7.3 CULTURAL RESOURCES

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In accordance with California Energy Commission's (CEC) (1992, 1997, and 2006) regulations, this section describes the environmental effects of the construction and operation of the proposed project on cultural resources accordance with CEC requirements. Impacts are assessed for the approximately 17-acre site of the proposed new generating facility, the construction laydown areas (offsite area and onsite Areas 1-9), the temporary access road route, the gas line connection route (referred to as the "linear" features), the detention basin, and the new access bridge. Archaeological resources are discussed in further detail in the attached technical report (URS, 2007) in Appendix M. Built environment resources are discussed by JRP Historical Consulting, LLC, in further detail in the attached technical report (JRP, 2007) in Appendix M.

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance.

The following section documents the efforts undertaken to determine whether cultural resources could be adversely affected by the implementation of the proposed project. Section 7.3.1 presents the environment that may be affected, Section 7.3.2 identifies the environmental consequences, and Section 7.3.3 discusses the cumulative effects associated with the proposed project. Section 7.3.4 indicates the mitigation measures to be implemented in order to avoid identified impacts. The following sections present the regulatory context. Specifically, Section 7.3.5 identifies the cultural resources laws, ordinances, regulations, and standards (LORS) applicable to the proposed project; Section 7.3.6 lists the involved agencies and agency contacts; and Section 7.3.7 discusses permits and scheduling.

7.3.1 Affected Environment

A cultural resources survey of the proposed project site facility, as well as consultation with the State of California's Native American Heritage Commission (NAHC), with subsequent contact with Native American individuals identified by the NAHC, was completed. No significant cultural resources were identified within the proposed project's study area. The archaeological area of potential effects (APE) for the proposed project consisted of the EGS property (the location the proposed project site) and the offsite areas (Figure 7.3-1).

It should be noted that the entire EGS site has been subjected to extensive grading and industrial development. Given the extent of these ground-disturbing activities, it is unlikely that intact archaeological deposits exist undiscovered within the proposed project's study area.

The APE for historic and architectural resources is shown on Figure 7.3-2.

7.3.1.1 Natural Environment

San Bernardino County is located approximately 35 miles east of Los Angeles. The proposed project site is located on approximately 17 acres which includes 16.2 acres in the northwest portion of the EGS property and 0.8 acres on land currently owned by IEUA, within southwestern San Bernardino County in the City of Rancho Cucamonga. The project study area lies within a geographical basin, which includes Orange County and portions of Los Angeles, Riverside, and San Bernardino counties. This basin is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The terrain is generally flat, with the San Bernardino Mountains located approximately 7 miles to the north.

7.3.1.2 Prehistoric Background

The Los Angeles plain and fringing coastlines have supported a continuous cultural occupation for at least the last 8,000 years, which represents an estimate for the origins of relatively sedentary populations. This time span is generally divided into seven cultural sequences: the Prehistoric Period, the Paleoindian Period, the Millingstone Period, the Intermediate Period, the Late Prehistoric Period, the Ethnohistoric/ Mission Period, and the Historic Period. Each of the cultural periods produced rich material inventories and complex social organizations. However, only their respective subsistence and settlement patterns will be discussed as they reflect directly to the proposed project.

An Archaic occupation has been identified in the archaeological record that reflects the early emergence of nonagricultural village-based groups in the Los Angeles Basin. Current archaeological evidence suggests that a relatively small population existed in the basin until approximately 2,000 years before present (B.P.). After that time, populations appear to have expanded considerably into resource-rich coastal and nearshore estuarine environments (Dillon, 1990:6). Reports from early European contacts to the area, such as Juan Rodríguez Cabrillo (Wagner, 1929:79-93) and Sebastian Vizcaino (Bolton, 1930:52-103), indicated that some of the large coastal villages had hundreds of occupants. These observations appear to be supported by the archaeological evidence (Bean and Smith, 1978:540) although, by the late eighteenth century, reports indicate that the Los Angeles environs supported only a small, though well-established, hunter/gatherer culture (Dillon, 1990:6).

Paleoindian Period

The academic community generally accepts the "La Brea Woman" remains as the earliest confirmed Paleoindian evidence in the Los Angeles Basin. The La Brea Woman remains consist of a cranium, mandible, and post-cranial fragments of a 25-year-old adult female that was recovered from Pit 10 at the Rancho La Brea tar pits (Note: a mano was recovered in proximity to the remains). The remains were assigned to the Early Holocene due to their geological association with avifaunal remains typical from that period (Dixon, 1999:130). Berger (1975) provides a radiometric date of 9,000 +/- 80 B.P. (uncalibrated). This would make the La Brea Woman contemporaneous with the so-called "big game hunting tradition" found at that time across most of the North American continent (Willey, 1966:37-38; Dixon, 1999:45-89).

The earliest substantial evidence of occupation in the general project vicinity comes from the Del Rey bluffs along the southern coastal fringes of the ancient outlet of the Los Angeles River, approximately 30 miles south of the project site (Lambert, 1983). This evidence, mainly in the form of non-fluted points with a few crescents, appears to have typological connections with early desert sites to the east. Points collected by Lambert include Lake Mohave types (Campbell et al., 1937), San Dieguito types (Rogers, 1939), and Borax Lake points (Harrington, 1948). Based on the chronologies established at these inland regions, many of the Del Rey bluff artifacts might date as far back as 9,000 B.P. (Dillon, 1990:7).

Millingstone Period

In Southern California, the Millingstone Period, also called the Millingstone Culture, extends to at least 6,000 B.P. and probably as far back to 8,500 B.P. (Warren, 1968; Wallace, 1955). Hard seed processing became one of the major components of subsistence during this period. Overall, the economy was based on plant collecting, but was supplemented by fishing and hunting. Evident in nearshore and coastal locations, there also appears to have been infrequent exploitation of marine and estuarine resources (Wallace, 1955).

The Millingstone Period is typified by large, heavy ground stone milling tools such as deep basin metates and wedge-shaped manos, and large core/cobble choppers and scrapers (Dillon, 1990:8). The portable manos and metates that characterize the Millingstone lithic assemblage were undoubtedly used as

portable processing equipment for collected plant materials. The reliance on this subsistence strategy and associated tools is further supported by the apparent scarcity of faunal remains at Millingstone sites. The flaked lithic tools generally represent a larger and cruder assemblage than is characteristic in the later periods. Projectile points and apparent hunting-type tools tend to be absent from Millingstone Culture assemblages. The so-called cogged stones, made by a characteristic pecking and grinding process, also are present in the Millingstone Horizon assemblages (Eberhart, 1961:361-370).

Millingstone Horizon sites are found from Santa Barbara to Los Angeles County and into San Diego County, in both coastal and inland settings. In the Los Angeles area, the Millingstone Culture is typified by the so-called Topanga Culture, with type sites from the Topanga Canyon area just south of Malibu (Wallace, 1955; Leonard, 1971). Topanga Culture sites have the typical Millingstone assemblage materials such as core/cobble tools and an abundance of ground stone implements (manos, metates), while projectile points tend to occur less frequently.

Meighan indicated that the Topanga Culture sites may date as far back as 8,000 B.C. (1959:289), and excavations at CA-LAN-1, also known as the Tank Site, have revealed a multiphase evolution of the Millingstone Culture probably going back to the aforementioned date (Treganza and Bierman, 1958:75). Based on the excavations at the Tank Site, it appears that Phase I ranges from roughly 8,000 and 4,000 B.C., while Phase II ranges roughly between 5,000 B.C. and 2,500 B.C. Excavations at the nearby CA-LAN-2 site indicate that the Millingstone cultural tradition may have prevailed until 1,000 B.C.—much later than previously thought—though it is important to note that pestles and mortars (as opposed to mano/metates) prevail in the assemblage (Johnson, 1966).

Intermediate Period

This period has also been called the "Hunting Period" or "Middle Horizon." About 5,000 years ago, people of the Millingstone traditions (which relied heavily on vegetal food sources) began increasing use of animal proteins and marine resources. Procurement of plants for caloric intake was not necessarily replaced in kind by game hunting, but rather the local Millingstone dietary regimen began to expand in breadth to incorporate additional resources. In the Los Angeles Basin, a higher percentage of projectile points and smaller chipped stone tools appear. Marine resources such as estuarine and saltwater shellfish, marine mammals, and fish became abundant in the diets of the local inhabitants.

However, as excavations at sites such as the Little Sycamore shellmound in coastal Ventura County (Wallace et al., 1956), the CA-LAN-2 site in Topanga (Johnson, 1966), and the Gilmore Ranch site in eastern Ventura County (Wallace, 1955) indicate, the transition in the archaeological record from the typical Millingstone assemblage to the Intermediate mortar/pestle and hunting tool kit is not well-marked. Specifically, manos and pestles appear in some instances as being contemporaneous, while at other sites, there is an adherence to the traditional Millingstone lifestyle. At Gilmore Ranch, more refined stemmed projectile points (unlike those in the Millingstone Horizon) are present and yet the types are not necessarily akin to refined points typical of the Late Prehistoric Period.

Late Prehistoric Period

Meighan (1954) first characterized the Late Prehistoric Period in Southern California. The period probably began sometime around the B.C./A.D. transition, but probably expanded culturally around 500 A.D. with the introduction of the bow and arrow. The end of the period is recognized as the end of the eighteenth century, when the Spanish mission system was fully implemented. During the Late Prehistoric Period, the ethnographic Gabrieliño lived in large villages along the Los Angeles coast and the wide valleys leading into the California interior, including much of the San Fernando Valley. Neighboring groups to the north and east included the Chumash, the Tataviam, and the Serrano. In the archaeological record, the rich Gabrieliño material culture (Johnston, 1962; Blackburn, 1963; Bean and Smith, 1978) may be indistinguishable from the Chumash (Landberg, 1965; Grant, 1965, 1978a, 1978b).

The Gabrieliño language derives from Shoshonean stock, which suggests that the group may have originated from the east, perhaps from the eastern California deserts or the southern Great Basin (Kroeber, 1925:578-580). Unfortunately, there is not much archaeological evidence for the Gabrieliño occupation of the Los Angeles Basin because rapid development within the last century has destroyed much of the archaeological database of the area.

Certain indicators such as diagnostic shell beads and finely worked projectile points help identify many Late Prehistoric sites in Southern California archaeologically. Among the coastal Gabrieliño, a maritime tradition at least partially carried over from the Millingstone and Intermediate Period cultures (Harrington, 1978). By 1,000 B.P., the Canaliño/Chumash/Gabrieliño maritime traditions were using blue-water vessels in an exploitation strategy partially based on deep sea fishing and marine mammal hunting. During the Late Period, *circa* 900 to 200 years ago, a highly advanced fishing and hunting strategy developed that included the exploitation of a wider variety of fish and shellfish. These new subsistence strategies, coupled with the appearance of the bow and arrow, enabled a substantial increase in local populations, the development of permanent settlements, and a "money" economy based on the shell trade.

Both the Chumash and Gabrieliño produced distinctive polychrome pictographs prehistorically (Grant, 1965). The Santa Monica Mountains pictograph site CA-LAN-717 featured red monochrome paintings in direct association with an archaeological deposit. Dillon (1990) notes that there were surely Gabrieliño pictograph sites in the lowlands of the Los Angeles Basin, but that these probably did not survive the massive development of Los Angeles.

7.3.1.3 Ethnographic Background

The proposed project site is located within the ethnographic boundaries of the Gabrieliño (Figure 7.3-3). The following discussion is synthesized from Dillon (1990), Bean and Smith (1978), Moratto (1984), and Grant (1978a, 1978b).

The Gabrieliño, who were speakers of a Shoshonean-based language from the eastern Californian deserts, probably arrived into the Los Angeles Basin late during the prehistoric period. These occupants of the San Fernando Valley and the Los Angeles Basin as far east as San Bernardino may have numbered 5,000 at the time of Spanish contact.

Gabrieliño territory included four macro-environmental zones: the interior mountains and foothills, prairie, exposed coast, and sheltered coast. The subsistence and settlement patterns of the inhabitants of each of these zones were adapted to the local setting and resources. The proposed project site falls within the prairie zone. Primary food resources in these areas included acorns, sage, yucca, deer, small rodents, cacti, and a wide variety of marsh animals, plants, and birds. As in the other zones, virtually all settlements were situated near watercourses or springs. Primary subsistence villages probably were occupied continuously by larger groups, while smaller secondary gathering camps were used seasonally (possibly by family groups). The Gabrieliño had a high level of material culture and craftsmanship, with many cultural features in common with the Chumash, their neighbors immediately to the north. Their material culture included intricate basketry, woodcarving, fine stone objects, well-developed rock art and, on the coast, well-built sea-going canoes.

Antonio de la Ascencion, a friar accompanying Viscaino in 1602, documented that the Gabrieliño of Santa Catalina Island were constantly trading with their mainland counterparts (Ascencion, 1615 [1929]). Steatite and shell ornaments, including the shell bead "money" (Ascencion, 1615 [1929:95-99]), were the principal trade commodities. Bean and Smith (1978:540) estimate that perhaps 50 to 100 inhabitants occupied each Gabrieliño village at the time of the first Spanish contacts. The number of Gabrieliño in each household must have varied. Ascencion (1615 [1929:237]) noted that some huts were large enough

to hold 50 people, but were considered "single family dwellings." However, Dillon noted the observation by Costanso in 1911 (1990:21) that multiple families lived in Gabrieliño houses on Santa Catalina Island.

The Gabrieliño traded and intermarried with the Chumash and other neighboring groups. As Dillon has indicated (1990:14-15), the coastal and inland areas were a more or less permeable ethnic frontier, continually in flux between the Chumash and the Gabrieliño groups at varying times in the archaeological record. Indeed, it is only in the later part of the Late Prehistoric (and even then only in certain marginal areas) that researchers can assume with any confidence which areas were typically Gabrieliño. Territorial boundaries are not well defined. However, there also was significant inter- and intra-group warfare. There may have been significant divisions between the inland and the coastal Gabrieliño, as well as between the Gabrieliño and their Chumash neighbors. Coastal Gabrieliño, with better access to coastal resources than inland Gabrieliño groups, may at times effectively have prevented inland Gabrieliño groups from directly accessing the sea for fishing and trading purposes (Bean and Smith, 1978:546).

The Chinigchinich cult, a religion that involved the use of the psychotropic plant *Datura*, or Jimson weed, was practiced by Southern California groups during the protohistoric period, and probably prehistorically as well (Boscana, 1983). Boscana's informants, who were either Gabrieliño or Luiseño (Juaneño), were from the San Juan Capistrano Mission. Kroeber (1959), through Luiseño informants at San Juan Capistrano, maintains that the Chinigchinich cult had come over from Santa Catalina Island (hence, was originally Gabrieliño).

Hugo Reid, an immigrant from Scotland who became a Mexican citizen of Los Angeles and married a Gabrieliño woman, is considered to be an important source for Gabrieliño village names and locations (Dillon, 1990:22). He noted 28 Gabrieliño villages or place names known to him from the 1830s and 1840s (Dakin, 1978:220-221).

7.3.1.4 Historical Background

The history of San Bernardino County reflects political, economic and social characteristics associated with Spanish, Mexican, and American political rule. From the first Spanish explorers to American settlers, the area has hosted various enterprises, including mining and farming, during the periods listed below:

- Spanish Period (in California) – 1771-1834
- Mexican Period – 1834-1850
- American Period – 1850-present

The first recorded European contact with the Gabrieliño was by Juan Rodriguez Cabrillo in October of 1542 (Wagner, 1929). However, it was not until 1769 that Portola made the first Spanish overland expedition through present day Los Angeles County. Prior to that time, the Spanish were focused on the immediate coast and islands. Hence, the interior Gabrieliño probably had little European contact prior to Portola's journey. While en route from San Diego to Monterey Bay, Portola stopped at an interior Gabrieliño village called *Yang'na*, situated on the western bank of the Los Angeles River, near what is now downtown Los Angeles. From there, Portola and his crew traveled northwest, through the Sepulveda Pass (now the I-405 freeway) and into the San Fernando Valley.

In 1771, two years after Portola's expedition, Mission San Gabriel Archangel was founded, at the northeast end of the San Fernando Valley, about 20 miles north of the later location of Burbank. Local Native Americans were encouraged, and sometimes coerced, to move to the mission area. The San Gabriel mission became the center of Gabrieliño culture during the earliest part of the historic period. Mission San Fernando Rey del España, 20 miles south of the proposed project site, was not founded until 1797. After the first mission had taken its toll on the Gabrieliño, the San Fernando mission drew heavily

on the surrounding populations as well as on the remaining Gabrieliño. Its residents included a mixed population of Serrano, Luiseno, Cahuilla, and other groups. It was standard practice during the Spanish and Mexican periods to name the local inhabitants after the local Catholic Mission (Johnston, 1962; La Lone, 1980). The Gabrieliño people of the San Fernando Valley became known as the Fernandeño, a subgroup of the Gabrieliño. The proposed project site is located about midway between the two missions.

By 1832, the Spanish had baptized 7,825 Native Americans at the San Gabriel Mission. At that time, there was no remaining Native Americans living on the Los Angeles plain or the adjacent coast. By the 1850s, the Gabrieliño ethnic identity had been almost entirely suppressed by the rapidly expanding Los Angeles population, and by the end of the 1800s, there were few remaining Gabrieliño with direct knowledge of their language and culture (Dillon, 1990:23).

7.3.1.5 Built Environment Background

The site of the proposed project on the northwest corner of the grounds of the EGS in Rancho Cucamonga, California. The EGS was developed as a part of the Southern California Edison's (SCE's) post-World War II generating system in the industrial area of the region. The growth of electrical generation in California and of the SCE system leading to the EGS is discussed in the following context along with the industrialization of the local area.

Early California Electrical Generation

The introduction of electricity to California faced two major problems: securing inexpensive motive force for the generators and transmitting the power to often distant users. California's first electric light glowed in September 1879, when the California Electric Light Company of San Francisco installed a Brush arc light system powered by a steam engine for street lighting. It was costly to run because fuel for its steam engine was expensive. Another source of motive force, hydropower, was available in the Sierra Nevada Mountains and had been developed by miners. In 1879, the same year the California Electric Light Company of San Francisco began operations, the Excelsior Water and Mining Company installed its own Brush lighting system. The water-driven wheels were inexpensive to operate, but the plant was located far from population centers, and a method for transmitting electric power over long distances had not yet been developed. As a result, the company only produced electricity for its own use.

Even with the twin problems of motive force and transmission, Southern California soon began experimenting with electric lighting. George Chaffey was the first to generate electricity in Southern California in December 1882. He purchased a small direct current generator and installed an arc light outside the Garcia ranch, where he and his brother had organized the Etiwanda Colony (Clucas, 1979). The canal did not provide much power, and he could not transmit the power very far. At about the same time, commercial electric power generation began in Southern California. The Los Angeles Electric Company installed Brush street lamps in Los Angeles. Using steam power, they could light the city, but again it was expensive because coal and hardwood for the boilers had to be transported long distances to the plant.

Several smaller communities subsequently faced the same problems. Visalia and Santa Barbara installed steam-powered systems, which were also expensive. Visalia's first plant was forced to close when customers objected to the high prices and unsuitable light. The little plant at Highgrove, however, was located close enough to provide street lighting to Riverside. It used a low head hydropower site that was able to power 15 arc lamps. Hydropower plants located near users were rare.

The transmission problem was a result of the nature of direct current. Resistance in the wires diminished the amount of electricity received at the user's end, thereby reducing the distance electricity could be transmitted. Higher voltages reduced the resistance but were not useful to customers. Alternating current systems, developed by Nicola Tesla and William Stanley and sold by Westinghouse, simultaneously

solved the transmission and generation problems. Alternating current systems could be "stepped up" to higher voltages for transmission and back down to useable voltages for distribution by transformers, thus making it possible to transmit electricity further. With longer transmission distances, companies could begin to build hydropower plants regardless of where they were located.

Initially companies simply used alternating current to enlarge the area they could serve and to provide new services. In the 1890s four early systems (in Santa Barbara, Highgrove, Visalia, and Pasadena) changed from direct current to alternating current without changing their generation sources. The first model for future generation was the San Antonio Light and Power Company. In 1891 Dr. Cyrus Grandison Baldwin had located an excellent hydropower site 14 miles from Pomona at the San Antonio Canyon. Baldwin hired Almarian William Decker to engineer the hydroelectric plant and formed San Antonio Light and Power Company to develop the site. Decker successfully designed the single-phase alternating current system that began operations in 1892. It was able to provide 120 kilowatts (kW) of power, compared to Highgrove's 75 kW (Meyers, 1983). Decker immediately began work on another power plant at Mill Creek that introduced the three-phase alternating current to California. This plant produced even more power (250 kW) (Meyers 1983).

These hydroelectric projects proved that power could be transmitted longer distances and increased available power. They also proved to be the most economical means of power generation at the time. Later changes in the economy and resources forced companies to change their generation models again. Through the early twentieth century, however, companies began to reduce their dependence on steam power as they built larger hydroelectric plants. As they did so, they consolidated and expanded their service areas to create a market for the electricity they generated. SCE used this economy of scale to become the largest electric company in Southern California.

Southern California Edison

SCE began in 1896 as the West Side Lighting Company in Los Angeles. The company was one of several attempting to enter the Los Angeles market. It could not freely run wires without a city franchise, so the company built its steam plant outside the city limits and ran its lines into the city using poles on private property. Walter S. Wright, one of the founders, located and purchased a franchise, but the terms required the company to light city hall by April 5, 1896. The company rushed to meet the terms and won the franchise to begin freely supplying electricity in the city.

City ordinances provided another challenge to the company. All the new technology, telephones, electric railroads, fire call boxes, and more had created a tangle of wires along the street. All new wires were required to be placed underground. West Side Lighting determined that the Edison three-wire system would provide the best underground system. Unfortunately, the Los Angeles Edison Electric Company held the rights to use the system in Los Angeles but had not developed any facilities. In 1897 West Side Lighting purchased the Los Angeles Edison Electric and became Edison Electric Company of Los Angles. Using the new three-wire system to install underground conduit downtown, the company gained new customers. In 1898 the company built a second steam-powered plant in Los Angeles to keep up with demand.

The firm grew throughout the early twentieth century, purchasing small companies in the surrounding area. The purchases had two purposes: (1) gain control of hydroelectric plants with surplus power and (2) expand its customer base. Small, isolated plants were consolidated into larger steam plants or were replaced with hydroelectric power that a small, localized company could not have accessed. The economy of scale allowed the company to reduce rates and attract more customers. In 1909 the company changed its name to Southern California Edison (SCE) to reflect the area it served.

In 1905 the company's customer base was threatened as Los Angeles began its plan to bring water to the city from the Owens Valley. As the project progressed, it became clear that the city planned to use the

water to generate electricity as well. While the city and SCE fought over who would generate and supply electricity to citizens, SCE took steps to avoid serious economic losses. It purchased Pacific Light and Power, which operated extensive electric rail systems in Southern California and provided power to expanding areas east of Los Angeles. In 1917 SCE sold its Los Angeles distribution system to the City of Los Angeles, but the growing population outside of Los Angeles in the new territory from the purchase of Pacific Light and Power offset the losses.

The settlement of the disagreement over Los Angeles municipal service also marked the end of rapid territorial expansion. The Public Utilities Act of 1911 regulated the electrical industry; thereafter, the Railroad Commission (today the Public Utilities Commission) determined "spheres of influence" for electrical companies as a part of its new regulatory duties.

SCE continued to gain new customers as people moved into Southern California and therefore continued to expand its generating capacity. When it purchased Pacific Light and Power, SCE obtained the Big Creek power system, a complex array of dams, flumes, and powerhouses that used what became known as "the hardest working water in the world." SCE continued to expand its Big Creek system through 1929. The Big Creek system became the largest producer for the company, making SCE highly dependent on hydroelectric power by the 1920s. It was SCE's cheapest power source and allowed the company to continuously reduce rates.

However, events in the 1920s also demonstrated the limits of hydroelectricity. Abnormally low snowfall in the mountains in 1920–1924 dramatically reduced the amount of water available to produce electricity. SCE encouraged customers to conserve, reduced electric rail routes, and brought back into service old steam-powered generators, all in an attempt to maintain electrical service. The most successful effort was interconnecting several of the utilities. This allowed companies with surplus power to sell it to neighboring companies. After this water shortage, SCE and other companies that relied heavily on hydropower altered their strategy. While they continued to rely on cheap hydroelectric power, they ensured they had sufficient backup sources of power to meet growing demand.

SCE had grown continuously since its inception and continued to grow, although much slower, through the Great Depression. The company allowed its workforce to shrink through attrition and kept its workers employed by changing to a 5-day work week. SCE kept its employees busy improving efficiency at existing plants and installing improved equipment. The company also took the opportunity to streamline its finances, using lower interest rates to reduce outstanding bonds from its long period of growth and expansion. Customers continued to obtain rate reductions. The reductions were a result of reduced energy use and new plants that began operation just before the Depression began. SCE encouraged increased electrical use. Company demonstrators toured SCE's service area showing new appliances. The reduced electrical rates made these attractive to consumers even in middle of the Depression. Increased consumer demand for appliances led to higher demand by manufacturers for energy to produce these products. When SCE received electricity from Hoover Dam in 1939, it had a ready market to buy the power.

World War II increased the demand for electricity as manufacturers moved to the area and increased production to meet war needs. Since manpower and materials were being directed to the war, SCE and other companies could not build power plants to meet this demand. The Power Branch of the War Production Board suggested that electrical companies pool their production like they did during the 1920s drought. Interconnecting the companies and municipal utilities provided enough electricity to meet the increasing demands.

After World War II, southern California experienced a population boom. At one point approximately 1,000 people were moving into SCE territory each week. According to William Meyers, "Since 1945, it [SCE] has added more customers than any other utility in the country" (Meyers, 1983). The company

also resumed its marketing program to encourage customers to purchase new appliances. After World War II, most of the economically practical hydroelectric sites had been developed by one company or another. As a result, much of the expansion in energy production was in steam generation. SCE built and expanded six plants between 1945 and 1970. During this rapid increase in the number of plants, their designs and technologies became fairly standardized.

Increased concern for the environment and oil shortages stalled new plant development in the 1970s. SCE began experimenting with solar and wind technologies as well as developing new hydroelectric sites. Increased demand was also addressed through increasing interconnections. Power sharing with the Colombia River hydroelectric plants in Oregon had been made possible through the Pacific Intertie direct current line that runs the length of California.

Deregulation in the 1980s changed how power is generated and distributed. Deregulation often led to separation of the two processes. SCE's strategy was to sell off portions of its generating system. In 1996 it sold off five of its steam plants in the inland empire (Diamond, 1996). Today, SCE operates as a power distributor, covering most of Southern California from San Onofre north to Santa Barbara on the Pacific coast, widening to include territory from Blythe in the Mojave Desert to past Bishop on the eastern side of the Sierra Nevada Mountains.

Etiwanda Generating Station

The EGS was built as a part of SCE's growth following World War II. Construction on the Etiwanda Steam Station Units 1 and 2 began in March 1951, and SCE had the plant under full operation by November 1953. Designed by Stone & Webster of Boston in conjunction with engineers from SCE, it cost $41,200,000 to build. Etiwanda Units 1 and 2 have two boilers built by Combustion Engineering, Inc., which is now a U.S. subsidiary of ABB (SCE, 2005). The Etiwanda plant was constructed without any enclosures over the equipment, creating a more cost-effective plant in terms of maintenance, cleaning, and ventilation, but did not require special engineering features. SCE was able to build the plant in this fashion because of the usually mild temperatures and dry weather conditions in Southern California. SCE built the EGS near a Metropolitan Water District (MWD) aqueduct in order to obtain feed water for the boilers and turbines, and to provide for cooling in the large condenser units. The EGS was capable of generating more electricity than Hoover Dam, enough to supply the needs of about a half-million people (SCE, 1954). The plant was SCE's first inland steam plant and provided three dedicated 66-kV lines to Kaiser Steel, one of its largest customers (Darnell, 2005).

The first two units produced 265,00 kW of power. The original plans included plans for expansion that would double the capacity. The two additional units were built in 1963. Units 3 and 4 were much larger than the earlier units or what had been called for in the expected expansion. Each could produce 320,000 kilowatts.

EGS boilers were designed to use either natural gas or oil as fuel; in fact, the boiler mechanisms allowed the fuel supply to be changed without a pause in operation. The fuel lines are controlled through valves located under the operating deck, which could shut off the use of oil in order to change to gas, and vice versa (SCE, 1954; 2005). Oil was used mainly until the 1970s, and a 41-mile pipeline from Santa Fe Springs to the EGS was constructed in order to ensure a steady supply of oil. During the 1970s the plant started using 50 percent gas and 50 percent oil, but in the 1980s gas became the dominant fuel used and has remained so since then (SCE, 1954).

In 1969 a 126,000 kilowatt peaker unit was added to assist meeting loads during periods of high demand. The peaker unit consisted of eight Pratt and Whitney aircraft engines modified for electrical generation.

As a part of the state's energy deregulation plan, SCE was required to sell one-half of its oil- and gas-powered generating facilities. Instead, in 1996, it chose to sell all of its gas- and oil-fueled plants. Those

included the EGS, and these plants only provided 20 percent of the power SCE delivered. Most of its generating capacity came from its hydroelectric plants and the San Onofre nuclear plant. SCE continued to operate the plant for 2 years after the sale to meet its obligations to employees (Diamond, 1996). Reliant Energy, who purchased EGS, has kept Units 3 and 4 in operation. Units 1, 2, and 5 were retired in 2003.

Project Vicinity

This portion of San Bernardino County is located between the towns of Ontario, Etiwanda, and Fontana and within the city of Rancho Cucamonga. Rancho Cucamonga incorporated in 1977 and encompasses a portion of the Mexican land grant of El Rancho de Cucamonga, granted in 1939, as well as a portion of the surrounding area, including Etiwanda and Fontana (City of Rancho Cucamonga, 2007). No part of the study area, however, is within the old rancho boundary. The Chaffey family was key to the original development of the area. They had moved to Riverside, California, from Canada in 1878, and the two Chaffey brothers developed Etiwanda and Ontario, the first large-scale settlements in the area west of San Bernardino. George and William Chaffey initially purchased 1,000 acres, which they later expanded to 7,600 acres over the next several years. With their first colony, Etiwanda, they developed an innovative irrigation system where each acre of land came with water rights; water was delivered by concrete pipes. Because of this irrigation system, their Etiwanda colony became a model. The Chaffey brothers followed the Etiwanda colony with Ontario Colony southwest of Etiwanda in 1882. George Chaffey experimented with electricity and the colonies quickly had electricity, telephone, and many other civic improvements (Starr, 1990).

William Chaffey had been an agriculturist and chosen sites well. Most of the original land around Etiwanda was planted with grape vines that produced both raisin and wine varietals. By 1890, other fruits were being planted. Etiwanda produced citrus, apricots, peaches, pears, and raisin grapes (Clucas, 1979). Ontario produced mainly citrus fruits, but crops also included peaches apricots, pears and olives (Schuiling, 1984).

While the Chaffeys were establishing Etiwanda and Ontario, a group of Los Angeles bankers formed the Semi-Tropic Land and Water Company in 1887 (Schuiling, 1984). They planned three settlements, but none were successful until the twentieth century. A.B. Miller took over the site of Fontana, formerly owned by the Semi-Tropic Land and Water Company, in 1905. At first grain was grown and then citrus trees became common. Fontana was agriculturally diverse, with a large poultry and rabbit industry. Hogs were raised on the garbage hauled from Los Angeles. The Wade Hog Ranch became the largest in the world with 50,000 pigs (Schuiling, 1984). Kaiser Steel to the east of the site was built on a portion of the hog ranch.

World War II radically altered the proposed project vicinity. The United States needed steel for ships and because of security concerns, all new plants were located inland. Industrialist Henry J. Kaiser received a loan from the Reconstruction Finance Corporation to build a steel mill at Fontana on the former hog ranch. The steel plant was constructed in 1942. Following the war Kaiser paid off the loan by selling company shares in 1950 (Robinson, 1993). The increased industrial activities began to affect the local orange groves and led to even more industry. Fontana became the center of heavy industry in San Bernardino County, and incorporated in 1952 (Schuiling, 1984). Among the industries that followed Kaiser Steel was the EGS. During the 1960s the steel plant expanded and became one of the largest employers in the county until it closed in 1983 (Schuiling, 1984).

The area around Kaiser Steel and the EGS has remained industrial and been built up dramatically since 1981. Development between 1981 and 2004 has included junk yards, shipping terminals, a prison, and a major racetrack (USGS, 1981).

7.3.1.6 Resources Inventory

The methods used to inventory the study area for cultural resources consisted of archival research, Native American consultation, and a pedestrian reconnaissance of the study area.

Archival Research

A California Historical Resources Information System (CHRIS) rapid response records search was conducted at the Archaeological Information Center (AIC), at the San Bernardino County Museum, by AIC staff on March 9, 2005 (#07-02-14-01). The purpose of this records search was to identify all previously conducted archaeological surveys and studies, as well as all previously recorded archaeological (including both prehistoric and historic) sites within the study area. This records search encompassed the proposed project site and a one-mile search radius around the site; the results of the records search are attached as Appendix B to the Cultural Resources Technical Report (URS, 2007). In addition to the historical resources files, the following publications, manuscripts, or correspondence were also consulted:

- Directory of Historic Properties – Records entered into the Office of Historic Preservation (OHP) computer file of historic resources, received quarterly (2006)
- Determinations of Eligibility – Records entered into the OHP computer file, received quarterly (2006)
- *Five Views: An Ethnic Sites Survey for California* (1988)
- California Historical Landmarks
- California Points of Historical Interest
- *Survey of Surveys: A Summary of California's Historical and Architectural Resources Surveys* (1986)

The records search revealed 46 previously conducted surveys for all known cultural resources within the search radius, four of which fall within one of the project components (Figure 7.3-4). Based on the information obtained in this records search, there are no known cultural (prehistoric or historic) resources identified within the study area. Twelve known cultural resources (12 historic sites and no prehistoric) have been identified within the two search radii (one-quarter mile and 1 mile) (Figure 7.3-5).

Native American Consultation

Prior to the beginning of fieldwork, Ms. Debbie Pilas-Treadway of the NAHC was contacted on January 29, 2007, to request a records search of the Sacred Lands File and a list of appropriate Native American contacts (individuals and/or organizations) that may have knowledge of cultural resources. Mr. Dave Singleton with the NAHC responded that same day. According to the NAHC, the search failed to indicate the presence of Native American cultural resources in the project area.

Copies of the NAHC request letter, NAHC response letter, mailing list, and consultation letter, are appended to the Cultural Resources Technical Report, which is a confidential appendix (URS, 2007) to this report.

The NAHC provided a list of six individuals/organizations that may have knowledge of cultural resources in the study area. Letters describing the proposed project and a map depicting the proposed project site, the offsite gas line corridor, offsite construction laydown area, and the temporary construction access road were sent to these individuals on January 31, 2007. The letter inquired whether the individuals/ organizations had any concerns regarding the proposed project, or wished to provide input regarding cultural resources in the project area.

As of February 20, 2007, one response had been received. Mr. Britt Wilson with the Morongo Band of Mission Indians (the Band) called Ms. Christine K. Michalczuk of URS Corporation on February 5, 2007, to state that the Band had no specific information regarding cultural resources in the study area, but they did have comments/mitigation measures they would like the Applicant to consider in its permitting process.

Followup phone calls were made Ms. Michalczuk on February 27, 2007, to the six individuals/ organizations to inquire whether they had any additional comments, questions, or concerns. Phone messages were left at that time. To date, three responses have been received.

Mr. Anthony Morales returned Ms. Michalczuk's call on February 27, 2007, to inquire about the use of Native American monitors during the course of the proposed project. He wanted to know that the Applicant was anticipating the need for monitors. Ms. Michalczuk informed him that at this stage, that decision had not been made. He had no additional comments or questions at this time.

Mr. Goldie Walker returned Ms. Michalczuk's call on February 27, 2007, to notify URS that she had received the letter, and that it was with her attorney at this time. She expressed concerns about being notified if any burials or artifacts are discovered during the course of the proposed project. She would like to remain involved and would contact URS if she or her attorney had any additional questions.

Ms. Cindi Alvitre returned Ms. Michalczuk's call on March 1, 2007, to inquire about both the cultural and biological resources that would be affected by the proposed project. She voiced special concerns over native white sage that is found within the City of Rancho Cucamonga boundaries and the impacts on collecting the plant for medicinal use. She requested to be kept informed and to be notified if any burials or human remains are discovered during the course of the proposed project.

Built Environment Research

The EGS is located in the City of Rancho Cucamonga in an industrial area of San Bernardino County near Fontana. Located northwest of the intersection of I-15 and I-10, the area has rapidly transformed from orchards to industry. The plant sits south of the Burlington Northern Santa Fe (BNSF) tracks and west of Etiwanda Avenue. Most of the surrounding development has occurred after 1978 (USGS, 1966).

Kaiser Steel has dominated the area east of the EGS site. The existing plant was built in 1942 and expanded over the years. A strip between the EGS and the Kaiser steel mill remained undeveloped except for a series of transmission lines. The steel mill closed in 1983, and the northern portion of the former steel mill has been developed as the California Speedway, a major automobile racetrack. The transmission line strip is mainly undeveloped except for a recycling yard at the corner and a small bail bonds building constructed between 1981 and 2002. The land south of the EGS remained undeveloped until the mid-1980s; between 1981 and 2002, this area was built up, with the most prominent buildings being the West Valley Detention Center for San Bernardino County.

West of the EGS site are new light industry buildings and undeveloped land. North of the EGS runs the BNSF tracks. North of the tracks is a metals recycling plant, which was established between 1953 and 1966. This property is separated from the proposed project site by the railroad track and would not be directly or indirectly affected by the proposed project, and therefore is not within the historic and architectural resources APE. Land northeast of the EGS was formerly residential but is now dominated by scrap yards. A few residences and retail establishments remain. This area also will not be affected by the proposed project and received no further study.

Field Reconnaissance

An initial field survey/inventory for archaeological resources was conducted by Mark Hale, URS Senior Project Archaeologist, on September 7, 2005. On February 14, 2006, Dustin Kay, URS Archaeologist, conducted the second field inventory for archaeological resources. As required with the revised regulations, the proposed project components were surveyed on foot (intensive pedestrian survey) employing systematic, regularly spaced transects (10 meters apart). Where access permitted, an additional 200-foot-wide buffer radius around each laydown area was surveyed, including the proposed temporary access road, as well as a 50-foot-wide buffer radius around the right-of-way for each proposed project linear feature. Access to portions of the two buffer radii was restricted either by fencing, or by a developed environment (i.e., concrete and multi-lane paved roads).

No archaeological resources were identified within the study area examined during the course of the current investigation. Figure 7.3-6 illustrates the project components and the areas surveyed for archaeological resources.

An onsite inventory of existing structures and other built environment resources within the adjacent parcels to the proposed SGGS, linear components, and laydown areas was conducted on March 3, 2005, by JRP. All structures and buildings in the historic and architectural resources APE were documented and photographed.

7.3.2 Environmental Consequences

CEQA requires that where project implementation would result in significant effects to important cultural resources, alternative plans and/or mitigation measures must be considered. However, only "important" cultural resources need to be addressed. Under CEQA, important cultural resources are those that are either listed upon or eligible to be listed on the National Register of Historic Places (NRHP); listed upon or eligible to be listed on the California Register of Historical Resources (CRHR); registered or eligible to be registered as a State Historical Landmark; or included in any responsible local inventory of historic properties.

As of January 1, 1998, for a cultural resource to be deemed "important" under CEQA and thus eligible for listing to the CRHR, it must meet at least one of the following criteria:

(a) is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or

(b) is associated with the lives of persons important to our past; or

(c) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or

(d) has yielded, or may be likely to yield, information important in prehistory or history.

7.3.2.1 Archaeological Resources Evaluation

As no archaeological resources were identified within the proposed project's APE, there would be no effect to known archaeological resources with project implementation.

It is possible that with proposed project implementation, previously undiscovered archaeological resources may be exposed during construction activities. Unless properly evaluated and managed, this could result in a significant impact to cultural resources. It should also be noted, however, that most of

the site has been subjected to extensive grading and development, thereby reducing the likelihood that intact cultural deposits exist within the study area.

7.3.2.2 Built Environment Resources Evaluation

None of the buildings or structures in the study area appear to meet the criteria for listing in the NRHP. All buildings or structures in the study area over 50 years old received evaluation. The EGS and substation do not appear to be significant and the railroad lacks integrity. None of the more recently constructed buildings appear to meet the exacting standards of exceptional significance. Therefore, none of the buildings in the study area appear to be significant historic properties under Section 106, nor do they appear to be historical resources for the purposes of CEQA.

Units 1 and 2 and their associated buildings of the EGS and substation are not significant to the development of electrical generation, steam power plants, or SCE (Criterion 1). Etiwanda was one of several power plants built to supply the growing post-World War II demand for electricity. Companies throughout California, including PG&E, California Electric, and San Diego Gas and Electric, were all building plants at that time to meet the need for power. After World War II, California electrical companies decided to build steam power plants because of the lack of economical hydroelectric sites and the increased availability of oil and gas. These plants were built within a short period of time and with standardized plans. The EGS is neither the first nor the last of the plants built by SCE, which included Redondo Beach (1952), Highgrove (1952), El Segundo (1955), Alamitos (1956), San Bernardino (1957), Huntington Beach (1958), and Mandalay (1958). Together these plants and associated substations supplied the power needed by SCE, and no single plant can be logically singled out as significant within the system. Each was important to the community it served, providing power for the increasing demands of new technology and development. In the context of the time and other community services, however, the EGS does not suggest any unique significance.

These buildings are also not significant for their design or construction (Criterion 3). As mentioned above, the EGS was constructed during a period of rapid growth of steam power plants. While the construction of the EGS was covered in trade publications, the coverage does not indicate that the EGS was designed any differently than other plants and substations of the era. The plant is of the "outdoor" variety that became common in Southern California after World War II. The lack of cladding allowed the plants to be built faster and more economically but did not affect their operations. Large companies that produced this equipment for plants across the U.S. provided the boiler, turbines, and generators. No new equipment was introduced to the design. The substation is constructed of standard equipment and on a typical plan.

The EGS does not appear to be associated with the life of a historically significant person (Criterion B and 2), nor is it significant under Criterion D and 4 as a potential source of data on human history. This property is well-documented through company records and construction documents and does not appear to be a principal source of important information. The plant has had minor alterations, yet as a whole it retains integrity of location, design, setting, materials, workmanship, feeling, and association.

This property has been evaluated in accordance with Section 15064.5(a) (2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code, and does not appear to be a historical resource for the purposes of CEQA.

A full evaluation of this property is located in Appendix M (JRP, 2007).

7.3.3 Cumulative Impacts

Past and current development in the project vicinity has resulted in cumulatively significant impacts on cultural resources, including archaeological and historic architectural resources. Relevant future projects

identified in Section 7.4.3 could, unless fully mitigated, further contribute to cumulative impacts. The proposed project would not result in effects to known important cultural resources. Mitigation measures identified in Section 7.3.4 would fully mitigate for impacts to cultural resources discovered during ground disturbing activities associated with project construction. Therefore, the proposed project's contribution to this impact would not be cumulatively considerable. The proposed project's cumulative impact would therefore be less than significant.

7.3.4 Mitigation Measures

Measures to ensure avoidance of cultural resources within the APE, and measures to avoid indirect impacts to nearby cultural resources are described below. The mitigation measures and procedures described would apply to any cultural resources in the study area, or cultural resources recommended as not significant and such recommendations are concurred with by the CEC and State Historic Preservation Officer (SHPO), regardless of facility component. With implementation of the measures listed below, no significant unavoidable impacts to known cultural resources are expected to occur.

CUL-1 Avoidance. Proposed project facilities will be located at the greatest possible distance form any recorded cultural resources not previously found to be ineligible for inclusion on the CRHR. As needed, an archaeologist will accompany the project engineer to the field to demarcate cultural resource boundaries on the ground and to ensure that proposed facility placement will not impinge upon a cultural resource. Routes of any access roads of other temporary use areas that must be built or graded that are located outside of areas previously surveyed for cultural resources will be subjected to archaeological survey prior to construction. If a potentially significant cultural resource is discovered, the route/temporary use area will be modified to avoid that resource. If there are not feasible means to avoid the resource, the cultural resource will be tested; if found significant the measures for mitigation described below will be implemented. These will be done in consultation with the CEC.

CUL-2 Physical Demarcation and Protection. In instances where a project facility must be placed within 100 feet of a known cultural resource not previously found to be ineligible for inclusion on the CRHR, the cultural resource will be temporarily fenced or otherwise demarcated on the ground, and the area will be designated environmentally sensitive. Construction equipment will be directed away from the cultural resource and construction personnel will be directed to avoid entering the area. Where cultural resource boundaries are unknown, the protected area will include a buffer zone with a 100-foot radius. In some cases, additional archaeological work may be required to demarcate the boundaries of the cultural resource in order the ascertain whether the cultural resource can be avoided.

CUL-3 Crew Education. Prior to beginning of construction near any sensitive cultural resource, the construction crew will be informed of the resource values involved and of the regulatory protections afforded those resources. The crew will also be informed of procedures relating to designated culturally sensitive areas, and cautioned not to drive into these areas or to park or operate construction equipment in these areas. The crew will be cautioned not to collect artifacts, and asked to inform a construction supervisor in the event that cultural remains are uncovered.

CUL-4 Archaeological Monitoring. All initial grading or excavation within 100 feet of any potentially significant resource that may have a subsurface component will be monitored by an archaeologist. If subsurface materials are uncovered, construction work in the immediate vicinity will be halted and the emergency discovery procedures described below will be implemented.

CUL-5 Native American Monitoring. In order to ensure participation by interested members of the Native American community, it is recommended that a Native American monitor be

present during archaeological cultural resource testing and/or data recovery operations at archaeological cultural resources that appear to have a prehistoric or ethnographic component. The monitor will be retained either directly by the project Applicant, or through the subconsultant conducting the actual fieldwork.

CUL-6 Formal Compliance with CEQA Section 15064.5 and 15126.4 and Section 106 of the NHPA. In the event that a resource cannot be avoided during the placement of any project facility, further archaeological work will be undertaken as appropriate to assess the importance/ significance of the resource prior to the project implementation.

CUL-7 Mitigation for Resource. If unanticipated resources are discovered during construction, they will be addressed under the procedures set forth at CEQA Section 15064.5. If possible, the resource will be avoided first through design modification, or second, through protective measures as described above. If the resource cannot be avoided, the project archaeologist will consult with the CEC and SHPO with regard to resource significance. If it is determined that the resource is significant, then measures to mitigate impacts will be devised in consultation with the CEC and SHPO and will be carried out by the Applicant.

7.3.5 Laws, Ordinances, Regulations, and Standards

The proposed project will be constructed and operated in accordance with all LORS applicable to cultural resources. Federal, state, and local LORS applicable to cultural resources are discussed below and summarized in Table 7.3-1.

Table 7.3-1
Applicable Cultural Resources Laws, Ordinances, Regulations, and Standards

Laws, Ordinances, Regulations, and Standards	Applicability	Administering Agency	AFC Section
Federal			
Section 106 of the National Historic Preservation Act	Federal regulation affecting the treatment of cultural resources. Controls erosion of soil and disruption or displacement of surface soil.	SHPO	7.3.5.1
State			
California Environmental Quality Act	Requires evaluation of impacts of project on cultural resources.	CEC	7.3.5.2
Local			
City of Rancho Cucamonga, Planning Department	General plan provides necessary measures to provide for the preservation of any significant resources	City of Rancho Cucamonga	7.3.5.3
San Bernardino County, Planning Department	General plan provides necessary measures to identify and preserve important archaeological and historic resources within the county	San Bernardino County	7.3.5.3

7.3.5.1 Federal

There are various federal laws, procedures, and policies affecting the treatment of cultural resources. These include the Antiquities Act of 1906, Public Law 59-209, Executive Order 11593, (Public Law 89-665), as amended, Public Law 93-291, NEPA of 1969 (Public Law 91-190), the Federal Land Policy Management Act of 1969 (Public Law 94-94-579), and regulations 36 CFR 60 and 36 CFR 800. For the purposes of this document, the legislation outlined in Section 106 of the NHPA of 1966 is of most consequence. If a project adheres to the procedures and policies outlined in Section 106 of the NHPA, then they will inherently comply with the other above-mentioned laws, procedures and policies.

For management purposes, a cultural resource must be recommended as either eligible or not eligible to the NRHP to determine effect and the need for mitigation of potential effects. If the property (cultural resource) is determined eligible, then a determination of effect (36 CFR 800) must be provided. If the property is identified as not eligible, then no determination of effect or mitigation measures are necessary. Recommendations are reviewed and approved by the SHPO and the Advisory Council on Historic Preservation.

7.3.5.2 State

Because the Lead Agency for the proposed project is the CEC, CEQA is the regulation of most consequence. CEQA requires that public or private projects financed or approved by the State of California must assess the effects of the undertaking upon cultural resources. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance.

In addition to CEQA, Section 7050.5 of the California Health and Safety Code would become applicable if human remains associated with the Native American occupation of the vicinity were discovered. This regulation requires that a County Coroner examine any discovered human remains and contact the NAHC if the remains are determined to be both archaeological and Native American. In compliance with Public Resources Code Section 5097.98, The NAHC would then be responsible for identifying a most likely descendent (MLD) to inspect the remains and make recommendations for their treatment.

If the proposed project were to ultimately require some level of federal involvement (e.g., Section 404 permit) compliance with Section 106 of NHPA, as amended, would become necessary. Section 106 requires federal agencies to identify cultural resources that may be affected by any undertaking involving federal lands, funds, or permitting. In addition, the significance of the resources that may be affected by that action must be addressed using established criteria (36 CFR 60.4) for the NRHP. The criteria for NRHP eligibility are listed in 36 CFR 60 as follows:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association, and
>
> (a) That are associated with events that have made significant contributions to the broad pattern of our history; or
>
> (b) That are associated with the lives of persons significant in our past; or
>
> (c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded, or may be likely to yield, information important in prehistory or history.

If a resource is determined eligible to the NRHP, Section 106 of the NHPA (80 Stat. 915; 16 U.S.C. 470) and its implementing regulations (36 CFR 800) require that effects of the proposed project to that resource be determined. If NRHP-eligible resources are identified that would be adversely affected by implementation of the proposed project, then prudent and feasible measures to avoid or reduce these adverse impacts must be taken. In addition, the Advisory Council on Historic Preservation (ACHP) and the SHPO must be provided an opportunity to review and comment on these measures. The ACHP has adopted regulations (36 CFR 800) that implement this commenting authority.

7.3.5.3 Local

On the local level, compliance with the San Bernardino County General Plan (1999) is also necessary. According to the County's General Plan, a goal of the County is to identify and preserve important archaeological and historic resources within the County. To achieve this goal, a number of policies, measures, and programs targeting the management of cultural resources have been adopted by the County. In general, compliance with CEQA or Section 106 satisfies the County's concerns for cultural resources.

According to the City of Rancho Cucamonga General Plan (2001), they "shall take appropriate measure to investigate and preserve paleontological and archaeological resources as development occurs throughout our City" (City of Rancho Cucamonga, 2001). Necessary measures to provide for the preservation of any significant resources will be implemented. Investigation and analysis as required under CEQA satisfies the City's requirements for compliance.

7.3.6 Involved Agencies and Agency Contacts

Both the City of Rancho Cucamonga and San Bernardino County were contacted regarding information about the General Plans for each agency. Unless consultation with SHPO becomes necessary, the NAHC is the only agency involved with the management of cultural resources for the proposed project. Appendix M (URS, 2007) contains the correspondence with the NAHC concerning this particular project.

The City's Planning Department and the County's Planning Department were also contacted to identify local cultural resources within a one-mile radius of the proposed project site. To date the City has not responded. The County Museum was contacted, but has not responded. According to the San Bernardino Archaeological Information Center (SBAIC), there are no archaeological societies within the County (Laska, 2007). The Archaeological Survey Foundation (ASF) was also contacted; however, they are not able to handle requests for information at this stage (Stoll, 2007). No other archaeological societies were identified.

An on-line search was conducted to determine whether there were any resources listing historical societies within the City and the County. The California Historical Society's website lists a variety of societies within the area (California Historical Society, 2007). Letters have been mailed to eleven societies that might have additional information on local cultural resources (see Appendix M-2). To date, responses from these societies have not been received.

Specific contacts for the NAHC, the City of Riverside and San Bernardino County are listed below, should the need for additional consultation arise.

7.3.7 Permits Required and Permit Schedule

Other than certification from the CEC, no state, federal, or local permits are required by the proposed project for the management of cultural resources.

As described previously, consultation with SHPO and ACHP would be required under Section 106 if federal involvement is to occur and significant cultural resources were to be affected by the proposed project.

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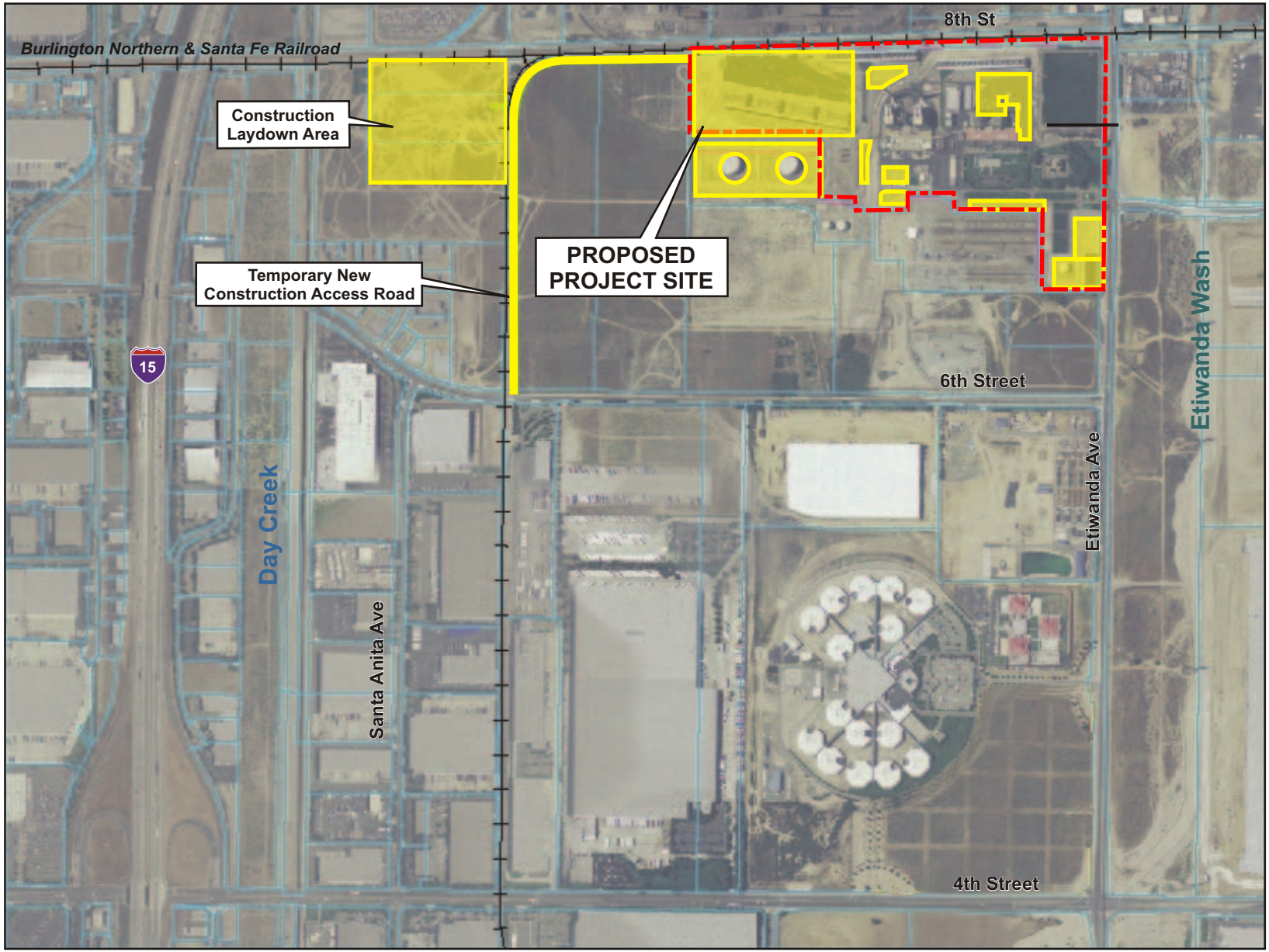


Source: San Bernardino County image mosaic; USDA FSA Aerial Photography Field Office, 2005; City/County Boundaries, Parcels, Streets and Railroads, San Bernardino County, 2001-2006.

LEGEND

- Railroad
- EGS Property Boundary
- Area of Potential Effect

N

0 750 1,500

Approximate Scale in Feet

ARCHAEOLOGICAL RESOURCES AREA OF POTENTIAL EFFECTS

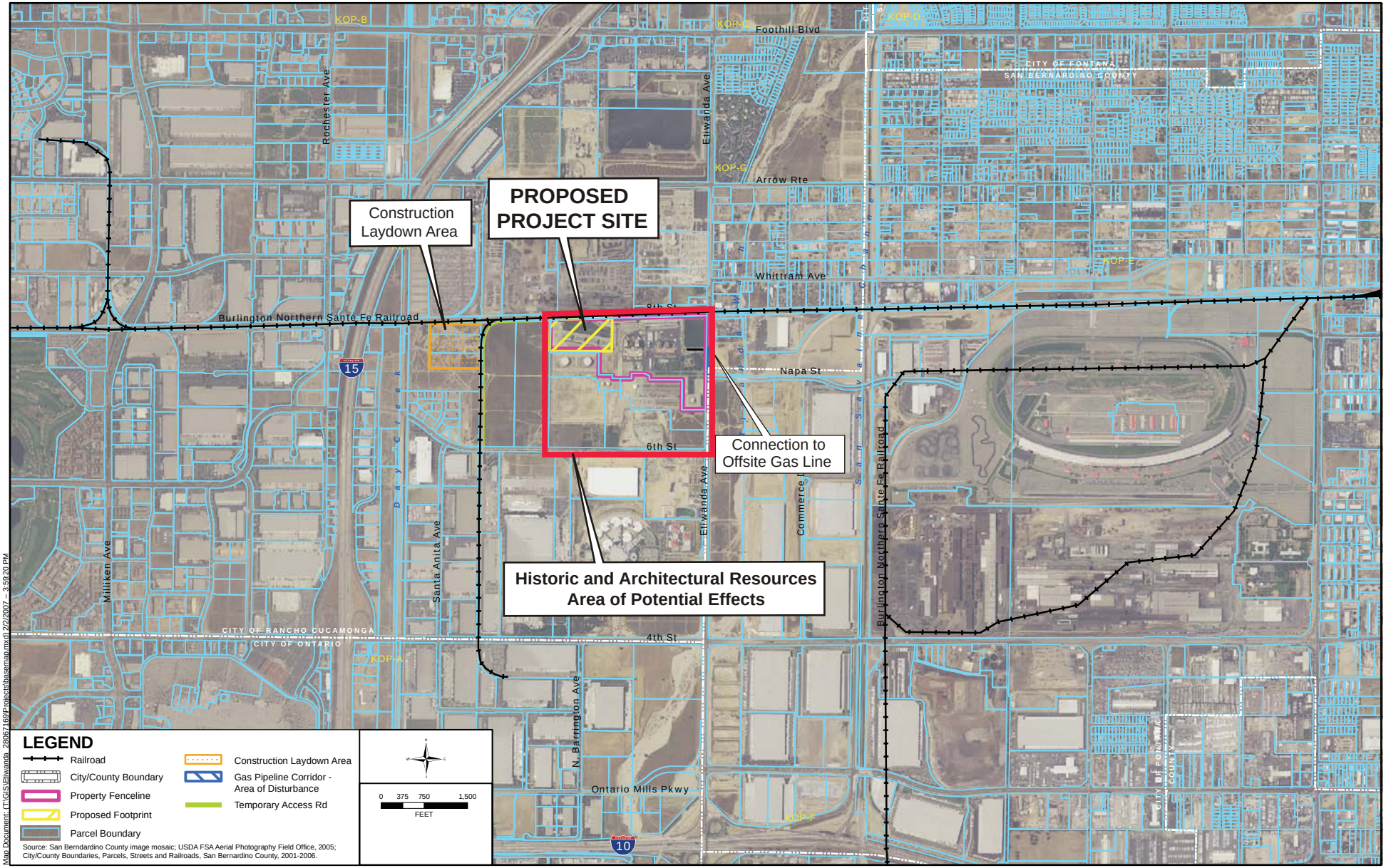
April 2007
28067169

San Gabriel Generating Station
San Gabriel Power Generation, LLC
Rancho Cucamonga, California

URS

FIGURE 7.3-1

4/06/07 hk ..\Reliant Etiwanda\Graphics\7.03 Cultural\7.3-1_archaeo-APE.cdr



Map Document: (T:\GIS\Etiwanda_28067169\Projects\basemap.mxd) 2/2/2007 - 3:59:20 PM

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HISTORIC AND ARCHITECTURAL RESOURCES AREA OF POTENTIAL EFFECTS

April 2007
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San Gabriel Generating Station
San Gabriel Power Generation, LLC
Rancho Cucamonga, California

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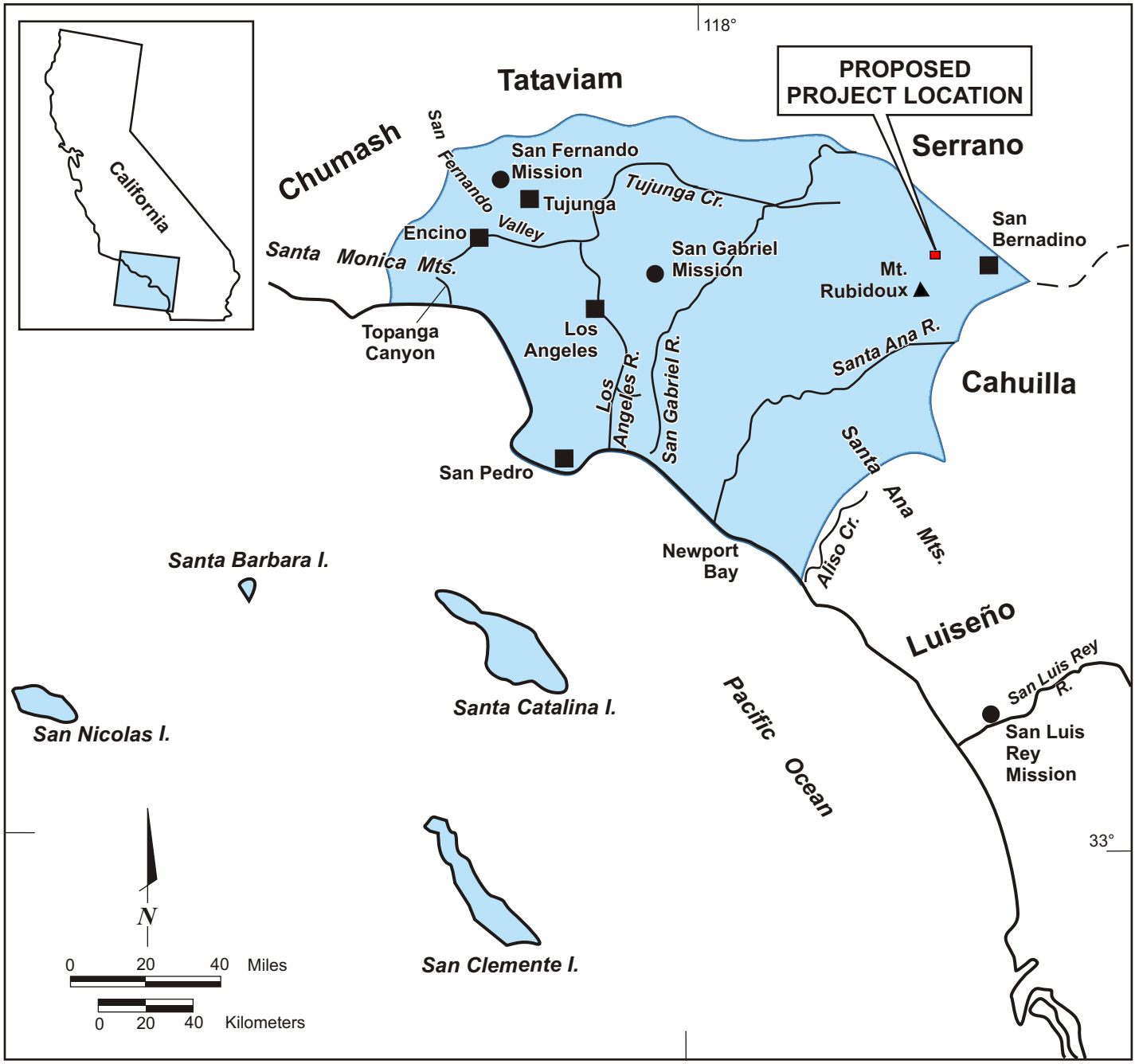
FIGURE 7.3-2



Adopted from:
Gabrielino Handbook of North American Indians,
Volume 8, California, pg. 538 (Bean and Smith, 1978).

ETHNOGRAPHIC TRIBAL TERRITORY OF THE GABRIELIÑO

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San Gabriel Power Generation, LLC
Rancho Cucamonga, California

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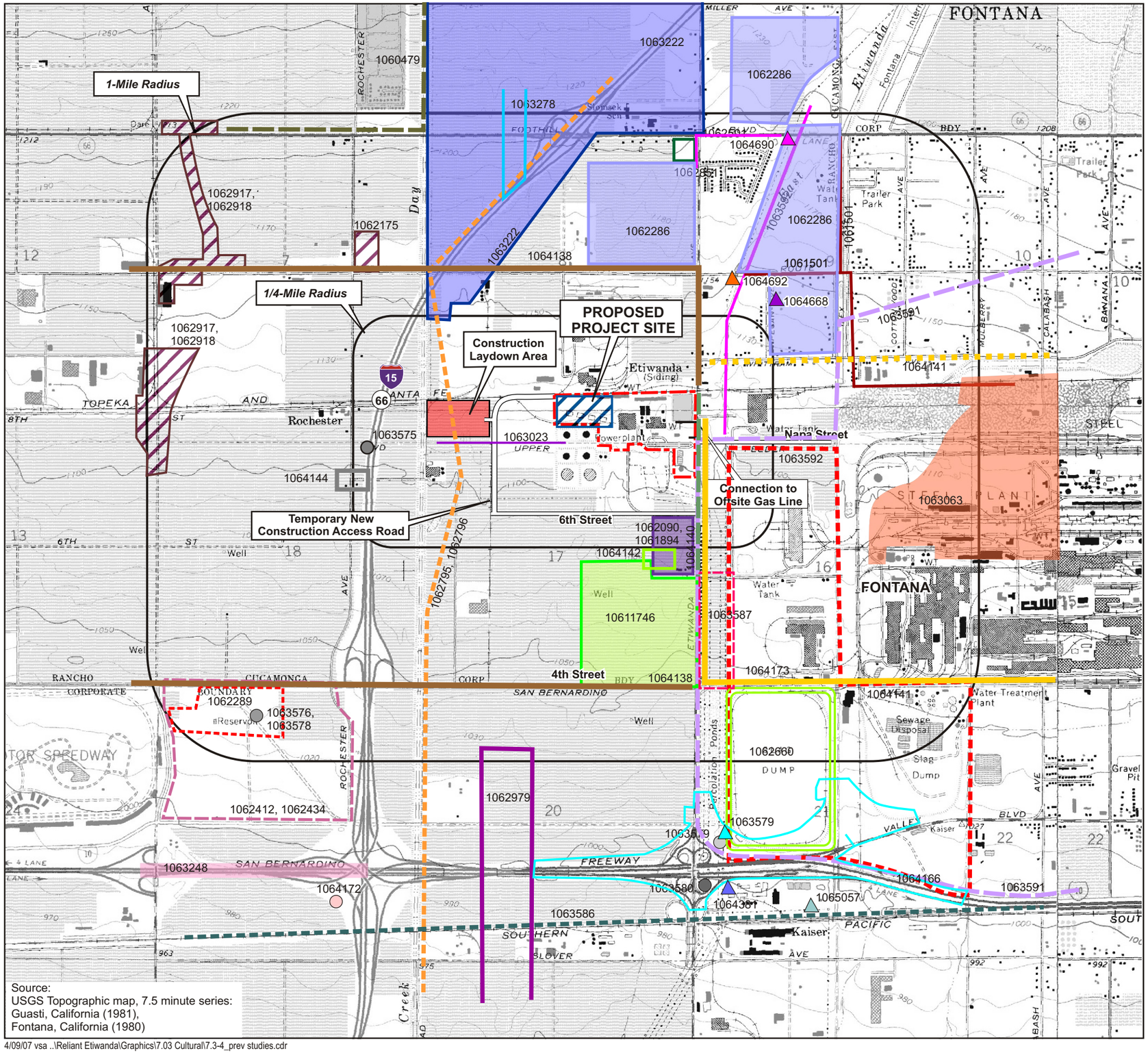
FIGURE 7.3-3

3/27/07 hk ..\Reliant Etiwanda\Graphics\7.03 Cultural\7.3-3_ethno.cdr



Source:
USGS Topographic map, 7.5 minute series:
Guasti, California (1981),
Fontana, California (1980)

4/09/07 vsa ..\Reliant Etiwanda\Graphics\7.03 Cultural\7.3-4_prev studies.cdr

LEGEND

- Project Site
- Property Boundary

REPORTS

- 1061501
- 1062090, 1061894
- 1062851
- 1063592
- 1063222
- 1063278
- 1062795, 1062796
- 1063248
- 1060479
- 1063023
- 1063575
- 1062175, 1062917, 1062918
- 1061746
- 1062412, 1062434
- 1063576, 1063578
- 1062289
- 1063580
- 1063579
- 1062286
- 1062501
- 1063591
- 1063063
- 1063587
- 1062660
- 1062979
- 1063586
- 1064138
- 1064142
- 1064144
- 1064172
- 1064140
- 1064141
- 1064668
- 1064690
- 1064692
- 1064173
- 1064166
- 1063579
- 1064381
- 1065057

Note:
Survey information was obtained from the "Historical Resources Record Search: Etiwanda Power Plant Project" conducted by the Archaeological Information Center on 14 February 2007.

0 0.5 1
Scale in Miles

0 2000 4000
Scale in Feet
1:24,000

N

PREVIOUS STUDIES/SURVEYS WITHIN 1 MILE OF THE PROJECT SITE

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San Gabriel Power Generation, LLC
Rancho Cucamonga, California

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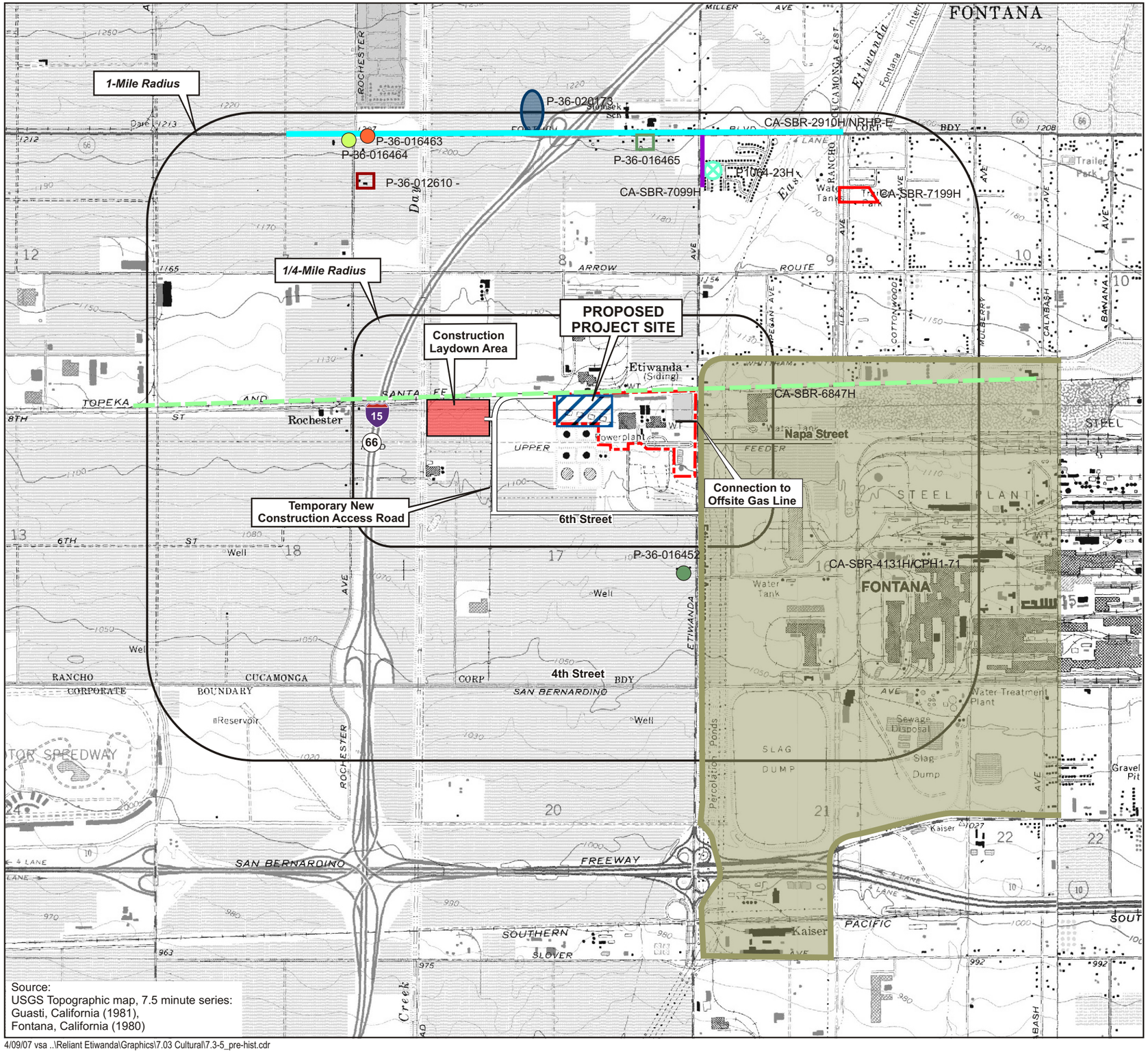
FIGURE 7.3-4



4/09/07 vsa ..\Reliant Etiwanda\Graphics\7.03 Cultural\7.3-5_pre-hist.cdr

LEGEND

- Project Site
- Property Boundary

SITES

- CA-SBR-6847H - Railroad
- CA-SBR-2910H/NRHP-E "National Old Trails"
- CA-SBR-4131H/CPH1-71 - Kaiser Steel
- CA-SBR-7199H - Residential
- CA-SBR-7099H - Sewer System
- P-36-016464 - Winery
- P-36-016463 - Commercial Site
- P-36-016452 - Winery
- P-36-016465 - Winery
- P 1064-23H - Residential Site
- P-36-012610 - Winery
- P-36-020173 Rock Alignment/Wall

0 0.5 1
Scale in Miles

0 2000 4000
Scale in Feet
1:24,000

N

PREHISTORIC AND HISTORIC CULTURAL RESOURCES WITHIN 1 MILE OF THE PROJECT SITE

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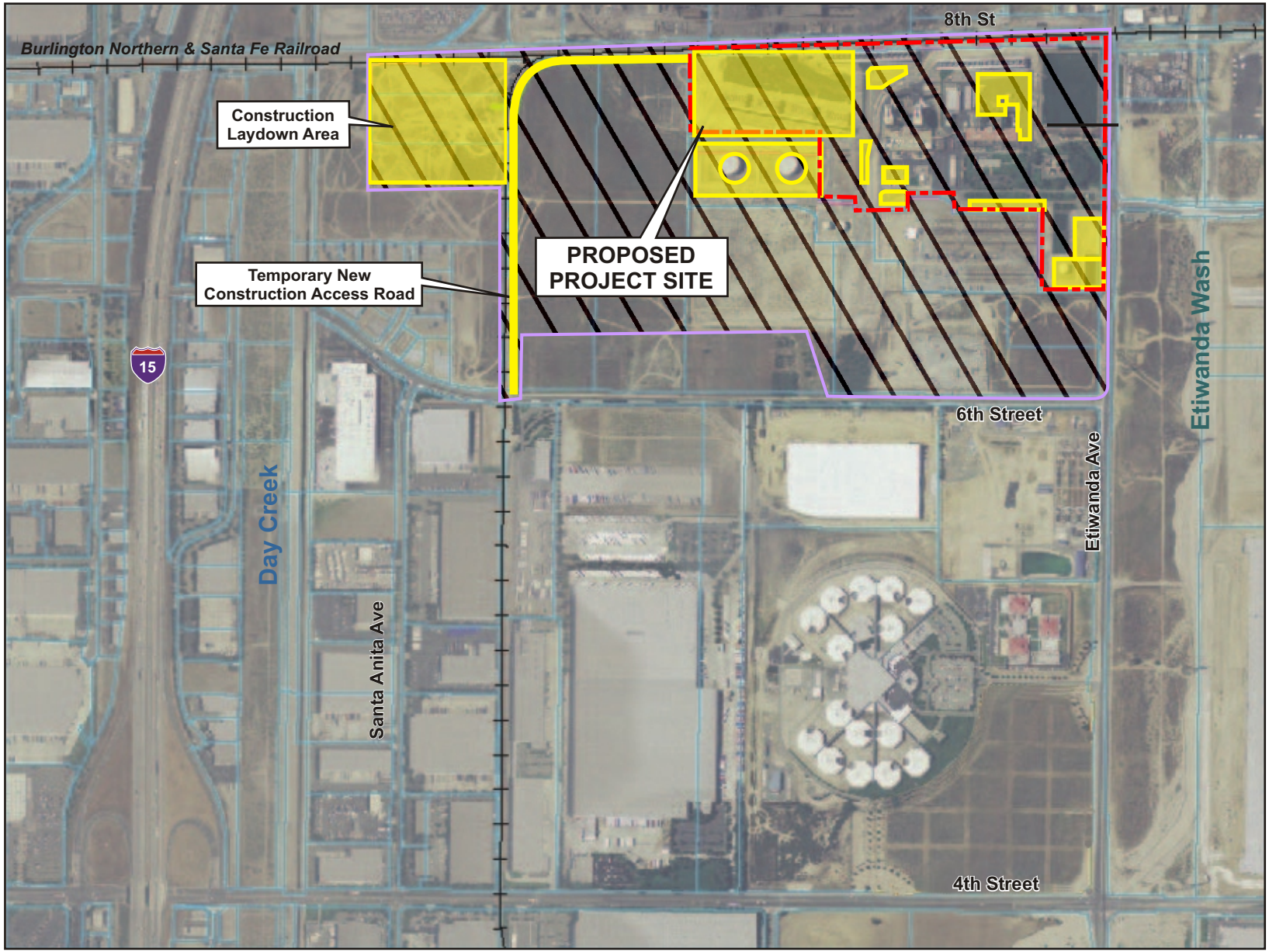
FIGURE 7.3-5



Source: San Bernardino County image mosaic; USDA FSA Aerial Photography Field Office, 2005; City/County Boundaries, Parcels, Streets and Railroads, San Bernardino County, 2001-2006.

LEGEND

- Railroad
- EGS Property Boundary
- Area of Potential Effect
- Areas Surveyed for Archaeological Resources

N

0 750 1,500

Approximate Scale in Feet

AREA SURVEYED FOR ARCHAEOLOGICAL RESOURCES

April 2007
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San Gabriel Generating Station
San Gabriel Power Generation, LLC
Rancho Cucamonga, California

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FIGURE 7.3-6

4/06/07 vsa ..\Reliant Etiwanda\Graphics\7.03 Cultural\7.3-6_areas.cdr