s. They proceeded to write a constitution that was approved in 1971 and had the Chemehuevi Indian Reservation located in Chemehuevi Valley set aside for the group. Initial enrollment included 312 Chemehuevi, and around 600 people living at the Colorado River Indian Tribes Reservation identified as being part Chemehuevi. Currently, the Chemehuevi occupy the Chemehuevi Reservation on the Colorado River and are also represented on the Morongo Indian Reservation, the Cabazon Indian Reservation, the Agua Caliente Indian Reservation, and the Colorado River Indian Tribes Reservation. Additionally, many members live in various cities and towns across inland southern California (Bean and Vane 1994).

3.5.3 Historic Resources Setting

3.5.3.1 Historic Resources Study Area

For the purposes of the historical resource analysis, the study area for built environment historical resources consists of the project site and a surrounding 0.5-mile radius, consistent with the CEC application requirements for proposed projects in rural areas that call for a survey of historic architecture within 0.5 mile of the project site.

3.5.3.2 American Settlement in the Mojave Desert

The project site is in north-central San Bernardino County in the Mojave Desert. The name San Bernardino originates from the Spanish missionaries of Mission San Gabriel who named the area in 1810 for Saint Bernardino of Siena. In 1819, San Bernardino Mission was established by the Spanish near present-day Redlands, California. Mexico achieved its independence from Spain in 1821, and in 1842, the 35,509-acre Rancho San Bernardino was granted to José del Carmen Lugo, José Maria Lugo, Vicente Lugo, and Diego Sepulveda by Governor Juan B. Alvarado (Hoffman 1862). The non–Native American population of California increased during the Mexican period because of the influx of explorers, trappers, and ranchers associated with the land grants. The first American known to travel through the Mojave Desert was trapper Jedediah Smith in 1826. He nicknamed the Mojave River the "Inconstant River" because it frequently disappeared beneath the surface (Langum 1987).

The United States and Mexico went to war in 1846, ending with the Treaty of Guadalupe Hidalgo in 1848, which ushered California into its American period. California was granted statehood with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Nevada and Arizona) as U.S. territories. In April 1853, San Bernardino County was organized from parts of Los Angeles and San Diego counties, and the City of San Bernardino became the county seat in 1854. Although portions of San Bernardino and San Diego counties were used to create Riverside County in 1893, San Bernardino County remains the largest county in California and in the United States (Nevin 1974; Stein 1994).

During the mid-to-late nineteenth century, some isolated desert stagecoach stops were transformed into communities due to the advent of irrigated agriculture, growth of the mining industry, and establishment of railroad routes through the region. In San Bernardino County, Barstow, for instance, prospered as a supply center for nearby mines due to its proximity to the Santa Fe Railroad. Though only having a population of about 300 in the 1890s, Barstow had a post office, stage services, telegraph and telephone services, several general stores, and a large hotel. Similarly, Mojave acted as a transportation center for transporting borax and other minerals from Death Valley throughout southern California. Victorville, another city in San Bernardino County, also has its origins as a supply depot for nearby mines and as a

railroad stop (Caltrans 2010). In addition to larger communities like Barstow and Victorville, there were many small camps and supply points that grew into smaller towns during the late nineteenth and early twentieth centuries, such as Baker, California.

An important travel route in the region was the Mojave River Trail, named the Old Spanish Trail by Captain John C. Fremont in 1844. Starting in Santa Fe, New Mexico, and continuing through Utah and Arizona, the trail then crossed the Mojave Desert to reach Mission San Gabriel Arcángel and Los Ángeles. Frémont's is the first account to use the name "Mojave River" (Frémont 1845). Establishment of wagon routes in the vicinity of the project site dates to 1853–1854, when U.S surveyors investigated the feasibility of routes through the Mojave Desert. This survey effort included a party led by Lieutenant Robert S. Williamson, which began at the western side of the Mojave Desert and continued to Soda Lake. The GLO returned to the area for additional survey between 1855 and 1857. In 1857 and 1858, Edward F. Beale crossed the Mojave through this area, using the route that would become the Mojave Road (Old Government Road, Mojave Freeway). With the advent of the automobile, many of the old wagon and railroad stopover towns became common stopovers for new automobile travelers. Beale crossing the Mojave via this route twice proved its viability (Nystrom 2003).

3.5.3.3 Beacon Station

Little information was uncovered on Beacon Station, which presently is comprised of a gas/service station, an adjacent single-family residence, and a couple of manufactured homes on one parcel adjacent to and southeast of I-15. The first mention of Beacon Station (specifically Beacon Service Station) in available records was in the *Desert Dispatch* in 1927. The place name "Beacon Station" appears to have originated from the location of an aviation beacon in the vicinity. Although it is not depicted on earlier U.S. Geological Survey (USGS) maps, a 1983 map describes an "Old FAA Beacon" northeast of the small development known as Beacon Station. This was one of many beacons that assisted pilots traveling in the region as there was a landing field located northeast of Baker as early as 1929 (Freeman 2024). Beacon Station originally developed as a stopover for travelers on the highway with the establishment of the gas/service station in the 1920s. A fire in 1939 and construction of I-15 in the 1960s resulted in various buildings at Beacon Station being demolished, added and/or moved over the decades (*Barstow Printer* 1939; *San Bernardino County Sun* 1939, 1963, 1964). The extant buildings at Beacon Station were constructed in the early 1960s according to county assessor records. Available aerial imagery from 1952 through 2020 indicates the area has only ever had a few buildings (NETRonline 2024; UCSB Library 1952). Considered with the limited known residents of the community, this indicates that the only permanent residents of Beacon Station have most likely been the owners of the gas/service station and hospitality business.

Additional detailed historic setting information can be found in the *Historical Resources Assessment Report for the Soda Mountain Solar Project, San Bernardino County, California* prepared by SWCA (2024; see Appendix G)

3.5.4 Methodology

3.5.4.1 Cultural Resources

CHRIS RECORDS SEARCH

A California Historical Resources Information System (CHRIS) records search was conducted at the South Central Coastal Information Center (SCCIC) on January 11 and January 17, 2023. The records search was conducted as a supplement to the earlier records search conducted as part of the Class III inventory (Duke and Patterson 2009), and the purpose was to identify previously conducted cultural

resource surveys and all previously recorded cultural resources within the project site, including, where possible, their potential eligibility for inclusion in the NRHP and CRHR. The CHRIS centers maintain records of previously documented cultural resources and technical studies; they also maintain copies of the Office of Historic Preservation's Built Environment Resources Directory (BERD), Historic Resources Inventory (HRI), and Archaeological Determinations of Eligibility (ADOE). The records search included the proposed project site and a surrounding 1-mile (1.6-km) buffer. The results of the CHRIS records searches are used to identify previously documented cultural resources within the project site and to aid in the assessment of archaeological resource sensitivity.

SACRED LANDS FILE SEARCH

The Native American Heritage Commission (NAHC) was contacted on January 4, 2023, to review of the Sacred Lands File (SLF) to determine whether any NAHC-listed Native American sacred lands are located within or adjacent to the project site. The NAHC is charged with identifying, cataloging, and protecting Native American cultural resources, which include ancient places of special religious or social significance to Native Americans, and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC's inventory of these resources is known as the SLF. In addition, the NAHC maintains a list of tribal contacts affiliated with various geographic regions of California. The contents of the SLF are strictly confidential, and SLF search requests return positive or negative results in addition to a list of tribal contacts affiliated with the specified location.

ARCHAEOLOGICAL RESOURCES SURVEY

Between February 13 and 15, 2023, a team of archaeologists attempted to locate the previously recorded archaeological resources within the current project site, using Universal Transverse Mercator (UTM) coordinates from California Department of Parks and Recreation forms on file at the SCCIC. The archaeologists conducted an intensive pedestrian survey around each of the previously plotted locations of the resources, and within a 100-meter (m) (328-foot) radius. Because a full Class III inventory of the project site, which encompasses the current project site, was conducted previously, approved, and used to support a certified EIS, an intensive pedestrian survey of the entire project site was not conducted. Between June 17 and 18, 2024, a team of archaeologists conducted an intensive pedestrian survey of 54 acres along the southern boundary of the project area that had not been previously surveyed. The results are presented in the archaeological resources assessment report in Appendix F (currently pending BLM approval).

A GPS receiver with submeter accuracy and topographic maps were used to locate previously recorded sites and project boundaries and to maintain transect accuracy. Additionally, survey transects were spaced no more than 10 m (33 feet) apart and archaeologists examined the ground surface for prehistoric artifacts (e.g., flaked stone tools, toolmaking debris, stone milling tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of the current or former presence of structures or buildings (e.g., standing exterior walls, post holes, foundations), and historic artifacts (e.g., metal, glass, ceramics); in addition to attempting to locate the previously recorded cultural resources within the current project site. Field data were recorded on digital forms using Samsung computer tablets with Android operating systems. Field notes, digital photography, close-scale field maps, and aerial photographs were documented at that time.

3.5.4.2 Historic Resources

BACKGROUND RESEARCH

To develop the historic context and individual property histories presented in the Historical Resources Assessment Report (Appendix G), research included a review of regional and local histories, existing cultural resources studies, historical maps and aerial photographs, and newspaper and photographic archives. Online repositories consulted included the San Bernardino County Assessor, University of California Santa Barbara (UCSB) Library Geospatial Collection, Online Archive of California, Calisphere, HathiTrust Digital Library, Newspapers.com, BLM General Land Office (GLO) records, Ancestry.com, and other databases and sources.

HISTORIC RESOURCES SURVEY

On June 20, 2024, an architectural historian conducted a survey of built environment properties over 45 years old within the study area for built environment resources. The results are presented in the historical resources assessment report in Appendix G (currently pending BLM approval).

3.5.5 Results

3.5.5.1 CHRIS Records Search

The results of previously conducted records searches at the SCCIC indicate that 25 cultural resource studies have been conducted within 1.0 mile (1.6 km) of the project site, 15 of which intersect the project site (**Error! Reference source not found.**). Of the 15 previous cultural resource studies that intersect the project site, one is an ethnographic study and the remaining 14 are archaeological field studies, with one also including an architectural/historical assessment. The majority of the project site was previously surveyed by Duke and Patterson (2009) and McCabe (2013).

Table 3.5-1. Prior Cultural Resource Studies within a 1-Mile (1.6-km) Radius of the Project Site

Report Number	Other ID	Title	Author: Affiliation	Year	Proximity to API/APE
SB-00046	1060046	*Mohave Desert Pipeline Survey*	Grosscup, Gordon L., and Jack E. Smith: –	1960	Within
SB-00874	1060874	*An Archaeological Sampling of the Proposed Allen-Warner Valley Energy System, Western Transmission Line Corridors, Mojave Desert, Los Angeles and San Bernardino Counties, California and Clark County, Nevada*	Barker, James P., Carol H. Rector, and Philip J. Wilke: Archaeological Research Unit, UCR	1979	Within
SB-01080	1061080	*Archaeological Survey Report: Three Material Source Sites Along 115 in the Eastern Mojave Desert*	Hammond, Stephen R.: –	1981	Within
SB-01219	1061219	*An Archaeological Survey of the Proposed Southern California Edison Ivanpah Generating Station, Plant Site, and Related Rail, Coal Slurry, Water and Transmission Line Corridors, San Bernardino County, California, and Clark County, Nevada*	Hall, Matthew C., Philip J. Wilke, Doran L. Cart, and James D. Swenson: Archaeological Research Unit, UCR	1981	Within

Report Number	Other ID	Title	Author: Affiliation	Year	Proximity to API/APE
SB-01220	1061220	*The Ivanpah Generating Station Project: Ethnographic (Native American) Resources*	Bean, Lowell John, Sylvia Brakke Vane, and Jackson Young: Cultural Systems Research, Inc.	1981	Within
SB-01381	1061381	*An Archaeological Survey of the Proposed Barstow to Las Vegas Race Course*	Musser, Ruth A., and Mark Q. Sutton: –	1983	Within
N/A	1061413	*Cultural Resource Assessment for MCI Telecommunications Proposed Soda Lake Area Microwave Tower Site and Access Road*	Smith, Gerard: –	1983	Outside
SB-01475	1061475	*Stone Hotel and People's General Store*	Bethel, Ann: –	1985	Within
SB-01479	1061479	*Mead/Mccullough-Victorville/Adelanto Transmission Project Technical Report: Volume IV, Cultural Resources*	Dames & Moore: Dames & Moore	1985	Outside
N/A	1061551	*Class III Archaeological Survey of Pro-Peace Proposed Lunch and Camp Sites, San Bernardino County, California*	–: UC Riverside Archaeological Research Unit	1986	Within
SB-01734	1061734	*And Paleontological Resources Survey: Us Sprint Fiber Optic Cable Project, Rialto, California To Las Vegas, Nevada*	Shackley, M. Steven, Rebecca McCorkle Apple, Jan Wooley, and Robert E. Reynolds: Dames & Moore	1987	Within
SB-01825	1061825	*Cultural Resource Survey and Clearance for AT&T's Proposed Construction 29 Vault Locations Along Portions of the Socorro to Mojave "A" Cable Line from Needles, California to Kramer Junction, California*	–: Peak & Associates, Inc.	1988	Within
SB-01834	1061834	*Class II Archaeological Survey of the Rasor Off-Highway Vehicle Area, San Bernardino County, California*	Bouey, Paul E., and M.C. Hall: Far Western Anthropological Research Group, Inc.	1988	Within
SB-02220	1062220	*Archaeological Sites of the California Desert Area (Owlshead, Amargosa Mojave Basin Planning Unit, Phase I-III): Archaeological Sample Unit Records*	–: Bureau of Land Management	1978	Outside
SB-02315	1062315	*A Cultural Resource Assessment for Ten Proposed Pac Tel Microwave Tower Sites I-15/Barstow to Mountain Pass*	Cook, John, and Drew Pallette: Brian F. Mooney and Associates	1991	Outside
SB-02470	1062470	*A Cultural Resource Assessment for Thirteen Proposed Pac Tel Microwave Tower Sites I-15/Barstow to Mountain Pass*	Cook, John, and Drew Pallette: Brian F. Mooney and Associates	1991	Outside
N/A	1062597	*Kern River Cultural Resources Survey Report Cima Road and Rasor Road Stockpile Areas San Bernardino County, California*	–: Dames and Moore	1991	Within
N/A	1063163	*A Cultural Resources Assessment of Three Proposed Air Touch Microwave Tower Sites at Rasor Road, San Bernardino County, and Corn Springs Road and Wiley's Well Road, Riverside County, California*	–: Brian F. Mooney and Associates	1996	Outside

Report Number	Other ID	Title	Author: Affiliation	Year	Proximity to API/APE
N/A	1063164	*A Cultural Resources Assessment of Three Proposed Air Touch Microwave Tower Sites at Rasor Road, San Bernardino County, and Corn Springs Road and Wiley's Well Road, Riverside County, California*	–: Brian F. Mooney and Associates	1996	Outside
SB-03668	1063668	*Class III Cultural Resources Inventory for LA Dept of Water & Power-Mead to Adelanto Transmission Line Project: Stateline & Baker Divisions. 218PP*	York, Andrew, W.G. Spaulding, D. Powers, L. Peterson, G. Davis, and T. Wahoff: Dames & Moore	1995	Outside
SB-06489		*Rasor Road, Rasor Road and I-15, Baker, San Bernardino County, California*	Wilkens, Roberts: IVI Due Diligence Services, Inc.	2009	Outside
SB-06730	1066730	*Seismic Retrofit of Three Bridges on Interstate 15 in San Bernardino County: Afton Canyon Road, Basin Road and Rasor Road*	Jones, Gary: CalTrans	2010	Outside
SB-06731		*Cultural Resources Inventory of 6,775 Acres for the Soda Mountain Solar Project, San Bernardino County, California, BLM Report No. 680-09-24*	Duke, Daron, and Brandon Patterson: Far Western	2009	Within
SB-07573		*Cultural Resources Inventory of an Additional 335 Acres for the Soda Mountain Solar Project, San Bernardino County, California.*	McCabe, Allen: –	2013	Within
SB-07980		*Archaeological Survey Report for the Interstate 15 Median Regrade Project from East Yermo Crossing to the Nevada State Line, San Bernardino County, California EA 0C040*	Heidelberg, Kurt: CALTRANS	2005	Within

The CHRIS records search identified 70 previously documented cultural resources within a 1-mile (1.6-km) radius of the project API/APE, 42 of which intersect the API/APE (Table 3.5-2. Previously Recorded Cultural Resources within a 1-Mile (1.6-km) Radius of the Project). The 42 previously documented cultural resources within the project API/APE consist of two historic-era transmission lines (P-36-010315 and P-36-028522), a multicomponent site with both a prehistoric component and a historic-era component (P-36-007689), a historic-era site (P-36-02720), and 38 isolated finds. The two transmission lines are addressed in a separate historic resources assessment report (Demarais et al. 2024).

Site P-36-007689 is the historic-era Arrowhead Trail Highway that connected Los Angeles, California, with Salt Lake City, Utah, by way of Las Vegas, Nevada, with documented prehistoric scatters intersecting different segments of the road. Site P-36-020720 is a historic temporary tent camp site with associated refuse and structural remains.

The 38 isolated finds consist of four prehistoric isolated finds and 34 historic-era isolated finds. The prehistoric isolated finds consist of a lithic unifacial tool (P-36-024398), a flake (P-36-024403), a single reduction locus containing 13 pieces of white cryptocrystalline silicate reduction flakes (P-36-024404), and a projectile point (P-36-024417). The 34 historic-era isolated finds consist of six vent-hole evaporated milk cans (P-36-024409, P-36-024410, P-36-024411, P-36-024414, P-36-024431, and P-36-024438), a multi-serve sanitary food can (P-36-024415), a metal gas can (P-36-024416), a powder can (P-36-024419), two single-serve sanitary food cans (P-36-024429 and P-36-024426), a glass chemical bottle (P-36-024435), a single three tab-top glass bottle with metal lid (P-36-024437), a church key–opened

beverage can (P-36-024424), four hole-in-cap beverage cans (P-36-025535, P-36-025537, and P-36-025538, which has two cans), two baby milk cans (P-36-024432 and P-36-024436), four gas/fuel cans (P-36-024396, P-36-024425, P-36-024428, and P-36-024433), a starter fluid can with screw-top spout (P-36-024427), a rock alignment (P-36-024397), a quart-sized can (P-36-024399), a lid (P-36-024412), a 1955 benchmark within a rock cairn (P-36-024413), a disintegrating rubber tire (P-36-024418), a miscellaneous domestic appliance/mechanical part (P-36-024430), a fragmented, blown brown glass alcohol bottle (P-36-025536), and three knife-opened cans (P-36-024420, P-36-024421, and P-36-024422). All of these resources are documented in detail in Duke and Patterson (2009) and McCabe (2013).

The remaining 27 previously documented cultural resources outside the project API/APE but within a 1-mile (1.6-km) radius consist of five prehistoric sites, one historic-era site, eight prehistoric isolated finds, and 13 historic-era isolated finds.

Table 3.5-2. Previously Recorded Cultural Resources within a 1-Mile (1.6-km) Radius of the Project Site

SCCIC Primary No.	Trinomial	Resource Age	Resource Type	Description	Year Recorded (Recorder)	Proximity to project area/APE
P-36-000874	CA-SBR-000874	Prehistoric	Site	Coyote Lake Southside #11	1955 (Simpson, –)	Outside
P-36-001479	CA-SBR-001479	Prehistoric	Site	CL-51 (Tract 29)	1987 (Bouey et al., –)	Outside
P-36-001734	CA-SBR-001734	Prehistoric	Site	VOIDED	1976 (Hanks, –)	Outside
P-36-007689	CA-SBR-007689/H	Prehistoric, Historic	Site	Arrowhead Trail Highway	1993 (A. York, Dames & Moore); 1997 (Neal Neuenschwander, Peak & Associates, Inc); 2001 (K. Swope, Caltrans Dist 8); 2009 (J. Berg, Far Western); 2010 (J. Howard, ECORP); 2011 (W. Jones, ECORP); 2011 (P. Stanton, SRI); 2012 (G. Cardenas, CH2M Hill); 2012 (A. McCabe, Far Western); 2012 (B. Bartram, Chambers Group, Inc); 2013; (–); 2014 (K. Lindgren, ECORP); 2016 (Daniel Ballester, CRM TECH); 2020 (None, Urbana)	Within
P-36-010315	CA-SBR-010315H	Historic	Structure, Site	Edison Company Boulder Dam-San Bernardino Electrical Transmission Line	1988 (N. Neuenschwander, Peak & Associates, Inc); 1989 (J. Brock, Archaeo Advisory Group); 1993 (–); 1997 (Neal Neuenschwander, Peak & Associates); 1997 (Carrie Wills, WSA); 2006 (Roger Hatheway, Hatheyway & Associates); 2008 (–); 2008 (Jay K. Sander, Chambers); 2009 (Stephen Pappas, ECORP); 2010 (J. Howard, ECORP); 2011 (S. Kremkau, SRI); 2011 (Justin Lev-Tov, SRI); 2012 (C. Bodmer, Chambers Group, Inc); 2012 (N. Lawson, CH2M Hill); 2013 (C. Higgins, Far Western); 2013 (M. O'Neill, Pacific Legacy); 2014 (Wendly L. Tinsley Becker, Urbana Preservation & Planning); 2015 (Audry Williams, SCE); 2018 (Carole Denardo, L&L)	Within
P-36-020718	CA-SBR-013346	Prehistoric	Site	Trail or footpath and an associated cleared circle	2009 (–, Far Western)	Outside
P-36-020719	CA-SBR-013347	Prehistoric	Site	Rock alignment of twelve stones	2009 (–, Far Western)	Outside

SCCIC Primary No.	Trinomial	Resource Age	Resource Type	Description	Year Recorded (Recorder)	Proximity to project area/APE
P-36-020720	CA-SBR-013348H	Historic	Site	Historic assemblage dating from the 1910s to 1970s with four loci and several features and dumps	2009 (B. Patterson, Far Western); 2012 (A. McCabe, Far Western)	Within
P-36-020721	CA-SBR-013349	Prehistoric	Site	A cleared circle located on a desert pavement surface atop an ancient alluvial fan finger	2009 (–, Far Western)	Outside
P-36-024396		Historic	Isolate	Gas can	2009 (–, Far Western)	Within
P-36-024397		Historic	Isolate	Rock alignment	2009 (–, Far Western)	Within
P-36-024398		Prehistoric	Isolate	Chert unifacial flaked tool	2009 (–, Far Western)	Within
P-36-024399		Historic	Isolate	Quart-sized can	2009 (–, Far Western)	Within
P-36-024400		Prehistoric	Isolate	Core reduction flake	2009 (–, Far Western)	Outside
P-36-024401		Historic	Isolate	Remnant of wooden billboard	2009 (–, Far Western)	Outside
P-36-024403		Prehistoric	Isolate	Lithic flake	2009 (–, Far Western)	Within
P-36-024404		Prehistoric	Isolate	Single reduction locus of 13 white cryptocrystalline silicate reduction flakes	2009 (–, Far Western)	Within
P-36-024406		Historic	Isolate	Glass insulator	2009 (–, Far Western)	Outside
P-36-024407		Prehistoric	Isolate	Core reduction flake	2009 (–, Far Western)	Outside
P-36-024408		Prehistoric	Isolate	Lithic flake	2009 (–, Far Western)	Outside
P-36-024409		Historic	Isolate	Vent-hole evaporated milk can	2009 (–, Far Western)	Within
P-36-024410		Historic	Isolate	Vent-hole evaporated milk can	2009 (–, Far Western)	Within
P-36-024411		Historic	Isolate	Vent-hole evaporated milk can	2009 (–, Far Western)	Within
P-36-024412		Historic	Isolate	Lid	2009 (–, Far Western)	Within
P-36-024413		Historic	Isolate	1955 benchmark sitting within a rock cairn	2009 (–, Far Western)	Within
P-36-024414		Historic	Isolate	Vent-hole evaporated milk can	2009 (–, Far Western)	Within
P-36-024415		Historic	Isolate	Multi-serve sanitary food can	2009 (–, Far Western)	Within
P-36-024416		Historic	Isolate	Gas can top with metal spout	2009 (–, Far Western)	Within
P-36-024417		Prehistoric	Isolate	Projectile point	2009 (–, Far Western)	Within
P-36-024418		Historic	Isolate	Disintegrating rubber tire	2009 (–, Far Western)	Within
P-36-024419		Historic	Isolate	Powder can	2009 (–, Far Western)	Within

SCCIC Primary No.	Trinomial	Resource Age	Resource Type	Description	Year Recorded (Recorder)	Proximity to project area/APE
P-36-024420		Historic	Isolate	Knife-opened paint can	2009 (–, Far Western)	Within
P-36-024421		Historic	Isolate	Knife-opened sanitary food can	2009 (–, Far Western)	Within
P-36-024422		Historic	Isolate	Knife-opened food can	2009 (–, Far Western)	Within
P-36-024423		Historic	Isolate	Church key-opened beverage can	2009 (–, Far Western)	Outside
P-36-024424		Historic	Isolate	Church key-opened beverage can	2009 (–, Far Western)	Within
P-36-024425		Historic	Isolate	3-gallon fuel can	2009 (–, Far Western)	Within
P-36-024426		Historic	Isolate	Single-serve sanitary food can	2009 (–, Far Western)	Within
P-36-024427		Historic	Isolate	Starter fluid can with screw top spout	2009 (–, Far Western)	Within
P-36-024428		Historic	Isolate	5-gallon fuel can	2009 (–, Far Western)	Within
P-36-024429		Historic	Isolate	Single-serve sanitary food can (opened with can opener)	2009 (–, Far Western)	Within
P-36-024430		Historic	Isolate	Miscellaneous Domestic appliance part/ Mechanical part	2009 (–, Far Western)	Within
P-36-024431		Historic	Isolate	Vent-hole evaporated milk can	2009 (–, Far Western)	Within
P-36-024432		Historic	Isolate	Baby milk can (dating from 1917 to 1930)	2009 (–, Far Western)	Within
P-36-024433		Historic	Isolate	Fuel can	2009 (–, Far Western)	Within
P-36-024434		Historic	Isolate	Vent-hole evaporated baby milk can	2009 (–, Far Western)	Outside
P-36-024435		Historic	Isolate	Automatic glass chemical bottle	2009 (–, Far Western)	Within
P-36-024436		Historic	Isolate	Baby milk can (dating from 1917 to 1930)	2009 (–, Far Western)	Within
P-36-024437		Historic	Isolate	A three tab-top bottle with metal lid	2009 (–, Far Western)	Within
P-36-024438		Historic	Isolate	Vent-hole evaporated baby milk can	2009 (–, Far Western)	Within
P-36-024439		Historic	Isolate	Military refuse	2009 (–, Far Western)	Outside
P-36-024449		Prehistoric	Isolate	Lithic flake	2009 (–, Far Western)	Outside
P-36-024450		Prehistoric	Isolate	Obsidian biface	2009 (–, Far Western)	Outside
P-36-024451		Historic	Isolate	Metal milk can	2009 (–, Far Western)	Outside
P-36-024452		Prehistoric	Isolate	Cryptocrystalline biface	2009 (–, Far Western)	Outside
P-36-024453		Prehistoric	Isolate	Unifacial ground stone	2009 (–, Far Western)	Outside
P-36-024454		Historic	Isolate	Rock cairn	2009 (–, Far Western)	Outside
P-36-024455		Historic	Isolate	Evaporated milk can	2009 (–, Far Western)	Outside

SCCIC Primary No.	Trinomial	Resource Age	Resource Type	Description	Year Recorded (Recorder)	Proximity to project area/APE
P-36-024456		Prehistoric	Isolate	Single reduction locus of white cryptocrystalline lithics	2009 (–, Far Western)	Outside
P-36-024457		Historic	Isolate	One-gallon glass-lined metal thermos	2009 (–, Far Western)	Outside
P-36-025535		Historic	Isolate	Hole-in-cap can	2009 (–, Far Western)	Within
P-36-025536		Historic	Isolate	Blown, brown alcohol bottle break	2012 (–, Far Western)	Within
P-36-025537		Historic	Isolate	Hole-in-cap can	2012 (–, Far Western)	Within
P-36-025538		Historic	Isolate	Two hole-in-cap cans	2012 (McCabe, A., –)	Within
P-36-028478		Historic	Isolate	Church key-opened flat-top beverage can	2012 (G. Granger, Chambers Group, Inc)	Outside
P-36-028479		Historic	Isolate	Caltrans survey marker	2012 (G. Granger, Chambers Group, Inc)	Outside
P-36-028480		Historic	Isolate	Three-piece beverage can	2012 (G. Granger, Chambers Group, Inc)	Outside
P-36-028481		Historic	Isolate	Colorless glass insulator attached to a wooden dowel	2012 (G. Granger, Chambers Group, Inc)	Outside
P-36-028516	CA-SBR-028516H	Historic	Site	Sparse refuse scatter made up of six flat-top steel beverage cans and a single one-quart oil can	2012 (C. Bodmer, Chambers Group, Inc)	Outside
P-36-028522	CA-SBR-028522H	Historic	Structure, Site	Altered, overhead electrical transmission line that is currently in active service	2012 (C. Bodmer, Chambers Group, Inc)	Within

3.5.5.2 Sacred Lands File Search

The NAHC released the results of the SLF search on January 24, 2023; the results were negative. The letter notes, however, that the SLF and CHRIS are not exhaustive inventories of resources that may be present in any given area and that tribes may uniquely possess information on the presence of an archaeological resource. The NAHC provided a list of 12 Native American contacts and suggested contacting them to provide information on sacred lands that may not be listed in the SLF.

3.5.5.3 Archaeological Resources Survey

Two previously recorded sites (P-36-007689 and P-36-020720) and 38 previously recorded isolated finds were previously plotted within the project site. P-36-007689 is the Arrowhead Trail Highway, a multicomponent site with both prehistoric components and historic–era components.

Site P-36-007689 (CA-SBR-007689/H) consists of the Arrowhead Trail Highway, a multicomponent site with both historic–era components and prehistoric components (Duke and Patterson 2009). A segment of the resource was verified that intersects the project API/APE and remains the same as described by Duke and Patterson (2009) and McCabe (2013). Duke and Patterson (2009) noted that Arrowhead Trail Highway is not currently listed in the NRHP but is potentially eligible under Criteria A and C, though they recommended the segment of the resource that intersects the project API/APE as a non-contributing

element, given its lack of integrity. No update was made to the site record by SWCA as the resource has been updated within the past 3 years.

Site P-36-020720 (CA-SBR-13348H) was originally recorded in 2009 by Far Western and described as a historic- to modern-period complex with several features including a temporary worker's tent camp, remains of a roadside service station, roadside garage, a privy, a gravel processing area and sorter foundation, several historic dump pits mostly consisting of automobile parts, building materials, and household refuse intermixed with modern trash (Duke and Patterson 2009). The 2012 update by Far Western (McCabe et al. 2012) added several additional refuse dumps, and the previously recorded privy was noted as a motor oil dump pit feature (a cement-capped wood-lined oil dump pit). Site P-36-020720 was previously recommended ineligible for the NRHP or CRHR (Duke and Patterson 2009).

Two of the 38 isolated finds previously recorded within the project site were located, despite conducting a close interval survey around the plotted area of the resources. It should be noted that all the isolated finds are plotted within, or close to, ephemeral drainages in an alluvial landscape; therefore, they may have eroded farther downslope or been buried by alluvial processes. As ground surface visibility averaged from 80 to 95 percent, these isolated finds are unlikely to be covered by vegetation. It is also possible that they were plotted incorrectly. Regardless, as isolated finds, they typically would not be considered eligible for the NRHP or CRHR; accordingly, all were recommended not eligible for the NRHP in Duke and Patterson (2009) and McCabe (2013).

3.5.5.4 Historic Resources Survey

Results are pending BLM approval of historical resources assessment report.

3.5.6 Impact Analysis

3.5.6.1 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA. Specifically, the project would be considered to have a significant effect on cultural resources if the effects exceed the significance criteria described below:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; and/or
3. Disturb any human remains, including those interred outside of dedicated cemeteries

Each of these thresholds is discussed under Section 3.5.5.2, Impact Assessment, below.

3.5.6.2 Applicant-Proposed Measures

The Applicant has identified and committed to implement the following APMs as part of the proposed Projects to avoid or substantially lessen potentially significant impacts to cultural resources, to the extent feasible. The APMs, where applicable, are discussed in the impact analysis section below.

APM CUL-1: Prior to any ground disturbing activities, the Applicant shall retain a qualified archaeologist, defined as one meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology and subject to approval by the BLM, to conduct cultural resources sensitivity training for

all construction personnel. Construction personnel shall be informed of the types of cultural resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources. The Applicant shall ensure that all construction personnel are made available for and attend the training and shall retain documentation demonstrating attendance.

APM CUL-2: A Cultural Resources Discovery and Monitoring Plan (CRDMP) shall be developed at least 30 days prior to ground disturbing activities and implemented by an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for archaeology. The CRDMP shall detail provisions for the archaeological monitoring of Project construction. Archaeological monitoring during ground- disturbing activities shall be conducted by an archaeologist familiar with the types of historic and prehistoric resources that could be encountered within the APE, who shall have the authority to halt construction in the event of a discovery. The archaeological monitor shall work under the direct supervision of the qualified archaeologist. All cultural resources personnel will be approved by the BLM.

The CRDMP shall detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing National Register- and California Register-eligibility in the event that unknown cultural resources are discovered during construction. The CRDMP shall require that the contractor immediately cease all work activities in the area (within 100 feet) of the discovery until it can be evaluated by a qualified archaeologist. After cessation of excavation, the contractor shall immediately contact the BLM Archaeologist. The contractor shall not resume work until authorization from the BLM is received.

If the qualified archaeologist, in consultation with BLM, determines that the discovery constitutes a historic property per Section 106 of the National Historic Preservation Act or a historical or unique archaeological resource under the California Environmental Quality Act, preservation in place shall be the preferred manner of mitigation (Public Resources Code §21083.2). In the event preservation in place is demonstrated to be infeasible, a treatment plan shall be prepared by the qualified archaeologist and shall be approved by the BLM prior to implementation. The BLM shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Archaeological materials recovered during any investigation shall be curated at an accredited curational facility. The CRDMP shall include provisions for reporting of monitoring and any treatment of resources in a timely manner.

APM CUL-3: If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM Authorized Officer shall be informed immediately. The BLM shall ensure that any Native American human remains, funerary objects, sacred objects, and/or objects of cultural patrimony discovered on BLM administered lands during implementation of the Project will be treated in accordance with the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) (Pub. L. 101-601, 25 USC § 3001 et seq.) and 43 CFR Section 10. Avoidance and protection of inadvertent discoveries that contain human remains through Project redesign shall be the preferred protection strategy.

3.5.6.3 Impact Assessment

Impact CR-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? (Less than Significant)

Analysis is pending BLM approval of historic resources assessment report.

Impact CR-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? (Less than Significant)

The CHRIS results indicate that two previously recorded sites (P-36-007689 and P-36-02720) and 38 previously recorded isolated finds are within the project site. An additional 21 previously recorded isolated finds, which were plotted just outside the project site boundaries, were also identified during the record search. The SLF search from the NAHC yielded negative results. Additional fieldwork conducted by SWCA is pending approval of BLM. The following analysis is based on prior studies.

Although the Arrowhead Trail Highway (P-36-007689) was previously evaluated as historically significant under NRHP and CRHR Criteria A/1 and C/3, Duke and Patterson (2009) recommended that the segment of the resource that intersects the project site as a non-contributing element, given its lack of integrity. The current analysis concurs with the previous findings that the segment intersecting the project site lacks sufficient integrity due to physical deterioration and modern impacts and no longer conveys its significance and is therefore not a contributing element.

Site P-36-02720 was previously evaluated as ineligible for the NRHP and CRHR under all criteria by Duke and Patterson (2009) due to low integrity and low informational potential. Site P-36-02720 lacks sufficient integrity due to physical deterioration and modern impacts and contains little informational value. As such, the previously recorded isolates, the historic-era site, and the segment of Arrowhead Trail Highway that transects the project site are not historical resources for the purposes of CEQA.

Therefore, the project would not have a significant impact on known cultural or archeological resources. Furthermore, although the depositional context of the area has the potential to contain partially or shallowly buried resources, the sparse vegetation provided excellent ground surface visibility to facilitate the identification of archaeological materials if they were present. Though it is impossible to completely rule out subsurface deposits, the evidence presented here indicates that the presence of subsurface deposits is unlikely.

However, there is always a possibility that currently unknown resources could be identified during ground-disturbing activities. As outlined in APM CUL-1, a qualified archaeologist would provide cultural resources sensitivity training to the construction personnel for awareness and procedures to be enacted in the event of an inadvertent discovery of archaeological resources. In addition, APM CUL-2 requires development of a Cultural Resources Discovery and Monitoring Plan (CRDMP), which would outline archaeological monitoring, procedures for construction cessation, and provisions for reporting of monitoring and any treatment of resources in a timely manner. Implementation of APM CUL-1 and APM CUL-2 would ensure that impacts to archaeological resources would be **less than significant**.

Impact CR-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries? (Less than Significant)

A review of the archaeological record search and results of recent surveys did not identify any human remains in the study area. The project site is not located on a known cemetery and no human remains are anticipated to be found or disturbed during the construction phase. However, although unlikely, the discovery of human remains is always a possibility during ground-disturbing activities; State of California Health and Safety Code (HSC) Section 7050.5 addresses these findings. APM CUL-3 provides protection for any human remains under the applicable codes for the treatment of human remains encountered during project construction, operation, and future decommissioning. HSC Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. Section 7050.5 prescribes the requirements for the treatment of any human remains that are accidentally discovered during the excavation of a site. The code section further

requires that all activities cease immediately, and a qualified archaeologist and Native American monitor be contacted immediately. If the human remains are determined to be prehistoric, the County Coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 24 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with APM CUL-3 and the established regulatory framework (i.e., HSC Sections 7050.5-7055 and PRC Sections 5097.98 and 5097.99) would ensure potential project impacts concerning human remains are less than significant. APM CUL-3 is supplemented by APM CUL-1 and APM CUL-2, which provide for archaeological monitoring and resource treatment.

Operation of the project would not require substantial ground-disturbing activities, such as grading or excavation; therefore, it is not anticipated that project operation would encounter subsurface human remains. Therefore, impacts related to human remains during project operation are not anticipated.

Implementation of APM CUL-1 through APM CUL-3 would ensure that impacts to human remains would be **less than significant**.

3.5.7 Mitigation Measures

No mitigation measures are required.

3.5.8 Cumulative Impacts

Impact C-CR-1: Would the impacts of the proposed project, in combination with other past, present, and reasonably foreseeable future projects, contribute to a cumulative impact related to cultural resources? (Less than Significant)

Chapter 3, Table 3-1 lists the projects considered for the cumulative impact analysis. Construction and (to a lesser extent) operation of solar facilities within the county has the potential to directly damage cultural resources, including historic resources, archaeological resources, and human remains within the region. However, cumulative projects would be required to avoid or minimize impacts to cultural resources to the extent practicable pursuant to federal and State law, including CEQA. Given the project would have neither a direct impact or an indirect impact on cultural resources, it **would not contribute to or have a cumulative impact** on cultural resources.

3.5.9 References Cited

AA Roads
2024 “Interstate 15.” Available at https://www.aaroads.com/guides/i-015-ca/. Accessed July 2024.

Audubon California, Kern River Preserve
1998 Native American People of the Kern River Valley. Available at: http://www.kern.audubon.org/cultural_resources.htm. Accessed on May 25, 2023.

Barstow Printer (Barstow, California)
1939 “Cooley’s Station Will be Rebuilt” September 21. Available at Newspapers.com. Accessed June 2024.

Bean, Lowell J., and Charles R. Smith
1978 Serrano. In *California*, edited by Robert F. Heizer, pp. 570–574. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Bean, Lowell J., and Sylvia Brakke Vane
1994 Chemehuevi. In *Native America in the Twentieth Century: An Encyclopedia*, edited by Mary B. Davis, pp. 94–95. Garland Publishing Inc., New York.

2002 The Native American Ethnography and Ethnohistory of Joshua Tree National Park: An Overview: Section IV. The Serrano. Available at: http://www.npshistory.com/publications/jotr/bean-vane/index.htm. Accessed May 25, 2023.

Beattie, George (translator)
1955 Appendix II: Diario De Un Exped' Tera Adentro Del P. Jose' M' A. De Zalvidea, Desde El 19 De Julio Hasta El 14 De Agosto De 1806. In *Preliminary Report of the Archaeological Survey of the Deep Creek Site on the Upper Mojave River,* by Gerald A. Smith. San Bernardino County Museum Association Quarterly 2(2). Redlands, California.

Bodmer, C., B. Bartram, Z. Lee, and K. Crosmer (Chambers Group)
2012 DPR forms for GG-001 (transmission line), P-36-028522. On file with the SCCIC and SWCA.

Bunte, Pamela A., and Robert J. Franklin
1994 Southern Paiute. In Native America in the Twentieth Century: An Encyclopedia, edited by Mary B. Davis, pp. 428–432. Garland Publishing, Inc., New York and London.

Butler, Elda J.
1994 Mojave. In *Native America in the Twentieth Century: An Encyclopedia*, edited by M. B. Davis, pp. 355–357. Garland Publishing Inc., New York.

California Energy Commission
2008 *Final Staff Assessment (FSA) for the Victorville 2 Hybrid Power Project, San Bernardino County, California.* Prepared by CEC staff (AFC 07-AFC-1). California Energy Commission.

California Department of Transportation (Caltrans)
2010 *A Historical Context and Archaeological Research Design for Townsite Properties in California*. Available at https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/townsites-a11y.pdf. Accessed June 2024.

Chino Champion
1949 "Certificate of Business Fictitious Firm Name," 18 November 1949, p. 14. *Chino Champion* Chino, California.

Coues, Elliott
1900 *On the Trail of a Spanish Pioneer: The Dairy and Itinerary of Francisco Garcés (Missionary Priest) in his Travels through Sonora, Arizona, and California, 1775-1776.* Vol. 1. Francis P. Harper, New York, New York.

Desert Dispatch (Barstow, California)
1947 "Notice of Intention to Sell." July 17. Available at Newspapers.com. Accessed June 2024.

1949 "Notice of Intended Sale," 03 November. Available at Newspapers.com. Accessed July 2024.

1980 "Notices to Creditors," 17 July. Available at Newspapers.com. Accessed July 2024.

Duke, Daron, and Brandon Patterson
2009 *Cultural Resources Inventory of 6,775 Acres for the Soda Mountain Solar Project, San Bernardino County, California*. Far Western Anthropological Research Group, Inc., Desert Branch, Las Vegas, Nevada.

Freeman, Paul
2024 "Baker Intermediate Field, Baker, CA." Available at http://www.airfields-freeman.com/ca/Airfields_CA_SanBernardino_NE.htm#baker. Accessed July 2024.

Frémont, John C.
1845 *Report of the Exploring Expedition to the Rocky Mountains in the Year 1842, and to Oregon and North California in the Years 1843–44*. Gales and Seaton: Washington, D.C.

Fort Mojave Indian Tribe
2021 The People by the River. Available at: https://www.fortmojaveindiantribe.com/about-us/. Accessed June 14, 2023.

Google Earth
1995 Rasor Road, Baker, California (September 28, 1995). USGS Aerial Imagery. Accessed June 2024.

2004 Rasor Road, Baker, California (September 27, 2004). Maxar Technologies. Accessed June 2024.

2009 Rasor Road, Baker, California (May 24, 2009). USDA/FPAC/GEO. Accessed June 2024.

2023 Rasor Road, Baker, California (August 23, 2023). USGS Aerial Imagery. Accessed June 2024.

Grosscup, Gordon L.
1977 Notes on Boundaries and Culture of the Panamint Shoshone and Owens Valley Paiute. In *Great Basin Anthropological Papers*, No. 35, pp. 109–150. Archaeological Research Facility, Department of Anthropology, University of California, Berkeley.

Hodal, Stephanie
2020 DPR forms for P-36-010315, Boulder Dam-San Bernardino Transmission Line. On file with SWCA.

Hoffman, Ogden
1862 *Reports of Land Cases Determined in the United States District Court, Northern District of California, Volume 1, Ogden Hoffman, District Judge*. Numa Hubert, Publisher: San Francisco, California.

Kawaiisu Language and Cultural Center
2018 About Us. Formerly available at: http://www.kawaiisu.org/aboutus.html. Last accessed November 20, 2018.

Kawaiisu Tribe of Tejon
2021 Kawaiisu Tribe of Tejon. Available at: https://kawaiisutribeoftejon.blogspot.com/. Accessed on May 25, 2023.

Kelly, Isabel T., and Catherine S. Fowler
1986 Southern Paiute. In *Great Basin*, edited by Warren L. D'Azevedo, pp. 435–465. Handbook of North American Indians, Vol. 11, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Kroeber, A. L.
1925 *Handbook of the Indians of California*, A. L. Kroeber. Government Documents and Publications.

Langum, D. J.
1987 *Law and Community on the Mexican California Frontier: Anglo-American Expatriates and the Clash of Legal Traditions, 1821-1846.* University of Oklahoma Press: Norman, Oklahoma.

Lee, G., and W. D. Hyder
1991 Prehistoric Rock Art as an Indicator of Cultural Interaction and Tribal Boundaries in South-central California. *Journal of California and Great Basin Anthropology* 13(1):15–28.

McCabe, Allen
2013 *Cultural Resources Inventory of an Additional 335 Acres for the Soda Mountain Solar Project, San Bernardino County, California.* (Addendum to Duke, Daron C., and Brandon Patterson [2009] *Cultural Resources Inventory of 6,775 Acres for the Soda Mountain Solar Project, San Bernardino County, California*.) Far Western Anthropological Research Group, Inc., Desert Branch, Las Vegas, Nevada.

Mithun, Marianne
2004 *The Languages of Native North America.* Reprinted. Cambridge University Press, Cambridge, Massachusetts. Originally published 1999, Cambridge University Press, Cambridge, Massachusetts.

Moratto, Michael J.
2004 *California Archaeology*. Coyote Press, Salinas, California.

National Environmental Title Research (NETROnline)
2024 [Beacon Station 1978-2020] Historic Aerials Viewer. Available at: https://www.historicaerials.com/viewer. Accessed June-July 2024.

National Park Service
2018 The Southern Paiute. Formerly available at: https://www.nps.gov/cebr/learn/historyculture/the-southern-paiute.htm. Accessed November 20, 2018.

Nevin, David
1974 *The Expressmen.* Time-Life Books: Alexandria, Virginia.

Nystrom, Eric Charles
2003 *From Neglected Space to Protected Place: An Administrative History of Mojave National Preserve.* Great Basin Cooperative Ecosystem Studies Unit (CESU), University of Nevada, Reno: Reno, Nevada. Prepared for Mojave National Preserve, National Park Service. Available at: http://npshistory.com/publications/moja/adhi.pdf. Accessed June 2024.

San Bernardino County
2024a Tax Assessor Database, Property Information Management System (PIMS) for APN 054330103. Available at: www.sbcounty.gov/assessor/pims/PIMSINTERFACE.ASPX. Accessed June 6, 2024.

2024b Tax Assessor Database, Property Information Management System (PIMS) for Assessor Parcel Number (APN) 054330201. Available at: www.sbcounty.gov/assessor/pims/PIMSINTERFACE.ASPX. Accessed June 6, 2024.

San Bernardino County Sun/San Bernardino Sun
1939 "Californians Will Dedicate Barstow Hall." September 7. Available at Newspapers.com. Accessed July 2024.

1963 "Division of Highways Sets Public Auction Tomorrow," January 2. Available at: https://cdnc.ucr.edu/?a=d&d=SBS19630102.1.20&srpos=7&e=------196-en--20-SBS-1-byDA-txt-txIN-%22Beacon+Station%22-------. Accessed June 7, 2024.

1964 "Freeway Improvement," 21 February. Available at: www.newspapers.com. Accessed June 2024.

San Fernando Band of Mission Indians
2021 Our History. Available at: https://sfbmi.org/who-we-are. Accessed May 28, 2023.

San Manuel Band of Mission Indians
2008 Tribal Government. Formerly available at: http://www.sanmanuel-nsn.gov/tribal.php. Last accessed July 29, 2008.

2021 About SMBMI. Available at: https://sanmanuel-nsn.gov/culture/about-smbmi. Accessed May 25, 2023.

Smith, Gerald A., and Ruth D. Simpson
1964 *An Introduction to the Basketry of Contemporary Indians of San Bernardino County*. San Bernardino Museum, Bloomington, California.

Southern California Edison (SCE) Distribution Resource Plan External Portal (DRPEP)
2024 Inn Circuit, DER Growth Scenario, Planning; Distribution Circuits; RAM-Circuits; ICA-Circuit Segments; and Available Load Capacity. Available at https://drpep.sce.com/drpep/#. Accessed July 2024.

Steward, Julian H.
1938 *Basin-Plateau Aboriginal Sociopolitical Groups*. Bureau of American Ethnology Bulletin 120.

1970 *Basin-Plateau Aboriginal Sociopolitical Groups.* Reprinted. University of Utah Press, Salt Lake City. Originally published 1938. Bulletin No. 120, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Stein, Pat
1994 *Historic Trails in Arizona from Coronado to 1940.* SWCA, Inc., for the Arizona State Historic Preservation Office. SWCA, Inc.: Phoenix, Arizona.

Stoffle, Richard, and Maria N. Zedeño
2001 Historical Memory and Ethnographic Perspectives on the Southern Paiute Homeland. *Journal of California and Great Basin Anthropology* 23(2):229–248.

Sutton, M. Q.
2001 Excavations at Teddy Bear Cave (CA-KER-508), Tomo-Kahni State Park, Southern Sierra Nevada, California. *Pacific Coast Archaeological Society Quarterly* 37(1).

SWCA Environmental Consultants
Under review with BLM *Historical Resources Assessment Report for the Soda Mountain Solar Project, San Bernardino County, California*.

Under review with BLM *Addendum – Archaeological Resources Assessment of the Soda Mountain Solar Project for an Environmental Impact Report, San Bernardino County, California*.

Tejon Indian Tribe
2021 Tejon Indian Tribe. Formerly available at: https://www.tejonindiantribe.com/. Last accessed May 25, 2021.

The Center for Land Use Interpretation
2024 "Razor Road AT&T Bunker, California." Available at https://clui.org/ludb/site/razor-road-att-bunker. Accessed July 2024.

Theodoratus, Dorothea, Geri Emberson, David White, Steven W. Conkling, and Deborah McLean
1998 *Death Valley National Park Cultural Affiliation Study.* Prepared for Death Valley National Park. On file at Eastern Information Center, Riverside, California.

Twenty-Nine Palms Band of Mission Indians
2021 Twenty-Nine Palms Band of Mission Indians: The Official Tribal Government Website. Available at: https://www.29palmstribe.org/. Accessed May 26, 2023.

University of California, Santa Barbara (UCSB) Library
1952 Aerial photograph. Flight AXL-1953B, Frame 7K-112. Available at: https://mil.library.ucsb.edu/ap_indexes/FrameFinder/. Accessed July 2024.

Urbana Preservation & Planning, LLC
2021 *Historic-Era Built Environment Survey Report, Proposed Transmission Line Rating and Remediation Program, Ivanpah-Control Project, Inyo, Kern and San Bernardino Counties, California*. On file with SWCA.

U.S. Geological Survey (USGS)
1933 Avawatz Mountains 1:250,000 scale quadrangle. Available at https://ngmdb.usgs.gov/topoview/viewer/#4/40.00/-100.00. Accessed July 2024.

1945 Avawatz Mountains 1:250,000 scale quadrangle. Available at https://ngmdb.usgs.gov/topoview/viewer/#4/40.00/-100.00. Accessed July 2024.

1947 Aerial Image AR1CW0000020161. Available at: https://earthexplorer.usgs.gov/scene/metadata/full/5e83d8e4870f4473/AR1CW0000020161/

1957 Soda Lake 15-minute quadrangle. Available at https://ngmdb.usgs.gov/topoview/viewer/#4/40.00/-100.00. Accessed July 2024.

1960 Soda Lake 15-minute quadrangle. Available at https://ngmdb.usgs.gov/topoview/viewer/#4/40.00/-100.00. Accessed July 2024.

1972 Aerial Image AR5720008677228. Available at: https://earthexplorer.usgs.gov/scene/metadata/full/5e83d8e4870f4473/AR5720008677228/

1978 Soda Lake 15-minute quadrangle. Available at https://ngmdb.usgs.gov/topoview/viewer/#4/40.00/-100.00. Accessed July 2024.

1983 West of Soda Lake 7.5-minute quadrangle. Available at https://ngmdb.usgs.gov/topoview/viewer/#4/40.00/-100.00. Accessed July 2024.

U.S. Government Publishing Office

1995 Federal Register, vol. 70, no. 46, March 10, 2005, pages 11928-11931. Available at https://www.govinfo.gov/content/pkg/FR-2005-03-10/html/05-4739.htm. Accessed July 2024.

Zigmond, M.

1986 Kawaiisu. In *Great Basin,* edited by W. L. d'Azevedo, pp. 398–411. Handbook of North American Indians, Vol. 11, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

1994 Kawaiisu. In *Native America in the Twentieth Century: An Encyclopedia,* edited by Mary B. Davis, pp. 285–286. Garland Publishing, Inc., New York.