

4.5 CULTURAL RESOURCES

This section discusses cultural resources that may be impacted by the proposed projects. The following identifies the existing cultural resources in the project area, analyzes potential impacts due to the implementation of the proposed projects, and recommends mitigation measures to avoid or reduce potential impacts of the proposed projects. Information for this section is summarized from the *Literature Review for the 8minutenergy Iris Solar Farm Project (85JP)* prepared by AECOM and the Historic Resources Evaluation Report prepared by ESA. These reports are included in Appendix F of this Environmental Impact Report (EIR). ESA also prepared a *Phase I Cultural Resources Survey Report* for the proposed projects. Due to the confidential nature of the location of cultural resources, the *Phase I Cultural Resources Survey Report* is not included in the appendices.

4.5.1 Environmental Setting

The project area is located in the Imperial Valley, a part of the Salton Trough in the Colorado Desert physiographic province of California. The topography of the Imperial Valley is relatively flat, with few significant land features. The Salton Trough is bounded on the east and northeast by the San Andreas Fault and on the west by the San Jacinto fault zone. This trough is filled with more than 15,000 feet of Miocene and younger, marine and non-marine sediments capped by approximately 100 feet of Pleistocene and later lacustrine deposits that have been deposited by intermittent filling of the fresh-water Lake Cahuilla.

The County of Imperial is rich in cultural resources and within the county, archaeological work can be separated into two distinct sections: prehistoric and historic. All prehistoric archaeology deals with aboriginal culture and systems which existed prior to Spanish colonization in 1769. Historical archaeology deals with uncovering facts that no known historical documentation has provided.

Thousands of prehistoric (aboriginal culture and systems existing prior to 1769) and hundreds of historic (uncovered facts containing no known historical documentation) are found throughout Imperial County. Prehistoric evidence in the form of trails, rock art, geoglyphs, fish traps, and resource procurement and manufacturing locations are found in the regions surrounding the fertile valley portion of the county. From a historical standpoint, the intensive use of Imperial Valley for irrigation agriculture since the beginning of this century has impacted any resources that may have existed on land that is now farmland or under the Salton Sea. Historic resource sites date back to 1540, when the Hernando de Alcaron Expedition discovered Alta California from near the intersection of Interstate 8 and Highway 186. The next major historical event occurred in 1775 when Juan Bautista de Anza first passed through the area. The Anza Trail itself constitutes a significant cultural resource in the Yuha Desert, as does the later Sonoran/Southern Emigrant Trail which served as a major route to and from coastal California from 1825 to 1865. Although very few structures or artifacts may remain from the use of these trails, the routes themselves are of historical significance. Various other structures, such as missions (Spanish period 1769-1821) and a fort (Mexican period 1821-1848) are still evident in regions throughout the county (Imperial County).

4.5.1.1 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the projects.

Federal

National Historic Preservation Act (NHPA). Federal regulations (36 CFR Part 800.2) define historic properties as "any prehistoric or historic district, site, building, structure, or object included, or eligible for inclusion in, in the NRHP." Section 106 of the NHPA (Public Law 89-665; 80 Stat 915; USC 470, as amended) requires a federal agency with jurisdiction over a project to take into account the effect of the project on properties included in or eligible for the National Register of Historic Places (NRHP), and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. The

term "cultural resource" is used to denote a historic or prehistoric district, site, building, structure, or object, regardless of whether it is eligible for the NRHP.

Native American Graves Protection and Repatriation Act (1990); Title 25, United States Code (USC) Section 3001, et seq. The statute defines "cultural items," "sacred objects," and "objects of cultural patrimony;" establishes an ownership hierarchy; provides for review; allows excavation of human remains, but stipulates return of the remains according to ownership; sets penalties; calls for inventories; and provides for the return of specified cultural items.

State

State Office of Historic Preservation. The State Office of Historic Preservation (OHP) administers state and federal historic preservation programs and provides technical assistance to federal, state, and local government agencies, organizations, and the general public with regard to historic preservation programs designed to *identify, evaluate, register, and protect* California's historic resources.

Section 15064.5 of the State California Environmental Quality Act (CEQA) Guidelines also requires that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to museums, historical commissions, associations and societies be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains (Health and Safety Code [HSC] Section 7050.5, PRC Sections 5097.94 et seq.).

Assembly Bill (AB) 4239 established the Native American Heritage Commission (NAHC) as the primary government agency responsible for identifying and cataloging Native American cultural resources. The bill authorized the Commission to act in order to prevent damage to and insure Native American access to sacred sites and authorized the Commission to prepare an inventory of Native American sacred sites located on public lands.

Public Resources Code (PRC) 5097.97. No public agency and no private party using or occupying public property or operating on public property under a public license, permit, grant, lease, or contract made on or after July 1, 1977, shall in any manner whatsoever interfere with the free expression or exercise of Native American religion as provided in the *United States Constitution* and the *California Constitution*; nor shall any such agency or party cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

Public Resources Code 5097.98 (b) and (e) require a landowner on whose property Native American human remains are found to limit further development activity in the vicinity until he/she confers with the NAHC-identified Most Likely Descendants (MLDs) to consider treatment options. In the absence of MLDs or of a treatment acceptable to all parties, the landowner is required to reenter the remains elsewhere on the property in a location not subject to further disturbance.

California Health and Safety Code, Section 7050.5. This code makes it a misdemeanor to disturb or remove human remains found outside a cemetery. This code also requires a project owner to halt construction if human remains are discovered and to contact the County Coroner.

Local

Imperial County General Plan

The Imperial County General Plan provides goals, objectives, and policies for the identification and protection of significant cultural resources. The Open Space Element of the General Plan includes goals, objectives, and policies for the protection of cultural resources and scientific sites that emphasize

identification, documentation, and protection of cultural resources. While Section 4.10, Land Use and Planning of this EIR analyzes the project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors and Planning Commission ultimately make a determination as to the project's consistency with the *General Plan*. Goals and Objectives applicable to the proposed projects are summarized in Table 4.5-1.

TABLE 4.5-1. PROJECT CONSISTENCY WITH APPLICABLE GENERAL PLAN CULTURAL RESOURCES GOALS AND OBJECTIVES

General Plan Goal/Objective	Consistency with General Plan	Analysis
Goal 3: Important prehistoric and historic resources shall be preserved to advance scientific knowledge and maintain the traditional historic element of the Imperial Valley landscape.	Yes	The proposed solar farms will not impact any important prehistoric or historic resources.
Objective 3.1 Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.	Yes	The proposed solar farms will not impact any significant cultural resources site.

4.5.1.2 Existing Conditions

Cultural Setting

The project area is located in the West Mesa of the Yuha Desert. The relic shoreline or 40-foot contour of the ancient Lake Cahuilla runs south and west of the projects. Lake Cahuilla was a freshwater lake that was filled by the Colorado River between 25,000 and 45,000 years ago during the late Pleistocene and then again during the late Holocene. There were numerous Lake Cahuilla filling and desiccation cycles during the late Holocene; however, the number of lakestands and their dates remain problematic (Schaefer 1994a; Waters 1980, 1983; Wilke 1978). These lakestands were significant water sources for prehistoric peoples. The Lake Cahuilla shoreline has been associated with extensive prehistoric use and occupation.

The prehistory of Imperial County, California, may be divided into four major temporal periods: Pre-projectile, Paleoamerican, Archaic, and Late Prehistoric. These time periods have regional expression through various regional archaeological complexes or archaeological cultures.

Ethnohistory

The project area was utilized prehistorically by a variety of Native American groups, including the Kumeyaay (the Kamia is a subset of this group), the Cocopah, and the Quechan. These three groups speak the language of the Yuman family of the Hokan language stock (Kroeber 1920).

Historic Period

The historic period is described as including the Spanish Period (1769-1821) in the Colorado Desert which begins with the Alarcon exploration up the Colorado River in 1540 and the land expedition to the Colorado River by Melchior Diaz in the same year, and the Mexican Period (1822-1848), in which the mission system was secularized by the Mexican government and these lands allowed for the dramatic expansion of the rancho system. The Mexican Period ended, when Mexico signed the Treaty of Guadalupe Hidalgo on February 2, 1848, concluding the Mexican-American War (1846-1848; Rolle 1998). California became a state in 1850 (Rolle 1998).

A great influx of Americans and Europeans followed the discovery of gold in northern California in 1848. The gold seekers and homesteaders traveled through the Colorado Desert using the same route as Kearny and the Mormon Battalion, then known as the Southern Emigrant Trail in the early 1900s. In 1853, the route was used by the Birch Overland Mail and later in 1858 by the Butterfield Southern Overland Mail

Line. After 1861, when the mail route stopped service, the route was used mostly for cattle drives from Mason and Vallecitos valleys to Carrizo Valley and the Fish Creek area in the desert (Cook and Fulmer 1980). In 1890, prospectors in search of minerals in the Anza–Borrego Desert began using the route (Cook and Fulmer 1980). Today this old Indian and pioneer route is called County Route S2, or the Great Southern Overland Stage Route of 1849, which connects Ocotillo at Interstate 8 with Warner Springs to the north.

The segment of the Southern Pacific Railroad that runs northeast of the project area was constructed in the 1870s (Pourade 1964). Around the turn of the century, the Imperial Valley experienced considerable population growth after the construction of irrigation projects, and agriculture became a prime focus of economic activity. By the turn of the 20th Century Dr. O. M. Wozencraft's vision of a vast irrigated agricultural land in Imperial County was coming to fruition with the first delivery of Colorado River water released through a newly constructed canal system in 1901 (Dowd 1956:7, 21-22). Part of that early canal system included what is now known as the West Side Main (CA-IMP-7834), but in the early 1900s went by the name of Encina Canal. This canal was constructed in Baja California at Sharp's Heading, crossed the New River—at that time a small channel—via a flume, then turned west and north, crossing the international border at a point approximately 10 miles west of Calexico (Dowd 1956:23).

Very early into the development of the canal system it was recognized that an all American system needed to be built in order to maintain control of the water supply entering the network. Ironically perhaps, the illegally built head gate on the Colorado River in Mexican territory failed to hold back the record seasonal flow of 1905-1907, resulting in the destruction of thousands of feet of flume, miles of canals, and thousands of acres of land. Improvements to the system followed and the West Side Main Canal was enlarged and improved, and by 1940 was tied in to the All-American Canal, just in time for it to continue service to the western agricultural fields when much of the network was shuttered following that year's earthquake (Dowd 1956:43, 45, 103-104). The construction of the All-American Canal to transport water from the Colorado River to Imperial Valley between 1934 and 1940 transformed agricultural development and settlement of the Imperial and Coachella valleys. The areas served by the canal have become one of the richest and most important agricultural areas in the U.S. since the completion of the canal in 1938 (Queen 1999).

Paleontological Resources

The project area is located in the Imperial Valley portion of the Salton Trough physiographic province of southern California. The Imperial Valley is directly underlain by geologic units comprised of quaternary lake deposits of the 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. Therefore, the paleontological sensitivity of these lakebed deposits within the project area is considered to be high (Imperial Solar Energy Center South Final EIR/EA, Section 3.13, page 3.13-2). It is noted that the proposed projects and off-site transmission areas are located within active agricultural lands. Therefore, any surface or near-surface level paleontological resources are likely to have been disturbed already.

Records Search/Previously Recorded Resources

Cultural resources records searches were conducted for each of the project sites through the South Coastal Information Center (SCIC) at San Diego State University (SDSU). The information obtained from these record searches was used to determine if previous surveys had been conducted in the area of potential effect for the proposed projects, what resources might be expected, and whether any cultural resources have been recorded.

FSF

According to the results from SCIC and as shown in Table 4.5-2, 10 cultural resources have been recorded within a 1-mile radius of the FSF project area, consisting of an Indian trail (CA-IMP-1670), a collected pottery scatter (CA-IMP-3149), a U.S. military telegraph line (CA-IMP-3314), various cross roads (CA-IMP-3310, -3315, -3323, -3324, and -3326), and a mesquite grove (CA-IMP-3309). One cultural resource has been previously identified within the FSF project area and is identified as a mesquite thicket (CA-IMP-3325).

TABLE 4.5-2. PREVIOUSLY IDENTIFIED CULTURAL RESOURCES WITHIN A 1-MILE RADIUS OF THE FSF PROJECT

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Site Description	Date Recorded	Within 1-mile of the FSF Project Study Area	Within the Proposed FSF Project Study Area
0001670	1670	Indian Trail	--	✓	
0003149	3149	Collected Pottery Scatter	1979	✓	
0003309	3309	Mesquite Grove	--	✓	
0003310	3310	Cross Road	1978	✓	
0003314	3314	Cross U.S. Military Telegraph Line	1978	✓	
0003315	3315	Cross Road	1978	✓	
0003323	3323	Cross Road	--	✓	
0003324	3324	Destroyed Cross Road	1978	✓	
0003325	3325	Mesquite Thicket	--		✓
0003326	3326	Destroyed Cross Road	1978	✓	

Source: AECOM 2013

RSF

According to the results from SCIC and as shown in Table 4.5-3, seven cultural resources have been recorded within a 1-mile radius of the RSF project area, consisting of a segment of the Woodbine Canal (P-13-013076), historic wagon and cross roads (CA-IMP-3321, -3322, -3323, -3324, and -3326), and a mesquite thicket (CA-IMP-3325). No cultural resources have been previously identified within the RSF project area.

TABLE 4.5-3. PREVIOUSLY IDENTIFIED CULTURAL RESOURCES WITHIN A 1-MILE RADIUS OF THE RSF PROJECT

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Site Description	Date Recorded
013076	--	Segment of the Woodbine Canal	2010
0003321	3321	Wagon Road	--
0003322	3322	Wagon Road	--
0003323	3323	Cross Road	--
0003324	3324	Destroyed Cross Road	1978
0003325	3325	Mesquite Thicket	--
0003326	3326	Destroyed Cross Road	1978

Source: AECOM 2013

ISF

According to the results from SCIC and as shown in Table 4.5-4, 11 cultural resources have been recorded within a 1-mile radius of the ISF project area, consisting of an Indian trail (CA-IMP-1670), a collected pottery scatter (CA-IMP-3149), three Colorado Buff pot sherds (CA-IMP-3150), a U.S. military telegraph line (CA-IMP-3314), cross roads (CA-IMP-3310, -3315, -3316, -3324, and -3326), and a mesquite grove (CA-IMP-3309). Two cultural resources have been previously identified within the

ISF project area and are identified as a mesquite grove (CA-IMP-3309) and a destroyed cross road (CA-IMP-3326).

TABLE 4.5-4. PREVIOUSLY IDENTIFIED CULTURAL RESOURCES WITHIN A 1-MILE RADIUS OF THE ISF PROJECT

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Site Description	Date Recorded	Within 1-mile of the ISF Project Study Area	Within the Proposed ISF Project Study Area
0001670	1670	Indian Trail	--	✓	
0003149	3149	Collected Pottery Scatter	1979	✓	
0003150	3150	3 Colorado Buff Pot Sherds	1979	✓	
0003309	3309	Mesquite Grove	--		✓
0003310	3310	Cross Road	1978	✓	
0003314	3314	Cross U.S. Military Telegraph Line	1978	✓	
0003315	3315	Cross Road	1978	✓	
0003316	3316	Cross Road	1978	✓	
0003324	3324	Destroyed Cross Road	1978	✓	
0003325	3325	Mesquite Thicket	--	✓	
0003326	3326	Destroyed Cross Road	1978		✓

Source: AECOM 2013

LSF

According to the results from SCIC and as shown in Table 4.5-5, nine cultural resources have been recorded within a 1-mile radius of the LSF project area, consisting of two wagon roads (CA-IMP-3321, and -3322), segments of the Woodbine Canal (P-13-013073, -013074, -013075, -013076, and -013077), the Brockman Drain (P-13-013078), and the Wells Drains (P-13-013082). No cultural resources have been previously identified within the LSF project area.

TABLE 4.5-5. PREVIOUSLY IDENTIFIED CULTURAL RESOURCES WITHIN A 1-MILE RADIUS OF THE LSF PROJECT

Primary Number (P-13-)	Permanent Trinomial (CA-IMP-)	Site Description	Date Recorded
013073	--	Segments of the Woodbine Canal	2010
013074	--	Segments of the Woodbine Canal	2010
013075	--	Segments of the Woodbine Canal	2010
013076	--	Segments of the Woodbine Canal	2010
013077	--	Segments of the Woodbine Canal	2010
013078	--	Segments of the Brockman Canal	2010
013082	--	Segments of the Wells Drain	2010
0003321	3321	Wagon Road	--
0003322	3322	Wagon Road	--

Source: AECOM 2013

Field Inventory Results

A cultural resources pedestrian survey was conducted for each of the project sites (ESA 2014). Areas consisting of open agricultural fields with ground surface visibility greater than 0 percent were surveyed in a systematic manner using transects spaced at intervals of 15 meters or less. In areas with dense and steep slopes, an opportunistic survey approach was undertaken wherein areas where vegetation was not as dense, such as clearings and game trails, were subject to intensive inspection. Areas where ground surface was not visible were subject to reconnaissance-level surveys in order to identify the presence of historic built resources. A total of five new resources and one previously recorded resource (CA-IMP-3325) were identified as a result of the pedestrian survey. These resources consist of

a multicomponent archaeological site (Iris-Site-001M) and four historic built resources (Iris-Built-001, Iris-Built-002, Iris-Built-003, and Iris-Built-004). These resources are discussed below.

CA-IMP-3325

Resource-CA-IMP-3325 is a landscape feature of unknown age. It consists of a mesquite thicket. No artifacts or features were observed associated this resource.

Iris-Site-001M

Resource Iris-Site-001M is a multicomponent archaeological site that consists of two prehistoric ceramic sherds and a very diffuse, low-density scatter of historic and modern refuse. In addition, a single linear concrete feature is located in the western portion of the site. The site measures approximately 1,015 feet (NW/SE) by 109 feet (NE/SW) and is located along two generally east-west trending dirt roads that have been recently bladed. The site is bounded on the south by a generally northwest-southeast trending concrete lined ditch and alfalfa fields and to the north by the New River floodplain. The site has been highly disturbed by road grading. Many of the artifacts noted, including the two prehistoric ceramic sherds, were observed in push piles.

Artifacts observed within the site primarily consisted of beverage bottle fragments, tableware fragments, beverage and sanitary cans, colored decorative glass fragments, two tobacco tins, and two small vials that appear to have contained antibiotics or medicine for livestock. Many of the artifacts are concentrated in the eastern portion of the site.

The linear concrete feature in the western portion of the site is approximately 32 feet (E/W) by 5 inches wide (N/S) and may be associated with the northwest-southeast trending concrete-lined ditch that bounds the northern portion of the site.

Iris-Built-001

Resource Iris-Built-001 consists of a group of ten structures associated with farming operations. The observed structures included:

- A wood-framed residence with wooden siding and gabled roofs;
- Two wood-framed, square-shaped storage sheds with gabled roofs;
- A wood-framed, square-shaped pump house with a gabled roof on a raised concrete platform;
- A wood-framed, rectangular-shaped barn/garage with a gabled roof and two eaves overhanging the northeast and southwest corners;
- Two railroad cars modified into storage units;
- A square shaped, semi-subterranean, concrete-lined sump; and
- Two-wood framed, rectangular shaped office/bunk houses with gabled roofs.

The property is fenced off and has tamarisk and palo verde trees along its western perimeter. Two structures in the same general location as the resource are depicted on the 1940 Heber 7.5' topographic quadrangle, indicating that portions of the resource are at least 74 years old.

Iris-Built-002

Resource Iris-Built-002, located on the FSF, consists of five structures associated with farming operations. The observed structures included:

- An L-shaped, wood-framed residence that has stucco siding and a gabled roof;
- A second wood-framed residence that is rectangular-shaped and has stucco siding and a gabled roof;

- A third wood-framed residence, that is square-shaped, and has stucco siding and a gable roof;
- A small wood-framed shed with a gabled roof; and
- A wood-framed warehouse that is rectangular-shaped, and has corrugated metal siding and a gabled roof.

A number of citrus, eucalyptus, and ornamental trees were observed throughout the property. Two structures in the same general location as the resource are depicted on the 1940 Heber 7.5' topographic quadrangle, indicating portions of it are at least 74 years old.

Iris-Built-002 was evaluated for listing in the California Register based on the following criteria for designation:

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

Based on the Historic Resources Evaluation Report prepared by ESA, Iris-Built-002 does not appear to meet the criteria for listing in the California Register under Criteria 1-4.

Iris-Built-003

Resource Iris-Built-003 is located on the RSF. The resource consists of a wood framed residence with stucco siding and a gabled roof. A single structure in the same general location as the resource is depicted on the 1957 Heber 7.5' topographic quadrangle, indicating that the resource is at least 57 years old.

Iris-Built-004

Resource Iris-Built-004 consists of the Wistaria Canal System, which bisects all four project sites. The Wistaria Canal System found within the project area includes the Wistaria Canal, Wistaria Drain 5, Wistaria Lateral 4, the Wistaria Drain, Wistaria Lateral 2, and Wistaria Lateral 3.

Wistaria Canal

Approximately 2.56 linear miles of the Wistaria Canal bounds and bisects various portions of the ISF and FSF. The canal is concrete-lined, has a trapezoidal cross-section and is approximately 20.25 feet wide. The canal appears on the 1940 Heber 15' topographic quadrangle, indicating that it is at least 74 years old.

Wistaria Drain 5

Approximately 0.5 linear miles of the north-south trending Wistaria Drain 5 bisects the center of the LSF. The earthen drain has a trapezoidal cross-section, and is approximately 30 feet wide at the top and eight feet wide at the bottom. The drain appears on the 1957 Heber and Mount Signal 7.5' topographic quadrangles, indicating that it is at least 57 years old.

Wistaria Lateral 4

Approximately 0.27 linear miles of the east-west trending Wistaria Lateral 4 bounds the southern portion of the LSF. The earthen drain has a trapezoidal cross-section, and is approximately 32 feet wide at the top and eight feet wide at the bottom. The drain appears on the 1957 Heber and Mount Signal 7.5' topographic quadrangles, indicating that it is at least 57 years old.

Wistaria Drain

Approximately 0.50 linear miles of the east-west trending Wistaria Drain bisects the center of the RSF. The earthen drain has a trapezoidal cross-section, and is approximately 40 feet wide at the top and 17 feet wide at the bottom. The drain appears on the 1940 Heber 15' topographic quadrangle, indicating that it is at least 74 years old.

Wistaria Lateral 2

Approximately one linear mile of the east-west trending Wistaria Lateral 2 bounds the southern portion of the ISF. The lateral is concrete-lined, has a trapezoidal cross-section, and measures approximately 13 feet wide at the top and four feet wide at the bottom. The lateral appears on the 1957 Heber 7.5' topographic quadrangle, indicating that it is at least 57 years old.

Wistaria Lateral 3

Approximately 0.42 linear miles of the north-south trending Wistaria Lateral 3 bounds the southeast portion of the FSF and the northwest portion of the ISF. The lateral is concrete-lined, has a trapezoidal cross-section, and measures approximately 18 feet wide at the top and eight feet wide at the bottom. The lateral appears on the 1957 Heber 7.5' topographic quadrangle, indicating that it is at least 57 years old.

4.5.2 Impacts and Mitigation Measures

This section presents the significance criteria used for considering project impacts related to cultural resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

4.5.2.1 Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to cultural resources are considered significant if any of the following occur:

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

4.5.2.2 Methodology

This analysis evaluates the potential for the projects, as described in Chapter 3, Project Description, to interact with cultural resources in the project area. Based on the extent of these interactions, this analysis considers whether these conditions would result in an exceedance of one or more of the applied significance criteria as identified above.

As indicated in the environmental setting, literature reviews were conducted for the Iris Cluster which covers the FSF, RSF, ISF, and LSF project sites. This report is included as Appendix F of this EIR. The information obtained from these sources was reviewed and summarized to present the existing conditions and to identify potential environmental impacts, based on the significance criteria presented in this section. Impacts associated with cultural resources that could result from project construction and operational activities were evaluated qualitatively based on site conditions; expected construction practices; materials, locations, and duration of project construction and related activities. Conceptual site plans for the projects were also used to evaluate potential impacts. These conceptual exhibits are provided in Figures 3.0-6 through Figures 3.0-9.

4.5.2.3 Impact Analysis

IMPACT *Impact to Historical Resources.*

4.5-1 *The proposed projects would not cause a substantial adverse change in the significance of a historical resource.*

Iris Cluster (FSF, RSF, ISF, and LSF) and Transmission Line

To be considered historically significant, a resource must meet one of four criteria for listing outlined in the California Register of Historical Resources (CRHR) (CEQA Guidelines 15064.3 (a)(3)). In addition to meeting one of the criteria outlined in the CRHS, a resource must retain enough intact and undisturbed deposits to make a meaningful data contribution to regional research issues (CCR Title 14, Chapter 11.5 Section 4852 [c]). Further, based on CEQA Guidelines Section 15064.5(b), substantial adverse change would include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. This can occur when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR, National Register of Historic Resources, a local register, or historic resources.
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its identification in an historical resources survey meeting the requirements of PRC §5024.1(g), unless the public agency establishes by a preponderance of the evidence that the resource is not historically or culturally significant.

A total of five new resources and one previously recorded resource (CA-IMP-3325) were identified as a result of the pedestrian survey. These resources consist of a multicomponent archaeological site (Iris-Site-001M) and four historic built resources (Iris-Built-001, Iris-Built-002, Iris-Built-003, and Iris-Built-004). Based on the Historic Resources Evaluation Report prepared by ESA, Iris-Built-002 does not appear to meet the criteria for listing in the California Register under Criteria 1-4 and is therefore not a historical resource pursuant to CEQA. All six resources will be avoided by the proposed projects and as such, would not demolish or materially alter the physical characteristics of the resources. Therefore, **no impact** would occur.

Mitigation Measure(s)

No mitigation measures are required.

IMPACT

Impact to Archaeological Resources.

4.5-2

The proposed projects could cause a substantial adverse change in the significance of an archaeological resource.

Pursuant to CEQA Guidelines §15064.5(c)(1) and (2), an archaeological resource includes an archaeological site that qualifies as a significant historical resource as described for Impact 4.5-1. If an archaeological site does not meet any of the criteria outlined in the provisions under Impact 4.5-1, but meets the definition of a “unique archaeological resource” in PRC 21083.2, the site shall be treated in accordance with the provisions of PRC 21083.2, unless the project applicant and public agency elect to comply with all other applicable provisions of CEQA with regards to archaeological resources. “Unique archaeological resource” means 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 that 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.
- (3) Is directly associated with a scientifically recognized important historic event or person.

CEQA Guidelines 15064.5(c)(4) confirms that if an archaeological resource is neither a unique archaeological nor an historic resource, the effects of the projects on those resources shall not be considered a significant effect on the environment.

Iris Cluster (FSF, RSF, ISF, and LSF) and Transmission Line

The literature review of the project area indicates there are archaeological resources that have been recorded within a 1-mile radius of the proposed projects (see Tables 4.5-2 through 4.5-5). No cultural resources have been previously identified within the RSF and LSF project sites. However, one cultural resource has been previously identified within the FSF project site and is identified as a mesquite thicket (CA-IMP-3325); and two cultural resources have been previously identified within the ISF project site, and are identified as a mesquite grove (CA-IMP-3309) and a destroyed cross road (CA-IMP-3326).

The historic map review indicates the project sites and surrounding area have been used primarily for agricultural purposes throughout much of the twentieth century. Aside from water conveyance infrastructure associated with agricultural activities, there has been little development within the project sites. However, the review did indicate that the project sites are located along what was a travel and communication corridor during the late 19th century. In addition, the historic maps indicate indigenous habitation with 1.50 miles of the projects during the ethnographic period. Moreover, one multicomponent archaeological site (Iris-Site-001M) was documented within the FSF project site during the pedestrian survey, which indicates there is potential for prehistoric and historic-period archaeological resources.

Based on the results of the records searches and pedestrian survey, the project sites should be considered moderately sensitive for the presence of archaeological resources. The projects include ground-disturbing activities that will extend to depths of 20 feet below the ground surface. As such, the projects have the potential to disturb previously undocumented cultural resources that could qualify as unique archaeological resources pursuant to CEQA. This is considered a **significant impact**. Implementation of proposed Mitigation Measures 4.5-2a through 4.5-2f would reduce the potential impact to a level **less than significant**.

The following mitigation measures are required for the FSF, RSF, ISF, LSF and transmission line.

- 4.5-2a Worker Awareness Training.** Workers conducting grading activities and their supervisors shall receive proper training prior to the commencement of grading from a qualified archaeologist regarding the potential for sensitive archaeological resources to be unearthed during these grading activities. The workers shall be directed to report any unusual specimens of bone, stone, ceramics or other archaeological artifacts observed during grading and/or other construction activities to their supervisor and to cease grading activities in the immediate vicinity of the discovery until the archaeological monitor is notified of the discovery by the Superintendent of the project site.
- 4.5.2b Archaeological and Tribal Monitoring.** Proper training of on-site personnel will be required and, if requested, certified observers (tribal monitors) will be on-site to insure proper avoidance and/or removal protocols are observed in the event that cultural resources are uncovered due to construction ground disturbance.
- 4.5.2c Accidental Discovery of Unknown Archaeological Resources.** In the event that unknown historic or unique archaeological resources are encountered during construction or operational repairs, archaeological monitors will be authorized to temporarily divert construction work within 100 feet of the area of discovery until the significance and the appropriate mitigation measures are determined by a Registered Professional Archaeologist familiar with the resources of the region.
- 4.5-2d Discovery of Archaeological Materials.** In the event archaeological resources potentially eligible for the CRHR are encountered, surface disturbing work in the immediate vicinity of the discovery shall temporarily halt until appropriate treatment of the resource is determined by a qualified archaeologist in accordance with the provisions of CEQA Section 15064.5. The archaeological monitor shall have the authority to re-direct construction equipment in the event archaeological resources potentially eligible for the CRHR are encountered. If the qualified archaeologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the project applicant shall implement an archaeological data recovery program.
- 4.5-2e Cultural Resource Documentation and Treatment by Tribal Monitors.** If a cultural resource artifact, feature, or other cultural item is observed on the project site by the Tribal Monitor(s), the Tribal Monitor(s) will be given a reasonable opportunity to document, remove, and/or otherwise provide for treatment of the resource. Except in the case of cultural items that fall within the scope of the Native American Grave Protection and Repatriation Act (NAGPRA), the discovery of any cultural resource within the project area by the Tribal Monitor(s) shall not be grounds for a “stop work” notice or otherwise interfere with the project’s continuation except as set forth in this paragraph.
- 4.5-2f Project Applicant Shall Notify the County within 24 Hours.** Upon discovery of archaeological resources or materials, and after cessation of excavation, the contractor shall immediately contact the Imperial County Department of Planning and Development Services. The contractor shall not resume work until authorization is received from the County.

Significance After Mitigation

Implementation of Mitigation Measures 4.5-2a through 4.5-2f would reduce potentially significant impacts to unknown historic or unique archaeological materials during construction of the proposed projects to **less than significant**.

IMPACT *Impact to Paleontological Resources.*
4.5-3 *The proposed projects would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature.*

Many paleontological fossil sites are recorded in Imperial County and have been discovered during construction activities. Paleontological resources are typically impacted when earthwork activities such as mass excavation cut into geological deposits (formations) with buried fossils. One area in which paleontological resources appear to be concentrated in this region is the shoreline of ancient Lake Cahuilla, which would have encompassed the present-day Salton Sea. The lake covered much of the Imperial Valley and created an extensive lacustrine environment. Lake Cahuilla experienced several fill-recession episodes before it finally dried up about 300 years ago. In 1905, the Colorado River overflowed into the Salton Basin creating the present-day Salton Sea. Because lacustrine environments typically provide the appropriate conditions for fossil preservation, there is a potential for paleontological resources to be present within the project sites and off-site transmission areas.

Iris Cluster (FSF, RSF, ISF, and LSF) and Transmission Line

The proposed projects are located within active agricultural lands. Impacts to any surface or near-surface level paleontological resources are not anticipated due to the extensive grading and disturbance that has already occurred from farming activities within the project sites. Additionally, construction of the projects will not require mass grading or deep cuts/excavations greater than 20 feet below the ground surface. Therefore, **no impact** is anticipated.

Mitigation Measure(s)

No mitigation measures are required.

IMPACT *Impact to Human Remains.*
4.5-4 *The proposed projects could disturb and human remains, including those interred outside of formal cemeteries.*

Iris Cluster (FSF, RSF, ISF, and LSF)

During the construction and operational phases of the proposed projects, grading, excavation and trenching will be required. While no potential human remains have been identified in the project area, subsurface activities always have some potential to impact previously unknown remains. This is considered a **potentially significant impact**. Mitigation Measure 4.5-4 will ensure that the potential project impacts to previously unknown human remains do not rise to the level of significance pursuant to CEQA. With implementation of Mitigation Measure 4.5-4, the impact will be **less than significant**.

Mitigation Measure(s)

The following mitigation measure is required for the FSF, RSF, ISF, LSF, and transmission line.

4.5-4 Human Remains. In the event that any human remains or related resources are discovered on the project site, such resources shall be treated in accordance with federal, state, and local regulations and guidelines for disclosure, recovery, relocation, and preservation, as appropriate. All construction affecting the discovery site shall cease until, as required by CEQA Guidelines, Section 156064.5(e), the human remains are evaluated by the County Coroner for the nature of the remains and cause of death. All parties involved would ensure that any such remains are treated in a respectful manner and that all applicable federal, state, and local laws are followed.

If human remains are found to be of Native American origin, or if associated grave goods or objects of cultural patrimony are discovered, the provisions of the NAGPRA would be followed, and the Native American Heritage Commission shall be asked to determine the descendants who are to be notified or, if unidentifiable, to establish the procedures for burial.

Significance After Mitigation

Implementation of Mitigation Measure 4.5-4 would reduce potentially significant impacts to human remains to a **less than significant** level by stopping construction if human remains are discovered during construction. No further disturbance would occur until the remains are assessed and treated.

4.5.3 Decommissioning/ Restoration and Residual Impacts

Decommissioning/Restoration

No impact is anticipated from restoration activities as the ground disturbance and associated impacts to cultural resources will have occurred during the construction phase of the projects.

Residual

Implementation of Mitigation Measures 4.5-2a through 4.5-2f would reduce potentially significant impacts to unknown historic or unique archaeological materials during construction of the projects to a level less than significant. Implementation of Mitigation Measure 4.5-4 would reduce potential impacts to human remains to a level less than significant. No unmitigated impacts to cultural resources (i.e., historical resources and archaeological resources) and paleontological resources would occur with implementation of the projects.