Chapter 9—Cultural Resources

9.1 Introduction

This chapter addresses potential impacts to cultural resources in the PG&E Tri-Valley project area. Cultural resources that might be present in the project area could include some or all of the following:

- **Historic Properties.** Historic properties are places eligible for inclusion in the National Register of Historic Places (NRHP). Historic properties eligible for inclusion in the NRHP can include districts, sites, buildings, structures, objects, and landscapes significant in American history, prehistory, architecture, archaeology, engineering, and culture. Historic properties include so-called “traditional cultural properties.” Historic properties must be given consideration under NEPA and the National Historic Preservation Act (NHPA), where applicable.

- **Native American Cultural Items.** Native American cultural items may include human remains (skeletal remains), funerary items, sacred items, and cultural patrimony. Native American cultural items must be given consideration under NEPA, NHPA, the Native American Graves Protection and Repatriation Act (NAGPRA) and the American Indian Religious Freedom Act (AIRFA), where applicable.

- **Archaeological Sites.** Archaeological sites and other scientific data must be given consideration under NEPA, the Archaeological Resources Protection Act (ARPA), the Archaeological Data Protection Act (ADPA), and to some extent under NHPA and NAGPRA, where applicable.

- **Native American Sacred Sites.** Native American sacred sites must be considered under AIRFA and Executive Order 13007, where applicable.

- **Other Cultural Resources.** Cultural institutions, lifeways, culturally valued viewsheds, places of cultural association, and other valued places and social institutions must be considered under NEPA, Executive Order 12898 and other authorities, where applicable.

CEQA requires review to determine if a project will have a significant effect on archaeological sites or a property of historic or cultural significance to a community or ethnic group. A historical resource for purposes of CEQA compliance is defined as a resource listed in, or determined eligible for listing in, the California Register of Historical Resources (CRHR), as well as resources listed as local historic registers and resources which the lead agency determines to be historically significant on the basis of substantial evidence.

Eligibility for placement on the CRHR is very similar to NRHP eligibility criteria. The CRHR comprises a listing of those properties that are to be protected from substantial adverse change. A historical resource can be listed in the CRHR if it meets any of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
9.1.1 Methodology

Record searches were conducted at the Northwestern Information Center of the California Historical Resources Information System at Sonoma State University, Rohnert Park (File Nos. 98-709 and 99-25). The record and literature review consisted of a comprehensive review of current and historic U.S. Geological Survey (USGS) and other maps encoded with cultural resource information maintained at the Information Center. Copies of all cultural resource site inventory forms recorded for sites within a half-mile radius of all proposed
and alternative routes and substation sites considered in this PEA were secured. In addition, several pertinent cultural resource investigation reports (surveys, excavations, etc.) were reviewed to help document the nature and extent of previous cultural resource investigations that have been conducted in the project area.

Source materials consulted include both the National Register of Historic Places and California Register of Historical Resources (CAL/OHP, 1998a,b), the California History Plan (CAL/OHP, 1973b), the California Inventory of Historic Resources (CAL/OHP, 1976), California Historical Landmarks (CAL/OHP, 1982), an ethnic sites survey (CAL/OHP, 1988), and California Points of Historical Interest (CAL/OHP, 1992). Several local planning documents (see Section 9.1) were also reviewed for potential conflicts between locally known/recorded resources and proposed PG&E project features.

The Native American Heritage Commission was contacted to determine whether sacred lands are present in the project area and to obtain a list of local tribal representatives and/or “most likely descendants” to contact pursuant to provisions of Section 5097.94 to 5097.98 of the Public Resources Code. The reply indicated that there are no known/recorded sacred lands in the project area. Letters soliciting information about culturally sensitive places and offering opportunities for direct consultation with PG&E officials were mailed to eight different Ohlone/Costanoan, Miwok, Northern Valley Yokut and Bay Miwok individuals or groups on January 19, 1999. PG&E has not received a reply from these groups.

Lands previously surveyed by others and the locations of all known/recorded cultural resource sites were carefully mapped in relation to proposed PG&E project components (that is, the Areas of Potential Effect [APE]). Known/recorded sites within or adjacent to the APE were revisited where possible to verify their location and potential spatial conflict with proposed project components. Previously unsurveyed lands in the APE were systematically surveyed by two qualified archaeologists using close interval transects (not exceeding 15 meters apart) along proposed transmission line routes and at substation sites.


9.2 Existing Conditions

The following background information applies to proposed transmission line routes and substations sites in the North Area and the South Area. Both prehistoric (Native American) and historic (EuroAmerican) peoples found the project area setting to be favorable for occupation and/or settlement. For the most part, the project area is roughly transitional between a Coastal Prairie ecotype and the more arid Valley Grassland of interior California (see Munz and Keck 1968, Plant Communities 24 and 25). Perennial grasses and scattered oak woodland characterize the project area. Riparian vegetation is present along seasonal stream courses. Vernal wetlands are known where a shallow hardpan causes standing water for several months in the spring. Former marshes probably had vegetation typical of a Central Valley freshwater marsh and wetlands. The project area supports a number of species typical of the Upper Sonoran Life Zone (see Ingles, 1954, 1965) including small, medium, and large mammals, and various reptiles and birds typical of an oak
woodland/grassland community. The former marshes probably had fauna resources typical of a Central Valley freshwater marsh and wetlands. Small rodents (mice, rabbits, and especially ground squirrels) were commonly present as well as numerous birds.

The project areas exhibit a Mediterranean pattern of summer drought and winter rainfall caused by the seasonal north-south migration of a high-pressure center over the Pacific Northwest. The project area is subject to a rainshadow effect that inhibits the precipitation of coastal derived moisture over this region. These conditions result in the low average annual precipitation of 14.4 inches for the City of Livermore (Elford, 1970). The interior location of the project area accounts for the lower precipitation figures and is responsible for the more continental aspect of its seasonal temperature variation. Temperatures are generally moderate although high during the summer (Welch et al., 1966:2-4).

9.2.1 Background Information

9.2.1.1 Native Americans

The project areas are situated within the Chochenyo territory of the Costanoan Indians (Kroeber, 1925:465; Levy, 1978:485). Anthropologists estimate that there are over 200 persons of partial Costanoan descent presently residing in the greater San Francisco Bay Area although these individuals now generally prefer the term Ohlone to Costanoan (see Galvan, 1967-68; A. Galvan, personal communications, 1990).

The Costanoans lived in approximately 50 separate and politically autonomous nations or tribelets in 1770 (Levy, 1978:485). The territory of each tribelet was delineated by physiographic features and generally had a population estimated at about 200 individuals although tribelets could range from 50 to 500 persons. The Costanoans followed a seasonal hunting and gathering round with groups moving from the permanent village(s) to temporary camps at scattered locations in the tribelet’s territory to engage in fishing, hunting, and the collection of plant foods (see Levy, 1978).

In the vicinity of the project area, the closest tribelet was the sewnen (El Valle) centered near Livermore (Bennyhoff, 1977:Map 2). Historic accounts of the distribution of Costanoan tribelets and villages in the 1770s to 1790s and the results of archaeological efforts in the area suggest that a number of tribelets may have had temporary camps or possibly even relatively permanent settlements in or near the study area throughout the prehistoric period and into the Hispanic Period (Kroeber, 1925:465; T.F. King, 1973; King and Hickman, 1973).

In addition to the possible presence of different tribelets of Costanoans, the Amador Valley may have been subject to periodic intrusions by Northern Valley Yokut groups who were present in the eastern area beyond the Diablo Range into the San Joaquin Valley. The project area is situated in the approximate vicinity of a number of known aboriginal trails (Davis, 1961:Map 1). The Costanoans are known to have supplied mussels, abalone shells, dried abalone meat, and salt to the Yokuts and Olivella shells to the Sierra Miwok. In turn, as part of the aboriginal trade network, the Costanoans received piñon (pine) nuts (Davis, 1961:19).

The Costanoan practiced a hunting and gathering/collecting subsistence pattern. Annual controlled burnings insured an abundant regrowth of seed-bearing annuals and increased the forage areas of larger game. The acorn ranked high among plant foods. It was harvested using long poles to knock acorns to the ground where they were then gathered, ground, and
leached of tannin and baked into bread or consumed as mush. California laurel, hazelnut, and buckeye nuts, as well as the seeds of numerous plants, were gathered and parched in trays and/or crushed to make meal. Berries and wild grapes were dried. Roots of various plants were eaten along with green shoots, sprouts, and pollens. Costanoan hunted and trapped mammals and waterfowl, fished for salmon, steelhead, and sturgeon, and collected shellfish, reptiles, and insects for consumption (Levy, 1978:491-492; see also Elsasser, 1986; Figure 4).

Warfare was a practice among the Costanoan and was commonly caused by territorial infringements. Captives were killed (excluding young females), heads were taken as trophies, and enemy villages burned. The chief weapon was the bow and arrow. Trade relations are revealed indirectly by linguistic evidence in the use of borrowed words for items not available locally by Costanoans, Miwok, Yokut, and Salinan groups. Mussels, dried abalone, abalone shells, *Olivella* shells, salt and cinnabar were commonly exported, while pinon nuts, obsidian, and possibly clam shell disk beads from the east are the only known imports (Levy, 1978:488-489).

Costanoan structures included domed, thatched houses, wickiups, sweatshouses or *temescals*, dance houses, and storage structures. The houses ranged from 6 to 10 feet across with a square doorway and a hearth in the center of the floor. The covering was described as a thatch of tule, alfalfa, or fern over a bent willow framework. The temescal was an excavated pit on a stream bank with the superstructure laid against the bank. Wickiups were pole, brush and plaster wind or sunshelters (Theodoratus Cultural Resources, 1979:21). Dance enclosures were circular or oval fence-like structures with a door and an opposing opening in the rear. They were usually located in the village proper (Levy, 1978:492).

Costanoan technology included numerous woven items such as baskets, fish nets, mats, cradles, balsas (boats), traps, and snares utilizing natural fibers and materials including tule, milkweed, and strips of animal skins. Stone tools were fashioned from sedimentary and metamorphic rocks and included manos, metates, mortars, pestles, net sinkers, anchors, and pipes. Materials utilized for chipped stone manufacture relied on obsidian (imported) and chert for projectile points, scrapers, and blades. Other minerals used included cinnabar and hematite used as pigments. Bone items included awls for lacing and weaving, scrapers, and whistles. Wooden items included mortars, pestles, paddles for balsas and cooking, and awls. Shell was used for jewelry and spoons (Levy, 1978:492-493).

The Costanoan aboriginal lifeway apparently disappeared by 1810 due to its disruption by EuroAmerican diseases, a declining birth rate, and the impact of the mission system (Milliken, 1995). The Costanoan lifestyle was transformed from one of hunters and gatherers into that of agricultural laborers who lived at the missions and worked with former neighboring groups such as the Esselen, Yokuts, and Miwok (Levy, 1978:486).

After secularization of the missions between 1834 and 1836, some Costanoans returned to traditional religious and subsistence practices while others labored on Mexican ranchos (Peters, 1987:4). Thus, multi-ethnic Indian communities grew up in and around Costanoan territory and provided informant testimony to ethnologists from 1878 to 1933. Former mission residents formed multi-tribal Indian communities in Pleasanton and other locales (Levy, 1978:487). By the 1830s, Indians in the Amador Valley "... lived on ranchos in the nearby mountains, at a rancheria along the Arroyo de la Laguna where they planted cereal
crops, and in a few other small villages. The language spoken by them is believed to have been Plains Miwok (Calhoun, 1973:24). The Indian community in Pleasanton held three or four dances each year to promote good luck in hunting and fishing—the last such dance was held near Pleasanton in 1897. Calhoun (1973:30) notes that some long-term residents remember Indians living along Arroyo de la Laguna and Arroyo Valle.


9.2.1.2 Archaeological Overview

The project area lies within the greater San Francisco Bay Area. The first Bay Area archaeology focused on the bay periphery and marshlands. The following sites are significant archeological sites in the Bay Area:

- Emeryville Shellmound (CA-Ala-309) (Uhle, 1907; Nelson, 1909, 1910; Schenck, 1926)
- Ellis Landing site (CA-CCo-295) in Richmond (Nelson, 1910)
- Stege Mounds (CA-CCo-298, CA-CCo-300) in Richmond (Loud, 1924)
- Patterson Mound (CA-Ala-3280) near Fremont (Stewart, 1981:4.15-4.17)

Using data collected during excavations in the Delta and Contra Costa County, investigators created a tripartite chronological scheme of prehistoric culture change (Lillard et al., 1939). Evidence from mortuary practices and decorative artifacts indicated that the variation in modes of burial of the dead and differences in the relative abundance of associated artifacts could be linked to cultural change. The classification scheme consisted of three horizons: Early, Transitional, and Late. Beardsley (1948, 1954) presented the first comprehensive synthesis of the Bay Area's prehistoric past by proposing a regional chronological framework and cultural sequence based on burial data from 33 sites within a 100-mile radius of the Bay. Beardsley divided the region into "facies, which were grouped on the basis of cultural resemblance to form "provinces" (Stewart, 1981:4.20; Fredrickson, 1973:21-22). The proposed sequence was named the Central California Taxonomic System (CCTS) with the Transitional Horizon of the tripartite system proposed by Lillard et al. (1939) being renamed the Middle Horizon.

The "Multiple-based Wandering System" is characterized by semi-permanent encampments focused on procurement of seasonally available resources. Resource exploitation of the foothill niche would have taken place between late spring/early summer and late fall/early winter (Miller et al., 1982:289), while during the remainder of the winter and spring the population probably utilized littoral-riparian resources. The Native Americans probably had some degree of interaction (for example, resource exchanges) with the groups centered near the more productive bay environments.

The Amador/Livermore Valleys

Until recently the Amador/ Livermore Valleys had received little archaeological investigation despite their being located between the Delta and the Bay—two areas known for their history of extensive and productive research and for flourishing prehistoric cultures as early as 4500 years before the present. The interior drainages of Alameda County were occupied at least by the time of Christ and up to the Spanish exploration (late 1700s). The exact nature and intensity of occupation, the types and numbers of distinct cultures
involved, and their relationship to the environment and to other aboriginal cultures cannot be determined at this time (Love et al., 1976:7-8).

The number of systematic archaeological surveys has increased as a result of urban development in the Amador and Livermore Valleys since Fredrickson's review in 1978 although only a small number of major systematic excavations have occurred. Sites recorded in the project area have generally been recorded as the result of independent field observations, usually for cultural resources assessments required as part of the environmental planning process. Although vegetation, tectonic activity, and other geological phenomena have obscured surface indicators of Native American sites, several sites have been recently discovered as the result of subdivision construction (CA-Ala-394; Parkman n.d.; Holman, 1985), water pipeline trenching (CA-Ala-414; Banks, 1978a, b), and seismic trenching (CA-Ala-467; Slater and Wiberg, 1982; also CA-Ala-483; Peak & Associates, 1987).

Large surveys in the area include the 1,600 acre reconnaissance of Coast Range hills in eastern Alameda County resulting in the recording of several historic sites and a prehistoric bedrock mortar site (CA-Ala-389) (Fredrickson and Banks, 1975). Parkman et al. (1978) completed a 2,500-acre survey of Walpert Ridge (Hayward hills) resulting in the recordation of six prehistoric sites and 10 historic sites. Sites included bedrock mortar sites (CA-Ala-300, -396 and -410), portable art (incised sandstone tablet, CA-Ala-397), an incised sandstone boulder and cupule rock (CA-Ala-398), and a small midden deposit on a terrace in a sheltered canyon (CA-Ala-399) (see Stewart, 1982:16). The 3000-acre inventory of Camp Parks and Tassajara Regional Park in 1981 by Roop and Flynn (1981) recorded 14 prehistoric sites, two historic sites and five prehistoric/historic sites in addition to seven isolated finds.

The survey of the Lawrence Livermore National Laboratory's Site 300 resulted in the inventory of 7,000 acres and the recordation of 24 cultural properties (Busby, Garaventa and Kobori, 1981). Three prehistoric and 20 historic site plus one multicomponent site were located. Historic petroglyphs and structures were the most representative site types with the majority occurring on canyon-gully landforms rather than in the foothills.

Project related surveys and inventories conducted in the Amador and Livermore Valleys during the 1970s to 1990s resulted in the discovery and excavation of a small number of important sites. In the Pleasanton area, five archaeological sites (CA-Ala-394, -413, -414, -467 and -483) have been found beneath alluvial deposits with no surface indications. These sites are located around the margin or in the near vicinity of the former Willow Marsh and the streams flowing into the marsh (Peters, 1987, Allardt, 1874, Thompson and West, 1878:55). Moratto (1984:282) notes that villages in the general area that date between 4000 to 2000 years before the present were typically located in marshside settings near freshwater streams and abundant resources (Moratto, 1984:282). These excavations and the interpretation of the recovered data have contributed to the placement of the area in the central California prehistoric sequence.
9.2.1.3 Historic Overview

Hispanic Period

Several Spanish exploring expeditions passed through the territory occupied by the Costanoan Indians between 1769 and 1776, including the expeditions led by Portola, Fages, Fages and Crespi, and Anza, Rivera and Mora (Levy, 1978:486). The initial historic exploration of the San Ramon-Amador-Livermore Valley region occurred from 1769 to 1810. Pedro Fages, accompanied by Fray Juan Crespi, led the first notable expedition in the project area vicinity in 1772 with the objective of reaching Point Reyes by land. On their return trip, they camped at a place west of Pleasanton, in front of the Hacienda del Pozo de Verona, now the Castlewood Country Club. The party had camped just south of the site of Danville the previous night, then traveled south through the San Ramon Valley. Mission Pass, just northeast of Mission San Jose, was the starting point of an old Spanish and later pioneer American trail. After crossing the lower hills, this trail dropped into Sunol where it bifurcated. One branch skirted the western edge of the Livermore Valley along the Arroyo de la Laguna, led up the Amador and San Ramon Valleys to the site of Concord, then on to the San Joaquin Valley. Portions of Interstate Highway 680 and Foothill Boulevard approximate the lower portion of this trail. The other more traveled route crossed the Livermore Valley and passed through the hills into the San Joaquin Valley.

After the era of Spanish exploration, four institutions were used to settle the land: missions, presidios, pueblos, and ranchos. Of the four, the missions were the most successful. Mission Santa Clara and Pueblo de San Jose de Guadalupe was founded in 1777 (Findlay, 1980:3-4). In 1797, Mission San Jose was established, the 14th of 21 missions established in California. One of seven missions within Costanoan territory, Mission San Jose was the mission that had the greatest impact on the aboriginal population living in the project area (Hart, 1978:96). In fact, this "...location was selected as a base for expeditions against hostile Indians as well as a place to convert them" (Hart, 1978:380).

The specific tribelet or village affiliation of converts was of minor consequence to the Mission fathers who, until 1803, identified their "new souls" simply by cardinal direction (Cook, 1957:148). Between 1802 and 1822, Mission San Jose was responsible for the baptism of 4,573 Indians and 1,376 marriages. During this period, 2,933 Indians died at the Mission and by 1822 only 1,620 Indians survived (Baker, 1914:449). For an extensive review of the history of Mission San Jose, see McCarthy (1958).

After Mexico secularized the missions in 1833, an act that also liberated the Native American population, vast tracts of mission lands were granted to individual citizens. The policies of the new political regime encouraged private enterprise and were responsible for a shift from communal use rights in secular towns and missions to dispersed private ownership in ranchos. Mexican land grants in the Livermore-Amador Valley include San Ramon, Santa Rita, Valle de San Jose, and Las Positas (Calhoun, 1973:18).

The project area was probably used for livestock grazing as well as for raising cattle for tallow and hides, the major economic pursuits of California during the Hispanic Periods. The mission fathers pastured their herds among the great sycamores of the fertile Arroyo Valle. The original name for the Pleasanton area was Alisol, from the Spanish also, meaning "alder tree," an allusion to the large alders on the Arroyo de la Laguna.
American Period
In the mid-19th century, most of the rancho and pueblo lands in California were subdivided as the result of population growth, the American takeover, and the confirmation of property titles throughout California. Prior to the confirmation of titles, the transfer of real estate was extremely risky. The initial explosion in population was associated with the Gold Rush (1848), followed later by the construction of the transcontinental railroad (1869). Still later, the development of the refrigerated railroad car (ca. 1880s), used for the transport of agricultural produce to distant markets, had a major impact on population growth. The agricultural land use pattern begun in the Hispanic Period and reinforced in the American Period continued until recent decades, though portions of the project area vicinity have only recently been impacted by the now rapid urban growth. The expansion of the urban areas and the relative demise of agriculture underscore the present-day economic diversity of the Amador and Livermore Valleys.

Alameda County was carved from parts of Santa Clara and Contra Costa Counties in 1853 and expanded rapidly after the completion of the Central Pacific Railroad terminus in Oakland in 1869 (Hart, 1978:7). Large portions of the project area are located within the historic Murray Township of Alameda County (Nusbaumer, 1896). In 1878, Murray Township was described as the most mountainous and least productive of the five townships of Alameda County (Thompson and West, 1878:25). Throughout the 19th century, residents of Murray Township engaged in agricultural and pastoral pursuits. The terrain was considered especially well adapted for sheep, but other livestock raised in the township included horses, cattle, and angora goats (Wood, 1883:457, 942). In fact, during the 1870s, horse breeding was a major industry in the Amador Valley (Fredrickson et al., 1978:33).

In the 1880s, the "uncultivable area" of Murray Township continued to be used primarily for sheep ranching, while timber was harvested from the mountainous areas (Wood, 1883:457, 458). As of 1883, traces of gold, silver, mercury, coal, coal oil, building stone, sulphur, and marble had been discovered in Murray Township, although only coal and building stone were exploited commercially (Wood, 1883:458).

Other parts of the project area are located in valley settings that were dominated by agriculture. The arrival of the Central Pacific Railroad in 1869 and the advent of refrigerated rail cars in 1889 provided access to markets for the wide array of crops and commodities that could be produced in the project area, and also permitted diversification from livestock grazing. Almonds, apricots, pears, and dairy products replaced wheat and barley. Charles Wetmore, along with the Wente and Concannon families, pioneered winemaking in the Livermore-Amador Valley in the 1870s. By 1889, Wetmore’s imported French cuttings were producing internationally award-winning wines. Phylloxera infestations during the 1890s did not prevent growth to 50 wineries and 5,000 acres of vineyards by 1900. Prohibition cut the surviving wineries to about 12, and by the 1960s only six wineries and 1,500 acres of vineyards remained intact from encroaching urban development (Livermore, 1997).

The railroad, vehicle roads, Dublin Canyon Pass to the north, and Mission Pass to the south are the most important cultural and geographical features in the project vicinity along with the towns of Dublin, Pleasanton, and Livermore. The arrival of the Central Pacific Railroad in Contra Costa County in 1877, and its extension to San Ramon in 1890 and Danville in

The town or hamlet of Dublin functioned as an important point between Castro Valley to the west, Livermore to the east, Danville to the north, Pleasanton to the southeast, and Sunol to the south. The town of Dublin, initially known as Dougherty’s, was named for James W. Dougherty of Tennessee who had acquired a portion of Amador’s Rancho San Ramon. He was the first Anglo-American settler of what was to become the town in 1852 (Wood, 1883:468; Gudde, 1974:94-95). Dougherty’s station warranted a post office as early as February 15, 1860. "Dublin" was reportedly used by Dougherty for the southern area of the town because of the number of Irish living there (Gudde, 1974:95). The arrival of the railroad, which bypassed Dublin, resulted in the decline of the once prosperous commercial center (Wood, 1883:468). The post office was changed to Dublin on January 18, 1896 and discontinued on February 29, 1908 with mail sent via Hayward (Frickstad, 1955:1-2).

John W. Kottinger, an 1851 pioneer, named Pleasanton in 1867 for General Alfred Pleasanton. The misspelling appears to have resulted from a clerical error when the post office was established June 4, 1867 (Frickstad, 1955:3; Gudde, 1974:251). The vicinity was noted for large ranches, gradually undergoing subdivision into smaller farms, and considerable lawlessness (Wood, 1883:479). The 1870 census provides a number of interesting statistics as to the relative isolation of the project vicinity. Of the 14,382 residents of Alameda County, only 2,400 resided in Murray Township. According to the census, the residents of Murray Township included 1,467 native born and 933 foreign born, of which 2,259 were Caucasian, 128 Chinese, 110 Native American, and 3 Black (Thompson and West, 1878:163). According to Fredrickson et al. (1978:67), most of the Native Americans “worked on ranches, with the population localized to a rancheria on the Arroyo de la Laguna,” which was located in the environs of the Castlewood Country Club near Pleasanton.

By 1942, only 88 of the original 696 adobe structures known to exist in the Bay Area were still standing—eight of which were in Alameda County (Bowman, 1951:59). The Alviso Adobe is the oldest structure in the Pleasanton area and one of the last surviving adobes in Alameda County (Bowman, 1951:60, Fig. 3, #37; 63). The adobe has been designated as California State Historic Landmark No. 510 (CAL/ OHP, 1982:2).

9.2.2 North Area—Phase 1

Transmission Line

No cultural resources eligible for listing in either the California or National Registers of Historic Places are known to exist within the proposed transmission line corridor between Mileposts B10.4 and B17.2 or between Mileposts V0 and V1. Field reconnaissance surveys conducted in 1999 produced negative findings; that is, no previously undetected cultural resources were encountered along the inspected transmission line route.

Substations

No cultural resources eligible for listing in either the California or National Registers of Historic Places are known to exist at either the proposed Dublin or North Livermore substation sites. Field reconnaissance surveys conducted in 1999 produced negative
findings; that is, no previously undetected cultural resources were encountered at the proposed substation sites.

9.2.3 North Area—Phase 2

No cultural resources eligible for listing in either the California or National Registers of Historic Places are known to exist within the proposed Phase 2 transmission line corridor. Field reconnaissance surveys conducted in 1999 produced negative findings; that is, no previously undetected cultural resources were encountered along the inspected transmission line route. However, at approximately Milepost C8 just east of Laughlin Road is a small level area occupied by several old farm buildings and a wetland. The presence of the wetland and the low-level area make this a high probability area for Native American archaeological sites.

9.2.4 South Area

No cultural resources eligible for listing in either the California or National Registers of Historic Places are known to exist within the proposed Phase 2 overhead or underground transmission line route. Field reconnaissance surveys conducted in 1999 produced negative findings; that is, no previously undetected cultural resources were encountered along the inspected transmission line route.

9.3 Potential Impacts

9.3.1 Significance Criteria

Impacts to cultural resources are considered to be significant if they:

- Cause substantial adverse change in the significance of a historical or archaeological resource (as defined in CEQA Section 15064.5)
- Disturb any human remains, including those interred outside of formal cemeteries

9.3.2 Construction Impacts

Impact 9.1. North Area—Phase 1. No cultural resources are currently known to exist along the proposed transmission line route or in the areas proposed for the Dublin and North Livermore substations. Should cultural resources be adjacent to the construction site or found during construction, impacts would be less than significant with implementation of Mitigation Measure 9.1.

Impact 9.2. North Area—Phase 2. No cultural resources are currently known to exist along the proposed Phase 2 transmission line route. Should cultural resources be adjacent to the construction site or found during construction, impacts would be less than significant with implementation of Mitigation Measure 9.1.

Impact 9.3. South Area. No cultural resource sites are currently known to exist in the South Area. Should cultural resources be adjacent to the construction site or found during construction, construction impacts would be less than significant with implementation of Mitigation Measure 9.1.
9.3.3 Operation Impacts
Operational impacts to cultural resources would not occur.

9.4 Mitigation Measures

9.4.1 Construction
Mitigation Measure 9.1
The best mitigation measure is to avoid impacts to cultural resources that may be located in the project area. PG&E will have an archaeologist demarcate cultural resource site boundaries on the ground to ensure that proposed project improvements do not impinge on the resource(s). Although there are presently no known archaeological sites that would be subject to potential construction impact, PG&E will ensure that wherever a tower or access road must be placed within 100 feet of a known archaeological site, the site will be flagged on the ground as an Environmentally Sensitive Area (ESA). Construction equipment would then be directed away from the ESA, and construction personnel would be directed to avoid entering the ESA.

Prior to starting construction near any designated ESA, the construction crew would be informed of the resource values involved and of the regulatory protections afforded to the resources. The crew would also be informed of procedures relating to designated ESAs and cautioned not to drive into these areas or operate construction equipment on them. The crew would be cautioned not to collect artifacts and would be asked to inform their supervisor if cultural remains are uncovered. If any cultural remains are discovered, work at the site will be halted, and a qualified archaeologist will be called to determine the significance of the find.

PG&E will prepare a Native American Burial Protection Plan for the proposed project (see Appendix E for an example) and will implement the plan if any human remains are encountered during construction.

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