

Appendix C

Cultural Resources Baseline and Supporting Information

Appendix C. Cultural Resources Baseline and Supporting Information

Appendix C provides information on existing cultural resources and tribal cultural resources in and surrounding the IP Oberon Renewable Energy Project (Oberon or project) area and alternatives.

C.1 Environmental Setting

C.1.1 Natural Setting

The natural setting is considered by most archaeologists as a key element that “sets the stage” for human development. Fundamentally, the natural setting determines the types of food and material resources available to prehistoric populations that inhabited the proposed project area.

The proposed project area is located in the Colorado Desert, which is situated within the southern Basin and Range geomorphic province. The Colorado Desert’s terrain consists of a series of broad, shallow southeast-trending valleys that drain into the Colorado River. Several playas, or closed basin sinks, exist on the valley floor. North-south trending weathered mountain ranges, rarely exceeding 4,000 feet in elevation, surround the valleys.

The climate of the Colorado Desert is generally hot and dry, with minimal rainfall. Average daily temperatures range from 66 degrees Fahrenheit (°F) in winter to 105°F in summer, although summer temperatures can be upward of 120°F. Annual rainfall totals within the Colorado Desert are among the lowest in the Sonoran Desert, averaging less than 2 inches per year in the Salton Trough and between 2 and 4 inches near the Colorado River.

C.1.2 Paleoclimate

During the time that humans have lived in California, the Colorado Desert has undergone several climatic shifts, which have influenced human use of the proposed project area.

The Pleistocene (1.8 million to 10,000 years ago), and the Holocene (10,000 years ago to the present) environmental record from the Mojave Desert provides a model for the Colorado Desert. The environmental record from the Mojave Desert indicates that the climate of the Late Pleistocene and Holocene was characterized by periods of warm, dry conditions interspersed with periods of cooler, wetter climate. During the wetter periods of the Holocene some of the basins in the Mojave Desert and Colorado Desert regions became shallow lakes, with extensive marshy shorelines. Being sources of food, water, and materials, these lakes would have attracted Native Americans use and settlement. Palen Dry Lake is one example.

C.1.3 Prehistoric Setting

The proposed project area's location suggests multiple groups were present in the region at various times because it is near the boundary of the Colorado and Mojave deserts and it is located along a known prehistoric and historic travel corridor. Groups in the region originated from portions of the Mojave Desert, the interior Colorado Desert, and the Colorado River as well as more distant locations, such as the peninsular ranges or the Southwest. Therefore, the area's archeological record also may reflect affinities with any of these regions. Consequently, the prehistoric context herein draws on current knowledge from both the Mojave and Colorado desert regions.

Paleoindian Period (~12,000 to 8,000 B.P.)

This first period of human occupation in California is commonly referred to as the Paleoindian Period (~12,000 to 8,000 years Before Present [B.P.]). Evidence of a permanent Paleoindian occupation in the Colorado Desert is scant. Isolated Paleoindian projectile points (large fluted points) have been recovered on the surface at several locations, including Pinto Basin, Ocotillo Wells, Cuyamaca Pass, and the Yuha Desert. However, few Paleoindian archaeological sites have been identified in the Colorado Desert. The dearth of evidence may be due to a lack of large-scale data recovery efforts in the region, or Paleoindian sites in the region may have been of a more ephemeral nature due to ecological instability and highly mobile populations. For instance, during this period Ford Dry Lake, located east of the Project area, appears to have contained only temporary playa lakes and not perennial pluvial lakes, which would have allowed for more permanent settlement near a stable resource base.

Archaic Period (8,000 to 1,500 B.P.)

During the Archaic period (8,000 to 1,500 B.P.), the climate was generally warmer and drier. Populations grew and prehistoric economies became more diversified, shifting away from large game hunting. New technologies, such as the milling stone, indicate an increasing dependence on plant resources. Archaic period projectile points include Gypsum, Elko, and Humboldt series.

Late Prehistoric Period/Protohistoric Period (1,500 B.P. to Historic Period)

Late Prehistoric and Protohistoric Periods are represented in this region by the Patayan complex. These periods date from approximately 1500 B.P. until the American expansion into the area at the turn of the nineteenth century. The Protohistoric Period encompasses a protracted 300-year period of sporadic European exploration and colonization that had little effect on aboriginal lifeways in the southern California deserts. There is a clear correspondence between the geographical distribution of archaeologically recognizable Patayan cultural materials and the historically documented territories of Yuman groups: the Quechan, Mohave, Cocopah, Paipai, Yavapai, Havasupai, and others. Thus, the archaeological Patayan complex is often taken to be directly ancestral to the ethnographic

Yuman cultures of the region. Nevertheless, non-Yuman groups, such as the Cahuilla and the Chemehuevi, were also active participants in this cultural complex.

The Patayan complex is characterized by marked changes in the artifact assemblage, economic system, and settlement patterns of the region. Perhaps the most recognizable change from an archaeological perspective was the introduction of paddle-and-anvil pottery, either from Mexico or from the ancestral pueblo groups of the U.S. Southwest. During this time, floodplain horticulture featuring maize, beans, squash, and other crops was similarly introduced from the south and east. Arable land along the lower Colorado River came under cultivation, as did the banks of the New and Alamo rivers in Imperial Valley. The Colorado Desert lay at the prehistoric frontier of the westward expansion of agriculturally based subsistence systems from the east.

Bow-and-arrow technology was also introduced at this time, possibly from desert hunter-gatherer groups moving in from the west and north. Smaller, arrow-sized projectile point types of the Cottonwood Triangular and Desert Side-notched series are common. Cottonwood series projectile points likely predate the Desert Side-notched types, and probably predate the introduction of pottery manufacture in the region. Concomitant with these dramatic subsistence and technology changes were several, apparently related, ceremonial and religious changes. During the Late Prehistoric Period, practices for dealing with the dead shifted from burials to cremations and partial cremations. Artistic expression on rock (petroglyphs) and land (intaglios) flourished at this time in association with expanding trade and trail networks and increasingly elaborate kinship systems tying together extensive territories. Warfare likely also increased at this time and was well documented in the Protohistoric and historical periods.

Based on limited data, it appears that, like most of the Colorado Desert, archaeological components in the Chuckwalla Valley date to the Late Prehistoric and Protohistoric Periods. For example, projectile points and ceramics found at site CA-RIV-1515 along the Palen Dry Lakebed, suggests that the site was occupied from 1450 B.P. to 950 or 750 B.P. A number of sites near the Ford Dry Lake playa margin also contain ceramics, indicating relatively late occupations. Additionally, most of the earth art and rock art sites, as well as many trails and ceremonial sites, are interpreted to most likely date to the Late Prehistoric Period. Many of these ceremonial features continued to be used after European contact, and even into the present day.

C.1.4 Ethnohistoric Setting

There is archaeological evidence that ancestors of the Yuman-speaking groups have been in the Chuckwalla Valley and the CEQA Area of Direct and Indirect Impacts for some time. However, these were not the only people who would have used this area. Ethnographic information indicates that several other Native American groups, such as the Cahuilla and Chemehuevi, at least traversed the Chuckwalla Valley.

Native use of the Chuckwalla Valley area in the eighteenth and early nineteenth centuries was determined by its location in a frontier or boundary zone between the Halchidoma to

the east and the Takic groups—the Cahuilla and Serrano—to the west. The Halchidoma were linked to the desert division of the Cahuilla and the mountain division of the Serrano by ties of political friendship and long-distance exchange. Thus, the Chuckwalla Valley formed a geographical link between these groups and formed a major travel corridor for communication between them. In addition to this east-west travel, the Chuckwalla Valley also provided a corridor for north-south travel between the territories of two Colorado River groups who were enemies of the Halchidoma, the Mojave and the Quechan. Traveling parties from either one of these two groups going up or down the Colorado River had to veer away westward from the Palo Verde Valley to avoid the Halchidoma. This often took them through the Chuckwalla Valley.

Ethnohistorical and ethnographic sources for the Chuckwalla Valley have been limited by the fact that the area was not regularly visited by nonnative people until the 1860s. This was due in part to the fact that water and feed management on the eastern California deserts posed a severe challenge to successful horse or mule travel to the Colorado River and Arizona by nonnative people. In addition, the boundaries and areas of settlement of native groups in the region have changed over time. Thus, ethnohistoric information and archaeological data may outline quite different patterns of occupation and territoriality.

Nevertheless, it can be said with confidence that most groups living in the vicinity of the Oberon Project when the Spanish first made forays into the area spoke languages in the Yuman family of the Hokan language stock. These include the Halchidoma and Mojave, and the Quechan. Surrounding groups are Uto-Aztecan speakers; the Chemehuevi speak a language of the Numic branch, and the Cahuilla are Takic speakers.

The final drying up of Lake Cahuilla is thought to have caused major disruptions in the population in the Colorado Desert, perhaps contributing to the persistent warfare reported along the lower Colorado and Gila rivers.

Native American groups having historical tribal territories falling within the CEQA Area of Direct and Indirect Impacts include the Quechan, Mojave, Halchidoma, Chemehuevi, Desert Cahuilla, and Serrano.

Quechan

Quechan is a variation on the names *Kwichyan* or *Kuchiana* but this group is also commonly known as the Yuma; today they refer to themselves as *Kw'tsan*. The Quechan are among the Yuman-speaking tribes who occupied the lower Colorado River where it forms the boundary between California and Arizona. According to Quechan oral tradition, their territorial range extended along the Colorado River from Blythe, in the north, to Mexico, in the south. At the time of sustained European contact in the seventeenth century, the Quechan people numbered in the thousands. The largest concentration of Quechan traditionally lived at the confluence of the Colorado and Gila rivers, although they were strangely not reported in that area in 1540, when the Alarcon and Diaz expeditions reached the confluence. Nevertheless, in the following century, large Quechan villages existed in the area.

The Quechan economy was based on a combination of horticulture, fishing, and gathering. During the winter and spring, Quechan groups lived in seasonal village settlements on terraces above the river floodplain. After the spring floods receded, small family groups would disperse to their agricultural plots along the river to plant crops. After the harvest in the fall, the Quechan would gather again in the large villages on the terraces, where stored agricultural foods, fishing, and limited gathering allowed them to live together through the winter. In all times but high flood, fishing in the Colorado River provided an important source of protein.

Numerous named villages were along the terraces above the lower Colorado River flood zone. The village known as *Avi Kwotapai* was on the west side of the Colorado River between Blythe and the Palo Verde Valley, and *Xenu mala vax* was on the east side of the river near present-day Ehrenberg (Bee, 1982). Quechan and other Yuman groups report well-traveled trails that extend along the Colorado River, as well as trail networks between peaks and other significant landscape features.

For the Quechan, like other lower Colorado River groups, individual dreaming to seek guidance in life and spiritually based power was a principal aspect of religious belief and practice. This included learning sacred songs about events that occurred at the time of the creation of the world through dreaming. Singing these songs was, and remains, a principal avenue of religious expression. The dreaming experience meant that sacred places could be visited, and the sacred landscape traversed, through dreaming rather than through conventional travel, although physical travel along trails to sacred places was also an important aspect of the religious experience. Travel on key Native American trails continues to be a cultural practice today to commemorate and experience traditional culture. The geography of sacred places related to the sacred song cycles of Yuman groups is a major cultural feature of the lower Colorado River region. In the early 20th century, Alfred Kroeber collected large quantities of information on places mentioned in Mojave song cycles, from as far afield as the Pacific Ocean, the Tehachapi Mountains, the Gulf of California, Tucson, and southern Nevada.

The Quechan Tribe is a federally recognized tribe with its governmental office in Yuma, Arizona. The U.S. government established the Fort Yuma-Quechan Reservation on the California side of the Colorado River in 1884, although Euro-American settlers appropriated much of the land. Reservation lands were further broken up by allotment to individual Quechan members in 1912. The tribe ratified a constitution and elected a seven-person tribal council in 1936. In 1978, the tribe had 25,000 acres of land restored to them. Today, the Quechan Tribe's reservation spans the Arizona-California border at the Colorado River near the confluence with the Gila River and encompasses 45,000 acres. Approximately 2,475 members are currently enrolled in the Quechan Tribe.

Mojave

The Yuman-speaking Mojave Indians, or Aha Makav, were among the earliest residents in the Mojave Desert. They moved from the area approximately 500 years ago to the

Colorado River where they were documented in 1776 by Father Francisco Garcés, a Spanish explorer. Another Spanish explorer, Juan de Onate, may have observed this group as early as 1604 based on his descriptions of the “Mojave” people along the Colorado River. The Mojave are notable for their understanding of themselves as a unified “nation” of people, known as the Hamakhava, rather than as a series of loosely related clans or villages. The whole of the Mojave acted together in defending their territory and attacking their enemies.

During much of the year, the Mojave lived in villages on terraces above the Colorado River, only moving down onto the floodplain in the spring to plant crops after the seasonal floods. Like other lower Colorado River peoples, the Mojave relied on floodplain horticulture, fishing, and gathering for subsistence. Planted crops included maize, black-eyed beans (cowpeas), squash, pumpkin, and several local grasses. Cultivated plants were supplemented by the collection of wild plant foods including honey mesquite and mesquite screwbean, which could be stored for long periods of time and were traditional staple foods. Although the pods of both plants could be eaten green, they were usually pounded into flour using long stone or wooded pestles. Additionally, screwbean pods were often processed in large pits dug into sandy soil where the pods were placed, covered with vegetation, and then periodically watered to leach out bitter compounds.

The bulk of the traditional Mojave diet was vegetarian but hunting and fishing were nonetheless important components of the seasonal subsistence cycle. Mojave hunters considered spring the best time to hunt, when they could lie in wait next to springs where the young grass would attract deer. Rabbits and other small game were also targeted, although they were more often taken in traps, snares, and communal drives. When the high waters of the Colorado River receded in July and August, the Mojave turned to fishing and caught a variety of Colorado River fish species by driving them into shallow sloughs or trapping them in seines.

The Mojave are well known for their long-distance travel. Like other Colorado River tribes, they participated in a trade network extending east to the Pueblos of Arizona and west to the Pacific coast. A number of important passes and routes of travel, including the well-known Mohave trail connecting the high deserts with the southern California coastal valleys, were developed or frequented by the Mojave. The endurance and speed of Mojave travelers were legendary at the time of European contact. During the Colonial era, the Spanish frequently encountered groups of traveling Mojave who continued the tradition of desert–coastal travel and trade throughout the mission period, occasionally in conflict with the wishes of Spanish officials.

The general Yuman belief in the importance of dreaming, and the fundamental inter-relationship between the mundane and spiritual worlds, was particularly developed among the Mojave. All people were capable of meaningful dreaming, and most individuals came to their chosen roles in life as a result of their dreams. In dreams, the Mojave travel in a mythical place and time when the world was first formed and the important places, such as mountains and springs, came into being. Dreams also inform public rituals, and

the many complicated “song series” that singers perform from memory are said to be dreamed as much as learned. The songs of the Mojave are remarkably specific geographically, noting “the exact spot at which each character journeyed or slept or stood or looked about.” Thus, Mojave songs seem to act as a means of storing and transferring important landscape knowledge; they are, among other things, a collection of meaningfully constituted mental maps of the Mojave territory and beyond. Many nearby groups, including the Chemehuevi, borrowed extensively from the Mojave song series repertoire.

Today, descendants of the Mojave belong to the following federally recognized tribes: Colorado River Indian Tribe (CRIT), Fort Mojave Indian Tribe, and the Fort Yuma Quechan Indian Nation (Quechan Tribe). CRIT was established in 1865. The CRIT Reservation today includes almost 300,000 acres of land in both California and Arizona and is centered on the Colorado River. This reservation includes business interests focusing on agriculture, a casino, outdoor recreation, and light industry. The CRIT Reservation has about 3,500 Mojave, Chemehuevi, Hopi, and Navajo members. Although the four combined groups are united within the CRIT Reservation and act as a single geopolitical unit, each Tribe continues to maintain and observe its individual traditions, distinct religion, and unique cultural character. The Fort Mojave Indian Reservation was founded in 1870. It currently has over 1,100 members and is located along the Colorado River and covers nearly 42,000 acres in Arizona, California, and Nevada.

Halchidhoma

The Halchidoma (also known as the Panya) are a Yuman-speaking people who, until about 1825, lived along the Colorado River between the present-day cities of Blythe and Needles. According to the oral history of the Halchidoma, they travelled south to Mexico where they lived adjacent to a Yaqui settlement until around 1838 when most died of an epidemic. At that point the remaining Halchidoma moved northeast and eventually settled down with the Maricopa tribe, another Yuman-speaking group living along the Gila River.

The Halchidoma were known to travel and trade over great distances. The Coco-Maricopa Trail, leading west from a portage point across the Colorado River adjacent to the City of Blythe, linked the Halchidoma with the Pacific coast. Ceramic seriation and radiocarbon dates from marine shell artifacts indicate that an extensive trade network between the Pacific coast and the lower Colorado River region was established by at least 1100 B.P. The Halchidoma traded with the Cahuilla, Hualapai, Papago, and Pima of Arizona, and were closely allied with the Maricopa.

By all accounts, the Halchidoma were frequently in conflict with their Colorado River neighbors, the Quechan and Mojave. During the decades, if not centuries, of open hostility, the Halchidoma established strong alliances with the Yuman-speaking Maricopa and Cocopa peoples who lived to the east, along the Gila River. Ultimately, the Halchidoma went to live with and intermarried with their allies the Maricopa, and are, therefore, poorly documented in the ethnographic literature. Contrary to some understandings, the Halchidoma are still extant and reside on the Salt River Pima Reservation.

Chemehuevi

The Chemehuevi are the southernmost of 16 groups of Southern Paiute peoples, and the only non-Yuman speakers living along the lower Colorado River at the time of European contact. The traditional territory of the Chemehuevi was an extensive area southwest of Las Vegas, including portions of the eastern Mojave Desert of California. The Chemehuevi lived along the Lower Colorado River, although only within the last few hundred years. Their traditional territory was the largest of any tribe in California speaking the same dialect. They occupied a huge portion of the eastern Mojave Desert, ranging from the Old Woman Mountains in eastern San Bernardino County, west to some undefined point in the middle of the Mojave Desert where Serrano territory began, and as far south as the Riverside/Imperial County line. The Spanish missionary explorer Francisco Garcés in 1775–1776, suggests that the northern Chuckwalla Valley was in the territory of the Chemehuevi.

The Chemehuevi living in the deserts practiced a relatively nomadic hunting/gathering way of life, with larger settlements near reliable water sources, but no permanent villages. Groups moved with the rhythm of the seasons, arriving to harvest plant foods as they matured and hunting primarily small game. Hunting parties also traveled to the San Bernardino Mountains and visited with their allies the Northern Serrano, or Vayume. Owing to the impermanence of most desert encampments, housing was typically of brush erected to protect inhabitants from the harsh sun and wind. Several foods, including dried meats, dried melon and squash, agave hearts, and various seeds, were stored in specially prepared baskets, earth pits, and caves. Chemehuevi groups did not live permanently with their food caches, though, and the stealing of cached food was apparently a grave issue, one that could incite war and inflict spiritual harm.

Until their expansion into the lower Colorado River region, the Chemehuevi did not use pottery, but relied instead on a variety of woven baskets and implements, often with painted designs. Chemehuevi hunters were known for their recurved, sinew-backed bows, which, though shorter than comparable Mojave bows, were nonetheless accurate, powerful, and well-suited to hunting deer and other big game. Those groups that settled along the Colorado River adopted agriculture, more substantial wooden dwellings, pottery, and a number of other cultural features from their riverine neighbors. They are known to have constructed hand-dug wells.

Despite an underlying friction, the Chemehuevi were traditional allies of the Mojave, and after the Halchidoma were driven from the Colorado River area in the early nineteenth century, the Chemehuevi moved into the Parker/Blythe area vacated by the Halchidoma. Some Chemehuevi families moved to the Mara Oasis, near what now is the city of Twentynine Palms. Some scholars suggest that the Chemehuevi may have settled in the Palo Verde Valley vicinity before the expulsion of the Halchidoma. According to Mojave tradition the Chemehuevi were invited to come to the Colorado River after 1830. Chemehuevi sources, though, suggest that the Chemehuevi Valley and Cottonwood Island along the Colorado River were part of the Chemehuevi traditional territory prior to the 1800s.

This continues to be a point of disagreement between scholars and between the descendants of the historical Mojave and Chemehuevi.

In the Protohistoric and Historical periods, the Chemehuevi traveled extensively through the deserts and as far west as the Pacific coast “just to look around,” and to exchange goods and obtain marine shell ornaments and raw materials. Periodically, small groups of Chemehuevi and Las Vegas Southern Paiute would travel together to the Hopi villages in Arizona, although those trips were described as purely social visits involving gift exchanges, not trading expeditions.

In 1853 the Chemehuevi lost their traditional lands to the United States Government. The Chemehuevi Valley Reservation was established in 1907. However, Tribal members were soon relocated to the Parker, Arizona, area and their status as a federally recognized Tribe was taken away. In 1935, the United States Congress authorized as much acquisition of the reservation land as necessary for the Parker Dam Project, which resulted in the inundation of nearly 8,000 acres of reservation land. The Tribe was again recognized by the federal government as the Chemehuevi Tribe in 1970. Today, the Chemehuevi Indian reservation comprises approximately 32,000 acres of trust land, including 30 miles of Colorado River frontage.

Chemehuevi descendants reside on the Colorado River Indian Tribes (CRIT) Reservation and the Twentynine Palms Band of Mission Indians Reservation, as well as on several other reservations. In 1890, 160 acres were set aside for a reservation for the Chemehuevi near Twentynine Palms. In 1910, 640 acres adjacent to the existing Cabazon reservation in Coachella, was given jointly to the Cahuilla and the Chemehuevi, and those who remained on the Twentynine Palms reservation were encouraged to move there. Some went, some stayed, and others chose to settle elsewhere in California.

Desert Cahuilla

The Cahuilla language, divided into Desert, Pass, and Mountain dialects, has been assigned to the Cupan subfamily of the Takic branch of the Uto-Aztecan linguistic family. Territory traditionally claimed by the Cahuilla stretches from the summit of the San Bernardino Mountains in the north to Borrego Springs and the Chocolate Mountains in the south, a portion of the Colorado Desert west of Orocopia Mountain to the east, and the San Jacinto Plain near Riverside and the eastern slopes of Palomar Mountain to the west.

Cahuilla villages usually were located in canyons or on alluvial fans near water and food patches. The area immediately around a village was owned by a lineage. Other lands were divided into tracts owned by clans, families, and individuals. Numerous sacred sites with rock art were associated with each village. Villages were connected by trail networks used for hunting, trading, and social visiting. Trading was a prevalent economic activity. Some Cahuilla were trading specialists. The Cahuilla went as far west as the Channel Islands and east to the Gila River to trade.

The Cahuilla had access to an immense variety of plant resources present within a diverse suite of habitats. Several hundred plant species were used for food, manufacture, and medicine. Acorns, mesquite and screw beans, pinyon nuts, and cactus fruits were the most important plant foods. They were supplemented by a host of seeds, tubers, roots, bulbs, fruits and berries, and greens. Corn, beans, squash, and melons were cultivated. Over 200 species of plants were used as medicines. Hunting and meat processing were done by men. Game included deer, mountain sheep, pronghorn, rabbits, rodents, and birds. These were pursued by individuals and communal hunting groups. Blinds, pits, bow and arrows, throwing sticks, nets, snares, and traps were used to procure game. Communal hunts with fire drives sometimes occurred.

Mortars and pestles, manos and metates, pottery, and baskets were used to process and prepare plant and animal foods. Cahuilla material culture included a variety of decorated and plain baskets; painted/incised pottery; bows, arrows, and other hunting-related equipment; clothing, sandals, and blankets; ceremonial and ritual costumes and regalia; and cordage, rope, and mats. Games and music were important social and ritual activities for the Cahuilla.

Structures varied in size from brush structures to dome-shaped or rectangular houses that were 15–20 feet long. The chief's house usually was the largest. Used for many social, ceremonial, and religious functions, it was located near a good water source. It generally was next to the ceremonial house, which was used for rituals, curing, and recreational activities. Other structures included a communal men's sweathouse and granaries.

The Cahuilla had named clans, composed of between 3 and 10 lineages, with distinct dialects, and a founding lineage. Each lineage owned particular lands, and had its own stories, songs, and anecdotes. Each lineage occupied a village and controlled specific resource areas. Clan territory was jointly owned by all clan members. Territory ownership was established by marked boundaries (rock art, geographic features), and oral tradition. Most of a clan's territory was open to all Cahuilla. Kinship rules determined rights to assets and responsibilities within a lineage. Each lineage cooperated in defense, large-scale subsistence activities, and ritual performance. The founding lineage within a clan often owned the office of ceremonial leader, the ceremonial house, and sacred bundle. Artifacts and equipment used in rituals and subsistence was owned by individuals and could be sold or loaned.

The office of lineage leader usually passed from father to eldest son. He was responsible for correct performance of rituals, care of the sacred bundle, and maintenance of the ceremonial house. The lineage leader also determined when and where people could gather and hunt, administered first-fruits rites, and stored food and goods. He knew boundaries and ownership rights, resolving conflict with binding decisions.

The lineage leader met with other lineage leaders concerning various issues. He was assisted in his duties by a hereditary official responsible for arranging details for

performance of rituals. Other functionaries included song leaders/ceremonialists, assisted by singers and dancers.

Ritual and ceremony were a constant factor in Cahuilla society. Some ceremonies were scheduled and routine, while others were sporadic and situational. The most important ceremonies were the annual mourning ceremony, the eagle ceremony, rites of passage (especially those associated with birth, naming, puberty, and marriage), status changes of adults, and rituals directed towards subsistence resources. The main focus was upon performance of cosmologically oriented song cycles, which placed the Cahuilla universe in perspective, reaffirming the relationship(s) of the Cahuilla to the sacred past, present, to one another, and to all things.

Today there are nine Southern California reservations that are acknowledged homes to bands of Cahuilla. The Cahuilla bands include: Agua Caliente Band of Cahuilla Indians (ACBCI) of the Agua Caliente Indian Reservation; Augustine Band of Cahuilla Indians; Cabazon Band of Mission Indians; Cahuilla Band of Mission Indians of the Cahuilla Reservation; Los Coyotes Band of Cahuilla and Cupeno Indians of the Los Coyotes Reservation; Morongo Band of Cahuilla Mission Indians of the Morongo Reservation; Ramona Band of Cahuilla Mission Indians; Santa Rosa Band of Cahuilla Indians; and Torres-Martinez Desert Cahuilla Indians. A tenth group, the Mission Creek Tribe, is currently not a federally recognized tribe.

Serrano

The Serrano were primarily a mountain-dwelling tribe. Traditional Serrano territory stretched east from Cajon Pass in the San Bernardino Mountains, north to Victorville, east to the area around Twenty-nine Palms, and south to Yucaipa Valley. According to the Serrano statement of tribal boundaries, ancestral territory extends north, east, and south of Joshua Tree National Park, including the Chuckwalla Valley portion of the desert.

The Serrano were linked to the desert-dwelling Cahuilla through political friendship and long-distance exchange networks that may have crossed near or through the Chuckwalla Valley. The Chuckwalla Valley region was a major corridor for east–west travel between Cahuilla and Serrano territory to the west and the Halchidoma homeland to the east. Bean and Mason’s account of the attempts of Romero to reconnoiter this route provide an indication of how actively it was used during the 1820s. In Garcés’ time, in the 1770s, exchange between the coast and the Halchidoma would have involved the easterly movement of shell beads, and probably a westerly movement of textile items. By the 1820s, however, the movement of saddle stock to the Colorado River had also become important. In addition, there may have been a movement of child captives on the part of the Maricopa and the Halchidoma along this trail, the destination being the Los Angeles region. Garcés’ 1776 account also indicates the importance of north–south travel by Mojave, Quechan, and Chemehuevi along trails on the west side of the Colorado away from the river.

Aspects of the Serrano world view are similar to that of the Southern Paiute, Chemehuevi, and Mojave. Formed over the course of hundreds of years, if not longer, these people came to know the Mojave Desert in ways that many today cannot fully understand. They named the animals, plants, mountains, water, literally everything. For these people, the Mojave Desert was not just a place to find subsistence and shelter, it was literally their world, and hence they could be considered the first stewards of the Mojave Desert, where relationships and deep connections with their environment were formed during creation. The basic tenants of Serrano epistemology help forge the relationship they have with their environment. To Southern Paiute, Chemehuevi, Mojave, Serrano, and other Native American groups, the universe is alive and everything is interconnected. Traditional beliefs among the Serrano, Mojave, and other Yuman groups emphasize the ability of spiritually powerful dreamers to return to creation times through dreams. This idea of traveling back to creation times is associated with songs recounting the journeys of the supernatural beings. These song cycles, as they have been called by some, comprise many individual songs that recount the journeys of supernatural beings across the Mojave Desert and greater Southwestern landscapes.

Today, descendants of the Serrano belong to the following federally recognized tribes: Morongo Band of Mission Indians and the San Manuel Band of Mission Indians.

C.1.5 Historic Setting

In California, the Historic Era is generally divided into three periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present). Although Europeans did pass through the Project area during the Mission and Mexican Periods, all of the resources identified in the Project area are associated with the American Period. As such the following discussion emphasizes the American Period. The history of the area relates to themes involving the development of the West and the Colorado Desert, mining and homesteading activities, military desert training, and agribusiness in the late twentieth century.

Regional Development

In the early 1800s, prospectors were some of the only Euro-Americans traveling in the California deserts, and they frequently came into conflict with Native American groups. In the 1820s, limited placer mining began in the eastern Colorado Desert. Regionally, mining and prospecting activities were most intense in the mountains and high deserts of the Mojave, but small-scale mining has been a consistent feature of the Colorado Desert from the 1800s to the present day.

After the Treaty of Guadalupe Hidalgo in 1848, the United States took control of the Southwest and established a series of camps and forts throughout the Arizona, Nevada, and California deserts. The U.S. Cavalry was used to protect settlers and immigrants from the often-hostile tribes whose territories they were invading. Following the discovery of gold at Sutter's Mill the same year, mining camps were established in the desert beginning with Salt Creek in the Armargosa Desert. In the 1850s, some would-be miners tried their

luck in the eastern Colorado Desert but found very little gold. Most miners simply passed through the desert on their way to the larger strikes to the west and north.

As part of an effort to establish a railroad route from St. Louis to the Pacific Ocean, the U.S. government conducted a series of surveys from 1853 to 1855 to identify feasible routes. Lieutenant Amiel Weeks Whipple, a topographical engineer in the U.S. Army, was assigned the task of determining the westernmost section of the route from Arkansas to Los Angeles. Whipple passed through Mojave territory in 1854, crossing the Colorado River near present-day Needles. The railroad surveys recorded the terrain and geology of the Colorado Desert. The land that includes the Project Area was included in the survey in 1853.

Along the eastern bank of the Colorado River, the town of La Paz, Arizona, developed when gold was discovered nearby. The subsequent gold rush made La Paz an instant boomtown whose population peaked at 1,500 in the 1860s. By 1863, between “2,500 and 3,000 Americans and Mexicans were on the river between Palo Verde Valley and El Dorado Canyon,” most of them engaged in mining. Along the stage line between San Bernardino and the Colorado River, La Paz was an important stop, serving as the county seat for Yuma County until 1870. The La Paz mining district yielded placer gold for only a short period, and by the end of the nineteenth century, La Paz passed from boomtown to ghost town.

Significant economic development of the Colorado Desert region began in the 1870s and came to fruition in the early part of the twentieth century. Development was dependent largely on two things: water and transportation. Development of transportation came in 1872 with the construction of the Southern Pacific Railroad from Los Angeles to present-day Indio and, eventually, Yuma. The early townsite of Indio, the mid-point between Los Angeles and Yuma, was created to provide living quarters for train crews and railroad workers. A nearby Native American reservation provided some of the labor force for its construction. The first trains ran on May 29, 1876. The Southern Pacific Railroad reached Yuma on September 30, 1877. Railroad stops were built at Walters (now called Mecca), Woodspur (Coachella), and Thermal, among others. The second transcontinental railroad was completed when the Southern Pacific and the Atchison, Topeka, and Santa Fe Railroads were linked at Deming in New Mexico Territory on March 8, 1881, providing settlers relatively quick and easy access to the region.

The railroad was the single most important boost to mining in the southeastern Colorado Desert, offering convenient transportation of heavy mining equipment, supplies, personnel, and bullion. By 1880, the Southern Pacific Railroad was providing regional access to gold and silver ore deposits in the Chocolate Mountains, Cargo Muchachos, and Palo Verde Mountains. When mines opened up near the turn of the twentieth century, stamp mills and small tracks leading from the mines to the stamp mills were built. Mining productivity in the southeastern Colorado Desert was greatest between 1890 and 1910, with a brief resurgence in the 1930s.

A further boost to regional development in the Colorado Desert was the rail rate war of 1887, when fares from the Missouri River to California were slashed to \$1. Advertising programs were developed to attract settlers to the West. With the railroad to transport crops and the consistently warm climate, areas in the desert were attractive places for prospective farmers of the time. Besides settlers, others were attracted to sanitariums that took advantage of the warm climate and desert hot springs at Palm Springs for health reasons.

Transportation

William D. Bradshaw blazed the first road through what is now Riverside County in 1862 as an overland stage route beginning at San Bernardino, California, and ending at La Paz (now Ehrenberg), Arizona. Early in the 1860s, Hank Brown and John Frink independently developed routes to access the gold mines in the vicinity of La Paz. Frink's route was an east-west road established as an alternative to the more southern Butterfield Stage route. This was apparently the first Anglo development across the Palo Verde Mesa, although it has since all but disappeared. Bradshaw's route, later known eponymously as the Bradshaw Trail, crossed the desert to the La Paz mining district. Bradshaw also operated a ferry across the Colorado River near Providence Point, opposite a small community that would become Ehrenberg, Arizona.

Bradshaw developed his road partly along Brown's and Frink's previous routes, although Bradshaw's trail headed more directly east from Salt Creek Pass to the north slopes of the Chocolate Mountains. Bradshaw, like the majority of early trailblazers, used Native American routes that predated the Spanish arrival in the region. Part of Bradshaw's trail may have been the Coco-Maricopa Trail, which intersected the Colorado River near Blythe and may have passed south of the Project. The Bradshaw Trail is near Corn Spring. The Bradshaw Trail, like many other cross-country routes, became largely obsolete with the arrival of rail service in the desert and the depletion of the La Paz gold fields in the late 1870s. The railroads reoriented the development of trails and wagon roads that connected new mining communities to major routes of transportation. Railroad stops became destinations for wagon roads, allowing points of access for development of the remote desert interior. Bradshaw's trail has been largely obliterated and is now a 65-mile-long graded road that traverses mostly public land south of the Chuckwalla Mountains.

The early highway system in the United States developed out of a patchwork of trails that later became unimproved roads and eventually were connected into an integrated system of paved routes. Often, early roads in the United States followed prehistoric trails. One of the earliest transportation corridors through the Chuckwalla Valley included U.S. Routes 60 and 70, currently known as Chuckwalla Valley Road. As late as 1926, portions of Chuckwalla Valley Road were still unpaved.

Topographic maps of the CEQA Area of Direct Impacts indicate that at least one other unpaved road traversed the Chuckwalla Valley. The U.S. Army map of Hopkins Well (1943) and U.S. Geological Survey (USGS) Chuckwalla Mountains 15-minute quadrangle

(1944) show a road that generally traverses the CEQA Area of Direct Impacts from the northwest to the southeast. Although the road is unnamed, it follows a parallel alignment to Chuckwalla Valley Road to the south, just like the road on the Hopkins Well and Chuckwalla Mountains maps.

Today, I-10 is the major transportation corridor through the Chuckwalla Valley. The highway is the major connector between Los Angeles and Phoenix. The road was completed in 1968 and has become a major east–west corridor for travelers and commercial traffic.

Mining

Riverside County was known historically for its sporadic, small-scale mining of gold, silver, lead, copper, uranium, fluorite, and manganese. Large numbers of prospectors were attracted to the region during the gold boom in La Paz in 1862. Not long after, miners and prospectors began combing the mountains on either side of the Chuckwalla Valley. Gold was being mined as early as 1865 in the Eagle Mountain District. Much later, in the late 1940s, Kaiser Steel began a large-scale iron ore mining operation in the Eagle Mountains. In the 1950s, the Blythe-Eagle transmission line was constructed. It was a 161 kV transmission line that connected a substation in Blythe to a substation near Eagle Mountain for the purpose of providing power to the mine and the community of mine workers.

In the Granite Mountains to the north-northwest, there was a short stint of gold mining beginning in 1894, followed by resurgence in the late 1920s by the Chuckwalla Mining and Milling Corporation. Copper mining occurred in the Palen Mountains to the northwest during the 1910s, by the Fluor Spar Group, Homestake Group, Crescent Copper Group, Orphan Boy, and Ophir mines. Most of these mines were abandoned only a few years later.

The short-lived Pacific Mining District in the Chuckwalla Mountains was established in 1887, following gold and silver discoveries that caused the most substantial rush to Riverside County at that point in its history. Sixty claims were filed by the end of the year, but the boom fizzled by 1890 because the owners lacked the capital to work them properly.

About 1898, some 40 claims in the area were taken up by the Red Mining Cloud Mining Company. In 1901, a force of 50 men worked there. The company installed a new hoist and a 30-ton mill and was raising money through stock offerings to construct a tram from the mine to the mill.

The company changed hands some time before 1915, however, and soon folded. Just prior to this, six prospectors began working the Chuckwalla Placer Diggings near Chuckwalla Springs. This lasted about 15 years. The Red Cloud Mine was resurrected in 1931, when a small amalgamation plant was built and continued operations until 1945.

With the onset of World War II (WWII), the demand for steel increased. However, the iron ore in the Eagle Mountain claims was protected as part of the Joshua Tree National

Monument, established in 1936. Henry J. Kaiser had a steel mill at Fontana and the Vulcan iron mine near Kelso that supplied materials for his west coast shipyards. Kaiser purchased the Eagle Mountain mine and succeeded in having the boundaries of Joshua Tree Monument shifted to exclude Eagle Mountain. Kaiser constructed a rail line that connected to the Southern Pacific Railroad, and ore mining commenced in 1948. By 1971, the Eagle Mountain Mine produced 90 percent of California's iron.

At its height, the mine employed more than 4,000 people, making it the largest employer in Riverside County. The town of Eagle Mountain included schools, fire and police departments, 416 rental houses, 185 trailers, 383 dormitories, and 32 apartments. Kaiser Steel needed to provide medical care for the residents of Eagle Mountain, and medical care provided by the company eventually became what is today Kaiser Permanente. The mine closed in 1983 because of economic factors and competition from abroad.

Water Conveyance

The Colorado River Aqueduct (CRA) is a water conveyance system operated by the Metropolitan Water District of Southern California. Construction began in 1933 and water first flowed through the system in 1941. The CRA system carries Colorado River water, impounded at Lake Havasu on the California-Arizona border, through, over, and across mountains and desert to the coastal and inland valleys of Southern California. The CRA stretches 242 miles from Parker Dam to Lake Mathews (formerly known as Cajalco Reservoir). Water from Lake Mathews was then distributed to local water districts in the Los Angeles basin and lower Santa Ana River drainage. The system is composed of two reservoirs, five pumping plants, 63 miles of canals, 92 miles of tunnels, 84 miles of buried conduit and siphons, and a filtration plant at La Verne, California. The nearest of these pump stations to the CEQA Area of Direct Impacts is the Eagle Mountain Pump Lift, located 7 miles north of Desert Center.

The Project involved ingenious engineering solutions and newly introduced equipment at the time of its construction. It also employed over 35,000 people during its 8-year span of construction, with as many as 10,000 people working at one time, making it Southern California's single largest work opportunity during the Great Depression. Prior to beginning construction, little to no infrastructure was present in the desert. Roadways, power lines, telephones, and water sources had to be built to accommodate the work. Due to its many engineering merits, the CRA has been named a National Historic Civil Engineering Landmark by the American Society of Civil Engineers. Today, it is one of the principal water supply systems for Southern California.

Construction of the transmission lines to power the system began in 1934 with the grading of dirt roads to provide access to the tower locations. The line is constructed of single H-frame steel towers with cross supports. Erection of the towers began in February 1936 and the line from Hoover Dam to Iron Mountain Pump Lift was completed by the end of 1936. Construction of the line from Iron Mountain Pump Lift to Hayfield Pump Lift was completed in July 1937.

Military Training Activities

Evidence of military training is present across the Colorado Desert. The Army's Desert Training Center/ California-Arizona Maneuvers Area (DTC/CAMA) and Operation Desert Strike have left many artifacts, features, and sites across the region. The Project Area overlaps with where this training took place.

Desert Training Center/California-Arizona Maneuver Area. In 1942, during WWII, General George S. Patton Jr. established the DTC/C-AMA in a sparsely populated region of southeastern California, Arizona, and Nevada. Its purpose was to prepare tank, infantry, and air units for the harsh conditions of North Africa, practicing maneuvers, developing tactics, and field-testing equipment. The installation was in operation for 2 years and covered 16,000 square miles. It was the first simulated theater of operations in the United States. Its location was chosen for its unforgiving desert heat, rugged terrain, available telephone communications system, and accessibility by established railroads and highways.

Recent renewable energy projects in the region have identified many DTC/C-AMA-related sites, artifacts and features. These resources were understood to be pieces of a larger historic district which represents an important piece of the military history of the nation. The DTC/C-AMA was the largest training facility and the only one of its kind in American military history. The tactical, strategic, and logistical doctrines developed and refined during the facility's life were applied overseas and undoubtedly helped to win World War II.

DTC/C-AMA resource types include maneuver areas, divisional camps, small unit training areas, air facilities and crash sites, bivouacs, campsites, ranges, supply depots and railroad sidings, and hospitals and medical centers. Based on the close proximity of Desert Center, sites within the Project Area could be related to most of these resource types. The following is a summary of resource types known to be present in the vicinity of Desert Center.

Maneuver Areas: The Chuckwalla Valley. The greater Chuckwalla Valley was considered a maneuver area, consisting of 11,520 acres, and was considered "contaminated" immediately after the war. Units moved across this valley in many of the maneuvers, and bivouacs and defensive positions were established in many locations. The valley, with its many washes and arroyos surrounded by rugged mountains, was an apt place for training for war in North Africa. Washes, referred to as wadis overseas, were often places of tactical importance as they allowed for the concealment of a variety of types of units. They could also serve as an impediment to rapid movement. Several passes adjacent to this valley also served as training grounds for movement, attack, and defense.

Desert Center Airport. The Desert Center Army Airfield, first known as the Desert Center Airdrome, was operational beginning sometime in the winter of 1942–1943. The airfield was a sub-base of Thermal Army Airfield, as a support base for the Air Technical Services Command. The airport contained two paved runways, each measuring 5,000 by 150 feet, along with taxiways and a parking apron. More than 40 buildings were constructed at the

airfield, including an operations building, powerhouse, control tower, pump house and well, and a 10,000-gallon water tower. Other buildings included officer's quarters, mess hall, dispensary, headquarters, recreation hall, link trainer building, hangar, and various supply buildings. Several crash sites are known to exist in the DTC/C-AMA, particularly in those areas close to air facilities.

Air-to-ground ranges are also considered a part of air facilities. For the most part, air-to-ground gunnery practice focused on the toe of mountains. Bombs and .50-caliber shell casings from these activities have been found in the years following the Army's departure from the area. There were likely range markers established on these facilities, along with targets for the aircraft to fire upon.

Desert Center Observer's Camp. A camp was established immediately north of the small town of Desert Center, along the road to Camps Coxcomb and Iron Mountain. It was here that the maneuvers were evaluated and deficiencies pointed out. The camp contained 112 tents, 5 shower buildings, and 8 latrines. The camp was also supplied with water through a well and pump along with a 4,000-gallon storage tank. The land is located along the north side of I-10 between Chiriaco Summit and Desert Center as well as immediately to the east of Eagle Mountain Road.

18th Ordnance Battalion Campsite. Located 5 miles east of Desert Center, this camp appears to encompass a watering point. The only structures reported included a capped well, a 50,000-gallon water tank, and a wooden tower. Tent stakes and other refuse have been found in an area that relate to this camp.

Small Arms Range – Desert Center. A small arms range was established southeast of Desert Center on the north end of the Chuckwalla Mountains. Neither the type of weapons used here nor the units that used it are known. In addition to established ranges, troops also developed their own more informal ranges while out on field exercises. In these cases, officers chose a suitable place with appropriate safety precautions (particularly natural features that formed a backstop) and established a firing position for their troops to use live ammunition.

Desert Center Supply Depot. A quartermaster truck site was established near Desert Center. A rock alignment for the 496th Medium Ordnance Company remains northeast of the town. The rock alignment spells out "496 MEDCO." An ammunition depot was established northeast of Desert Center, although its location has not been examined or confirmed.

Desert Center Evacuation Hospital. An evacuation hospital was established near Desert Center on both sides of the road to Eagle Mountain. The hospital site remains in good condition today and retains its basic design and layout. Many rock-lined walkways, roads, symbols, tent sites, and other activity areas remain in place. Artifacts are dispersed across the site as well as in dumps. Artifacts remaining include cans, bottles, bandage spools, glass, wood, and miscellaneous metal. In addition, a motor pool for the hospital

site remains. Rock alignments, military vehicle parts, and a solvent basin mark this location today.

Desert Strike. One brief military training exercise, known as Desert Strike, took place in the desert maneuver area in May 1964. Amidst the nuclear arms race, the U.S. Strike Command conducted the joint Army and Air Force field training exercise for the major combat organizations and their support units in employing tactical nuclear and conventional weapons. Army and Air Force troop units were trained in passive and active tactics as well as concepts and procedures for joint operations.

The exercise was a two-sided enactment, with fictitious world powers “Calonia” and “Nezona” sharing a common border at the Colorado River. The premise of the conflict between these two entities, each led by a Joint Task Force, was a dispute over water rights. Major tactical operations during the exercise included deep armor thrusts, defensive operations along natural barriers, counterattacks including airmobile and airborne assaults, and the simulated use of nuclear weapons. The Air Force provided fighter, air defense, interdiction, counterair reconnaissance, and troop carrier operations in support of both joint task forces. This training maneuver took place on more than 13 million acres of public and private lands in the California, Nevada and Arizona deserts.

The curator of Patton’s Museum has stated that the types of activities carried out during Desert Strike complicate the identification of earlier DTC/C-AMA sites because the Army often used surplus WWII munitions and rations in their subsequent training maneuvers. The tracks left by larger, heavier tanks of later years are one of the best avenues to distinguish between early- and later-period resources, as are rations and munitions with later date stamps.

Agriculture/Ranching

Agriculture became an important industry, second only to mining, by the late 1850s. Homesteading formed the foundation for California’s agricultural economy in the nineteenth century, and the official passage of the Homestead Act in 1862 opened vast areas of the public domain to private citizens. The Desert Land Act of 1877 also promoted the acquisition of open tracts of land, with an entitlement to 640 acres for each applicant, who were primarily speculators. Generally, lands that fell under this act were marginal for sustained agriculture. Transforming arid land into productive farming and grazing lands was a key factor in development. Although agriculture became an important industry in the Palo Verde Valley near Blythe and the Colorado River, significant agricultural development did not take place near the CEQA Area of Direct Impacts until the late twentieth century. Land claims continued into the twentieth century, with numerous Desert Land Entries in the Project vicinity dating to 1909 and 1910. However, most twentieth-century claims on residual federal lands were poorly suited for agriculture. Several claims were abandoned or rejected. Many Desert Land Entries were never improved or established due to inadequate water and harsh conditions. Lands available for homesteading also

became increasingly marginal over time, requiring ever-larger tracts to achieve success. Large-scale farming came to dominate the regional marketplace.

The federal government and the State of California decided to invest in the cultivation of the jojoba plant as an alternative to sperm whale oil. A tax-break was given to private growers, and speculators began buying up acreage in the deserts of California, including the Chuckwalla Valley. In the late 1970s and early 1980s, farmers purchased land in Chuckwalla Valley and began commercially growing jojoba. Hundreds of farms were established in the 1980s by private farmers hoping to make a large profit. The Desert Center area was specifically promoted as an ideal location for jojoba farms. Land in the area increased in value from \$300 per acre before jojoba to \$2,500 in 1980, after jojoba farms were being established. However, the boom was short lived because the jojoba plant grows slowly and it takes years for plants to produce oil. Many jojoba farms were converted to other crops, including asparagus. Currently there is only one active jojoba farm in the Chuckwalla Valley, La Ronna Jojoba Company.

Community Development – Desert Center

There are few communities in the Chuckwalla Valley. Desert Center is the closest community, approximately 4 miles west of the CEQA Area of Direct Impacts. The largest nearby city is Blythe, which is located nearly 50 miles east. Other smaller communities include Hell and Eagle Mountain; neither is currently occupied.

Desert Center was founded in 1921 by Stephen Ragsdale, who opened a small gas station and diner with his wife Lydia. It is situated along a segment of former U.S. Highway 60/70 (Ragsdale Road) near the intersection of Rice Road (SR-177) and north of I-10. The town's core buildings, including the Desert Center Café, automobile garage/service station, and cabins on the south side of Ragsdale Road as well as the post office and market on the north side are on lots that were originally carved out of a larger 40-acre parcel acquired by Ragsdale through a land patent from the State of California approved December 22, 1926.

They pumped gasoline from a 55-gallon drum and served food to weary travelers. Ragsdale was successful in establishing the town along Route 60. It was moved 5 miles to the north to its current location along the freeway following construction of I-10. The community of Desert Center experienced a resurgence associated with the DTC/CAMA and the establishment of Camp Desert Center and Airfield. The town, however, once again became a small quiet roadside attraction after the DTC/CAMA was closed. The airfield is now privately owned. Today Desert Center is in disrepair, although it still serves as a stopping point along I-10.

C.2 CEQA Area of Direct Impacts

C.2.1 Historic-Era Resources

Three of the historic era resources are the Desert Center Town Dump, a segment of U.S. Highway 60/70, and a segment of Rice Road/State Route 177. The remainder are associated with the DTC/C AMA and are contributors to the DTCCL historic district (see Table C-1).

P-33-015095/CA-RIV-9385 (Desert Center Town Dump). P-33-015095 is an extremely large historic-period refuse deposit which is the unofficial Desert Center “town dump”. It consists of a refuse deposit containing a diverse variety of materials, including metal cans, bottle glass, ceramics, construction debris, and modern debris. The resource was previously determined eligible for listing in the CRHR under Criterion 1 as part of the Desert Harvest Solar Project.

33-017766/CA-RIV-9857H (U.S. Highway 60/70). A 0.32-mile-long portion of Resource P-33-017766 intersects the proposed gen-tie corridor. The resource consists of a 30-foot-wide, asphalt-paved two-lane roadway with associated features consisting of “C” monuments and diversion dams. U.S. Route 60 was first established in 1932 from Arizona to Los Angeles along the route of the former Legislative Route 64. Four years later, U.S. Route 70 was designated along the same route at Route 60. The route was added to the Interstate Highway System in 1947 and designated and signed as I-10 in 1957. The resource is the only remaining California segment of Route 60/70, which was an important interstate route from the 1930s through the 1950s. This segment was previously determined eligible for listing in the CRHR under Criterion 1 as part of the Desert Sunlight Solar Farm Project.

P-33-025150/CA-RIV-12372H (Rice Road/State Route 177 segment) – This road segment was built in the 1930s in support of construction of the Colorado River Aqueduct (CRA) system. It was known at that time as Parker Dam Road, or simply, the Aqueduct Road, and was an asphalt-paved two-lane roadway. The CRA electrical transmission line parallels this road for much of its extent, while the aqueduct itself is farther away and was accessed by dirt roads branching off Aqueduct Road. Portions of the CRA have been recommended eligible for listing in the CRHR under Criterion 1 relating to the system’s significance as a 242-mile-long manmade water conveyance system supplying Southern California, and Criterion 3 for engineering merits associated with its construction. At the time of construction, the area between the Colorado River and the San Jacinto Mountains (where the canal terminated) was largely undeveloped. Beginning in 1923, surveyors for the City of Los Angeles (later Metropolitan Water District of Southern California) penetrated the desert by car, mule, and on foot to prepare detailed maps of the entire area so that potential aqueduct construction routes could be considered. The surveyors stayed at temporary campsites and often established their own routes into the region. The surveyed area included 25,000 square miles between Boulder Canyon and the California-Mexico border. Metropolitan engineers designed the CRA to fit the landscape. The first

infrastructure in the region (roads, water, electric power, and telephones) was built to accommodate construction of the CRA. Aqueduct Road was one of these early roadways and was recently recommended as a contributing element of the CRA Historic District. The resource was previously recommended as eligible for inclusion in the CRHR under Criterion 1, 3 and 4.

Desert Training Center Cultural Landscape/Historic District (DTCCCL) and Contributors

The Desert Training Center Cultural Landscape (DTCCCL) is a contiguous historic district that incorporates historical archaeological sites associated with the DTC/C-AMA in the Chuckwalla Valley and on the Palo Verde Mesa. The relevant themes include U.S. Preparation for World War II, U.S. Military Training, Gen. George S. Patton, Jr., and Gen. Walton Walker. Depots, airfields, ranges, bivouacs, maneuver areas, camps, and hospitals are among some of the property types included in the district. The significance period is preliminarily defined as 1942–1944. The DTC/ C-AMA was the largest and the only such military training facility in American military history. Most property types associated with the DTC/C-AMA, exist today as archaeological resources, such as refuse deposits, tank tracks, foxholes, and bivouacs.

The DTCCCL was determined eligible for listing on the CRHR (Criterion 4) as part of the Palen Solar Power Project. The BLM is in the process of preparing a National Register of Historic Places Multiple Property Documentation Form (NPS 10-900-b) for DTC/C-AMA historic properties. In this draft document, the themes, trends, and patterns of history shared by the DTC/C-AMA properties are organized into historic contexts and the property types that represent those historic contexts are defined. Property types include: maneuver areas, divisional camps, small unit training areas, air facilities and crash sites, bivouacs, campsites, ranges, supply depots and railroad sidings, and hospitals and medical centers.

Table C-1 summarizes the resources in the CEQA Area of Direct Impacts that are associated with the DTCCCL. Fifty-two resources are not eligible individually but are contributors to the DTCCCL. Three of these resources, listed below, are eligible for the CRHR individually.

P-33-023675 (496th Medium Ordnance Company Camp). P-33-023675 is a previously recorded historic-period site comprising the remains of a camp associated with the 496th Medium Ordnance Company and a possible bivouac area related to DTC/C-AMA activities. Fourteen different feature types were identified at the site by PaleoWest, including burned areas; refuse concentrations; rock alignment features; berms; piles of concrete; depressions; dugout pits; milled wood concentrations; mounds; pits; refuse dumps; rock features; roads; and loose lumber pieces. The camp is evidence of the DTC/C-AMA's larger goals of war planning and troop preparation for battle during WWII. Because of the camp's direct association with important events associated with the DTC/C-AMA between 1942 and 1944 it is eligible for the CRHR under Criterion 1. It is

also eligible for the CRHR under Criterion 4 for its potential to contribute to a better understanding of training activities conducted at the DTC/C-AMA.

AE-3752-064H. AE-3752-064H is a previously recorded historic-period site which contains 42 distinct WWII-era DTC/C-AMA features, including 36 small one- to two-person foxholes and 7 larger mechanically dug fighting positions. The site is associated with General Patton’s initial plans to practice large-scale maneuvers in the Chuckwalla Valley. It is eligible for listing in the CRHR under Criteria 1 and 4 due to its association with the use of the Chuckwalla Valley as a maneuver area during the operation of the DTC/C-AMA during WWII. Only a small portion of the resource (60- by 12-foot area) extends into the Project’s CEQA Area of Direct Impacts.

AE-3752-200H. This site consists of tank tracks, a bivouac or temporary campsite, and three refuse scatters. Over 1,000 tank and armored car tracks are visible in the discontinuous areas that make up the site, which covers approximately 40 acres. The tracks were created by M8 and M20 armored cars, half-track M5 tanks, M4 Sherman tanks, and M4A1 scout cars. It is eligible for listing in the CRHR under Criteria 1 and 4 due to its association with the use of the Chuckwalla Valley as a maneuver area during the operation of the DTC/C-AMA during WWII. Only a small portion of the resource extends into the Project’s CEQA Area of Direct Impacts.

Table C-1. CRHR-Eligible Historic Era Resources in the CEQA Area of Direct Impacts

| Resource # | Description | CRHR Eligibility |
|--------------------------------|--|---|
| Historic Era Resources | | |
| 33-015095, CA-RIV-9385 | Desert Center Town Dump (1900s-1960s) | Eligible Criterion 4 |
| 33-017766, CA-RIV-9857H | Historical Segment of U.S. Highway 60/70 | Eligible Criterion 1 |
| P-33-025150 / CA-RIV-12372H | SR 177/Rice Road segment | Eligible Criteria 1, 3 and 4 |
| DTCCL Resources | | |
| N/A | DTCCL Discontiguous District | Eligible Criterion 4 |
| 19-387-EM-001H | DTC/C-AMA U-shaped earthen gun emplacement (1) and associated refuse scatter | Not eligible individually; contributor to DTCCL |
| 19-387-EM-002H | DTC/C-AMA U-shaped earthen gun emplacement (1) and associated refuse scatter | Not eligible individually; contributor to DTCCL |
| 19-387-EM-003H | DTC/C-AMA refuse, multiple deposits, 1940s to present | Not eligible individually; contributor to DTCCL |
| 19-387-EM-004H | DTC/C-AMA U-shaped earthen gun emplacement (1) and associated refuse scatter | Not eligible individually; contributor to DTCCL |
| 19-387-EM-005H | DTC/C-AMA U-shaped earthen gun emplacement (1) and associated refuse scatter | Not eligible individually; contributor to DTCCL |

Table C-1. CRHR-Eligible Historic Era Resources in the CEQA Area of Direct Impacts

| Resource # | Description | CRHR Eligibility |
|-------------------|--|---|
| 19-387-EM-009H | DTC/C-AMA U-shaped earthen gun emplacement (1) | Not eligible individually; contributor to DTCCL |
| 19-387-EM-011H | DTC/C-AMA U-shaped earthen gun emplacement (1) and associated refuse scatter | Not eligible individually; contributor to DTCCL |
| 19-387-EM-012H | DTC/C-AMA 5 earthen mounds | Not eligible individually; contributor to DTCCL |
| 19-387-EM-013H | DTC/C-AMA V-shaped earthen gun emplacement (1) | Not eligible individually; contributor to DTCCL |
| 19-387-EM-014H | DTC/C-AMA 5 earthen mounds | Not eligible individually; contributor to DTCCL |
| 19-387-EM-015H | DTC/C-AMA circular earthen berm (1) | Not eligible individually; contributor to DTCCL |
| 19-387-EM-016H | DTC/C-AMA 4 earthen mounds and berms | Not eligible individually; contributor to DTCCL |
| 19-387-EM-017H | DTC/C-AMA 1 earthen berm, 3 depressions, and refuse scatter | Not eligible individually; contributor to DTCCL |
| 19-387-EM-019H | DTC/C-AMA tank tracks, Rock pile (4ft by 2ft) | Not eligible individually; contributor to DTCCL |
| 19-387-EM-020H | DTC/C-AMA tank tracks, fire ring | Not eligible individually; contributor to DTCCL |
| 19-387-EM-022H | DTC/C-AMA road | Not eligible individually; contributor to DTCCL |
| 19-387-EM-031H | DTC/C-AMA foxhole (1) | Not eligible individually; contributor to DTCCL |
| 19-387-EM-032H | DTC/C-AMA 2 roads with linear berms | Not eligible individually; contributor to DTCCL |
| 19-387-EM-033H | DTC/C-AMA 3,000 beverage cans | Not eligible individually; contributor to DTCCL |
| 19-387-EM-035H | DTC/C-AMA foxhole (1) | Not eligible individually; contributor to DTCCL |
| 19-387-KH-001H | DTC/C-AMA refuse, multiple episodes of refuse deposits, highway associated, 1920s and 1950s. | Not eligible individually; contributor to DTCCL |
| 19-387-KH-005H | DTC/C-AMA foxhole with associated refuse scatter | Not eligible individually; contributor to DTCCL |
| 19-387-KH-007H | DTC/C-AMA refuse deposit and tank tracks | Not eligible individually; contributor to DTCCL |
| 19-387-KH-014H | DTC/C-AMA foxhole (1) | Not eligible individually; contributor to DTCCL |

Table C-1. CRHR-Eligible Historic Era Resources in the CEQA Area of Direct Impacts

| Resource # | Description | CRHR Eligibility |
|-------------------|--|--|
| 19-387-KH-017H | DTC/C-AMA refuse deposit, 6 refuse concentrations and 3 rock features | Not eligible individually; contributor to DTCCCL |
| 19-387-KH-019H | DTC/C-AMA rock ring (1) and tank tracks | Not eligible individually; contributor to DTCCCL |
| 19-387-KJ-011H | DTC/C-AMA U-shaped earthen gun emplacement, concrete foundation, and refuse deposit | Not eligible individually; contributor to DTCCCL |
| 19-387-KJ-012H | DTC/C-AMA U-shaped earthen gun emplacement and refuse | Not eligible individually; contributor to DTCCCL |
| 19-387-KJ-013H | DTC/C-AMA U-shaped earthen gun emplacement and refuse | Not eligible individually; contributor to DTCCCL |
| 19-387-KJ-014H | DTC/C-AMA U-shaped earthen gun emplacement and associated refuse, prehistoric flaked stone artifacts | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-010H | DTC/C-AMA U-shaped earthen gun emplacement | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-011H | DTC/C-AMA U-shaped earthen gun emplacement | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-012H | DTC/C-AMA U-shaped earthen gun emplacement and refuse deposit | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-013H | DTC/C-AMA gun emplacement and refuse | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-018H | DTC/C-AMA linear earthen berm | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-020H | DTC/C-AMA earthen berm and refuse scatter | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-021H | DTC/C-AMA U-shaped earthen gun emplacement | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-022H | DTC/C-AMA U-shaped earthen gun emplacement | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-026H | DTC/C-AMA earthen berms (3) and circular depression (1) | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-027H | DTC/C-AMA refuse deposit | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-029H | DTC/C-AMA earthen berm, depression, and refuse scatter | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-035H | DTC/C-AMA refuse deposit | Not eligible individually; contributor to DTCCCL |
| 19-387-WH-046H | DTC/C-AMA refuse deposit | Not eligible individually; contributor to DTCCCL |

Table C-1. CRHR-Eligible Historic Era Resources in the CEQA Area of Direct Impacts

| Resource # | Description | CRHR Eligibility |
|----------------|---|---|
| 19-387-WH-048H | DTC/C-AMA refuse deposit | Not eligible individually; contributor to DTCCL |
| 19-387-WH-049H | DTC/C-AMA U-shaped earthen gun emplacement | Not eligible individually; contributor to DTCCL |
| 19-387-WH-051H | DTC/C-AMA rock pile | Not eligible individually; contributor to DTCCL |
| 19-387-WH-071H | DTC/C-AMA tent camp | Not eligible individually; contributor to DTCCL |
| 33-015089 | DTC/C-AMA tank tracks, 1920s-1930s refuse deposit, prehistoric pot drop | Not eligible individually; contributor to DTCCL |
| 33-018303 | DTC/C-AMA refuse deposit | Not eligible individually; contributor to DTCCL |
| 33-023675 | 496th Medium Ordnance Company Camp: burned areas, refuse concentrations, rock alignment features, berms, piles of concrete, depressions, dugout pits, milled wood concentrations, mounds, pits, refuse dumps, rock features, roads, and loose lumber pieces | Eligible Criteria 1 and 4; contributor to DTCCL |
| 33-023700 | DTC/C-AMA 24 circular or oval clearings, 20 rectangular or square clearings, 5 bivouac rectangular clearings, 4 rock piles and 6 rock rings, 17 tank tracks | Not eligible individually; contributor to DTCCL |
| 33-028632 | DTC/C-AMA refuse deposit, sparse lithic scatter | Not eligible individually; contributor to DTCCL |
| AE-3752-064H | DTC/C-AMA 36 foxholes, 7 large mechanically dug fighting positions | Eligible Criteria 1 and 4; contributor to DTCCL |
| AE-3752-200H | DTC/C-AMA Over 1,000 tank and armored car tracks, temporary camp site and 3 refuse scatters over 40 acres | Eligible Criteria 1 and 4; contributor to DTCCL |
| AE-3752-C3-06H | DTC/C-AMA foxhole (1) | Not eligible individually; contributor to DTCCL |

C.2.2 Prehistoric Resources

All of the ~~55-51~~ prehistoric resources in the CEQA Area of Direct Impacts have been identified as Tribal Cultural Resources as part of AB 52 consultation and therefore are individually eligible for the CRHR and are contributors to the PTNCL historic district. The district is described in detail below, and the contributors are summarized in Table C-2.

Prehistoric Trails Network Cultural Landscape/Historic District (PTNCL) – The PTNCL is an historic district that incorporates prehistoric archaeological sites associated with the Halchidoma (or Coco-Maricopa) Trail (CA-RIV-00053T). The District consists of important destinations in the Colorado Desert near Blythe, California, the network of trails that tie them together, and the features and sites associated with the trails. The boundary

extends along the length of the historically known route of the Halchidoma Trail, from where it begins near Blythe at the Colorado River, continuing to the west through the Chuckwalla Valley toward modern Los Angeles, with a width of 10 miles. The PTNCL site types are divided into three categories: destinations, trails, and trail-associated sites or features. Destinations primarily include water sources, but also include residential, religious, and resource-collection sites. Trails can either be created by the repeated passage of feet or by formal construction. They average 30 cm in width and can be traced for many kilometers, interrupted only by gullies and washes. Trail-associated sites or features could include: concentrations of ceramics/pot drops, cleared circles, rock rings, rock clusters, rock cairns, rock alignments, petroglyphs, and geoglyphs. When the trail itself is not preserved, its route can be approximately traced by distinctive patterns of trail-associated sites and features. The period of significance is the entire prehistoric and early historic periods. The thematic associations include travel, trade, ritual, and resource exploitation, particularly the collection of stone tool and ground stone raw materials. The PTNCL was determined an historic district eligible for the CRHR as part of the Palen Solar Power Project under Criteria 1 and 4.

The boundaries of the PTNCL encompass the entire Oberon cultural resources CEQA Area of Direct Impacts. Of the [55151](#) prehistoric resources in the CEQA Area of Direct Impacts 15 [are](#) cleared circles or rock rings, [32-34](#) are lithic [or artifact](#) scatters primarily single episode reduction sites, [1 is a prehistoric pot drop](#), and 1 is a temporary camp.

Cleared Circles/Rock Rings. Cleared circles are areas cleared of desert pavement in the shape of a circle. They can be large or small, clustered together or separate. Most cleared circles measure about 1 meter across, with some of the larger circles measuring closer to 3 meters. The Quechan understand that cleared circles that are clustered together are places where a spiritual leader would take students to teach them about the connection between material and spiritual realms. Those larger cleared circles which are not clustered are understood to represent areas where one could rest during physical or dream travel. One of the large, cleared circles identified at the North Chuckwalla Petroglyph District was identified as a potential crying or mourning circle (Braun and Gates, 2013).

Rock rings are similar to cleared circles but have a single circle of stones outlining them. Dimensions are generally about 1 meter across, although, like cleared circles, the dimensions vary. Secular interpretations focus on the rock rings as utilitarian, i.e., for use in subsistence activities, warfare, or trade. When interpreted as a non-secular feature, scholars argue that these rock rings or rock alignments are associated with the earth figures that are associated with trail systems or are the work of medicine men conducting ceremonies (Braun and Gates, 2013).

The cleared circles and rock rings in the CEQA Area of Direct Impacts have been identified as Tribal Cultural Resources as part of AB 52 consultation, and are considered eligible for the CRHR under Criteria 1, 3 and 4. They are eligible under Criterion 1 at the regional level for their broad contributions to the unique historic events that shape Native American understanding of the cleared circles and rock rings and the deep oral tradition

that is understood to be related to these spiritual communications. They are also eligible under Criterion 3 because they embody the distinctive characteristics of a type of resource and a method of construction. Each cleared circle and rock ring is a unique expression of the creator and while there may be similar designs at other sites in the Chuckwalla Valley, these are not replicable and therefore are of a unique craftsmanship. They are eligible under Criterion 4 for their potential to contribute to our understanding of the prehistory of the PTNCL, the prehistory of the Chuckwalla Valley, and the prehistory of religion, and ritual and belief.

Lithic Scatters – Lithic scatters and the single temporary camp in the CEQA Area of Direct Impacts been identified as Tribal Cultural Resources as part of AB 52 consultation and are considered eligible for the CRHR under Criterion 1 and 4. They are eligible under Criterion 1 at the regional and local level for their broad contributions to the unique historic events that shape Native American understanding of their ancestor’s lifeways, and the deep oral tradition that is understood to be related to their ancestors. These lithic scatters identify several locations in the Chuckwalla Valley where Native American peoples acquired lithic materials on a large scale. On a regional level these resources contribute to the unique historical events surrounding travel, trade, and movement along the PTNCL, and were an important place in the trail network evidenced by the temporary camps and associated resource processing artifacts which have been identified, as well as the importance of the area into the Proto-historic and Historic periods. Criterion 4 is applicable to these resources for the potential of them to contribute to our understanding of the prehistory of the PTNCL in southeastern California and the prehistory of lithic technology, lifeways, trade, and movement in the Chuckwalla Valley.

Table C-2. CRHR-Eligible Prehistoric Resources in the CEQA Area of Direct Impacts*

| Resource # | Description | CRHR Eligibility |
|----------------------|---|---|
| N/A | PTNCL Discontiguous District | Eligible Criteria 1 and 4 |
| 19-387-EM-008 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-EM-025 | Lithic scatter, 3 lithic reduction localities | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-EM-026 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-EM-027 | Lithic scatter, 2 lithic reduction localities | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-EM-028 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-EM-029 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-KH-013 | Rock ring and lithic scatter, lithic reduction site | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |

Table C-2. CRHR-Eligible Prehistoric Resources in the CEQA Area of Direct Impacts*

| Resource # | Description | CRHR Eligibility |
|----------------------------|---|--|
| 19-387-KH-015 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-KH-016 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-KH-021 | Lithic scatter, single event lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-KJ-014/H | Lithic scatter and DTC U-shaped earthen gun emplacement and associated refuse, | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-KJ-014/H | Lithic scatter, DTC/C-AMA U-shaped earthen gun emplacement and associated refuse | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-KJ-017H | Lithic Scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-043 | Lithic scatter, single episode lithic reduction site with one sherd | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-045 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-050/H | Lithic scatter and historic refuse deposit (late 1800s–early 1900s) | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-054/H | Lithic scatter and historic refuse deposit (1951) | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-055 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-057 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-058 | Lithic scatter, single episode lithic reduction site with one sherd | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-059 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-060 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-061 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-064 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-065 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-066 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 19-387-WH-069 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-015089 | Prehistoric pot drop, DTC tank tracks, 1920s-1930s refuse deposit | Eligible Criteria 1 and 4; Contributor to PTNCL |

Table C-2. CRHR-Eligible Prehistoric Resources in the CEQA Area of Direct Impacts*

| Resource # | Description | CRHR Eligibility |
|-------------------|--|--|
| 33-015089 | Prehistoric pot drop, DTC/C-AMA tank tracks, 1920s-1930s refuse deposit | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-015091 | Rock ring (1), single episode lithic reduction site | Eligible Criteria 1,3 and 4; Contributor to PTNCL |
| 33-015092 | Rock ring (1) | Eligible Criteria 1,3 and 4; Contributor to PTNCL |
| 33-015093 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-018262 | Artifact scatter, single episode lithic reduction site and ceramic sherds | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-018268 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-018269 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-018270 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-018292 | Temporary camp | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-018293 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-018302 | Lithic scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-021070 | Rock ring (1) | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021071 | Rock ring (1) | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021072 | Rock ring (1) | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021073 | Cleared circle (1) | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021074 | Cleared circles (2) and 1 rock cairn | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021075 | Cleared circles (4) | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021076 | Cleared circle (1) | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |

Table C-2. CRHR-Eligible Prehistoric Resources in the CEQA Area of Direct Impacts*

| Resource # | Description | CRHR Eligibility |
|----------------------|--|--|
| 33-021077 | Cleared circles (4), 1 backfilled pit | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021078 | Cleared circles (7) and historic refuse | Eligible Criteria 1, 3 and 4; Contributor to PTNCL |
| 33-021079 | Cleared circle (1) | Eligible Criteria 1,3 and 4; Contributor to PTNCL |
| 33-021080 | Cleared circle (1) | Eligible Criteria 1,3 and 4; Contributor to PTNCL |
| 33-021083 | Cleared circles (2) | Eligible Criteria 1,3 and 4; Contributor to PTNCL |
| 33-023779 | Lithic scatter, single episode lithic reduction site | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-028632 | Lithic scatter, DTC/C-AMA refuse deposit | Eligible Criteria 1 and 4; Contributor to PTNCL |
| 33-028632 | Lithic scatter, DTC/C-AMA refuse scatter | Eligible Criteria 1 and 4; Contributor to PTNCL |

* **Bold** indicates resources directly impacted by the proposed project (see Table C-3).

C.2.3 Direct Impacts of the Proposed Project and Alternatives

Table C-3 lists the CRHR-eligible resources that would be directly impacted by the proposed project. Table C-4 lists the CRHR-eligible Resources that would be directly impacted by the Land Use Plan Compliant Alternative. ~~No Table C-5 lists the~~ CRHR-eligible prehistoric resources that would be directly impacted by the Resource Avoidance Alternative without Prehistoric Resources/TCR Option.

The proposed project would directly impact Sites 19-387-EM-008, 19-387-KH-013, 19-387-WH-050/H and 33-015091 that would not be impacted by the Land Use Plan Compliant Alternative and Resources Avoidance Alternative. Additionally, Site 33-015091 would be directly impacted by the proposed project and Land Use Plan Compliant Alternative, but not the Resource Avoidance Alternative.

Table C-3. CRHR-Eligible Resources Subject to Direct Impacts from the Proposed Project

| Resource # | Time Period | Resource Type |
|---------------|-------------|--|
| 19-387-EM-008 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-EM-026 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-EM-027 | Prehistoric | Lithic scatter, 2 lithic reduction localities |
| 19-387-EM-028 | Prehistoric | Lithic scatter, single episode lithic reduction site |

Table C-3. CRHR-Eligible Resources Subject to Direct Impacts from the Proposed Project

| Resource # | Time Period | Resource Type |
|--------------------------|------------------------|---|
| 19-387-EM-029 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-KH-013 | Prehistoric | Rock ring and lithic scatter, lithic reduction site |
| <u>19-387-KJ-014/H</u> | <u>Multi-component</u> | <u>Lithic scatter, DTC/C-AMA U-shaped earthen gun emplacement and associated refuse</u> |
| 19-387-KJ-017H | Prehistoric | Prehistoric Lithic Scatters |
| 19-387-WH-043 | Prehistoric | Lithic scatter, single episode lithic reduction site with one sherd |
| 19-387-WH-045 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-050/H | Multi-component | Prehistoric lithic scatter and historic refuse deposit (late 1800s–early 1900s) |
| 19-387-WH-054/H | Multi-component | Prehistoric lithic scatter and historic refuse deposit (1951) |
| 19-387-WH-055 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-057 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-058 | Prehistoric | Lithic scatter, single episode lithic reduction site with one sherd |
| 19-387-WH-059 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-060 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-061 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-065 | Prehistoric | Lithic scatter |
| 19-387-WH-066 | Prehistoric | Lithic scatter |
| <u>33-015089</u> | <u>Prehistoric</u> | <u>Prehistoric pot drop, DTC/C-AMA tank tracks, 1920s-1930s refuse deposit</u> |
| <u>33-015091</u> | <u>Prehistoric</u> | <u>Rock ring (1), single episode lithic reduction site</u> |
| 33-018262 | Prehistoric | Lithic assay/reduction station and ceramic sherds |
| 33-018268 | Prehistoric | Lithic assay/reduction station |
| 33-018269 | Prehistoric | Lithic scatter |

Table C-4. CRHR-Eligible Resources Subject to Direct Impacts from the Land Use Compliant Alternative

| Resource # | Time Period | Resource Type |
|----------------|-------------|---|
| 19-387-EM-026 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-EM-027 | Prehistoric | Lithic scatter, 2 lithic reduction localities |
| 19-387-EM-028 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-EM-029 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-KJ-017H | Prehistoric | Prehistoric Lithic Scatters |
| 19-387-WH-043 | Prehistoric | Lithic scatter, single episode lithic reduction site with one sherd |

Table C-4. CRHR-Eligible Resources Subject to Direct Impacts from the Land Use Compliant Alternative

| Resource # | Time Period | Resource Type |
|--------------------------|------------------------|--|
| 19-387-WH-045 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-054/H | Multi-component | Prehistoric lithic scatter and historic refuse deposit (1951) |
| 19-387-WH-055 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-057 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-058 | Prehistoric | Lithic scatter, single episode lithic reduction site with one sherd |
| 19-387-WH-059 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-060 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-061 | Prehistoric | Lithic scatter, single episode lithic reduction site |
| 19-387-WH-065 | Prehistoric | Lithic scatter |
| 19-387-WH-066 | Prehistoric | Lithic scatter |
| <u>33-015089</u> | <u>Multi-Component</u> | <u>Prehistoric pot drop, DTC/C-AMA tank tracks, 1920s-1930s refuse deposit</u> |
| <u>33-015091</u> | <u>Prehistoric</u> | <u>Rock ring (1), single episode lithic reduction site</u> |
| 33-018262 | Prehistoric | Lithic assay/reduction station and ceramic sherds |
| 33-018268 | Prehistoric | Lithic assay/reduction station |
| 33-018269 | Prehistoric | Lithic scatter |

Table C-5. CRHR-Eligible Resources Subject to Direct Impacts from the Resource Avoidance Alternative

| Resource # | Time Period | Resource Type |
|-----------------------|--------------------|-----------------------|
| <u>19-387-EM-026</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-EM-027</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-EM-028</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-EM-029</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-KJ-017H</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-043</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-045</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-054H</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-055</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-057</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-058</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-059</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-060</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>19-387-WH-061</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |

Table C-5. CRHR-Eligible Resources Subject to Direct Impacts from the Resource Avoidance Alternative

| <u>Resource #</u> | <u>Time Period</u> | <u>Resource Type</u> |
|-------------------|------------------------|--|
| <u>33-015089</u> | <u>Multi-Component</u> | <u>Prehistoric pot drop, DTC/C-AMA tank tracks, 1920s-1930s refuse deposit</u> |
| <u>33-018262</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |
| <u>33-018269</u> | <u>Prehistoric</u> | <u>Lithic scatter</u> |

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