

## 4.5 CULTURAL RESOURCES

### 4.5.1 Regulatory Settings

The following is a list of laws, policies, and plans relevant to cultural and paleontological resources.

#### **Federal**

##### Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act of 1966, as amended, as required by the Advisory Council on Historic Preservation (ACHP), and with regulations contained in 36 Code of Federal Regulations (C.F.R.) Part 800, requires that federal agencies consider the effects of proposed Projects on historic properties as part of the environmental assessment process.

Section 106 of the NHPA defines “historic properties” as:

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR Part 800 Protection of Historic Properties, Section 800.16 Definitions [l] [1]).

According to 36 C.F.R. 60.4, a resource may be considered *historically significant* if it retains integrity and meets at least one of the following criteria. A property may be eligible for the NRHP if the resource:

- A. is associated with events that have made a significant contribution to the broad patterns of our history; or
- B. is associated with the lives of persons significant in our past; or
- C. embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; or
- D. has yielded, or may be likely to yield, information important in prehistory or history.

##### Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) established a means for Native Americans, including Indian Tribes, to request the return of human remains and other sensitive cultural items held by federal agencies or federally assisted museums or institutions. NAGPRA also contains provisions regarding the intentional excavation and removal of, inadvertent discovery of, and illegal trafficking in Native American human remains and sensitive cultural items.

### American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) established federal policy for protecting and preserving the inherent right of individual Native Americans to believe, express, and exercise their traditional religions including, but not limited to, access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.

### Religious Freedom Restoration Act

The Religious Freedom Restoration Act (RFRA) is a 1993 U.S. federal law aimed at preventing laws that substantially burden a person's free exercise of their religion.

### Indian Trust Assets

Indian Trust Assets (ITAs) are legal interests in property held in trust by the U.S. for Indian Tribes or Indian individuals. The Secretary of the Interior, acting as the trustee, holds many assets in trust. Examples of objects that may be trust assets are lands, minerals, hunting and fishing rights, and water rights. While most ITAs are on reservations, they also may be found off reservations. The U.S. has an Indian trust responsibility to protect and maintain rights reserved by or granted to Indian Tribes or Indian individuals by treaties, statutes, and Executive Orders (EOs). These sources of trust responsibility are sometimes further interpreted through court decisions and regulations. Management of ITAs is based on, but not limited to, the following EOs and memorandums:

#### Executive Order 13175

EO 13175, Consultation and Coordination with Indian Tribal Governments, 63 F.R. 96 (November 6, 2000). EO 13175 was issued to establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications. When implementing such policies, agencies shall consult with tribal officials as to the need for federal standards and any alternatives that limit their scope or otherwise preserve the prerogatives and authority of Indian tribes.

#### Executive order 13007

EO 13007 requires federal agencies to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions to: (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners, and (2) avoid adversely affecting the physical integrity of such sacred sites. It also requires agencies to develop procedures for reasonable notification of proposed actions or land management policies that may restrict access to or ceremonial use of, or adversely affect, sacred sites. Sacred sites are defined in the executive order as "any specific, discrete, narrowly delineated location on federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site." It should be noted that a sacred site may not meet the NRHP criteria for a historic property and, conversely, a historic property may not meet the criteria for a sacred site.

### Government-to-Government Relations

Government-to-Government Relations with Native American Tribal Governments is a memorandum signed by President Clinton on April 29, 1994. The Memorandum directs federal agencies to consult, to the greatest extent practicable and to the extent permitted by law, with tribal governments prior to taking actions that affect federally recognized tribal governments. Federal agencies must assess the impact of federal government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during such development.

### Omnibus Public Land Management Act Paleontological Resources Preservation of 2009

The Public Land Management Act Paleontological Resources Preservation (OPLMA-PRP) calls on the Secretary of the Interior to provide protection for vertebrate paleontological resources on federal lands by limiting the collection of vertebrate fossils and scientifically important fossils to permitted and qualified researchers.

### **State**

#### California Environmental Quality Act

CEQA requires that local agencies consider potential significant environmental impacts to cultural resources as a result of proposed Projects. Significant resources are those that are listed in or considered eligible for listing in the California Register of Historical Resources (CRHR). Nevertheless, a resource or property not listed on the CRHR does not exclude it from being a significant resource and does not make it exempt from CEQA evaluation. Specific to Imperial County, this includes historic districts and prehistoric and historic archaeological sites within the County. This EIR has been prepared as a Programmatic EIR pursuant to CEQA Guidelines, Section 15168. Completion of the Programmatic EIR will allow future individual renewable energy projects to “tier” off this environmental document. The proposed Project would be implemented on a “project-by-project” basis based on County approval of individual renewable energy projects. Future renewable energy projects developed per the proposed Project would need to be reviewed in the context of this Programmatic EIR to determine if additional environmental documentation would be required.

#### The California Register of Historic Resources (Public Resources Code, Section 5020 et seq.)

Properties expected to be directly or indirectly affected by a proposed Project must be evaluated for CRHR eligibility. The purpose of the CRHR is to maintain listings of the State’s historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change.

The term “historical resources” includes a resource listed in, or determined to be eligible for listing in, the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (C.C.R. Section 15064.5[a]). The criteria for listing properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the NRHP.

The California Office of Historic Preservation (OHP 1995:2) regards “...any physical evidence of human activities over 45 years old...” as meriting recordation and evaluation. According to Public Resources Code (P.R.C.) Section 5024.1(c) (1–4), a resource may be considered historically significant if it retains

integrity and meets at least one of the following criteria. A property may be listed in the CRHR if the resource:

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 installation, 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.

California Public Resources Code, Sections 21083.2 and 21084.1

Under CEQA, if an archaeological site is not a historical resource but meets the definition of a “unique archeological resource” as defined in P.R.C. Section 21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a “unique archaeological resource” under CEQA P.R.C. Section 21083.2 are viewed as not significant. Under CEQA, “...A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects...” (P.R.C. Section 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a proposed project are thus considered significant if the project: (1) physically destroys or damages all or part of a resource; (2) changes the character of the use of the resource or physical feature within the setting of the resource which contributes to its significance; or (3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

Senate Bill 18

Senate Bill (SB) 18, which went into effect on January 1, 2005, requires local governments to consult with Native American tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The purpose of involving tribes at these early planning stages

is to allow consideration of cultural places in the context of broad local land use policy before individual site-specific, project-level land use decisions are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005. This regulation is of particular importance to the proposed Project, since several tribes live within Imperial County.

California Health and Safety Code, Sections 7050.5, 8062, 7052, and 7054

This collection of State of California Health and Safety Codes (HSC) addresses the unanticipated discovery of human remains. The code states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to P.R.C. Section 5097.98.

California Public Resources Code, Section 5097.98 and Section 15064.5(e)

Under these code sections, the County Coroner must be notified of an unanticipated discovery of human remains 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 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

California Code of Regulations, Title 14, Division 3, Chapter 1, Sections 4307-4309

These code sections prohibit the removal and destruction of geological features and any object of archaeological or historical interest or value. Section 4309 provides that the Department of Parks and Recreation may grant a permit to remove, treat, disturb, or destroy plants or animals or geological, historical, archaeological, or paleontological materials.

**4.5.2 Existing Environmental Setting**

Cultural Setting

*Prehistoric*

The prehistoric background of the Colorado Desert, including Imperial County, consists of three major periods: the San Dieguito (10,000 to 1200 B.C.), the Gypsum/Amargosa (1200 B.C. to A.D. 1200), and the Protohistoric/Shoshonean (A.D. 1200 to European Contact). Although some would argue the presence of an earlier Malpais period (prior to 10,000 B.C.), dating methods of artifacts associated with these sites remain subjective and have been commented on by numerous critics (Taylor and Payen 1979; McGuire and Schiffer 1982; Taylor 1991; Schaefer 1994). Recent redating analysis of the Yuha Man and other previously believed “early man” inhumations have resulted in more reliable dates that fall within the San Dieguito period (Schaefer 1994: 62). Evidence of a Malpais period in the Colorado Desert is, therefore, still subjective.

*The San Dieguito Period*

The San Dieguito complex, first defined by Malcolm J. Rogers (1966), has been identified at prehistoric sites throughout California as well as sites in the Great Basin, Mojave Desert, western Arizona, and the Colorado Desert (Rogers 1966; Warren and True 1961; Laylander 2005). The period is characterized by

three distinct horizons (San Dieguito I, II, and III) with differences represented through typological changes in tool production and technology. Presence of one or more of these horizons at a site is determined by the presence of heavily patinated scrapers and cores as well as “sleeping circle” features. Extensive presence of occupation within the Colorado Desert during the San Dieguito period is limited, likely the combined result of highly mobile early settlement patterns as well as the instability of landforms in the Salton Basin and Colorado River Valley (Schaefer and Laylander 2007: 247). The San Dieguito period is considered to overlap and/or coincide with several other prominent cultural identities including the Playa culture, Lake Mohave Complex, Western Pluvial Lakes tradition, and the Western Lithic co-tradition (Laylander 2005). Toward the end of the San Dieguito period, cultures were affected by environmental conditions, including fluctuating temperatures and levels of precipitation.

#### *The Gypsum/Amargosa Period*

The Gypsum/Amargosa Period is distinctively different from prior periods in that it is recognizably widespread with a diversity of projectile types and tools, as well as clear indications of external influences from the Southwest. The artifactual assemblage is diverse at single sites and denotes localized variants ranging across three horizons: Gypsum/Amargosa I, II, and III. Although archaeological evidence of the Gypsum/Amargosa I and II horizons is not substantial, sites indicating highly mobile groups used to logistical foraging are known in Riverside and San Diego counties (Schaefer and Laylander 2007; Love and Dahdul 2002). The Gypsum/Amargosa III horizon is characterized by the introduction of the bow and arrow (replacing the *atlatl*) as well as increased influence of Southwestern cultural traditions and technology (Schroeder 1951, 1961; Wallace 1962; Bettinger and Taylor 1975).

Several important sites belonging to the Gypsum/Amargosa III horizon are known in the area surrounding the shorelines of ancient Lake Cahuilla within the Salton Basin. One such site, the Salton Sea Naval Test Base along the western edge of the man-made Salton Sea, contained a cluster of early projectile point types including Lake Mojave, Pinto, and Elko forms (Schaefer and Laylander 2007). Although chronology of Lake Cahuilla’s intermittent rises and falls is still debated, archaeological assemblages surrounding the ancient shoreline are important indicators of settlement patterns during this period. Few studies have been conducted around the southern shores of Lake Cahuilla (Schaefer and Laylander 2007: 250-251). Also closely associated with ancient Lake Cahuilla is Obsidian Butte, which acted as a prominent obsidian procurement site for peoples of the Colorado Desert.

#### *The Protohistoric/Shoshonean Period*

The period between A.D. 1200 and European contact, commonly referred to as the Protohistoric/Shoshonean period, was a continuation of the prehistoric Gypsum/Amargosa II period, with similar subsistence and settlement patterns. Common within the artifact assemblage are flaked stone tools, basketry, groundstone, Desert Side-notched and Cottonwood Triangular projectile points, and wooden items (Carrico et al. 1982: 8-12). Basketry is common among cultural deposits for this period, although evidence from within the Great Basin area indicates basket weaving was practiced in California at least 5,000 years ago (Elsasser 1978: 634). Shell beads and knife blades can also be found commonly among artifact assemblages from this period.

The final recession of ancient Lake Cahuilla (ca. 1640) prompted migratory shifts of prehistoric populations within the Colorado Desert, with some groups moving westward into the Anza-Borrego region as well as north into San Bernardino and Riverside counties. Formation of distinct regional ethnic groups also is believed to have occurred during this period.

## Ethnographic

The following Tribal Groups described below are historically known to have inhabited the Imperial County area at the point of European contact.

### *Cahuilla*

The Cahuilla people are known to have occupied a territory of south-central California, geographically spread between the San Bernardino Mountains in the north to Borrego Springs and the Chocolate Mountains in the south, east to the Colorado Desert, and west into the San Jacinto Plain near Riverside and the Palomar Mountains (Bean 1978). Numerous pre-European contact trade routes existed through the Cahuilla territory, with trade contact extending as far west as Santa Catalina and east as far as the Gila River.

Cahuilla subgroups are typically defined by the topographical settings in which they lived: Pass, Mountain, and Desert. Although linguistic variations between the subgroups are known, all belong within the Cupan division of the Takic family (Bean 1978; Mithun 2006). Permanent settlements of the Cahuilla were typically situated in canyons or on alluvial fans where sustenance and water was consistently adequate. They relied heavily on faunal and floral resources for sustenance; temporary camp or settlement sites were used for seasonal hunting and gathering activities dependent on climate and weather conditions. Cahuilla political organization was complex, with organization into two non-territorial and nonpolitical patrimoieties. Patrimoieties were further subdivided into political-ritual-corporate units or clans comprised of several villages. Leadership positions among clans were usually inherited through patrilineal succession.

While the Cahuilla likely came into contact with Europeans during explorations of the late sixteenth and seventeenth centuries, few interactions between the groups were recorded until the establishment of the Mission System between 1774 and 1819 (Bean 1978). Several *asistencias* were established within the Cahuilla territory beginning in 1819. Since the introduction of the reservation system within the territory circa 1865, the Cahuilla people have typically lived within the reservation systems established within Riverside County. Programs have been developed to encourage the continuation of the Cahuilla cultural identity, including community language and skill classes as well as ethnographic centers such as the Malki Museum on the Morongo Reservation (Bean 1978; Morongo Band of Mission Indians 2013).

### *Tipai*

Tipai, previously called Diegueño or Kamia, territory roughly extended from the Pacific Coast at San Diego eastward to the Sand Hills of Imperial County as well as south into modern-day Mexico (Luomala 1978). Although the Tipai traded primarily among themselves and with the closely linked Ipai to the north, extensive trade routes through their territory expanded their interaction between other coastal groups and as far inland as New Mexico (Pritzker 2000).

The Tipai language is still designated as Diegueño and is part of the Yuman-Cochimi family. The Quechan and Ipai languages to the east and north, respectively, share close ties with that of the Tipai (Mithun 2006; Luomala 1978). Political organization was divided into 30 autonomous, seminomadic bands. Leaders were selected through patrilineal succession (Luomala 1978; Pritzker 2000). Villages were predominantly seasonal, consisting of campsites rather than permanent settlements. A Tipai member of the Jacumba-Campo region once estimated that his large clan occupied over 19 settlements during the 1850s (Luomala 1978:597). Winter villages were typically found within sheltered foothills and valleys.

Subsistence of the Tipai consisted primarily of seasonal vegetal foods with opportunistic hunting practiced during gathering. Clans within the Imperial Valley also practiced some farming of maize, beans, and tobacco (Pritzker 2000).

Contact between Tipai and Europeans was, as with the Cahuilla, not largely recorded until the implementation of the Mission System. The Tipai were historically part of the native populations rounded up and brought to the mission. In 1775, a Tipai-Ipai revolt resulted in the destruction of Mission San Diego de Alcalá. The mission was later rebuilt, and conversion practices continued. The Tipai were continually treated poorly through the Mexican and American periods, though many of the small reservations founded towards the end of the nineteenth century remained within the area of traditional villages (Pritzker 2000).

### *Quechan*

The Quechan, also known as the Yuma, continue to occupy their traditional territory at the confluence of the Gila and Colorado rivers at the edge of the California, Arizona, and Mexican borders; from here their territory stretched north along the Colorado River and to the east of the Gila River (Bee 1978). Trade interactions prior to European contact are not well known; however, warfare was emphasized within the Quechan traditional myths and histories. The Cocopah and Maricopa were major enemies of the Quechan, while the group frequently allied themselves with the Mohave. The number of war parties may have increased post contact due to economic reasons (Bee 1978).

The Quechan are linguistic members of the Yuman-Cochimi language family (Mithun 2006; Bee 1978). People living within the territory were geographically divided into a series of settlements or *rancherías* north and south of the confluence of the Colorado and Gila rivers. *Rancherías* were comprised of extended family groups with populations ranging into the hundreds. A 1774 Spanish observation counted over 800 inhabitants of the largest, *Ranchería xuksil* (Bee 1978:88). Subsistence primarily consisted of cultivated plants rather than gathered resources, which allowed for larger populations. Quechans were able to plant their fields multiple times throughout a year with crops including teparies, maize, watermelons, black-eyed beans, pumpkins, muskmelons, and winter wheat. The Quechan recognized several patrilineal clan groups; however, a clan name was born only by females. Tribal structure, rather than *ranchería* or clan structure, played a crucial role during war expeditions against neighboring tribes. Post contact sources noted two separate leadership positions among the Quechan: the first for civil affairs, the second for war (Bee 1978: 92).

Although the Quechans were not listed in the accounts of the de Alcarón expedition of 1540, their position at the confluence of the two rivers made relationships between the Quechan and Europeans of crucial importance. Documentation of Quechan traditions and life began in the late seventeenth century, and Spanish relations with the group remained positive until 1780 and 1781 when a small contingency of priests, soldiers, and farming families established the settlements of Mission San Pedro y San Pablo de Bicuñer and Mission Puerto de Purísima Concepción within the territory. Both settlements were short-lived, razed by Quechans (Bee 1978; Brian F. Mooney Associates 1993; OHP 2013). Continued attempts at settlements were made during the Mexican and American periods, with only Fort Yuma (established 1852) remaining. The Quechan reservation was established in 1884, while disputes over allotments continued until 1912. A school was created within the reservation at the old Fort Yuma around the same time. The Quechan continue to occupy the reservation to this day (Inter-Tribal Council of Arizona, Inc. 2013).



## Historic

Within the last 250 years, patterns of land use in southern California have fallen under three major periods. These periods are used to describe the land use activities associated with the time period: the Spanish period (1769 to 1821), the Mexican period (1821 to 1848), and the American period (1848 to present).

### *The Spanish Period*

The first Europeans arrived in Imperial County with the Hernando de Alcarón Expedition of 1540; however, the Spanish did not begin to colonize what was then known as Alta California until 1769. Several exploratory land routes were established through the County. The first was led by Pedro Fages (1772) while chasing deserters of the Spanish army. A second was led by Juan Bautista de Anza (1774-75) and was so well received, a second Anza expedition followed (1775). Spanish settlements were largely restricted to the West Mesa, now known as the Yuha Desert. Inhospitable sand dunes of the East Mesa discouraged early exploration and colonization of the eastern portions of the County. Included in the early settlement sites of the Spanish period are the Mission Puerto de Purísima Concepción (1780) and Mission San Pedro y San Pablo de Bicuñer (1781) along the Anza Trail. Both missions were destroyed in 1781 conflicts between the Spanish and Quechan Native Americans (OHP 2013; Brian F. Mooney Associates 1993).

### *The Mexican Period*

Efforts were made during the Mexican Period to reestablish an overland route from Sonora to the California coast. Following several expeditions, the Sonora Road was founded in 1825, following portions of the Anza Trail through the County before turning westward through the Carrizo Corridor and branching toward both San Diego and Temecula. The Mexican government established a small adobe post, Fort Romualdo Pacheco, along this route in 1825. The fort was abandoned the next year following an attack by the Kumeyaay (OHP 2013).

The Sonora Road would not gain in popularity until the late 1830s when the southwestern portion of the route shifted north of the U.S.-Mexico border. In 1846, U.S. General Stephen W. Kearny led his troops across the Yuha Desert and through the Carrizo Corridor during the Mexican-American War (1846-1848). Several weeks following Kearny's march, a portion of the Mormon Battalion was led by Colonel Phillip St. George Cooke from Iowa to San Diego with the plan to establish a wagon route to California (Brian F. Mooney Associates 1993).

### *The American Period*

The signing of the Treaty of Guadalupe Hidalgo in 1848 and the U.S. acquisition of California was immediately marked by the establishment of the Southern Emigrant Trail, which largely followed the old Sonora Road (Lech 2012; Brian F. Mooney Associates 1993). This route was extensively used by settlers and miners eager to move to California as well as the military. A mail route following the Southern Emigrant Trail from Yuma was established in 1848; the Butterfield Overland Mail (1858-1861) would also make use of the route. Camp Salvation, established near present-day Calexico, was one of many stops along the Southern Emigrant Trail to provide water to travelers along the trail (OHP 2013). The Southern Emigrant Route was used as the primary overland route into this region of California until the establishment of the Smith-Groom Country Road in 1865. Until the twentieth century, few people permanently settled within Imperial County.

Irrigation measures, vital to the development of the County during this period, were first made by the California Development Corporation using water from the Colorado River, which was then diverted to the Alamo River via the Alamo Canal. Irrigation from the Alamo Canal Project soon prompted a large population boom in the area; the townsites of Imperial, Brawley, Calexico, Heber, and Silsbee were constructed by irrigation projects to entice settlers to become permanent residents. In 1904, heavy silting greatly reduced the amount of water reaching the Imperial Valley farmers. Under stress, the California Development Company attempted to create a breach at the banks of the Colorado River; however, this action caused uncontrolled flooding of the Salton Sink through 1905 and resulted in the creation of the Salton Sea. Flooding to the region was not completely halted until 1907 (Brian F. Mooney Associates 1993; Sperry 1975).

Railroad lines, including a branch of the Southern Pacific Railroad extending through the Imperial Valley to Calexico (1903), were constructed throughout portions of the County. The introduction of automobiles also prompted the development of new and better roads. One such road included Plank Road, a 7-mile-long, movable road built over the sand dunes between Imperial Valley and Yuma in 1914. Portions of the road were added and improved on through the 1920s and 1930s (OHP 2013; Brian F. Mooney Associates 1993).

### **Existing Prehistoric, Ethnographic, and Historic Sites**

#### Prehistoric Archaeological Sites

The previous studies conducted within the planning area identified sites including villages, rock shelters, habitation sites, lithic scatters, and milling stations. Isolated artifacts not associated with the larger sites have also been identified within Imperial County. Previously identified archaeological sites can be used as a general guideline to understanding the nature of localized prehistoric inhabitation and provide assistance in determining areas of known sensitivity for prehistoric archaeological resources.

The site definitions provided in Table 4.5-1 provide general guidelines for understanding the nature of prehistoric sites in the region. In addition, the identification of known areas of sensitivity does not preclude the possibility of locating additional prehistoric sites in other portions of the County.

**Table 4.5-1: Types of Previously Identified Prehistoric Archaeological Sites within Imperial County**

Site Type	Site Definitions
Villages	Villages are sites typically located along watercourses that exhibit a level of sustained residency with resources suitable for sustaining long-term or seasonal habitation. Associated artifact assemblages may include (but are not limited to) bedrock outcrops, lithic artifacts, groundstone, shell, animal bone, fire-affected rock, ceramics, pictographs and petroglyphs, house rings, and evidence of funerary practices.
Rock Shelters	Rock shelters are typically located in higher elevations in areas that sustain habitable rock overhangs that can support brief habitation episodes or be utilized for ceremonial purposes. Associated artifacts can include (but are not limited to) pictographs and petroglyphs, fire-affected rock, lithic artifacts, midden soil, animal bone, bedrock milling features, ceramics.

**Table 4.5-1: Types of Previously Identified Prehistoric Archaeological Sites within Imperial County**

Site Type	Site Definitions
Seasonal Habitation Sites	Temporary camps or transition areas, usually located near watercourses, were used to exploit an immediate or seasonal resource. Associated artifact assemblages may include (but are not limited to) ground stone, lithic debitage, and bedrock milling features. Near the ancient Lake Cahuilla shoreline, this site type may also include stone fish traps.
Lithic Scatters	Flaking stations may indicate possible opportunistic quarrying activities or tool reduction stations. Clusters can be identified in isolation or in association with other site types and are not restricted in geographic location.
Bedrock Milling Features	Grinding stations are typically located along watercourses near exposed bedrock outcrops (typically granite or granodiorite) with suitable resources in the area for processing.
Geoglyphs	Geoglyphs are large designs or motifs most often created by moving rocks or earth to create an image on the ground. This type of site is well known in the Yuha Desert area of Imperial County. Geoglyphs may be more easily identified through the use of aerial imagery, but they can also be identified on the ground.
Isolates	Isolated artifacts were not included in the study group.

#### Ethnographic Sites

Ethnographic studies previously prepared within Imperial County suggest the concept of sacred geography has always been important to the desert cultures of this region. From the earliest times, native peoples have attributed special significance to geographic features, which play important roles in religious and cultural practices. Many of these features are remembered in songs passed down through oral tradition, serving as “maps” of mythological traditions, as well as economic sites such as quarry sites, etc. Examples of these types of sites include:

- **Ceremonial Site:** A prehistoric or historic area of sacred character. Physical evidence of ceremonial activities are usually present in the form of dance patterns, vision quest circles, intaglios, rock cairns, etc.
- **Sacred Area:** A prehistoric or historic area of sacred character. Evidence of physical activities is not always present. Certain mountaintops, power places, and vision quest locations are examples of sacred areas.
- **Traditional Use Area:** An area of traditional use for hunting, gathering (of food or medicinal plants), fishing, or traveling.

#### Historic Archaeological Sites

Identified historical archaeological sites represent a range of activities including (but not limited to) mining, transportation, and ranching/homesteading and are represented throughout the County. The number of previously identified historical archaeological sites is smaller than prehistoric sites, making determination of areas of known or established sensitivity difficult. It is possible, however, to make

informed deductions about the types of resources likely to be encountered based on the previously identified sites in combination with the documented history of the area.

The site definitions provided in Table 4.5-2 provide general guidelines for understanding the nature of historic sites in the region. In addition, the identification of known areas of sensitivity does not preclude the possibility of locating additional historic sites in other portions of the County.

**Table 4.5-2: Types of Previously Identified Historic Archaeological Sites within Imperial County**

Site Type	Site Definitions
Towns	Towns are sites that exhibit a built environment which may indicate a permanent population with established economic and social structures. Associated structures may include (but are not limited to) buildings used for residential, trade, government, or religious purposes.
Military Sites	Military sites include permanent settlements, temporary camps, or extensive training areas that exhibit a military presence in the region. Associated artifact assemblages may include (but are not limited to) military issued debris and refuse or landscape modified by use of military equipment such as tanks.
Mining	Mining related sites are representative of extractive operations focused on the acquisition of mineral materials. Such sites may include (but are not limited to) individual shafts and prospecting pits with associated tailings or mining complexes with extraction and processing elements. Mining complexes may also be considered as small towns.
Ranches/Homesteads	Ranch/homestead sites consist of a variety of material that may indicate rural habitation and land use patterns. This material may include (but is not limited to) building foundations, fence lines, rock walls, orchards and agricultural fields, landscaping elements, or outbuildings.
Religious Sites	Religious sites are closely linked with the Spanish and Mexican periods of California. Such sites may include (but are not limited to) intact or razed missions and chapel outposts. This site type may also be linked with military or ranching sites.
Refuse Scatters	Historic refuse deposits may indicate land use patterns such as settlement and travel. Scatters can be identified in isolation or in association with other site types. Associated artifact assemblages most commonly include (but are not limited to) cans, glass bottles, ceramics, or household items and debris.
Transportation Routes	Transportation routes (trails, roads, and rail lines) are often linked to significant historic events or are shown to have impacted trade and settlement patterns. Many of these routes can be identified through historic records; however, they may also be indicated by stone markers and lines, tracks left by wheels, railroad ties and debris, or refuse.
Isolates	Isolated finds are not included in the study group.

Documented Cultural Resources

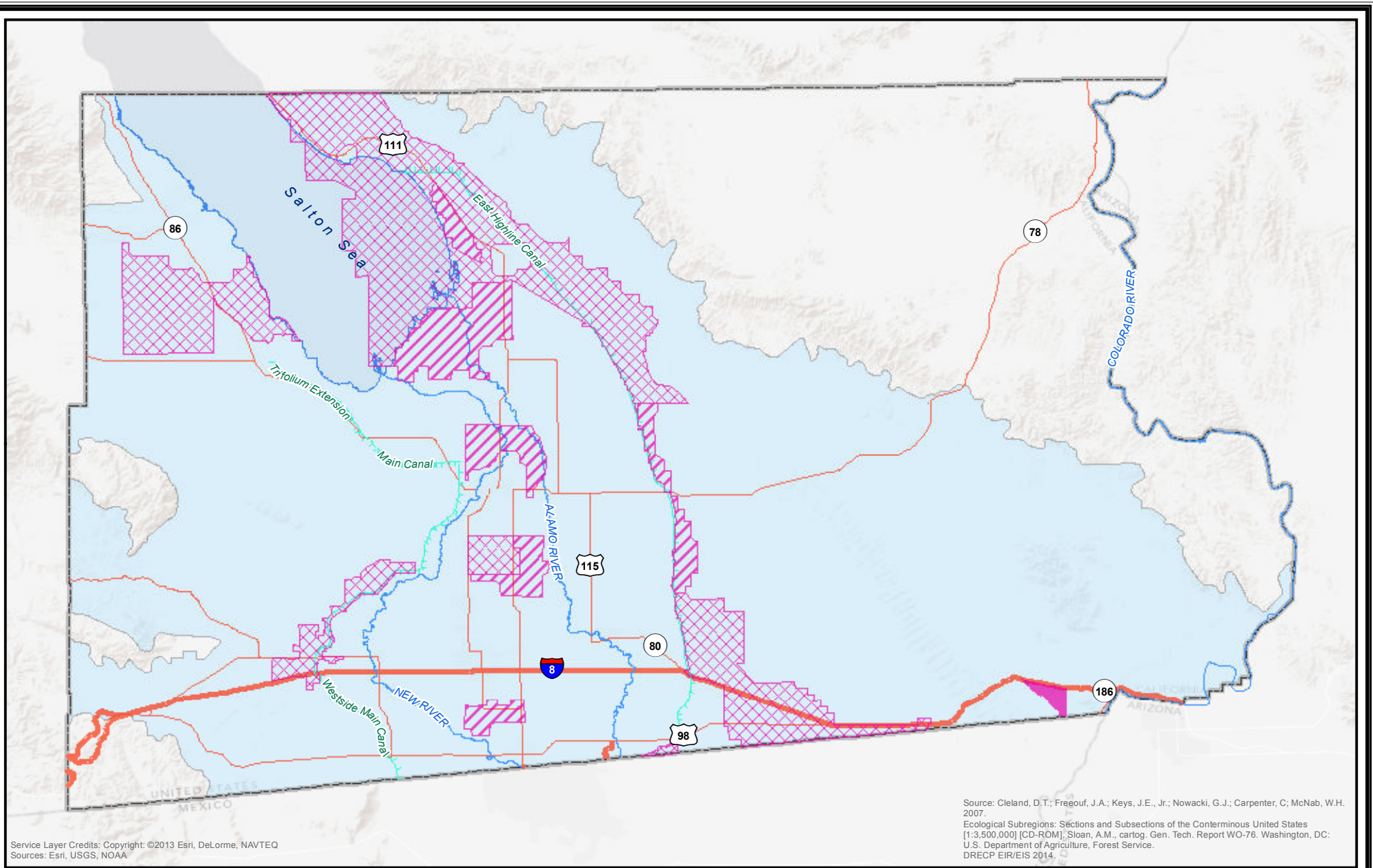
Existing cultural resources within Imperial County were documented in the Draft EIR/EIS prepared for the DRECP. These previously recorded resources were documented based on information obtained from the California Desert Conservation Area (CDCA) Plan, the BLM Cultural Resources Geodatabase, and the

results of additional surveys unrelated to these data sources. It should be noted that the cultural resources data presented in the Draft EIR/EIS does not correspond entirely to the jurisdictional boundaries of Imperial County. The Draft EIR/EIS presents data for a land area described as the Imperial Borrego Ecoregion Subarea, which excludes the northeastern portion of Imperial County and small pieces of the westernmost regions of the County (Figure 4.5-1). Additionally, the Imperial Borrego Ecoregion Subarea includes some portions of San Diego County located just west of Imperial County; however, the geographic boundaries of the Imperial Borrego Ecoregion Subarea include the entire area covered by the proposed Overlay Zone and, therefore, include all known cultural resources that could be impacted by implementation of the proposed Project. The results of the cultural resources inventory for the Imperial Borrego Ecoregion Subarea by cultural resource site type and eligibility status are presented in Table 4.5-3, while a list of NRHP, California Landmarks, CRHR, and Points of Interest are presented in Table 4.5-4.

### **Paleontological Setting**

Paleontological resources comprise fossil evidence used to study forms of life existing in prehistoric or geologic times. They are most often found in subterranean rock formations that millions of years ago sat at the earth's surface but have since been covered by newer layers of rock, sand, and soil. Paleontological resources are closely related to an area's geological history.

The vast majority of the central section of Imperial Valley, which lies within Imperial County, is underlain by Quaternary lake deposits associated with ancient Lake Cahuilla. Lakebed deposits of ancient Lake Cahuilla have yielded fossil remains from numerous localities in Imperial Valley. These include extensive freshwater shell beds, fish, seeds, pollen, diatoms, foraminifera, sponges, and wood. Lake Cahuilla deposits have also yielded vertebrate fossils, including teeth and bones of birds, horses, bighorn sheep, and reptiles (County 2011). Paleontological surveys conducted for the Ocotillo Wind Energy Facility in the southwestern portion of Imperial County documented 36 fossil localities. This survey documented paleontological resources including three scientifically significant vertebrate fossils consisting of turtle, camelid, and unidentified mammal bones (County 2012b).

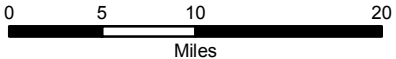


Service Layer Credits: Copyright: ©2013 Esri, DeLorme, NAVTEQ  
Sources: Esri, USGS, NOAA

Source: Cleland, D.T.; Fregouf, J.A.; Keys, J.E., Jr.; Nowacki, G.J.; Carpenter, C; McNab, W.H. 2007.  
Ecological Subregions: Sections and Subsections of the Conterminous United States [1:3,500,000] [CD-ROM]. Sloan, A.M., cartog. Gen. Tech. Report WO-76. Washington, DC: U.S. Department of Agriculture, Forest Service.  
DRECP EIR/EIS 2014.

**Legend**

- Imperial Borrego Valley Ecoregion Subarea
- Preferred Alternative**
- Geothermal
- Renewable Energy
- Renewable Energy/Geothermal



**Figure 4.5-1**  
Imperial County Renewable Energy and  
Transmission Element Update PEIR  
Imperial Borrego Valley Ecoregion Subarea

**Table 4.5-3: Cultural Resource By Site Type and NRHP Status**

	<b>Prehistoric</b>	<b>Historic</b>	<b>Multi-Component</b>	<b>Unknown Type</b>	<b>Isolate</b>	<b>Total</b>	<b>Acres Surveyed</b>	<b>Percent Surveyed</b>
<b>Unknown Status</b>	474	128	64	5,254	0	5,920		
<b>Not Evaluated</b>	2	2	0	0	0	4		
<b>Ineligible</b>	0	0	0	0	13	13		
<b>Eligible</b>	243	30	23	13	0	309		
<b>Listed</b>	0	0	0	0	0	0		
<b>Subtotal</b>	<b>719</b>	<b>159</b>	<b>87</b>	<b>5,199</b>	<b>13</b>	<b>6,246</b>	<b>446,272</b>	<b>18.5%</b>

**Table 4.5-4: NRHP, California Landmarks, CRHR, and Points of Interest**

Name	National Register	California Historical Landmark	California Register	POHI
Calexico Carnegie Library	1		1	
Camp Pilot Knob (Desert Training Center)		1	1	
Camp Salvation		1	1	
Crucifixion Thorn				1
Fort Yuma		1	1	
Hernando de Alarcón expedition		1		
Hotel Barbara Worth Site				1
Mission La Purísima Concepción Site		1		
Picacho Mines		1		1
Plank Road		1	1	
Site of Fort Romualdo Pacheco		1	1	
Site of Mission San Pedro y San Pablo de Bicuñer		1	1	
Southwest Lake Cahuilla Recessional Shoreline Archaeological District	1		1	
Spoke Wheel Rock Alignment	1		1	
Stonehead (L-7)	1		1	
Tecolote Rancho Site		1	1	
Townsite of Silsbee and Indian Well				1
Tumco Mines		1		
20th Century Folk Art Environments-Charley's World of Lost Art			1	
U.S. Inspection Station - Calexico				1
U.S. Post Office - El Centro Main				1
Winterhaven Anthropomorph (L-8)	1		1	
Winterhaven Anthropomorph and Bowknow (L-9)	1		1	
Yuha Basin Discontiguous District	1		1	
Yuha Well		1	1	
Imperial County Totals	7	12	16	6



Knowledge of the geological formations and records of previous fossils recovered from localities within Imperial County are the basis for determining the paleontological sensitivity of projects. Current professional practice utilizes three categories recommended by the Society of Vertebrate Paleontology, which are presented in Table 4.5-5 (SVP 2010).

**Table 4.5-5: Sensitivity Categories**

Category	Definition
High sensitivity or potential	Areas underlain by rock units from which significant fossils have been recovered.
Undetermined sensitivity or potential	Areas underlain by rock units for which little information or presence or absence of fossils is available.
Low sensitivity or potential	Areas underlain by deposits which are known not to produce fossils include plutonic, intrusive, and highly metamorphosed rocks.

Additionally, BLM has developed the Potential Fossil Yield Classification (PFYC) system based on the potential for the occurrence of significant paleontological resources in a geologic unit and the associated risk for impacts to the resource based on federal management actions. The PFYC system classifies geologic units by five classes ranging between Class 1 (very low) to Class 5 (very high) based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts. A higher class number indicates a higher potential for occurrence of paleontological resources. BLM also uses the PFYC system to set management policies and does not intend it to be applied to specific paleontological localities or small areas within geologic units (DRECP EIR/EIS 2014). The BLM PFYC classifications and recommended management actions are presented below in Table 4.5.-6.

**Table 4.5-6: BLM Potential Fossil Yield Classification System Class Definitions**

Class	Definition
Class 1 (very low)	Geologic units not likely to contain recognizable fossil remains. Management concern is negligible or not applicable; and assessment or mitigation requirements are usually not necessary, with the exception of isolated circumstances.
Class 2 (low)	Sedimentary geologic units not likely to contain vertebrate fossils or significant nonvertebrate fossils. Management concern is generally low; and assessment of mitigation is usually not necessary, with the exception of isolated circumstances.
Class 3 (moderate or unknown)	Fossil-bearing sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence, or units of unknown fossil potential. Management concern is moderate or cannot be determined from existing data. Ground-disturbing activities may require field assessment to determine the appropriate course of action.
Class 3a (moderate potential)	Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered. Common invertebrate or plant fossils may be found in the area, and opportunities may exist for hobby collecting. The potential for a project to be sited on or impact a significant fossil locality is low but somewhat higher for common fossils.

**Table 4.5-6: BLM Potential Fossil Yield Classification System Class Definitions**

<b>Class</b>	<b>Definition</b>
Class 3b (unknown potential)	Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known. This may indicate the unit or area is poorly studied, and field surveys may uncover significant finds. The units in this class may eventually be placed in another class when sufficient surveys and research are performed. The unknown potential of the units in this class should be carefully considered when developing any mitigation or management actions.
Class 4 (high)	Geologic units containing a high occurrence of significant fossils. The probability for impacting significant paleontological resources is moderate to high and depends on the proposed action. Anticipated impacts to significant fossils would usually require a field survey, followed by onsite paleontological monitoring or spot-checking.
Class 5 (very high)	Fossil-rich geologic units that regularly produce vertebrate fossils or significant nonvertebrate fossils at risk of natural degradation or human-caused adverse impacts. The probability of impacting significant fossils is high, and fossils are known or can reasonably be expected to occur in the impacted area. Anticipated impacts to significant fossils would usually require a field survey, followed by onsite paleontological monitoring or spot-checking.

#### **4.5.3 Significance Criteria**

The thresholds for significance of impacts for the analysis are based on the environmental checklist in Appendix G of the State California Environmental Quality Act (CEQA) Guidelines. Consistent with the CEQA Guidelines and the professional judgment of the County’s staff and environmental consultants, the proposed Project would result in a significant impact on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside formal cemeteries

#### **4.5.4 Impacts and Mitigation**

##### **CUL-1: Cause a substantial adverse change in the significance of a historical or archaeological resource**

##### **Construction and Operation**

Future renewable energy facilities developed under the proposed Project would have the potential to impact historical and archaeological resources. Under CEQA, significant impacts would occur if a resource is demolished, destroyed or if the characteristics that made the resource eligible are materially impaired. As such, complete or partial destruction of an eligible historical or archaeological resource

would result in a significant impact. Since the significance of a resource can sometimes be associated with its surroundings or setting, impacts may result indirectly. Often referred to as visual impacts, these indirect impacts have the potential to cause a significant impact to eligible historical and archaeological resources.

Ground disturbance activities during construction of future renewable energy facilities associated with the proposed Project would have the greatest potential to impact historical and archaeological resources. These impacts would be most likely to occur during grading, excavation, and installation of facility structures. Operational impacts associated with future renewable energy facilities would likely be the result of changes to the visual environment or similar indirect impacts. While indirect impacts typically do not materially alter historical or archaeological resources, they have the potential to undermine the setting of a resource and, thereby, undermine its eligibility for listing to the NRHP or CRHR significance as an archaeological resource under CEQA. Operational indirect impacts may include visual interruptions on an otherwise open landscape such as a glaring solar field or towering wind turbines. Resources with particular sensitivities include, but are not limited to, traditional cultural properties (TCP), cultural landscapes, and sacred sites.

Reclamation and decommissioning activities associated with future renewable energy facilities may result in impacts similar to those that would occur during construction. While these activities would have less potential to result in impacts than activities during construction, removal of project components and restoration of the project area to pre-project conditions would have the potential to directly and indirectly impact historical and archaeological resources; however, reclamation and decommissioning activities may reduce impacts by removing indirect or visual impacts on cultural resources.

The County has engaged in consultation with Native American Tribes consistent with the guidance of SB-18. County consultants sent a letter to the NAHC requesting a list of Native American Tribes who may have an interest regarding future renewable energy facilities developed under the proposed Project. The County consultant sent an informational letter to the groups and/or individuals identified by the NAHC and received responses from two Native American Tribes: The Torres Martinez Desert Cahuilla Indians and Fort Yuma Quechan Indian Nation. Both Tribes indicated that they would like to have a meeting to discuss the proposed Project. The County consultant met with members of the Torres Martinez Desert Cahuilla Indians on July 22 and the Fort Yuma Quechan Indian Nation on July 24, 2014. During both meetings, the County consultant presented information regarding the proposed Project and asked both Tribes to provide any input or concerns. Neither Tribe submitted any specific concerns but did request that they continue to be informed about the proposed Project. Future renewable energy facilities developed under the proposed Project would be required to engage in similar Tribal consultation consistent with SB-18.

Although it is anticipated that future renewable energy facilities developed under the proposed Project may impact historical and archaeological resources, an evaluation of specific impacts cannot be made at this time. The proposed Project would be implemented on a “project-by-project” basis based on County approval of individual renewable energy projects. Because the proposed Project only identifies locations suitable for renewable energy facilities and does not contain specific development proposals, impacts that may occur during construction and operation of future renewable energy facilities are speculative and cannot be accurately determined at this stage of the planning process.

Furthermore, information regarding the location, distribution and density of cultural resources is often dependent upon previous pedestrian surveys or other forms of field data collection. While institutions such as the California Historical Resources Information System (CHRIS) have helped facilitate a broader understanding of the area by allowing access to site records and the findings of previous investigations, information about cultural resources throughout Imperial County remains limited by the small percentage of the area that has been surveyed. Consequently, it is not possible to analyze the level of impacts on historical and archaeological resources that would occur under the proposed Project due to the lack of specific development proposals and the uncertainty as to whether unknown resources would be identified at future project sites. Nonetheless, future development of renewable energy facilities in the proposed overlay zones would have the potential to impact historical and archaeological resources and result in a significant impact.

### **Mitigation Measures**

Specific impacts to historical and archaeological resources would be evaluated during the environmental documentation phase of individual renewable energy facilities that would be developed under the proposed Project. These future evaluations would ensure that an appropriate level of analysis would be conducted to identify potential impacts to historical and archaeological resources unique to each future project site and provide the opportunity to identify appropriate project-specific mitigation measures.

**CUL-1a: Agency Coordination.** Project proponents of future renewable energy facilities developed under the proposed Project would be required to coordinate with appropriate agencies early in the planning process. Depending on the nature and intended location of a future renewable energy facility, coordination may be required with federal, tribal, State, and local agencies. Consultation efforts should be made with the Native American Heritage Commission (NAHC), the State Historic Preservation Office (SHPO), and stakeholders identified that may potentially be impacted by development of the future renewable energy facilities. Such coordination would elicit input and help define the parameters of future renewable energy facilities to better reduce or avoid impacts to cultural resources, including historic properties, archaeological resources, sacred sites, and cultural landscapes.

**CUL-1b: Cultural Resources Records Searches.** Project proponents of future renewable energy facilities developed under the proposed Project would be required to conduct cultural resources records searches for future project sites. This should include a Sacred Lands File records search with the NAHC and a cultural resources records search with the CHRIS location that covers the project footprint. For Imperial County, the CHRIS records search will be conducted at the South Coastal Information Center (SCIC) located on the campus of San Diego State University.

**CUL-1c: Cultural Resources Record Searches.** Project proponents of future renewable energy facilities developed under the proposed Project would be required to conduct cultural resource pedestrian surveys for future project sites. The cultural resource pedestrian survey would be conducted to identify resources that have not been previously discovered through past survey efforts and, therefore, would not be noted in the records search results. The survey should be conducted in accordance with Secretary of the Interior's Standards and Guidelines for Archaeological and Historic Preservation (48 FR 44716, Sept. 29, 1983). All cultural resources encountered during pedestrian surveys for future renewable energy facilities developed under the proposed Project would be mapped and recorded in detail in order to document cultural resources and potential impacts. Efforts should be made to relocate previously recorded resources and update information for the sites surveyed for future renewable energy facilities.

**CUL-1d: Site Characterization, Siting and Design, and Construction.** The results of the coordination efforts, records searches, and pedestrian surveys conducted under mitigation measures CUL-1a through CUL-1c should be utilized to minimize or avoid impacts to cultural resources through project design of future renewable energy facilities. Preconstruction activities for the minimization or avoidance of impacts on cultural resources based on the results of mitigation measures CUL-1a through CUL-1c may include, but are not limited to, the following:

- Avoid impacts to cultural resources by prohibiting subsurface activities in certain areas.
- Areas of higher sensitivity should be tested for cultural content. The extent of the testing should be determined in concert with the design of the future renewable energy facility.
- If testing is deemed necessary, all testing should be conducted by a qualified archaeological consultant and should include involvement by one or more of the local Native American representatives.
- Areas of lower sensitivity should be targeted for improvements and areas of higher sensitivity (i.e., more dense cultural materials) should be protected, as deemed feasible.
- Consultation should be maintained between the lead agency and the local Native American representatives and their respective concerns should be considered when formulating decisions.
- Whenever possible, future renewable energy facilities should be developed on fill soil or in areas of previous ground disturbance.
- Archaeological Monitoring: Prior to any ground-disturbing activities for future renewable energy facilities, project proponents should retain a qualified archaeologist to be present at all preconstruction meetings to advise construction contractors about the sensitive nature of cultural resources located on and/or in the vicinity of the future project site, as well as monitoring requirements. A qualified monitor should observe all onsite and offsite future construction activities that would result ground disturbance (including project-related offsite utility and roadway improvements).
- Native American Monitor: During construction of future renewable energy facilities, a Native American monitor should observe all ground-disturbing activities (including project-related offsite utility and roadway improvements). The Native American monitor should consult with the archaeological monitor regarding objects and remains encountered during grading or excavation that may be considered sacred or important.

**CUL-1e: Reclamation and Decommissioning.** Project proponents of future renewable energy facilities should develop measures to confine reclamation and decommissioning activities to those areas previously disturbed by construction-related activities. Along with ensuring that the removal of structures would not result in further subsurface intrusion, measures should be developed to ensure that reclamation and decommissioning activities would utilize established access routes.

### **Significance After Mitigation**

Implementation of mitigation measures CUL-1a through CUL-1e would reduce impacts to historical and archaeological resources to a level less than significant.

**CUL-2: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature**

**Construction and Operation**

Future renewable energy facilities developed under the proposed Project would have the potential to impact paleontological resources. Based on the locations of the proposed overlay zones, future renewable energy facilities developed under the proposed Project would have the greatest potential to impact Quaternary lake deposits associated with ancient Lake Cahuilla; however, an evaluation of specific impacts cannot be done at this time. The proposed Project would be implemented on a “project-by-project” basis based on County approval of individual renewable energy projects. Because the proposed Project only identifies locations suitable for renewable energy facilities and does not contain specific development proposals, impacts that may occur during construction and operation of future renewable energy facilities are speculative and cannot be accurately determined at this stage of the planning process. Consequently, it is not possible to analyze the level of impacts on paleontological resources at this time. Nonetheless, future development of renewable energy facilities in the proposed overlay zones would have the potential to impact paleontological resources and result in a significant impact. Operation of future renewable energy facilities developed under the proposed Project would not impact paleontological resources.

**Mitigation Measures**

**CUL-2: Paleontological Resource Assessment Report.** Project proponents of future renewable energy facilities developed under the proposed Project shall document whether paleontological resources exist in a future project area in a paleontological resources assessment report based on the following: the geologic context of the region and future project site and its potential to contain paleontological resources (including the PFYCs on site), a records search of institutions holding paleontological collections from California desert regions, a review of published and unpublished literature for past paleontological finds in the area, and coordination with paleontological researchers working locally in potentially affected geographic areas (or studying similar geologic strata).

If the PFYC (or PFYCs) of the geologic units to be encountered during construction of the future renewable energy facility has not been determined, the project proponent shall use the best available data and field surveys, as applicable, to develop a site-specific map of the PFYC ratings. The PFYC map shall be at a scale equal to or more detailed than 1:100,000. Depending on the extent of existing information available and the sensitivity of the site, development of the resource assessment and PFYC map could require the completion of a paleontological survey.

If paleontological resources are present at the future project site or if the geologic units to be encountered by the future renewable energy project (at the surface or the subsurface) have a PFYC Class of 3, 4, or 5, a Paleontological Resources Management Plan shall be developed. The elements of the plan shall be consistent with BLM IM 2009-11 and shall be prepared and implemented by a professional paleontologist as defined under Secretary of the Department of the Interior Standards. The plan shall include the following:

- The qualifications of the principal investigator and monitoring personnel
- Construction crew awareness training content, procedures, and requirements

- Any measures to prevent potential looting, vandalism, or erosion impacts
- The location, frequency, and schedule for onsite monitoring activities
- Criteria for identifying and evaluating potential fossil specimens or localities
- A plan for the use of protective barriers and signs or implementation of other physical or administrative protection measures
- Collection and salvage procedures
- Identification of an institution or museum willing and able to accept any fossils discovered
- Compliance monitoring and reporting procedures
- If the Paleontological Resources Management Plan determines that all geologic units that would be affected by the future renewable energy project are within an area with a PFYC Class of 1 or 2, the lead agency shall include paleontological resources as an element in construction worker awareness training and shall include measures to be followed in the event of unanticipated discoveries, including suspension of construction activities in the vicinity. The measure shall stipulate that the future project site must be protected from further earth-moving or damage until a qualified paleontologist can assess the significance and importance of the find and until the fossil specimen or locality can be recorded and salvaged, if necessary.
- The Paleontological Resources Management Plan shall evaluate all of the construction methodologies proposed on the future site, including destructive excavation techniques. Where applicable, the principal investigator shall include in the plan an evaluation of the potential for such techniques to disturb or destroy paleontological resources, an evaluation of whether loss of such fossils would represent a significant impact, and discussion of mitigation or compensatory measures (such as recordation/recovery of similar resources elsewhere on the site) that are necessary to avoid or substantially reduce the impact.

### **Significance After Mitigation**

Implementation of mitigation measure CUL-2 would reduce impacts associated with paleontological resources to a level less than significance.

### **CUL-3: Disturb any human remains, including those interred outside formal cemeteries**

#### **Construction and Operation**

Future renewable energy facilities developed under the proposed Project would have the potential to impact human remains. Ground-disturbing activities such as grading, vegetation clearing, and foundation excavations could lead to the unintentional discovery of burials and cultural items, including associated funerary objects, sacred objects, and objects of cultural patrimony, which are typically unmarked, resulting in a significant impact. Operation of future renewable energy facilities developed under the proposed Project would not impact human remains.

## **Mitigation Measures**

**CUL-3: Human Remains.** If, at any time, evidence of human remains are identified during construction of future renewable energy facilities associated with the proposed Project, the County Coroner must be notified immediately and permitted to examine the remains. The discovery of human remains is always a possibility during ground disturbances. Human remains and associated cultural items refer to objects that fit into one of four types of items expressly protected under Native American Graves Protection and Repatriation Act (NAGPRA) (43 CFR 10), to include: (a) human remains, (b) funerary objects; (c) sacred objects; and (d) objects of cultural patrimony. Any significant confirmed find should be evaluated to determine if an adverse effect to the resource has occurred. Such a discovery would require a recommencement of consultation between the lead agency, the Imperial County Coroner's office, the NAHC, and the Most-Likely Descendant (MLD) identified by the NAHC, in order to address adverse effects. Any potential human remains identified by a cultural resources monitor during construction of future renewable energy facilities should initially be treated according to California Health and Safety Code, Section 7050.5(b) and Public Resource Code, Section 5097.98(a-h); however, the archaeological monitor should be responsible for determining whether cultural items are associated.

### **Significance After Mitigation**

Implementation of mitigation measure CUL-3 would reduce impacts associated with disturbance of human remains to a level less than significance.

#### **4.5.5 Cumulative Impacts**

As described in Section 4.5.3 above, potential impacts on cultural resources cannot be evaluated at this time due to the lack of specific development proposals and the uncertainty as to whether unknown resources would be identified at future project sites. Similarly, approved, proposed, and reasonably foreseeable projects within the County would be subject to the same limitations regarding identification of potential impacts to cultural resources prior to the environmental documentation phase. Nonetheless, Implementation of the proposed Project in conjunction with existing, approved, proposed, and reasonably foreseeable projects within the County would have the potential to result in cumulative impacts on cultural resources. Implementation of mitigation measures CUL-1a through CUL-3 would reduce -specific impacts to a level less than significant. Approved, proposed, and reasonably foreseeable projects within the County would be subject to similar mitigation measures that would reduce impacts to a level less than significant. Therefore, implementation of mitigation measures CUL-1a through CUL-3 and similar mitigation for approved, proposed, and reasonably foreseeable projects within the County would reduce cumulative impacts on cultural resources to a level less than significant.