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5.3 Cultural Resources

This section discusses the potential effects of the Stanton Energy Reliability Center (SERC) on cultural resources. Section 5.3.1 describes the cultural resources environment that might be affected by SERC. Section 5.3.2 provides the research design used to guide the records and archival search and subsequent fieldwork phase of the cultural resource inventory for SERC. Section 5.3.3 presents an environmental analysis of construction and operation of SERC. Section 5.3.4 discusses whether there will be any cumulative effects from SERC. Section 5.3.5 presents mitigation measures that will be implemented to avoid construction impacts. SERC is not anticipated to require mitigation measures for cultural resources once it is operational. Section 5.3.6 discusses the laws, ordinances, regulations, and standards (LORS) applicable to the protection of cultural resources. Section 5.3.7 lists the agencies involved and agency contacts, and Section 5.3.8 discusses permits. Section 5.3.9 lists reference materials used in preparing this section.

This section is consistent with state regulatory requirements for cultural resources pursuant to the California Environmental Quality Act (CEQA). Cultural resources include prehistoric and historic archaeological sites;¹ districts and objects; standing historic structures, buildings, districts, and objects; locations of important historic events; and sites of traditional/cultural importance to various groups.² The study scope was developed according to the California Energy Commission's (CEC's) cultural resources guidelines, and it complies with *Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification* (CEC, 1992) and *Rules of Practice and Procedure and Power Plant Site Certification Regulations* (CEC, 2007). This study was conducted by Natalie Lawson, Master of Arts (MA), Register of Professional Archeologists (RPA), Cultural Resource Specialists (CRS), who meets the qualifications for Principal Investigator stated in the Secretary of the Interior's standards and guidelines for archaeology and historic preservation (U.S. National Park Service [NPS], 1983). Amy McCarthy-Reid, MA, RPA, and Secretary of Interior-qualified Architectural Historian, conducted all studies related to historic architecture for this project.

Per CEC Data Adequacy requirements, Appendix 5.3A provides copies of agency consultation letters. Appendix 5.3B provides the technical report, including California Department of Parks and Recreation (DPR) 523 forms for newly recorded and updated resources. Appendix 5.3C provides archival research material, including copies of historic maps and aerial photographs of the project and a complete copy of the California Historical Resources Information System (CHRIS) literature search results, which include copies of previous technical reports occurring within 0.25 mile of SERC, and include DPR 523 forms for previously recorded resources occurring within 1 mile of SERC and 0.5 mile of linear facilities. Appendixes 5.3B and 5.3C will be submitted separately to the CEC under a request for confidentiality. Appendix 5.3D provides names and qualifications of personnel who contributed to this study.

¹ Site is defined as "The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure...where the location itself possesses historic, cultural, or archeological value." (NPS, 1998).

² The federal definitions of cultural resource, historic property or historic resource, traditional use area, and sacred resources are reviewed below and are typically applied to non-federal projects.

A cultural resource may be defined as a phenomenon associated with prehistory, historical events, or individuals or extant cultural systems. These include archaeological sites, districts, and objects; standing historic structures, districts, and objects; locations of important historic events; and places, objects, and living or non-living things that are important to the practice and continuity of traditional cultures. Cultural resources may involve historic properties, traditional use areas, and sacred resource areas.

Historic property or historic resource means any prehistoric district, site building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places. The definition also includes artifacts, records, and remains that are related to such a district, site, building, structure, or object.

Traditional use area refers to an area or landscape identified by a cultural group to be necessary for the perpetuation of the traditional culture. The concept can include areas for the collection of food and nonfood resources, occupation sites, and ceremonial and/or sacred areas.

"Sacred resources" applies to traditional sites, places, or objects that Native American tribes or groups or their members perceive as having religious significance.

The SERC area of potential effects (APE) referred to in this section includes the survey areas for both archaeological and architectural resources. The archaeological survey area includes the SERC site, the proposed laydown area, the natural gas pipeline corridor, and the generator tie-line corridor, as well as the following buffer areas: 200 feet around the SERC site, and 50 feet on either side of all SERC linears. The architectural survey area includes the SERC site, as well as a buffer around the project consisting of one parcel on all sides.

5.3.1 Affected Environment

SERC is located in the City of Stanton, in Orange County, California. Abundant evidence exists that humans were present in North America for at least the past 11,500 years. In addition, fragmentary but growing evidence exists that humans were present long before that date. Linguistic and genetic studies suggest that human colonization of North America may have occurred 20,000 to 40,000 years ago. The Arlington Spring site on Santa Rosa Island has provided occupation dates as early 13,000 years old; the discovery of Arlington Spring Man is the second find in North America that has dated to this period (NPS, 2012). Evidence for Paleo-Indian occupation in California exists, particularly along the coast of Southern California, but remains scanty (Byrd and Raab, 2007). The following chronology builds upon Byrd and Raab's (2007) updated synthesis of the Southern Bight cultures.

Based on previous work in the region and current academic research issues for the greater Southern California area, five broad research domains anchor the study of regional prehistory. These domains include Chronology, Subsistence and Paleoenvironmental Reconstruction, Settlement Patterns, Trade and Travel, and Technology. The research questions and methodology detailed in this section are versatile enough for use at prehistoric sites discovered during construction activities.

5.3.1.1 Cultural Chronology

The development of a regional chronology marking the major stages of cultural evolution in Southern California has been an important topic of archaeological research. In general, cultural developments in the region have occurred gradually and have shown long-term stability; thus, developing chronologies and applying those to specific locales have often been problematic.

5.3.1.2 Early Holocene (9,600 BCE to 6,000 BCE)

The first groups to inhabit California (for which there is significant evidence) are described as hunters and gatherers with specialized bifacial projectile points, well-made scrapers, knives, and many other tools designed for subsistence-related tasks (food processing). They adapted to a number of environments and developed a variety of secondary subsistence strategies that enabled them to live in a changing environment (Pleistocene to Holocene).

As the (Wisconsin) Ice Age ended, previously stable water sources began to dry up in inland California, prompting migrations by the Western Pluvial Lakes Tradition (WPLT) peoples to the Pacific coast from the California deserts (Byrd and Raab, 2007). As the climate changed and lacustrine resources dried up in the interior, the WPLT populations had to expand their subsistence strategies and exploit other environs, including coastal resources. The WPLT groups migrated into the coastal regions at the start of the Holocene Period but were likely not the first group to occupy the area (Byrd and Raab, 2007). The archaeological record contains dates that Native Americans occupied California's islands as early as 13,000 years ago as evidenced by the discoveries on Santa Rosa Island (NPS, 2016). Other early dates for coastal occupation are 9,600 to 9,000 Before Common Era (BCE), as indicated by the oldest habitation levels at Daisy Cave on San Miguel Island. Evidence continues to build that these early residents still occupied the coast when the migration of the desert and Great Basin group(s) occurred (Byrd and Raab, 2007). In the archaeological record, this group of early inhabitants of the coast appears to be linked to the San Dieguito Complex, based on tool assemblage; however, they had unique maritime traditions and are considered part of the Paleo-Coastal Period. Currently, Paleo-Coastal Period evidence comes

predominately from the Channel Islands, while the WPLT archaeological record is abundant on the mainland (Byrd and Raab, 2007).

Southern California dwellers exploited a wide range of plants and animals, and the archaeological record shows that they placed a greater emphasis on gathering wild grasses and seeds, rather than on hunting large mammals. Coastal groups, including those living on the islands off California's coast, used marine resources such as shellfish, fish, sea lions, and dolphins. Cobble tools, basin metates, manos, discoids, and flexed burials characterize shell midden sites in the early Holocene (Byrd and Raab, 2007).

Traditional models of coastal adaptation in the early Holocene propose that groups along the Southern California coast gradually transitioned to a greater reliance on marine resources as the rise of sea levels created estuaries and bays along what are now the Orange County and San Diego County coastlines. Archaeological research at older sites on the Channel Islands, specifically Daisy Cave and Eel Point, indicate nearly total reliance on marine resources by coastal peoples as early as 9,600 to 9,000 BCE at Daisy Cave and 6,500 and 6,000 BCE at Eel Point. Eel Point contains evidence of hunting seals, sea lions, and dolphins, as well as a collection of shellfish that dates to the early Holocene. Tools related to boat construction at Eel Point date to 6,000 BCE. Although these sites are located on the islands along the coast, the information provided by these sites indicates a greater reliance on the littoral zone during the early Holocene than previous chronologies suggest. Radiocarbon dates between 8,000 and 7,000 BCE have been found at coastal sites in Southern California, and large habitation sites, including the Allan O'Kelly Site, date to the early Holocene (Byrd and Raab, 2007).

5.3.1.3 Middle Holocene (6,000 BCE to 500 CE)

At the start of the Middle Holocene, which dates from approximately 6,000 BCE to 500 Common Era (CE), millingstone cultures appeared throughout Southern California. The Millingstone Horizon represents an adaptive subsistence shift indicated by the higher occurrences of millingstones (mano and metate), which were used to process hard seeds like *Salvia* sp. (sages) and *Eriogonum fasciculatum* (wild buckwheat). Sites from this period are characterized by the high percentages of manos and metates, suggesting a high reliance on vegetal resources. Most of these sites are located in grassland and sagebrush communities where these hard seeds could support small populations on a yearly basis. Late fall and winter were difficult seasons when vegetal foods were scarce and diets had to be supplemented with deer and small mammal hunting and shellfish collecting (Tartaglia, 1976).

Large middle Holocene sites have been well documented along the coast, as well as inland. By the Middle Holocene, evidence for extensive trade has been identified in the archaeological record in the Southern Bight. Long distance trading is indicated by artifacts found at Southern California sites that originated in the American Southwest such as pottery and steatite objects and Pacific Coast seashells found at contemporary American Southwest sites. Excavations on the southern Channel Islands indicate that a trade network for Olivella grooved rectangle beads, manufactured from a rare purple marine shell, was extant by 5,000 years before present. The beads have been identified as far distant as Oregon (Byrd and Raab, 2007).

Temporary settlements for a few nuclear families (10 to 25 individuals) have been recorded that date to the Middle Holocene. These sites appear to have been seasonal campsites for exploiting acorns from April through September. The seasonal pattern has been documented as a regional variation in the Millingstone Horizon sites in Southern California (King, 1967). These sites are characterized by plant processing tools (e.g., scraper planes and millingstones) and an absence of hunting implements. People intensively exploited their environment, with reliance on no particular food resource. Characteristic features of this period included crude chopping tools, large projectile points, manos and metates, Olivella shell beads, quartz crystals and cog stones, few ornaments, earth roasting pits, extended posture burials, reburials (secondary interment), and rock cairns (Wallace, 1955). The first evidence of cemeteries is recorded during this period and, based on the relative absence of non-utilitarian artifacts, an egalitarian social system was likely to have been in operation (Tartaglia, 1976). The presence of daub at Middle Holocene coastal sites indicates that at least some of the villages along the coast may

have had permanent structures (Strudwick, 2005). Archaeologists have documented house floors dating to the Middle Holocene on San Clemente Island. Middens located adjacent to these house remains are similar to those found on the mainland that are associated with sites that are occupied during multiple seasons and over many years (Byrd and Raab, 2007). In Orange County, this period was also hallmarked by the cogged stone, which is a unique artifact type. Sites (particularly CA-ORA-83, the Cogged Stone Site, and CA-ORA-58) contain large numbers of cogged stones, a class of artifact that is a temporal marker for the Middle Holocene and that occurs only in coastal Southern California (Eberhart, 1961; Koerper and Mason, 1998). A cogged stone is a disc-shaped stone usually 6 inches in diameter or smaller with grooves along the edge, and it resembles a gear wheel (Eberhart, 1961; Koerper and Mason, 1998). The purpose of the cogged stones is unclear in the archaeological record because the artifact does not display any evidence of use. It has been long thought to have been a ritual item as opposed to a utilitarian artifact (Eberhart, 1961). Red ochre has been found affixed to these artifacts, which has furthered the idea that these artifacts served a ceremonial/ritualistic purpose (Koerper and Mason, 1991). By 1,000 BCE, in coastal Southern California the Millingstone Horizon was beginning to transition into the Intermediate Culture. During this phase, artifact assemblages include the introduction of the mortar and pestle, the hopper mortar, a more sophisticated fishhook technology, the circular fishhook, and shell beads (Byrd and Raab, 2007; Heizer, 1971).

5.3.1.4 Late Holocene (500 CE to Historic Contact)

In comparison to the Middle Holocene, a larger number of more specialized and diversified sites characterize the Late Holocene. Population increased substantially as indicated by a greater number of sites recorded during this period. This period is characterized by large village sites, tightly flexed burials, bows and arrows, arrow shaft straighteners, ollas (jars) and comals (cooking flats), personal ornaments, pottery vessels, circular shell fishhooks, an extensive trade network, a wide variety of ritual objects, and large stone bowls (Wallace, 1955). Archaeologists have recovered elaborate mortuary artifacts from sites of this period.

Villages occur in the same general locations as they did in earlier periods, but they increased in size and decreased in their frequency; base camps were often associated with villages. There was also an increase in the number of specialized and/or diversified sites. Trade was extensive during this period. Artifacts recovered from the American Southwest (pottery) in Californian sites, while steatite objects and Pacific Coast seashells occur in American Southwest sites, provide evidence that Native Americans covered long distances. During the Late Period, many more classes of artifacts appear in the archaeological record, and they reveal a higher order of workmanship. Larger and more extensive settlement systems are evident, likely a byproduct of a more intensive subsistence base exploiting all of the available food resources. The bow and arrow was introduced and, with other aspects of their culture, expanded (e.g., population growth and more complex social system and trade network).

New studies including those conducted at Camp Pendleton indicate that culture change in Southern California may have been rapid, rather than gradual. Overexploitation of resources may have caused shifts to new resources that occurred in greater amounts (Byrd and Raab, 2007). On the coast, intensified fishing and small sea mammal hunting replaced hunting of large sea mammals and shellfish collection. Fish resources were concentrated on smaller near-shore species, rather than on deep-sea resources. Vegetal resources focused on grasses rather than acorns, and direct evidence for acorn use is minimal at Late Holocene sites. Archaeologists hypothesize that changes in subsistence strategies in prehistoric California are attributable to the overexploitation of preferred resources, leading to a shortage of the desired resource, followed by shifts to costlier resources (Byrd and Raab, 2007).

The development of a large, sedentary, core village site with several associated resource procurement satellite sites appears to date to the Late Holocene and may have resulted from the above-mentioned shortage of resources. These smaller resource procurement sites appear to have flourished between 1100 and 1300 CE and may be associated with the drier, hotter climate associated with the Medieval Climatic Anomaly (Byrd and Raab, 2007).

5.3.1.5 Ethnographic Setting

Based on archaeological evidence, Hector (1984) proposes that settlement patterns throughout the area prior to European contact focused on the occupation of base camps, supported by nearby special-use camps. The base camp was in an optimum location for everyday living. The site included water, a hospitable sheltered environment, and proximity of necessities such as food mainstays and stone tool raw materials. Outlying special-use support camps were located close to a particular resource, and the location might not have related to any other habitation requirement. For instance, acorn-grinding areas were close to bedrock and oaks. Shell harvesting took place immediately adjacent to the lagoon or open seacoast. It also appears that Native Americans completely processed some resources at the special use camps, whereas they brought other resources back to the base camp (Wade and Hector, 1986).

Occupation patterns in this interpretation appear flexible, with functional variations sometimes occurring over time; a site might thus serve as a base camp during one period and as a temporary camp during another. Bands followed a seasonal round, moving up and downslope as resources became seasonally available. "Missionization" affected the coastal groups earliest.

The Native Americans living in what is now the Orange County area at the time the Spanish occupied the region were the Tongva, but in keeping with the Spanish custom of naming the locals after nearby missions, the Tongva became called the Gabrieleño (also called Gabrielino) after the Mission San Gabriel Arcángel. Figure 5.3-1 shows protohistoric ethnographic group boundaries.

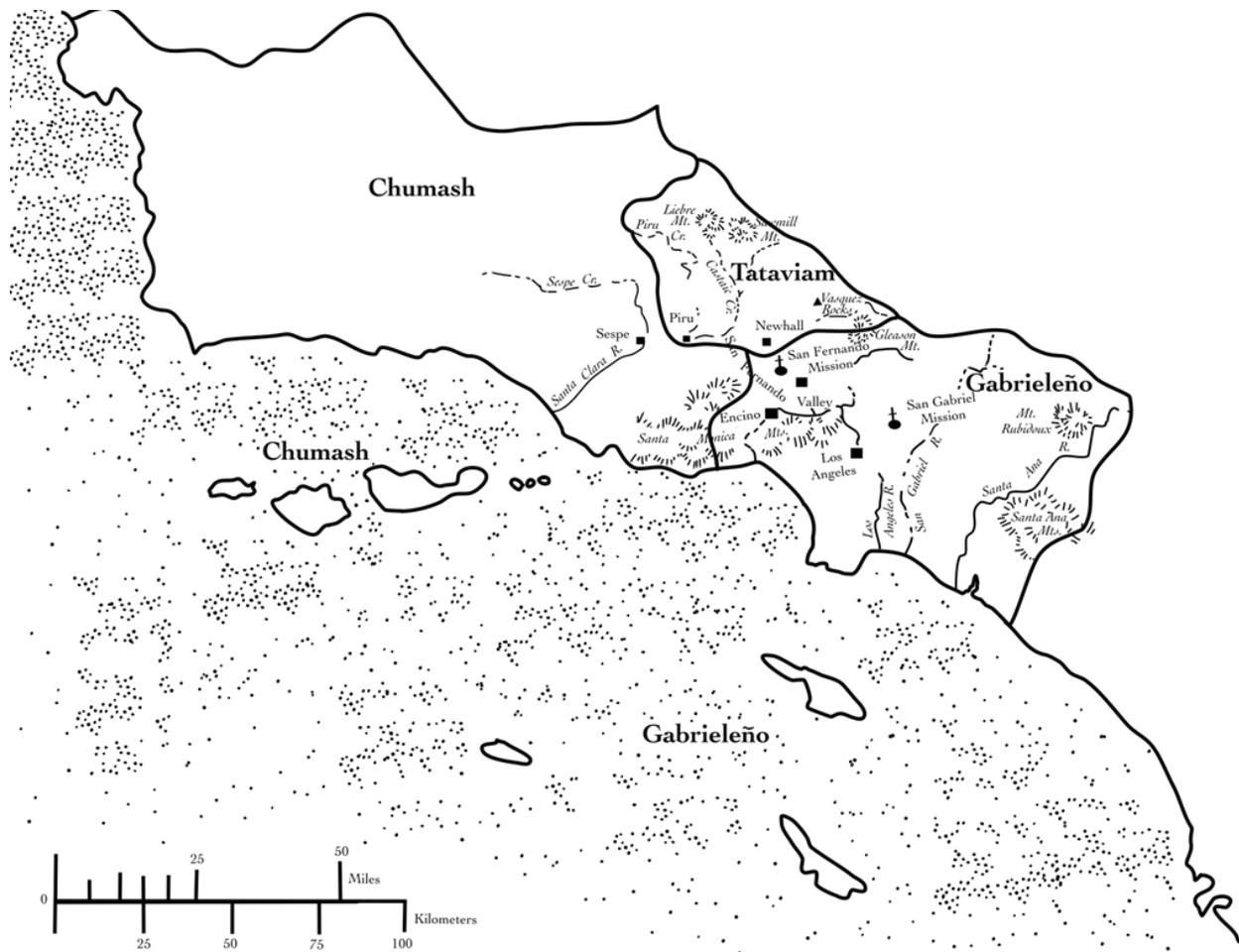


Figure 5.3-1. Approximate Location of Tribal Lands in Southern California
(Source: Heizer, 1978)

The first accounts of Native Americans in California were written by early explorers and were limited to accounts of coastal groups. In 1846, Alfred Robinson translated Friar Geronimo Boscana's *Chinigchinich*, an account of the culture and religion of the Native Americans living near San Juan Capistrano (Robinson, 1846). The friar died in 1831, and the *Chinigchinich* document was found among his possessions. In 1908, A.L. Kroeber published "A Mission Record of the California Indians," which was an annotated version of a survey of the missions in California completed by the Spanish government in 1811 (Kroeber, 1908). Hugo Reid was a Scottish-born immigrant who lived in Los Angeles County in the 1800s. Reid married a Gabrieleño woman from the area close to Mission San Gabriel, and he recorded information from the local Native American community, including descriptions of their celebrations, lifeways, customs, myths, and religion. His letters are available in several places, including in a series of newspaper articles printed after Reid's death by Alex S. Taylor in the *California Farmer and Journal of Useful Sciences* in 1861. Alex S. Taylor published "The Indianology of California" as a series of 151 newspaper articles between February 24, 1860, and October 30, 1863, in the *California Farmer and Journal of Useful Sciences*. Although written primarily for a general audience, Taylor interviewed several Native Americans for his articles about the communities and rancherias around the Mission San Buenaventura and the Mission San Fernando. Two collected versions of his articles were published as compilations in 2015. Constance Goddard Du Bois, working in the early 1900s, wrote several accounts of the Luiseño communities, located south and east of Gabrieleño territory. Although primarily about the Luiseño, her 1908 manuscript "The Religion of the Luiseño Indians of Southern California" provides some additional information about the Luiseño's neighbors, the Gabrieleños (Du Bois, 1908). A.L. Kroeber (1925: 621-635) published information about the Gabrieleño. Volume 8 of *Handbook of North American Indians: California* (Sturtevant, 1978) includes articles about the Gabrielino (Gabrieleño) (Bean and Smith, 1978: 538-549).

The Gabrieleño speak a language that belongs to the Takic sub-family of the Uto-Aztecan language stock. Tongva is another name that some of the tribal members prefer to use (King, 2003), and Kizh, a term which predates Tongva, is also used to describe this language group (Teutimes et al., 2016). The names of principal villages associated with this group typically ended in *gna* or *na*; and the chief of each village or "Lodge," as called by Hugo Reid (Taylor, 2015: 196), would use the same base as their name and follow this with *ic*. Kizh was first recorded as a term for the native populations in the Los Angeles area by ethnologist Horatio Hale in 1846, and it described both the language and the people (Teutimes et al., 2016).

The territory of the mainland Gabrieleño was composed of inland valleys and coastal plains. Gabrieleño villages were scattered from Topanga Canyon (Los Angeles County) in the north to El Toro (Orange County) in the south, and included Catalina, San Clemente, and San Nicolas Islands in the Channel Islands and the San Gabriel and San Bernardino inland valleys in the east (McCawley, 1996). Kizh was used to describe the Gabrieleño local community around the mission at present day Whittier Narrows several times during the nineteenth century (Teutimes et al., 2016). Pre-European contact population numbers are difficult to assess because of discrepancies in the record. Hugo Reid, who had married a Gabrieleño woman, published a series of letters about the Gabrieleño, as mentioned earlier. Reid believed there were as many as 68 villages, and 28 of these were in Los Angeles County (Taylor, 1860; McCawley, 1996).

Subsistence strategies of the Gabrieleño incorporated seasonal procurement of resources, both terrestrial and marine. Throughout the year, individual Gabrieleño families would move to temporary encampments for hunting, harvesting, and collecting; depending on the season and resources that could be harvested, travel would occur through various ecological zones. In the interior, where primary habitation was thought to take place in the summer, deer and rabbit were significant resources amongst the Gabrieleño, who were expert hunters (McCawley, 1996). In spring and summer, temporary camps would be established to gather roots, seeds, and bulbs; in the fall, acorns and other wild seeds were gathered as staples in the diet. In coastal areas that were less exposed to the elements, wintertime villages were occupied; satellite or temporary campsites would be erected near the shore to collect shellfish and other marine resources. In addition to being expert terrestrial hunters, the Gabrieleño

were adept at maritime subsistence and procurement, building planked canoes called *ti'ats (te'aat)* (McCawley, 1996) that were sealed with pine pitch or asphalt, and hunting sea otters and other marine mammals with harpoons as evidenced in the archeological record from sites such as CA LAN-2616 (Langenwalter et al., 2001). Hemp was made from nettles and then made into nets, fishing lines, and thread. Needles, fish hooks, and awls were made from bone or shell. Granite was the preferred material for mortars and pestles. Baskets were made of split rushes. Bitumen or pitch was plastered outside baskets intended to carry liquids (Taylor, 1860).

Among the Gabrieleño, boys traveled between villages carrying messages between chiefs. The Gabrieleño did not have money, but they would use shell beads (thick, rounded shells that measured approximately 15 millimeters and were strung) when bartering was not possible. A *pucú ponco* consisted of a length of strung shell beads that extended from the knuckles of the left hand to the point of a middle finger, back to the wrist, back to the finger, and then to 1 inch above the wrist. Barter and trade was conducted between the interior and the coastal communities. Items traded to the interior included shell money, fish, sea otter skins, and soapstone pots, where the soapstone was acquired from the Native Americans of Santa Catalina Island. Items traded from the interior included deer skins and seeds (Taylor, 2015).

Distribution of settlements did not fall into a consistent pattern throughout the Gabrieleño territory; this was in large part a result of the diverse ecological zones within Gabrieleño territory, which was composed of coastal areas, islands, valleys, and foothills. However, there was a patterning to larger settlements; the archeological record in Orange County contains abundant data regarding large village site distribution and function. Villages were placed where there was access to varying types of environments and resources, and a system of satellite camps stemming from main villages was then established for the specific procurement of resources. The level of use of these satellite campsites was in direct response to population and village size, as well as distance from the main village to the campsite (Earle and O'Neal, 1994).

The Gabrieleño had a patrilineal lineage system. Members of the lineage were given access to diverse resources held by the families within their lineage, allowing the Gabrieleño to exploit multiple ecologies. The heavily hierarchical Gabrieleño social system included elites, commoners, middle-class, the poor, and slaves. The elites were the only ones to possess access to religious items, and the middle-class supported the elites. As described previously, each village was led by a chief. The chief had up to three wives; all other men in the village had one wife. The chief's oldest son was called *Tomear*, and his oldest daughter was called *Manisar*. Each village that Hugo Reid saw and recorded in his letters in the mid-1800s contained 500 to 1,500 huts (Taylor, 2015).

Among the Gabrieleño, the *A-hubsu-voi-rot* were the seers and medical men in the village. They both cured and created disease through a variety of methods, including herbal remedies and ceremonies. They also could make it rain, consult with the spirits, change themselves into animals, and foretell the future. Fever, for example, could be cured by ingesting tobacco, which grows wild in the area and would cause vomiting. Herbs would be administered, and the seer would also perform a song to aid in curing the fever. The seers also were responsible for collecting the poison that was put on arrow tips (Taylor, 2015).

The Gabrieleño believed in a central god called *Qua-o-ar*. His name was not frequently used, and when it was used, it was said in a slow voice. Another name more commonly employed was *Y-yo-ha-rivg-nain*, roughly translated as the "Giver of Life" (Taylor, 2015: 198). The world was settled on the shoulders of seven giants to control the original chaos, and when one of the seven moved, earthquakes occurred. Animals were created first, then the first man (*Tobohari*) and the first woman (*Pabavit*) (Taylor, 2015). Every village had a *Yobagnar*, a circular enclosure approximately 3 feet tall. This functioned as the religious center and was consecrated before any ceremony was conducted in the building. Ceremonies included requests for vengeance upon enemies, offers of thanks for victories, and funerals. Seers, chiefs,

adult male dancers, boy dancers, and female singers were allowed inside the building for all ceremonies. Family members were allowed inside the building for funerals (Taylor, 2015).

5.3.1.5.1 Historic Setting

Generally, the historic period begins with the first documented entrance by a European into a specific region; however, because of known contact in other parts of California by Russians, Chinese, Spanish, and Portuguese, some chronologies terminate the late prehistoric for all California in 1542, when the first documented European entered the territory now known as California. This period is termed the Protohistoric Period. In 1542, Juan Rodriguez Cabrillo explored the California coast by ship, entering San Diego Bay and claiming Alta California for Spain. Cabrillo landed near Point Mugu in the same year. Sixty years later, Sebastian Vizcaino sailed into San Diego Bay. Exploration of the land was slower to come. Don Gaspar de Portola searched Alta California for suitable mission sites in 1769, crossing through what is now Orange County.

Spanish/Mission Period (1769 to 1834). Alta California, which in 1767 was part of New Spain, was controlled by the Viceroy of Mexico. Gaspar de Portola was appointed as the first governor of California in 1767, and his first command issued by the Viceroy of Mexico was to expel the Jesuits from Baja California. This action prompted the launch of military and Franciscan expeditions from Baja California into the region, and with it, the official start of the historic period in California occurred. Following the expulsion of the Jesuits in Baja California, Spanish Colonial military outposts were established in Alta California, the first of which was El Presidio Real de San Diego founded in 1769 with Pedro Fages as its commander. Military outposts continued to be built as expeditions travelled north. The Portola expedition of 1769 reached what would become Orange County on July 22 (Beebe and Senkewicz, 2001).

The following is a brief description of the missions established in the project area, based on information from the California Mission Resource Center (2003-2016) and the California Missions Foundation (2008). During the Mission Period, the Spanish constructed 21 missions in California, from south to north along El Camino Real, the first of which was San Diego de Alcalá founded by Father Junipero Serra. Mission San Gabriel Arcángel, established by Father Pedro Cambon and Father Angel Somera in the San Gabriel Valley on September 8, 1771, was the fourth mission in Southern California. In 1776, Santa Ana River floods destroyed much of the mission, forcing the Spanish to relocate the mission from Montebello, California, to what is now the city of San Gabriel, California. Along with rebuilding the mission, the Spanish established 27 outlying estancias (ranchos) to supply this mission with meat, hay, grain, vegetables, and fruits. Father Junipero Serra founded the seventh mission, Mission San Juan Capistrano, on November 1, 1776.

The Franciscans viewed the local populations as childlike individuals who would benefit from their European instruction and Christianization (We Are California, 2008). Captured and removed from their villages, the indigenous peoples were brought to the missions and forced into servitude. Many perished because of ill treatment, but more from the introduction of European diseases, which ultimately decimated the Native American populations (McCawley, 1996; We Are California, 2008).

The last mission to be founded was San Francisco Solano in Northern California in 1823. Further attempts to construct additional missions were thwarted by Spain itself because of the high cost of establishing new missions. Later, as Spain lost its rule over New Spain and secularization was sought by the new government, the mission system was disbanded (Weber, 2006).

Mexican Rancho Period (1821 to 1848). Mexico became independent of Spain in 1821. In 1824, the Mexican government passed the Colonization Act in an effort to raise much-needed funds by selling unoccupied lands in California. This law invited immigrants to settle in Mexico, including California (Texas State Historical Association, 2012). However, much of the land in California belonged to the 21 missions and could not be sold by the new Mexican government, and unoccupied lands were often part of traditional Native American territory. Through the Secularization Act of 1834, the governor secularized the missions of California, and mission land was placed under civil jurisdiction to be sold or

granted as land grants. This Act allowed the missions to retain only enough acreage for the maintenance of the church and its associated buildings and to support those who lived on mission property. The Secularization Act of 1834 effectively ended the Mission Period in California. Native Americans who had lived at the missions were to receive their share of the land, gardens, and stock of the missions when they were secularized; however, rather than carrying out this edict, the Act was abolished and most Native Americans did not receive anything (Taylor, 2015). The following years were marked by the proliferation of cattle ranching throughout the region as the Mexican governor, Pio Pico, granted vast tracts of land to Mexican (and some American) settlers. The mission lands were opened for grants by the Mexican government to citizens who would colonize the area and develop the land, generally for grazing cattle and sheep (Lech, 2004).

The Spanish government was awarding *ranchos* (land grants) to soldiers and other Spanish Californios by the mid-1770s (Livingston, 1914); vast tracts of land were used for livestock and farming. In 1784, Governor Pedro Fages awarded his soldier, Jose Manuel Nieto, a 300,000-acre land grant for his services to the crown during the Portola expeditions. Nieto's rancho extended from modern-day Long Beach, south into Huntington Beach, and east into San Bernardino County. Alta California governor José Figueroa officially declared the Los Nietos grant under Mexican rule in 1834 and ordered its partition into six smaller ranchos. These were Las Bolsas, Los Alamitos, Los Cerritos, Los Coyotes, Santa Gertrudes and Palo Alto. Juan José Nieto received Ranchos Los Alamitos, Los Coyotes, and Palo Alto. The project area is located within the former Rancho Los Coyotes (County of Orange, n.d.).

The war between the U.S. and Mexico, which began in 1846, ended with the Treaty of Guadalupe Hidalgo in 1848. Terms of the treaty established that property rights granted under the Mexican land grant system would be upheld. In 1850, California became a part of the U.S., ending Mexican control in the state (NPS, 2007).

American Period (1848 to Present). Following the signing of the Treaty of Guadalupe Hidalgo in 1848, the U.S. took possession of California. The treaty bound the U.S. to honor the legitimate land claims of Mexican citizens residing in captured territories. However, land and its ownership would become a contentious issue for years. Court battles ensued over ownership of the missions and former mission property that had been divided into Mexican land grants (NPS, 2007). On September 9, 1850, California became the thirty-first state in the Union. One of the first actions of the new state government was to pass the Land Act of 1851, which established a board of Land Commissioners to review land grant records and adjudicate claims, and charged the new U.S. Surveyor General with surveying confirmed land grants. In order to investigate and confirm titles of California, American officials acquired the provincial records of the Spanish and Mexican governments located in Monterey. Those records, most of which were transferred to the U.S. Surveyor General's Office in San Francisco, included land deeds and sketch maps (Gutierrez et al., 1998).

From 1852 to 1856, the board of Land Commissioners determined the validity of grant claims. The commissioners rejected many of the original rancho claims, which then became public domain and fair game for squatters. Although the claims of some owners eventually were substantiated, many of the original owners lost their land to the U.S. Unsurveyed land boundaries created a loophole for squatters to occupy plots on the fringes of land grants. The squatters who occupied the land eventually came to own those plots through squatters' rights (Gutierrez et al., 1998).

The American Period was difficult for the remaining Native Americans in California. Gold strikes throughout California resulted in a huge influx of American emigrants, and Native Americans and gold miners frequently and violently clashed over land. In 1851 to 1852, 18 treaties were proposed to set aside land and provide aid in the form of farm animals, agricultural equipment, seed, clothing, and the like if the Native Americans would relinquish claims to their traditional lands. The U.S. Senate refused to ratify the treaties, as the California legislature objected (Heizer, 1978).

5.3.1.5.2 Orange County and the City of Stanton

From the start of the American Period well into the twentieth century, the area continued to serve primarily as farmland. The land between the Santa Ana River and the Bolsa Chica, a saltwater swamp, was very fertile, and agriculture (particularly celery, asparagus, peppers, corn, and potatoes) quickly became important in the area known then as Shell Beach (particularly celery, asparagus, peppers, corn, and potatoes).

The first railroad in the region was the Smeltzer Branch of the Santa Ana Newport Railroad constructed in 1897. The line extended from Newport along the coast and through present day Huntington Beach, before turning inland to Westminster. The ground in Westminster, however, was too soft for a rail line because of all the peat bogs, and the line stopped in Huntington Beach.

During this time, the area in which the SERC site is located was part of Los Angeles County, and the residents of southern Los Angeles County were feeling alienated and disconnected from the county proceedings and decision-making. Although there were only three incorporated cities in southern Los Angeles County (Anaheim, Santa Ana, and Orange), there was a growing population with interests in the local economy who wanted their own governmental body, away from Los Angeles County bureaucracy. In 1889, the County of Orange formed in large part because of growing frustration with county government. Santa Ana became the seat of the newly founded Orange County (Armor, 1921).

5.3.1.5.3 The Town of Clair

The Town of Clair was a small farming community located on the corner of Magnolia Street and Cerritos Avenue. It included a country store and post office. The Clair post office was established on June 12, 1895, with John M. Gault as postmaster. The office closed on September 29, 1900. What was once Clair is now included as part of the City of Stanton (Pulley, 2010). It is visible on the 1901 Anaheim U.S. Geological Survey (USGS) topographic map.

5.3.1.5.4 The City of Stanton

The City of Stanton is located in the western part of Orange County, southwest of Anaheim and northwest of Garden Grove. It was named after Philip Ackley Stanton of Los Angeles, who had large holdings of land in the area (Gudde, 1998). Stanton was incorporated on March 20, 1911. The purpose of the incorporation was to prevent Anaheim's sewer farm being located in the area. Stanton dis-incorporated 13 years later. The town of Stanton included the area occupied by the former town of Clair and an area called Benedict.

The Southern Pacific Railroad (SPRR), running from Anaheim to Los Alamitos, intersected the Pacific Electric Railway (the Red Car), running from Los Angeles to Santa Ana in Stanton (City of Stanton, 2016). By 1907, Southern Pacific had extended the Smeltzer Branch through Wintersburg to Stanton. These lines serviced the celery farming and sugar beet industry.

P.A. Stanton was born in 1886 in Cleveland, Ohio, and served in the California State Assembly including a term as Speaker from 1909 to 1910. He also served as a member of the Republican National Committee for California 1912 to 1916. One of the major projects Stanton undertook during his lifetime was the Joy Zone located in Seal Beach California. The Joy Zone was a large seaside resort with amenities including a roller coaster, ice skating palace, restaurants, a casino, and bowling alleys in addition to other attractions. P.A. Stanton was also involved in the development of Pacific City, later known as Huntington Beach. Stanton died in September 1945 in Seal Beach, California (Pulley, 2009).

The 1930s was a particularly difficult decade for Stanton and the surrounding area. Not only did the economic cataclysm of the Great Depression and the natural cataclysm of the 1933 Long Beach-Orange earthquake occur (Campbell, 2012), but in 1938 a series of storms caused massive flooding of Santa Ana River (Gold, 1999). Hundreds of people died in the natural disasters. There was also widespread building and agricultural damage.

After WWII, the servicemen stationed at various military bases and air stations decided to settle in the area. This greatly increased the population of the county. The Pacific Electric rails were removed after passenger service was discontinued in 1950 (Kao, 2008). In 1956, the City of Stanton incorporated again, although some of the surrounding area remains as unincorporated Orange County to this day.

5.3.2 Research Design for the Cultural Resources Inventory

5.3.2.1 Research Objective

This section provides the research design used by CH2M HILL (CH2M) to guide the records and archival search and subsequent fieldwork phase of the cultural resource inventory for SERC. Given identified themes for this project, property types and survey expectations were defined. The methods used both during the records and archival search and the fieldwork phase were planned to meet or exceed the CEC requirements according to the *Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007), as well as California Archaeological Resource Management reporting and CEQA requirements for analyzing potential impacts to historical resources.

The initial goal was to identify any cultural resources located within the SERC site boundary so that effects of SERC could be assessed. To accomplish this goal, background information was examined and assessed, the study area was defined, and a field survey was conducted to identify cultural remains. Reviews of the records search results, previous work in the SERC area and vicinity, and a historical map check indicated that cultural resources within the study area were likely to be mostly activities related to the occupation of Orange County during the Prehistoric Era or historic remains related to the citrus orchards and farming of the late 1800s.

The fundamental goals of an intensive pedestrian field survey are to identify and document previously unrecorded cultural resources and analyze cultural materials, not only to better characterize potential project effects, but also to attempt to confirm or elaborate on the current understanding of the prehistory and history of the region. From a management perspective, the ability of specific resources to address research questions provides a basis to evaluate California Register of Historic Resources (CRHR) and National Register of Historic Places (NRHP) eligibility. Methods for conducting the field survey and inventory are described below.

5.3.2.2 Research Questions

The literature review and search results suggest that the SERC area has a low sensitivity. Historic maps do not show any water sources in or close to SERC, and no ethnographic villages are noted near SERC either (Kroeber, 1971). Although there are no known prehistoric sites in the immediate project vicinity, there have been some archaeological surveys in this area.

Pertinent research questions that are applicable to the SERC site are as follows:

1. The study area is located well inland and does not have any record of prehistoric occupation. The area is completely developed in the modern era and is considered to have a low sensitivity for prehistoric archaeology.

Research Question: Are there any remaining areas around the SERC site or within the 200-foot buffer that remain intact enough to contain archaeological remains? Is there any surficial evidence of any prehistoric activity?
2. Development in the study area started during the historic era. Paved roads are located on historic maps in the 1940s. A historic era railroad is located adjacent to SERC, and one building was observed in the buffer area. No other features were noted on historic maps. If any archaeological remains are identified in the study area, they could be related to the railroad.

Research Question: Does any archaeological evidence remain of the limited historic activities in the study area? If so, to what time period do the remains date? Is there any evidence of household dumping from nearby residences that would add to the knowledge of early historic life in Stanton?

3. After World War II, the population in Southern California swelled in response to both business and industrial development. Housing expanded into agricultural areas, creating suburbs and huge population centers in Los Angeles and Orange Counties. The former orchard lands and agricultural fields in these areas were turned into residential housing and industrial areas. A review of historic maps indicates that most of the development of the SERC study area coincides with this development.

Research Question: Are there buildings in the area that date to post-World War II? Was this area developed post-World War II? Are there any buildings that date to the early 1950s? What condition do these buildings exhibit?

5.3.2.3 Survey Expectations

The SERC site has been disturbed by development of the Stanton Storm Channel, the construction of transmission towers, and upgrades to the adjacent rail line and adjacent Dale Avenue. The level of disturbance at the SERC site and laydown area, as well as the fact that these areas are largely paved, indicates that the likelihood of finding intact archaeological resources within these areas near the surface during the field survey is low. The generator tie-line and the natural gas line corridors run through developed areas that are largely paved and landscaped. The likelihood of finding archaeological resources in these areas was considered low, as well.

Because SERC is located in an area with historic structures, the survey expectations of finding additional historic structures and features within the architectural survey area of SERC and its associated linears was considered high.

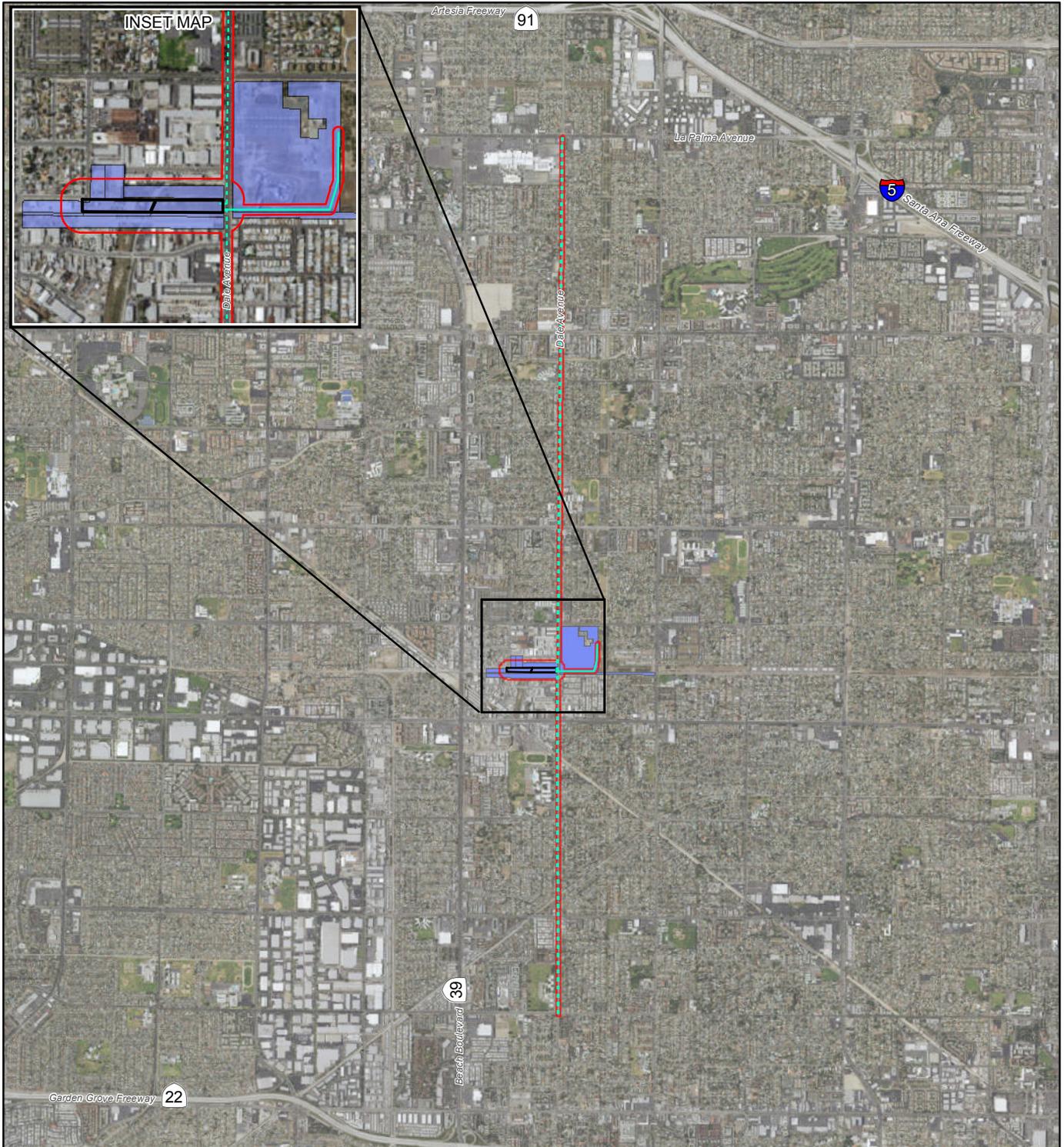
Transect spacing and observation strategies allowed for the detection of small sites (fewer than five artifacts or features). The survey methodology for prehistoric and historic archaeological resources was performed using pedestrian transects spaced at 10- to 15-meter intervals throughout the entire surveyed area. Additionally, other surveys in the area also used a 10-meter interval methodology; therefore, a 10- to 15-meter interval was determined sufficient for the archaeological survey of SERC. Areas within the natural gas line corridor and the gen-tie corridor that were completely paved or landscaped with grass, where the ground was not visible, were not surveyed. Areas along the natural gas line corridors which had any exposed soil at all were surveyed.

5.3.2.4 Resources Inventory

A cultural resources inventory, which included archival research, architectural reconnaissance, and a surface pedestrian survey, was conducted for the project. The APE for SERC was determined in accordance with the latest *CEC Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007) for assessing potential impacts on archaeological and architectural resources. The results of the resource inventory are presented in the following sections. Figure 5.3-2 shows the SERC site, the construction laydown area, and the linear corridors, as well as the archaeological and architectural survey areas. The archaeological survey area includes the SERC site, the natural gas and generator tie-line corridors, a 200-foot buffer around the SERC site, and a 50-foot buffer around all SERC linears. The architectural survey area includes the SERC site and a one-parcel buffer around the site.

5.3.2.4.1 Archival Research

CH2M completed a literature search for SERC from the staff at the CHRIS South Central Coastal California Information Center, searching within a 1-mile buffer zone around the SERC site and a 0.5-mile buffer zone around the gas and generator tie-line corridors. This search radius encompasses the entire research area required by the CEC for archaeological and architectural resources.



Source: Esri World Imagery

LEGEND

- Project Site
- Generator
Tie-Line
- Proposed Natural Gas
Pipeline Route Alternatives
- Archaeological Survey Area
200 foot - Project Site
50 foot - Linear Features
- Historic Architecture Survey Parcels



FIGURE 5.3-2
Cultural Resources
Study Area
 Stanton Energy
 Reliability Center AFC
 Stanton, California



The CHRIS literature and records review included a review of all recorded archaeological sites and all known cultural resource survey and excavation reports. Other sources examined included the NHRP, the CRHR, California Historical Landmarks, and California Points of Historical Interest. State and local listings were consulted for the presence of historic buildings, structures, landmarks, points of historical interest, and other cultural resources.

The project site and adjacent parcels were examined during the archival research. Historical maps of the USGS Historical Topographic Maps Collection and aerials at NETR Historic Aerials online were examined. Historical aerials were compared with current aerials to determine whether any structures or features located within the APE are 45 years old or older. Aerials examined included the following years: 1953, 1963, 1972, and 1980. CH2M visited the City of Stanton Building Department, the Orange County Archives, and the Assessor and the Clerk Recorder offices and obtained additional aerials from 1938 and 1947 and maps including 1913 parcel ownership, the Stanton Tract map, and 1960 parcels.

Topographic maps examined included the following:

- 1896 Anaheim, California quadrangle 1:62,500 USGS topographic map
- 1898 Anaheim, California quadrangle 1:62,500 USGS topographic map
- 1901 Anaheim, California quadrangle 1:62,500 USGS topographic map
- 1935 Garden Grove, California quadrangle, 1:31,680 USGS topographic map
- 1942 Anaheim, California quadrangle 1:62,500 USGS topographic map
- 1949 Anaheim, California quadrangle 1:24,000 USGS topographic map
- 1950 Anaheim, California quadrangle 1:24,000 USGS topographic map
- 1965 Anaheim, California quadrangle 1:24,000 USGS topographic map
- 1974 Anaheim, California quadrangle 1:24,000 USGS topographic map

According to information available in the CHRIS files, two previous cultural resources survey reports have been prepared within the SERC site and linears. An additional 11 studies have been prepared within a 1-mile radius of the SERC site and within 0.5 mile of the SERC linears (Table 5.3-1). Copies of all reports required for data adequacy are provided in Appendix 5.3C.

Table 5.3-1. Cultural Resources Reports within 1 Mile of SERC and 0.5 Mile of Natural Gas Pipeline

| Report Authors and Date | CHRIS Catalogue NADB Numbers |
|--|------------------------------|
| Studies conducted within the SERC power plant, laydown yard, or linears right-of-way boundary | |
| Pollock, 2006 | OR3337 |
| McKenna et al 2002 | OR3338 |
| Studies conducted outside the APE | |
| Galvin Preservation Associates, 2006 | OR3304 |
| Thal, 2004 | OR2822 |
| Duke, 2002 | OR2745 |
| Bonner, 2009 | OR3524 |
| Fulton, 2009 | OR3901 |
| Steiner, 2006 | OR3021 |
| Lindquist, 2001 | OR2356 |
| Bonner, 2006 | OR3424 |
| Huey & Webb, 1977 | OR2547 |
| Padon et al, 1995 | OR1949 |
| Sorrell & Carmack, 2007 | OR3491 |

Source: CHRIS South Central Coastal Information Center. See Appendix 5.3C for full bibliographic references.

As a result of these studies, there are 21 built resources recorded in the literature search area (see Table 5.3-2). One of these resources is a retail center district (P-30-176812) called Hobby City, which consists of 17 buildings (separately recorded as P-30-176810 through P-30-176831). This resource was recommended as not eligible for the NRHP or CRHR. Two historic era residences (P-30-179853 and P-30-179854) are also located within the literature search area. Neither of these residences meet criteria for the NRHP or the CRHR. The Office of Historic Preservation Historic Properties Survey Database lists the residence at 10335 Dale Street as Office of Historic Preservation listing 186624. This historic era residence was determined ineligible for the NRHP.

Table 5.3-2. Previously Recorded Historic Architecture within the SERC Study Area

| Primary Number | Address | Parcel Number | Resource Type/Style | Name | Date(s) | California Register Eligibility |
|----------------|------------------------------------|---------------|--|---|--------------|---|
| 30-176810 | 1228 South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Gems and Opals Shop | 1958 | 6Z, not eligible |
| 30-176811 | 1230 South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Stamps and Coins Shop | 1958 | 6Z, not eligible |
| 30-176812 | 1238 South Beach Boulevard | Various | Built environment, District | Hobby City | 1923-1983 | 6Z, not eligible |
| 30-176813 | 1240 South Beach Boulevard | 12627107 | HP6, 1-3 story commercial building | Hobby City – The Party Tree/The Bear Tree Shop | 1982 | 6Z, not eligible |
| 30-176814 | 1238-J South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Sunshine Dollhouse and Miniatures Shop | 1967 | 6Z, not eligible |
| 30-176815 | 1238-D South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Royal Antiques Shop | c. 1970 | 6Z, not eligible |
| 30-176816 | 1238-A, B, E South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Prestige Hobbies | 1971 | 6Z, not eligible |
| 30-176817 | 1238-C South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Sports Card Dugout | 1964 | 6Z, not eligible |
| 30-176818 | 1238-G South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Deco Facil | c. 1974 | 6Z, not eligible |
| 30-176819 | 1238 South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – The Indian Store | c. 1983 | 6Z, not eligible |
| 30-176820 | 1238-K South Beach Boulevard | 12627106 | HP2, Single family property; HP 15, Educational building | Hobby City – Doll and Toy Museum | 1978-1979 | 3S, embodies characteristics of Programmatic Architecture |
| 30-176821 | 8041 Starr Street | 12628123 | HP2, Single family property; HP25, Amusement Park | Residence adapted for theme park | c. 1952 | 6Z, not eligible |
| 30-176822 | 8042 Starr Street | 12628203 | HP2, Single family property | Craftsman residence | c. 1915-1925 | 6Z, not eligible |
| 30-176823 | 8062 Starr Street | 12628222 | HP2, Single family property | Craftsman residence | c. 1915-1925 | 6Z, not eligible |

Table 5.3-2. Previously Recorded Historic Architecture within the SERC Study Area

| Primary Number | Address | Parcel Number | Resource Type/Style | Name | Date(s) | California Register Eligibility |
|----------------|-------------------------------|---------------|--|---|--------------|---------------------------------|
| 30-176824 | 8081 Starr Street, Building L | 12628122 | HP2, Single family property; HP6, 1-3 story commercial building | Hobby City – Building L | 1930 | 6Z, not eligible |
| 30-176825 | 8082 Starr Street | 12628105 | HP2, Single family property | Modern style residence | c. mid-1950s | 6Z, not eligible |
| 30-176826 | 8091-O Starr Street | 12628105 | HP2, Single family property | Spanish Colonial Revival style residence, now Hobby City | c. 1925 | 6Z, not eligible |
| 30-176827 | 8091-B Starr Street | 12628105 | HP2, Single family property | Ranch style residence, now Hobby City Radical Reptiles Shop | c. 1950 | 6Z, not eligible |
| 30-176828 | 8091-E,F Starr Street | 12628105 | HP6, 1-3 story commercial building | Children’s Living Nature Museum | 1957 | 6Z, not eligible |
| 30-176829 | 8101 Starr Street | 12628106 | HP6, 1-3 story commercial building | Ansdell Piano; Annie and Friends; The Restaurant Next Door to the White House | 1978 | 6Z, not eligible |
| 30-176830 | 8111 Starr Street | 12628107 | HP2, Single family property | Spanish Colonial Revival style residence | c. 1925-1930 | 6Z, not eligible |
| 30-176831 | 1234 South Beach Boulevard | 12627106 | HP6, 1-3 story commercial building | Hobby City – Cabbage Patch Adoption Center, Building C | c. 1950s | 6Z, not eligible |

5.3.2.4.2 Archaeological Field Survey

A cultural resources survey of the proposed SERC APE was conducted on September 13, 2016, by Natalie Lawson, M.A., RPA, who meets the qualifications for Principal Investigator stated in the Secretary of the Interior’s standards and guidelines for archaeology and historic preservation (NPS, 1983). This field survey included the SERC site and associated linears.

As per the current *CEC Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007), in addition to the plant site, a 200-foot minimum buffer was surveyed for cultural resources around SERC. In addition to the survey of the natural gas line corridor and generator tie-line corridor, a 50-foot minimum buffer was surveyed around the centerline of the corridor.

The survey used linear pedestrian transects spaced at 10 to 15 meters and opportunistic examination of exposed soils to examine the survey areas to determine whether archaeological deposits might be present. Exposed soils, consisting mainly of previously disturbed agricultural sediments and road bed material, were inspected carefully, and no evidence of cultural materials was noted at any location with the area surveyed for the power plant site, natural gas line corridor, or generator tie-line corridor.

The SERC site is completely unpaved on the eastern portion (Parcel 1). The western portion of the SERC site (Parcel 2) is graded. Visibility over the survey area is excellent. The project footprint is disturbed by the construction of the Stanton Storm Channel, which bisects the site and is part of Parcel 2. Several large trees that once stood in the buffer area have been cut down, leaving stumps. Modern trash is

scattered over the entire area. Most of the sediment appears to be fill. Most of the gas pipeline corridor is paved or landscaped, and there is no ground visibility. One area was under construction and was excavated to a depth of approximately 2 feet. All open areas along the gas line corridor were primarily fill, as well.

No archaeological resources were identified in any of the areas surveyed for SERC or in its gas line or generator tie-line corridors. The section of the gen-tie line corridor that is located within the Southern California Edison (SCE) Barre Substation is surrounded by a high brick wall, and access was not available at the time of survey.

Given the lack of cultural resources in the area, the lack of access to water and no archaeologically sensitive features, and the scale and scope of previous ground disturbance in the area, the sensitivity of the underlying soils is considered low.

5.3.2.4.3 Architectural Survey

A cultural resource survey of the built environment of the SERC APE was conducted on September 14, 2016, by Amy McCarthy-Reid, who meets the qualifications for Architectural Historian stated in the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (NPS, 1983). To assess potential impacts on the historic built environment, CH2M examined the SERC site and, in accordance with *CEC Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 2007), a one-parcel buffer from the plant site.

This survey was conducted to determine whether potentially historic buildings and structures (more than 45 years old) are located within one parcel of the SERC site. This survey was guided in part by an analysis of historical USGS topographic maps listed previously. Small rectangles on these maps indicate the locations of homes, barns, and other structures that stood when the map was prepared. In addition to the USGS topographical maps, historical aerial images were consulted.

The area surrounding SERC is composed of mid-1950s and early 1960s industrial buildings to the north and south, a neighborhood of modified 1940s Minimal Traditional residences with modern intrusions to the northwest, and a trailer park to the southeast. A variety of new telephone and transmission poles crisscross the vicinity. Dale Avenue appears on the early topographic maps. It is continually paved and has had other street improvements (see Table 5.3-3).

Table 5.3-3. Architectural Properties Newly Documented during the Architectural Survey in September 2016

| Address | Parcel Number | Resource Type | Age | Eligible? |
|---------------------------|---------------------------|----------------------------|--------------------------|-----------|
| 8230 Pacific Street | 126-531-40 | Concrete lined storm drain | c. 1960 | No |
| Unknown | 126-591-16 | Transmission towers | c. 1960s | No |
| 10680 Fern Avenue | 126-591-10 and 126-591-11 | Three industrial buildings | Mid 1950s to early 1960s | No |
| Southern Pacific Railroad | 126-531-44 and 126-553-20 | Historic rail line | Late 1890s | No |
| 8662 Cerritos Ave | 126-460-01 and 126-460-02 | Barre Substation | 1939-1940 | Unlikely |

Parcels 126-531-40/126-553-18. These are project site parcels (Parcel 2). They are primarily paved, and the current use is as a storage area for crates, pallettes, and truck trailers. There is a small modern shed near the Fern Avenue entrance.

There is an Orange County Flood Control District easement on the Assessor parcel maps for a storm drain and access roadway on parcel 126-531-40. The concrete-lined Stanton Storm Channel that exists on the eastern extent of Parcel 2 effectively separates through the parcels. The channel is simply labeled Storm Drain on the 1965 topographic map, and it is visible on the 1963 aerial. The channel is 30 feet wide

with sidewalls having a 2:1 slope. Set in concrete under the adjacent railroad are three 5-foot-diameter culverts. The channel is visible on the 1965 USGS topographic map and dates from the historic era. Although the drain is over 50 years old, it does not appear to meet any criteria for historical significance. It was constructed more than 20 years after the Great Flood event of 1938, less as a response to local flooding and more as regional integrated stormwater management plan. It is not associated with an individual architect or engineer of historic importance. The construction of this channel is utilitarian. It has no artistic value and may no longer be adequate for its function. Such channels are common in Southern California. Lastly, the storm drain has no information potential. This channel is not recommended eligible for the NRHP or CRHR.

Parcel 126-531-43. This is another project site parcel at 10711 Dale Avenue (Parcel 1). It is currently empty and was used for open storage from the 1980s until recently.

Parcel 126-591-16. This parcel is part of the buffer around the project area. It is located north of the project and is a Southern California Edison property that contains two late 1960s transmission towers. These two towers are barely of historic age and are part of the Greater Los Angeles power delivery grid. The community and the connecting substation were well established by the time these towers were constructed. They are of a type in widespread use all over California. Engineered steel lattice towers have been in use since the 1920s, but these variants are not a distinctive example of that type. Furthermore, they are regularly maintained. The towers are not recommended eligible for the NRHP or CRHR.

Parcels 126-591-10 and 126-591-11. These parcels are also located adjacent to and north of the project site. They contain three buildings. The address is 10680 Fern Avenue. Historic aerials indicated that the buildings were built between 1953 and 1963. Parcel 126-591-10 contains a mid-century industrial building that exhibits an International-style influence. The northwestern corner of the asymmetrical façade of the building is brick with sets of floor-to-ceiling glass panes. Additional fenestration includes rows of two over three awning windows across the top of the structure. It has a flat metal roof with central vents. There are two utilitarian ancillary buildings behind this building on parcel 126-591-11. Both are gabled, wood frame, and metal clad with rolling carriage doors on at least one elevation, and have numerous air circulation vents. The original skylights have been clad over with corrugated tin, and later additions were made to each of these buildings. One of the buildings has extended eaves. Couch and Phillipi, Inc. started a sign-making business in the late 1920s in Los Angeles, but constructed this new headquarters in 1955. One smaller building of corrugated steel with a steel roof for general storage and processing of wood products was also built in 1955. A canopy was added to this building that same year. A second storage building on the parcel was built by the company in 1959. Further alterations including additions were made to the storage buildings in subsequent years. The architect of the 1955 one-story office and shop building was John. J. Kewell, also of Los Angeles. Kewell practiced from the 1930s to 1960s, and his projects included private residences, Los Angeles schools, a factory in Santa Ana, a Garden Grove subdivision, a shopping center in Pasadena, and a naval ordinance test station (Michelson, 2015).

The buildings are over 50 years old and appear to fit the theme of post-World War II industrialization in California. The main building, however, is not a fine example of a midcentury modern or International style office and light industrial building. Nor does it appear to be an outstanding example of architect John Kewell's work. It continues to house a sign-making business as originally intended, although the company appears to have changed ownership and rebranded itself over time as Blinkety Blanks in the 1980s and now as Primus. The storage sheds are of a common, utilitarian design. None of these buildings are recommended eligible for the CRHR under any criteria.

Parcels 126-531-44, and 126-553-20. These parcels are located south of SERC and are part of the SPRR right-of-way. The Los Alamitos branch of SPRR was built in the late 1890s, primarily to service the sugar beet industry. This segment of the SPRR Los Alamitos Branch line does not appear to be eligible for the

CRHR, as it exhibits a loss of integrity. This segment of the railroad retains integrity of location only. It no longer retains integrity of setting, design, feeling or association. The industrial nature of the project area, ongoing since the 1950s, is very different from the 1890s when most of the landscape was composed of small family farms. Some of the trackage has been removed from the rest of the line. The rails, originally located west of South Knott Avenue in the historic era, are no longer extant. It no longer reaches the original sugar factory and lumber yard destinations in Los Alamitos. Also the integrity of workmanship and materials is compromised. This portion of the line is still active and is maintained and updated into the modern era.

Parcel 126-531-42. This parcel is located south of SERC. It contains a modern public storage facility. According to early topographic maps, this was once a railroad siding. The siding does not appear to be extant any longer, and was either removed or covered by the construction of the storage facility.

Parcel 126-553-22. This parcel is located west of the project and is the location of the City of Stanton's recently constructed corporate yard.

Parcels 126-460-01 and 126-460-02. These parcels are located east of SERC and contain the SCE Barre Substation. Both parcels are entirely surrounded by a wall that is approximately 12 feet high, affording limited visibility and also blocking views of the project site from the substation. The Barre Substation is on the northern end of this property and was built in 1939. A spur of SPRR was built at the same time to serve the substation. Preliminary investigation through review of Google Earth, historic maps and aerials, and construction photographs available online in the SCE archives of the Huntington Digital Library reveals that the control house is extant, but there is a large addition on the northern side and a small addition on the southern side of the property. At least one other original building remains. A peaking power plant (called the Barre Peaker) was built in 2007 in the southwestern corner of the property where the SERC tie-line is proposed. The stack of the plant is visible above the wall.

5.3.2.4.4 Survey Expectations and Results

The purpose of this section is to relate the findings of the investigation to the research questions posed above. No archaeological sites of any type were found. Therefore, only the research question pertaining to build environment will be discussed.

Research Question 3: Several built structures, including industrial buildings, a rail line, a substation, a storm drain, and transmission towers, were identified from the architectural survey that date to the historic era. None of these structures are recommended eligible for the CRHR. They date to a variety of eras, none of them has an apparent historic association or represents a strong example of an architectural style or type, and none of them are outstandingly representative of a historical trend or era. As such, they do not provide any information and insight into the questions posed in the research design, and they are not of historical significance.

5.3.2.4.5 Native American Consultation

CH2M contacted the Native American Heritage Commission (NAHC) by letter on September 14, 2016, to request information about traditional cultural properties such as cemeteries and sacred places in the SERC APE. The NAHC responded on September 15, 2015, with a list of Native Americans interested in consulting on development projects. Each of these individuals/groups was contacted by letter and by e-mail on October 11, 2016. Follow-up phone calls were made on October 13, 2016. Robert F. Dorame, Chairperson of the Gabrielino Tongva Indians of the California Tribal Council, requested to be informed if cultural resources are found at any time during the permitting process or during construction. Sam Dunlap requested on behalf of Sandonne Goad, Chairperson of the Gabrielino Tongva Nation, to be contacted by CEC cultural resources staff and to be notified of the publication of the Preliminary Staff Assessment and the Final Staff Assessment, and of important dates by CEC staff. Andrew Salas, Chairperson, acknowledged receipt of the notification and indicated that his group would review the project. No additional responses have been received to date.

The NAHC record search of the Sacred Lands file did not indicate the presence of Native American cultural resources in the immediate SERC APE. The record search conducted at the CHRIS South Central Coastal Information Center also did not indicate the presence of Native American traditional cultural properties.

5.3.2.4.6 Local Historical Societies

CH2M contacted historical societies in the Orange County area, including the Orange County Historical Society, the Heritage Museum of Orange County, History and Art, and the Historical Society of Southern California. No responses have been received.

5.3.3 Environmental Analysis

This section describes the environmental impacts of SERC construction and operation. CH2M conducted a cultural survey of the SERC APE.

5.3.3.1 Significance Criteria

Appendix G, Environmental Checklist Form of the CEQA guidelines, addresses significance criteria with respect to cultural resources (PRC Sections 21000 et seq.). Appendix G (V)(a, b, d) indicates that an impact would be significant if the project will have the following effects:

- Cause a substantial adverse change in the significance of a historical resource
- Cause a substantial adverse change in the significance of an archaeological resource
- Disturb any human remains, including those interred outside formal cemeteries

Project investigations included archival research, review of all cultural resource investigation reports within the SERC area, and contacts with all other interested agencies, Native American groups, and historic societies and a complete field survey. No archaeological resources were identified, and there is the lack of access to water and no archaeologically sensitive features. Also, because of the scale and scope of previous ground disturbance in the area, the sensitivity of the underlying soils is considered low. No built structures recorded were recommended eligible for the CRHR.

Impacts to historic resources are not expected during construction or during operation. Construction impacts would be short term, while operation impacts would be long term. Construction impacts could affect the integrity of any cultural resources considered historically significant. The following sections describe the impacts, if any, to cultural resources in the APE during construction and/or operations of SERC.

5.3.3.2 Construction Impacts

Because of the lack of archaeological resources in the SERC APE, it is considered unlikely that the project could encounter buried intact cultural resources. With the incorporation of mitigation described in Section 5.3.5, construction impacts on archaeological resources will be less than significant.

Several built resources were identified as a result of the architectural survey; however, none are recommended for the CRHR and no impacts are anticipated.

5.3.3.3 Operation Impacts

No ground disturbance will be required during project operation; therefore, impacts on cultural resources are not anticipated during SERC operation. Maintenance of project facilities will not cause any effects outside the initial construction area of impact. No significant impacts on cultural resources will result from operations.

5.3.4 Cumulative Effects

A cumulative impact refers to a proposed project's incremental effect together with other closely related past, present, and reasonably foreseeable future projects whose impacts may compound or increase the incremental effect of the proposed project (PRC Section 21083; CCR, Title 14, Sections 15064[h], 15065[c], 15130, and 15355). Most of the projects in the near vicinity of SERC (within 6 miles) involve minor modifications to existing buildings and are likely to impact cultural resources that are not significant. SERC is unlikely, therefore, to have impacts that would combine cumulatively with other closely related past, present, and reasonably foreseeable future projects, and the project will not contribute to a cumulatively considerable impact on cultural resources.

5.3.5 Mitigation Measures

5.3.5.1 Undiscovered Archaeological Sites

No archaeological sites were found during the survey of the SERC site and associated linear features, and it is considered unlikely that subsurface construction could encounter buried archaeological remains. However, the proponent will implement measures, based on state and federal regulations and guidelines, to mitigate any potential adverse impacts that could occur if there were an inadvertent discovery of buried cultural resources. These measures include, but are not limited to, the following:

- Designation of a CRS to investigate any cultural resource finds made during construction
- Implementation of a construction worker training program
- Monitoring during initial clearing of the power plant site and excavation at the plant site
- Procedures for halting construction in the event that there is an inadvertent discovery of archaeological deposits or human remains
- Procedures for evaluating an inadvertent archaeological discovery
- Procedures to mitigate adverse impacts on any inadvertent archaeological discovery determined significant

Once SERC is operational, it is anticipated that no additional disturbance will occur at the SERC site, laydown area, and associated linear features.

5.3.5.1.1 Designated Cultural Resources Specialist

SERC will retain a designated CRS who will be available during the earth-disturbing portion of the SERC construction periods to inspect and evaluate any finds of buried archaeological resources that might occur during the construction phase. The CRS will meet the minimum qualifications for Principal Investigator on federal projects under the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The CRS will be qualified, in addition to site detection, to evaluate the significance of the deposits, consult with regulatory agencies, and plan site evaluation and mitigation activities.

If there is a discovery of archaeological remains during construction, the CRS, in conjunction with the construction superintendent and environmental compliance manager, will make certain that construction activity stops in the immediate vicinity of the find until the find can be evaluated. The CRS will inspect the find and evaluate its potential significance in consultation with CEC staff and the CEC compliance project manager (CPM). The CRS will make a recommendation as to the significance of the find and any measures that will mitigate adverse impacts of construction on a significant find. Once this process has been completed, construction within the area of the find can be resumed.

5.3.5.1.2 Construction Worker Training

SERC will prepare a construction worker sensitivity training program to ensure implementation of procedures to be followed if cultural resources are discovered during construction. This training will be provided to each construction worker as part of their environmental, health, and safety training. The training will include photographs of various types of historic and prehistoric artifacts, and it will describe the specific steps to be taken in the event of an unanticipated discovery of cultural material, including human remains. It will explain the importance of, and legal basis for, the protection of significant archaeological resources. The training also will be presented in the form of a written brochure.

5.3.5.1.3 Emergency Discovery

If construction staff or others identify archaeological resources during construction, they will immediately notify the CRS and the site superintendent, who will halt construction in the immediate vicinity of the find, if necessary. The archaeological monitor or CRS will use flagging tape, rope, or other means as necessary to delineate the area of the find within which construction will halt. This area will include the excavation trench from which the archaeological finds came and any piles of dirt or rock spoil from that area. Construction will not occur within the delineated find area until the CRS, in consultation with the CEC staff and CEC CPM, can inspect and evaluate the find.

5.3.5.1.4 Site Recording and Evaluation

The CRS will follow accepted professional standards in recording any find, and will submit the standard Form DPR 523 and location information to the CHRIS at the South Central Coastal Information Center.

If the CRS determines that the find is not significant and the CEC CPM concurs, construction will proceed without further delay. If the CRS determines that further information is needed to determine whether the find is significant, the designated CRS will, in consultation with the CEC, prepare a plan and a timetable for evaluating the find.

5.3.5.1.5 Mitigation Planning

If the CRS and CPM determine that the find is significant, the CRS will prepare and conduct a mitigation plan in accordance with state guidelines. This plan will emphasize the avoidance, if possible, of significant archaeological resources. If avoidance is not possible, recovery of a sample of the deposit from which archaeologists can define scientific data to address archaeological research questions will be considered an effective mitigation measure for damage to or destruction of the deposit.

The mitigation program, if necessary, will be carried out as soon as possible to avoid construction delays. Construction will resume at the site as soon as the field data collection phase of any data recovery efforts is completed. The CRS will verify the completion of field data collection by letter to SERC and the CPM so that they can authorize construction to resume.

5.3.5.1.6 Curation

The CRS will arrange for curation of archaeological materials collected during an archaeological data recovery mitigation program. Curation will be performed at a qualified curation facility meeting the standards of the California Office of Historic Preservation. The CRS will submit field notes, stratigraphic drawings, and other materials developed as part of the data recovery/mitigation program to the curation facility along with the archaeological collection, in accordance with the mitigation plan.

5.3.5.1.7 Report of Findings

If a data recovery program is planned and implemented during construction as a mitigation measure, the CRS will prepare a detailed scientific report summarizing results of the excavations to recover data from an archaeological site. This report will describe the site soils and stratigraphy, describe and analyze artifacts and other materials recovered, and draw scientific conclusions regarding the results of the excavations. This report will be submitted to the curation facility with the collection.

5.3.5.2 Inadvertent Discovery of Human Burials

If human remains are found during construction, project officials are required by the California Health and Safety Code (Section 7050.5) to contact the Orange County Coroner. If the coroner determines that the find is Native American, he or she must contact the NAHC. The NAHC, as required by PRC Section 5097.98, determines and notifies the Most Likely Descendant with a request to inspect the burial and make recommendations for treatment or disposal.

5.3.6 Laws, Ordinances, Regulations, and Standards

Among the local LORS discussed in this section are certain ordinances, plans, or policies of Orange County and the State of California. Federal LORS will likely not be applicable because SERC will not require a Prevention of Significant Deterioration (PSD) permit, Clean Water Act permit, or other federal authorization. A summary of applicable LORS is provided in Table 5.3-4.

Table 5.3-4. Laws, Ordinances, Regulations, and Standards for Cultural Resources

| LORS | Requirements/Applicability | Administering Agency | Application for Certification Section Explaining Conformance |
|---------------------------------------|--|--|--|
| Federal | | | |
| Section 106, NHPA | Applies if the project would require a federal permit (such as a PSD permit). The lead federal agency must take into account the effect of issuing the permit on significant cultural resources. | California Office of Historic Preservation/ EPA | Section 5.3.6.1 |
| State | | | |
| CEQA Guidelines | Project construction may encounter archaeological and/or historical resources. | CEC | Section 5.3.6.2 |
| Health and Safety Code Section 7050.5 | Construction may encounter Native American graves; coroner calls the NAHC. | State of California | Section 5.3.6.2 |
| PRC Section 5097.98 | Construction may encounter Native American graves; NAHC assigns Most Likely Descendant. | State of California | Section 5.3.6.2 |
| PRC Section 5097.5/5097.9 | Would apply only if some project land were acquired by the state (currently no state land). | State of California | Section 5.3.6.2 |
| Local | | | |
| City of Stanton General Plan | Does not mention cultural resources. | City of Stanton | N/A |

Note:

EPA = U.S. Environmental Protection Agency

5.3.6.1 Federal LORS

Federal protection for significant archaeological resources would apply to SERC if any construction or other related project impacts take place on federally managed lands, or if certain federal entitlements were required. Because SERC is not likely to require a PSD permit under the federal CAA or other federal permit, SERC would not be considered a federal undertaking.

The National Historic Preservation Act (NHPA) requires federal agencies to take into consideration the effects of their undertakings on historic properties, defined as properties (e.g., buildings, districts, sites, structures, and objects) that meet the criteria for listing in the NRHP (36 Code of Federal Regulations Part 60). The agencies' responsibilities under the NHPA are described in Section 106 of the Act and in federal regulations at 36 Code of Federal Regulations Part 800. Federal agencies are enjoined to determine an undertaking's APE on historic properties, inventory potential historic properties within the APE,

evaluate properties identified to determine their eligibility for listing in the NRHP, and assess the potential effects of the undertaking on properties determined to meet NRHP criteria; and if the effects would be adverse, avoid or mitigate those effects. In this case, EPA would likely be the federal agency with Section 106 compliance responsibilities. As the lead federal agency, it is the responsibility of EPA to conduct the State Historic Preservation Officer consultation regarding the permit undertaking's effects on historic properties.

5.3.6.2 State LORS

CEQA requires review to determine whether a project will have a significant effect on archaeological sites or a property of historic or cultural significance to a community or ethnic group eligible for inclusion in the CRHR (CEQA Guidelines). CEQA equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1 of the PRC) and defines substantial adverse change as demolition, destruction, relocation, or alteration that would impair historical significance (Section 5020.1). Section 21084.1 stipulates that any resource listed in, or eligible for listing in, the CRHR³ is presumed to be historically or culturally significant.⁴

Resources listed in a local historic register or deemed significant in a historical resource survey (as provided under Section 5024.1g) are presumed historically or culturally significant unless the preponderance of evidence demonstrates they are not.

A resource that is not listed in or determined to be eligible for listing in the CRHR, is not included in a local register of historic resources, or is not deemed significant in a historical resource survey may nonetheless be historically significant (Section 21084.1; see Section 21098.1).

CEQA requires a lead agency to identify and examine environmental effects that may result in significant adverse effects. Where a project may adversely affect a unique archaeological resource,⁵ Section 21083.2 requires the lead agency to treat that effect as a significant environmental effect and prepare an environmental impact report. When an archaeological resource is listed in or is eligible to be listed in the CRHR, Section 21084.1 requires that any substantial adverse effect to that resource be considered a significant environmental effect. Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project's environmental analysis. Either of these benchmarks may indicate that a project may have a potential adverse effect on archaeological resources.

Other state-level requirements for cultural resources management appear in the California PRC Chapter 1.7, Section 5097.5 (Archaeological, Paleontological, and Historical Sites), and in Chapter 1.75 beginning at Section 5097.9 (Native American Historical, Cultural, and Sacred Sites) for lands owned by the state or a state agency.

The disposition of Native American burials is governed by Section 7050.5 of the California Health and Safety Code and by Sections 5097.94 and 5097.98 of the PRC, and falls within the jurisdiction of the NAHC.

³ The CRHR is a listing of "...those properties which are to be protected from substantial adverse change." Any resource eligible for listing in the CRHR is also to be considered under CEQA.

⁴ A historical resource may be listed in the CRHR if it meets one or more of the following criteria: "(1) is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; (2) is associated with the lives of persons important to local, California, or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or (4) has yielded or has the potential to yield information important in prehistory or history (...of the local area, California, or the nation)" (PRC §5024.1, Title 14 CCR, Section 4852). Automatic CRHR listings include NRHP-listed and determined eligible historic properties (either by the Keeper of the NRHP or through a consensus determination on a project review), State Historical Landmarks from number 770 onward, and Points of Historical Interest nominated from January 1998 onward. Landmarks prior to 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission.

⁵ PRC 21083.2 (g) defines a unique archaeological resource to be: An archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

If human remains are discovered, the county coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the coroner determines the remains to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native American so they can inspect the burial site and make recommendations for treatment or disposal. SERC will comply with these requirements related to cultural resources through the implementation of the mitigation measures described in Section 5.3.5.

5.3.7 Agencies and Agency Contacts

Table 5.3-5 lists the state agencies involved in cultural resources management for the project and a contact person at each agency. These agencies include the NAHC and, for federal undertakings, the California Office of Historic Preservation.

Table 5.3-5. Agency Contacts for Cultural Resources

| Issue | Agency | Contact |
|---|--|--|
| Native American traditional cultural properties | Native American Heritage Commission | Cynthia Gomez, Executive Secretary Native American Heritage Commission 1550 Harbor Boulevard, Suite 100 West Sacramento, CA 95691 (916) 373-3710 |
| Federal agency NHPA Section 106 compliance | California Office of Historic Preservation | Julian Polanco State Historic Preservation Officer 1423 23rd Street, Suite 100 Sacramento, CA 95816 (916) 445-7000 |

5.3.8 Permits and Permit Schedule

Other than certification by the CEC, no state, federal, or local permits are required by SERC for the management of cultural resources. Consultation with the State Historic Preservation Officer would not be required under Section 106 of the NHPA because SERC will likely not require a PSD or other federal permit.

5.3.9 References

Armor, Samuel. 1921. *History of Orange County, California: with biographical sketches of the leading men and women of the county who have been identified with its earliest growth and development from the early days to the present.* Historic Record Company. Los Angeles, California.

Bancroft, Hubert Howe. 1984. *The Works of Hubert Howe Bancroft. Volume XVIII: History of California, v1: 1542-1800.*

Bean, Lowell J. and Charles R. Smith. 1978. "Gabrielino." *Handbook of North American Indians, Volume 8: California* (Sturtevant, 1978: 701-704). Edited by Robert F. Heizer. Pp. 538-549. Washington, DC. Smithsonian Institution.

Beebe, Rose Marie and Robert M. Senkewicz, eds. 2001. *Lands of Promise and Despair: Chronicles of Early California, 1535-1846.* Santa Clara University, Santa Clara, CA.

Byrd, Brian F. and L. Mark Raab. 2007. "Prehistory of the Southern Bight: Models for a New Millennium." *California Prehistory, Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 215-227. AltaMira Press, Lanham, MD.

- California Energy Commission (CEC). 2007. *Rules of Practice and Procedure and Power Plant Site Certification Regulations*
- California Energy Commission (CEC). 1992. *Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification.*
- California Missions Foundation. 2008. California Missions. <http://www.californiamissionsfoundation.org/home.html>. Accessed August 2, 2011.
- Campbell, R. 2012. From the 1940 census: How has Orange County changed? Available online: <http://www.ocregister.com/articles/war-349129-orange-school.html>. Accessed October 11, 2016.
- Castillo, Edward D. 1978. "The Impact of Euro-American Exploration and Settlement." *Handbook of North American Indians, Volume 8: California*. Edited by Robert F. Heizer. Pp. 99-127. Washington, DC. Smithsonian Institution.
- Chartkoff, Joseph L. and Kerry Kona Chartkoff. 1984. *The Archaeology of California*. Stanford University Press, Palo Alto, California.
- Cook, S.F. 1978. "Historical Demography." *Handbook of North American Indians, Volume 8: California*. Edited by Robert F. Heizer. pp. 91-98. Washington, DC. Smithsonian Institution.
- Cook, S.F. 1976. *The Population of the California Indians 1769-1970*. Berkeley: University of California Press. 239 pp.
- County of Orange. n.d. Spanish and Mexican Ranchos of Orange County. Available online: <http://ocarchives.com/civicaX/filebank/blobload.aspx?BlobID=4322>. Accessed October 11, 2016.
- DuBois, Constance Goddard. 1908. The Religion of the Luiseño Indians of Southern California. Online manuscript, sacred-texts.com. Accessed September 1, 2016.
- Earle, David D. and Stephen O'Neal. 1994. Newport Coast Archaeological Project: An Ethnohistoric Analysis of Population, Settlement, and Social Organization in Coastal Orange County at the End of the Late Prehistoric Period. Prepared by The Keith Companies, Irvine, California. Ms on file at the South Central Coastal Information Center, California State University, Fullerton, California.
- Eberhart, Hal. 1961. "The Cogged Stones of Southern California." *American Antiquity*. 26 (3): 361-370.
- Engelhardt, Zephyrin, Fr, O.F.M. 1912. *The Missions and Missionaries of California*. Vol. II Upper California Part I. General History. San Francisco, California, The James H. Barry Company.
- Fages, Pedro. 1971. "The Chumash Indians of Santa Barbara." *The California Indians: A Source Book*. Heizer, R. F. and M.A. Whipple, eds. University of California Press, Berkeley. Originally completed 1775. Pp. 255-261.
- Gold, Scott. 1999. 1938 Flood: A Watershed for the County. Los Angeles Times. Available online: <http://articles.latimes.com/1999/oct/03/local/me-18228>. Accessed October 11, 2016.
- Goodyear, Albert C. 2005. "Evidence for Pre-Clovis Sites in the Eastern United States." *Paleoamerican Origins: Beyond Clovis*, ed. R. Bonnischen et al. Texas A&M University, College Station, TX. Pp. 103-112.
- Gudde, E.G. 1998. *California Place Names; The Origin and Etymology of Current Geographical Names*. 4th edition: revised and enlarged by W. Bright, University of California Press, Berkeley.
- Gutierrez, R.A., and R.J. Orsi. 1998. *Contested Eden: California before the Gold Rush*. University of California Press, Berkeley, California.
- Hector, Susan M. 1984. *Cultural Resource Management Plan for the Los Peñasquitos Ranch House Resource Area, San Diego*. RECON, San Diego, CA.
- Heizer, Robert F. 1978. "Treaties." *Handbook of North American Indians, Volume 8: California*. Edited by Robert F. Heizer. Pp. 701-704. Washington, D. C.: Smithsonian Institution.

- Heizer, R.F. 1971. "The Western Coast of North America." *The California Indians*. R.F. Heizer and M.A. Whipple, eds. Pp. 131-143.
- Kao, Kenneth. 2008. Orange County History: Suburbia and Today. Available online: <https://www.ocf.berkeley.edu/~kennyk/oc/recent.html>. Accessed October 11, 2016.
- King, Chester. 2003. Japchibit Ethnohistory. Unpublished Ms. On file, Angeles National Forest.
- King, Chester. 1967. "The Sweetwater Mesa Site (LAN-267) and its Place in Southern California Prehistory." *University of California Archaeological Survey Annual Reports*. 1966-1967: 25-76.
- Koerper, Henry C., and Roger D. Mason. A Red Ochre Cogged Stone from Orange County. *Pacific Coast Archaeological Society Quarterly*, Volume 34, Number 1, Winter 1998.
- Kroeber, A.L. 1906. "Two Myths of the Mission Indians of California." *Journal of the American Folk-Lore Society*. Vol. XIX, No. LXXV pp. 309-21. sacred-texts.com
- Kroeber, A.L. 1908. "A Mission Record of the California Indians from a Manuscript in the Bancroft Library." *University of California Publications in American Archaeology and Ethnology*. Vol. 8, No. 1, pp. 1-27. May 28.
- Kroeber, A.L. 1925. *Handbook of the Indians of California*. Bulletin 78. Smithsonian Institution. Bureau of American Ethnology. Government Printing Office. Washington, DC.
- Kroeber, A.L. 1971. *Handbook of the Indians of California*. Dover Publications, New York.
- Langenwalter, Paul E., Matthew A. Boxt, Lawrence M. Boxt, and Theodore T. Miller. 2001. "A Sea Otter (*Enhydra lutris*) Femur with Embedded Projectile Point Fragment from a Late Prehistoric Camp Site in Long Beach, California." *Pacific Coast Archaeological Society Quarterly*. Vol. 37. Number 1. Winter.
- Lech, Steve. 2004. *Along the Old Roads, A History of the Portion of Southern California that Became Riverside County 1772-1893*.
- Livingston, M.M. 1914. The earliest Spanish Land Grants in California. Annual Publication of the Historical Society of Southern California, Volume 9. Available online: <https://archive.org/details/jstor-41168705>. Accessed October 11, 2016.
- Moratto, Michael and Barry A. Price, ed. 2005. "Vandenberg Air Force Base Integrated Cultural Resources Plan." Volume 6 – Management of Historical Archaeological Resources. Applied Earthworks, Inc., Fresno, CA. December.
- McCawley, William. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Malki Museum Press/Ballena Press, Morongo Indian Reservation, CA.
- Moratto, Michael. 2004. *California Archaeology*. Coyote Press, Salinas, CA. Revised 2004 edition.
- Moratto, Michael, ed. 1984. *California Archaeology*. Academic Press, San Diego, CA.
- Orange County Historical Society. n.d. A Timeline of Orange County History. Available online: <http://www.orangecountyhistory.org/Timeline.htm>. Accessed September 2016.
- Pulley, T. 2010. "Orange County's Forgotten Towns. Part of a Series." *County Courier*: Official publication of Orange County Historical Society, Santa Ana. February, Volume 40, No 2: Page 1.
- Pulley, T. 2009. "Seal Beach Joy Zone: The Coney Island of the Pacific Coast." *County Courier*: Official publication of Orange County Historical Society, Santa Ana. June, Volume 39, Number 6: Pages 1-4.
- Robinson, Alfred tr. 1846. Chinigchinich. Account by Friar Geronimo Boscana. <http://www.sacred-texts.com/nam/ca/index.htm> <http://www.sacred-texts.com/nam/ca/index.htm>. Accessed August 15, 2016.

- Salas Teutimes, Ernest P., Andrew Salas, and Dr. Gary Stickel. n.d. Section 9.5 Kizh/Gabrieleño: Ethnographic Culture and Project Area Connections. Unpublished Ms provided by the Department of Energy from Environmental Impact Statement.
- Shibley, William F. 1978. "Native Languages of California." *Handbook of North American Indians, Volume 8: California*. Edited by Robert F. Heizer. Pp. 80-90. Washington, DC. Smithsonian Institution.
- Strudwick, Ivan. 2005. "The Use of Fired Clay Daub from CA-ORA-269 in the Identification of Prehistoric Dwelling Construction Methods, San Joaquin Hills, Orange County, California." *Proceedings of the Society for California Archaeology*. Volume 18, pp. 219-237.
- Sturtevant, William C. ed. 1978. *Handbook of North American Indians, Volume 8: California*. Government Printing Office. pp. 800.
- Tartaglia, L.J. 1976. Prehistoric Maritime Adaptations in Southern California. Ph.D. Dissertation. University of California, Los Angeles, California.
- Taylor, Alex S. 2015. Letters of Hugo Reid published in the Los Angeles Star. *The Indianology of California*, originally published 1860 in *The California Farmer Journal of Useful Sciences*; republished in *The Indianology of California, Volume 1, containing the First and Second Series*. Ray Iddings. 2015.
- Taylor, Alex S. 1860. Hugo Reid's Letters published in the Los Angeles Star. *The Indianology of California*, Alex. S. Taylor, editor, originally published 1860 in *The California Farmer Journal of Useful Sciences*; republished in *The Indianology of California, Volume 1, containing the First and Second Series*. Ray Iddings, publisher. 2015.
- Teutimes, Ernest P., Andrew Salas, and Dr. Gary Stickel. n.d. Section 9.5 Kizh/Gabrieleños: Ethnographic Culture and Project Area Connections. Unpublished MS provided by the Department of Energy from Environmental Impact Statement.
- Texas State Historical Association. 2012. Mexican Colonization Laws. Website. Available online: <http://www.tshaonline.org/handbook/online/articles/ugm01>.
- U.S. National Park Service (NPS). 1983. Archaeology and Historic Preservation. Secretary of the Interior's Standards and Guidelines. Available online: https://www.nps.gov/history/local-law/arch_stnds_0.htm.
- U.S. National Park Service (NPS). 2007. *Final Fort Hunter Liggett Special Resource Study*. Pacific West Regional Office Park Planning and Environmental Compliance. Oakland, CA. January.
- U.S. National Park Service (NPS). 2012. Arlington Man. Available online: <http://www.nps.gov/chis/historyculture/arlington.htm>. Accessed September 12, 2016.
- Wade, Sue A., and Susan M. Hector. 1986. Archaeological Monitoring of the Encina Gas Pipeline Project Profiles of Subsistence Patterns along the South Shore of Agua Hedionda Lagoon. Available online: <http://core.tdar.org/document/138630/archaeological-monitoring-of-the-encina-gas-pipeline-project-profiles-of-subsistence-patterns-along-the-south-shore-of-agua-hedionda-lagoon>. Accessed April 16, 2016.
- Wallace, William. 1955. "A Suggested Chronology for Southern California Coastal Archaeology." *Southwestern Journal of Anthropology*. 11 (3): 214-230.
- We Are California. 2008. Conquest and Colonization: Spanish Missionaries. Digital document accessed August 2, 2011. http://www.weareca.org/index.php/en/era/1540s-1830s/spanish_missionaries.html.
- Weber, Tricia. 2006. "Mission San Gabriel." Available online: http://californias-missions.org/individual/mission_san_gabriel.htm. Accessed September 10, 2016.
- White, Raymond C. 1957. The Luiseno Theory of "Knowledge." *American Anthropologist*. Vol. 59, No. 1. pp. 119.