

4.11 CULTURAL RESOURCES

4.11.1 EXISTING CONDITIONS

SITE SURVEYS

Past CEQA activities have included reference checks and field studies to locate possible cultural resources within the site and on surrounding properties. Potential cultural resources in the Phase I project area and the proposed Phase II landfill expansion areas were addressed in a 1974 EIR (Jones & Stokes Associates 1974). No historic or cultural resources were found in these study areas.

The project applicant contracted with Pacific Legacy, Inc. to conduct archaeological investigations for the proposed power plant and north sedimentation basin areas of the Phase II Project area. The archaeological investigations prepared by Pacific Legacy were reviewed by EDAW for consistency with industry-accepted archaeological investigation methodology. Based on this review, the archaeological investigations prepared by Pacific Legacy were deemed to adequately characterize the existing cultural resources on the project site. The information included in the archaeological investigations provides the basis for the analysis included in this section.

Archaeological investigations for the proposed project included a records search at the Northwest Information Center, Sonoma State University, Rohnert Park; a sacred lands search conducted by the Native American Heritage Commission (NAHC); a pedestrian surface survey of the area of potential effects (APE) (i.e., approximately 100 acres at the site) associated with the proposed project; and completion of a report documenting archaeological investigations (Appendix D). The project APE had not been previously surveyed, but adjacent areas had been surveyed previously with negative results. In addition, review of an 1872 map of Solano County, a 1908 U.S. Geological Survey (USGS) map, and General Land Office Plat maps for the area did not identify any structures or features within or near the project APE. Regardless of these findings, archaeological staff of Pacific Legacy surveyed the APE using 15 to 20 transects. Surface visibility was limited because of vegetation (e.g., various grasses). The APE primarily encompasses an area of low archaeological sensitivity consisting of sloping terrain along the northern edge of the Potrero Hills. The pedestrian surface survey did not identify any prehistoric resources but did identify an associated windmill and barn that were recorded as site PHLF-1. No other cultural resources (i.e., prehistoric sites, historic sites, or isolated artifacts) were identified within the project APE.

Both the windmill and barn generally lack integrity of design, materials, workmanship, feeling, and association. Both structures are in poor condition because of a lack of maintenance. The windmill lacks all but one of its blades, and its integrity has been affected by the addition of electrical facilities to both its exterior and interior. In addition, archaeological investigations did not identify any evidence to suggest that the two structures are associated with events important in regional or local history, are associated with individuals important in regional or

local history, embody distinctive characteristics of design or a particular period of use, or possess the potential to provide additional significant information relevant to regional or local history. Therefore, the windmill and associated barn do not meet the eligibility requirements for inclusion in either the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). The windmill and barn were recorded and appropriate site records are included in Appendix D. No other sites or isolated artifacts were identified during archaeological investigations for the site.

A sacred lands search and list of Native American individuals and groups for the project area were requested from the NAHC. The sacred lands search did not identify any cultural resources in the project area. Pacific Legacy contacted all individuals and groups on the list provided by the NAHC (see Appendix D).

CULTURAL CONTEXT

Regional Prehistory

The earliest investigations in central California were conducted by archaeologists at sites in the Sacramento-San Joaquin Delta (Delta) region. The first published account of this work documents investigations in the Stockton and Lodi vicinities (Schenck and Dawson 1929). Initial reports were primarily descriptive and were followed by more systematic investigations in the 1930s sponsored by Sacramento Junior College (e.g., excavations at CA-SAC-127, SAC-126, and SAC-107). Simultaneously, researchers from the University of California (UC) at Berkeley excavated several sites in the lower Sacramento Valley and Delta region. The UC Berkeley investigations resulted in the first recognition of archaeological site patterns based on inter-site assemblage variability.

The 1930s-era research identified distinct temporal periods in central California prehistory and provided the basis for an initial cultural chronological sequence (Lillard and Purves 1936; Lillard et al. 1939). Lillard et al. (1939) assumed that each cultural period was the direct antecedent of the next and that influences from the Delta region spread to other areas of central California. Beardsley (1948, 1954) later documented similarities in artifact assemblages between sites in the Delta and San Francisco Bay regions, and refined the cultural succession model to produce what ultimately became known as the Central California Taxonomic System (CCTS). The CCTS was influenced by the already established Midwestern Taxonomic System and its associated terminology (cf., McKern 1939), and similarly proposed a linear, uniform sequence of cultural succession. Constituent temporal-cultural units within the CCTS were defined as components, facies, provinces, and horizons. Subsequently, central California archaeology identified three horizons labeled Early, Middle, and Late.

The CCTS model of widespread, parallel cultural succession was initially questioned in a series of papers by Gerow (1954, 1974a, and 1974b; Gerow with Force 1968). Potential problems with the scheme were highlighted by radiocarbon data showing that Early and Middle Horizon sites were at least partially contemporaneous and not discrete, sequential cultural developments. Further criticism was directed at the ambivalent use of diagnostic bead types to

link sites or deposits (Bickel 1981, pg. 2). A new taxonomic system for central California proposed by Fredrickson (1973, 1974) countered the inadequacies of the original CCTS by recognizing specific adaptive modes or patterns (i.e., specific economic and technological manifestations that are spatially but not temporally bound) rather than rigid chronological sequences.

Fredrickson (1973) defined six patterns for the North Coast Ranges, the San Francisco Bay, and the lower Sacramento Valley, and assigned them to six periods: Paleo Indian (10,000 to 6000 B.C.); Lower, Middle and Upper Archaic (6000 B.C. to A.D. 500); and Emergent (Upper and Lower, A.D. 500 to 1800). The suggested temporal ranges for these patterns are similar to the parameters proposed for earlier cultural chronologies: the Windmill Pattern or Early Horizon, extending from 3000 to 1000 B.C.; the Berkeley Pattern or Middle Horizon, extending from 1000 B.C. to A.D. 500; and the Augustine Pattern or Late Horizon, extending from A.D. 500 to the historic period.

The Early Horizon in central California is characterized by the Windmill Pattern, which appears to have been centered in the Cosumnes District of the Delta region. Dart, atlatl (a device for throwing a spear or dart), and spear technologies primarily include stemmed projectile points made of chert and slate. Plant processing is also evident by the presence of milling technology (e.g., mano [grinding stone] and metate [grinding bowl]) but, given a higher proportion of projectile points to grinding implements, emphasis on hunting rather than plant processing is assumed for the Windmill Pattern. Exploitation of a wide variety of terrestrial and aquatic animal species is suggested by a variety of projectile point types, baked clay line weights for fishing, trident bone spear tips for fishing, two types of bone fish hooks, and the faunal remains of both terrestrial and aquatic species (Bennyhoff 1950; Ragir 1972). Trade primarily focused on the acquisition of ceremonial and ornamental objects that were obtained in finished form rather than as raw material or pre-forms. The presence of artifacts made of exotic materials, such as obsidian, shell, and quartz, indicates that by 4000 B.C. an extensive trade network existed in central California and may represent the arrival of Utian populations into central California. The following Berkeley Pattern marks the eastward expansion of ancestral Miwok groups from the San Francisco Bay area (cf. Fredrickson 1973). The mortuary complex has a ceremonial emphasis, with associated grave goods being relatively common feature of burials. Burials occurred in both intra-village graves and in cemeteries—the most common burial posture is ventral extension of the body in a westerly orientation, although dorsal extension in a westerly orientation also occurs.

The Middle Horizon is characterized by the Berkeley Pattern. Dart and atlatl technologies were still in use during this period and are characterized by non-stemmed projectile point forms primarily made of obsidian. Milling technology is strongly represented in this period by minimally shaped cobble mortars and cobble pestles, although the mano and metate continue to be used. A higher proportion of grinding implements to projectile points at this time implies an emphasis on processing of plant resources, especially acorns, rather than hunting. A baked clay industry also begins to flourish at this time (Kielusiak 1982). Exploitation of both terrestrial and aquatic animal species using nets is suggested by the presence of spool-shaped

baked clay net weights and bone mesh gauges (Ragir 1972). The presence of bident bone fish spears (unbarbed and single unilateral barbed) also suggests the exploitation of aquatic resources during this period (Bennyhoff 1950). Burials typically occur within villages in flexed positions, with variable directional orientation. Lillard et al. (1939, pg. 78) notes that the practice of sprinkling powdered red ochre over burials was common during this period. Grave goods associated with burials are generally sparse and generally include only a few utilitarian items or ornamental objects. Burials, however, occasionally contain objects similar to “shaman’s kits” (e.g., quartz crystals, charmstones, and bone whistles) as described in the ethnographic record—suggesting the religious or ceremonial significance of certain individuals to the group (Hughes 1994, pg. 44). The number of Berkeley Pattern sites and depth of the cultural deposits at these sites suggest larger populations in comparison with the earlier Windmill Pattern. The Berkeley Pattern seems to reflect inter- and intra-regional variation, gradual expansion or assimilation of different populations rather than abrupt population replacement, and gradual change in economic emphasis (Fredrickson 1973, pgs. 116-133).

The Late Horizon, as reflected in the Augustine Pattern, seems to represent a change in the general subsistence pattern. Bow and arrow technology is introduced during this period, and acorns become the dominant food resource. Changes in the subsistence pattern also can be seen in the gradual abandonment of fish harpoons during the Late Horizon (fish harpoons are present during Phase I but are abandoned by early Phase II) (Bennyhoff 1950, pg. 316). Trade seems to have developed and expanded from previous periods, with both finished goods and raw materials being exchanged. Burials generally occur within villages either as cremations or in flexed positions with variable directional orientation. From the differential distribution of grave goods associated with the two types of burials, it appears that cremations were reserved for relatively wealthy and prestigious individuals with other individuals being buried in flexed positions. The emergence of the Augustine Pattern at central California sites may represent Wintuan population expansion from the north, which stimulated a blending of new traits with the established Berkeley Pattern (Johnson 1976, pg. 214). This period is marked by an intensification of exchange and subsistence activities and by population growth. The proliferation of settlements after A.D. 1400 possibly resulted in greater sociopolitical complexity and social stratification in central California, as suggested by the use of clamshell disk beads as an exchange medium.

Since the 1970s, research across central California has continued through federal and state agency sponsored work (e.g., Bouey 1994, Bouey and Waechter 1992, Rosenthal and White 1994) and academic research (e.g., Derr 1983, Dougherty 1990, Schulz 1981, Sheeders 1982). Research interests have expanded from an emphasis on defining cultural and chronological units to the nature of subsistence and settlement systems. This change is seen in the early use of burials to identify mortuary assemblages to the more recent use of osteological (bone-related) data to gain insight into the health of prehistoric populations (e.g., Dickel et al. 1984). Although researchers still do not agree on a single model or sequence for central California prehistory, the general scheme consisting of three temporal-cultural units (i.e., horizons, patterns, or periods) is generally accepted.

Previous archaeological investigations in the lower Sacramento Valley have primarily been conducted on the east side of the Sacramento River, particularly along the Cosumnes River. This work includes excavations at CA-SAC-267 (Johnson 1976), CA-SAC-16 (Derr 1983), CA-SAC-133 (Bouey and Waechter 1992), CA-SAC-43 (Bouey 1994), and CA-SOL-363 (Rosenthal and White 1994). A few sites (e.g., CA-SOL-363, CA-SOL-397, and CA-YOL-134) have been investigated west of the Sacramento River, but the results of these studies are not widely reported (e.g., Wiberg 1992, 1993). Regardless, they provide a prehistoric context for the project area.

CA-SOL-363 is located in Dixon and was excavated to facilitate construction of a housing development. Excavations documented 39 burials and 15 features (Rosenthal and White 1994). The flaked stone assemblage was dominated by chert debitage and obsidian bifaces (two-sided stone tools). Projectile points were primarily lanceolate forms (tapered like a spear or lance head) associated with the Berkeley Pattern and manufactured from Napa Valley obsidian. Olivella shell beads (Class F2a, F2b, F3b, G5 and C3) were attributed to the Intermediate Phase of the Middle Period. The absence of clamshell disk beads or Olivella Class M shell beads indicates the general lack of Augustine Pattern components at the site (Rosenthal and White 1994, pg. 61). The low ratios of milling tools to projectile points implied that vegetal resources were not emphasized for subsistence at the site (Rosenthal and White 1994, pg. 74). The burial patterns at CA-SOL-363 were consistent with the Berkeley Pattern (all the burials were flexed with variable orientation and no cremations were identified at the site). Other features of the site included hearths and refuse accumulations that consisted of four clusters coinciding with four separate burial groupings. The clusters were interpreted as individual households that were part of a loosely organized settlement. Faunal analysis suggested that the site was seasonally used as a winter settlement.

Site CA-SOL-397 is located on the UC Davis campus. Four burials were identified at the site and a wide variety of artifacts. The site is interpreted as a village site that may have been occupied year round (Shapiro and Tremaine 1999). Obsidian hydration data suggest that the site was occupied over a 550-year span between 125 and 675 years ago (A.D. 1275 to 1825), with the greatest intensity of obsidian use during the early A.D. 1700s. These dates place the initial use of site CA-SOL-397 in Late Phase 1 of the Late Horizon, with intensity of use increasing in Late Phase 2b to Euro American contact during the Historic Period. Similarly, analysis of beads from the site suggests a Late Phase 1 (A. D. 900 to 1500), Phase 2a (A. D. 1500 to 1700), and Phase 2b (A. D. 1700 to 1800) occupation of the site (Bennyhoff and Hughes 1987, pgs. 149 and 161). The archaeofaunal assemblage at CA-SOL-397 suggests that the site was occupied year round rather than seasonally, which is more typical of the regional pattern.

Site CA-YOL-134 is located on the UC Davis campus about 1.5 miles west of CA-SOL-397. The site was originally recorded in 1972 and described as a “burial site” with “typical late artifacts associated” (Williams 1972). Subsequent investigations (Shapiro et al. 1994; Nadolski 2002) have confirmed the original description and date of the site.

Ethnography

The project area is within the ethnographic territory of the Patwin. Primary sources on the Patwin include ethnographic accounts of Kroeber (1925, 1932); Powers (1877); McKern (1922, 1923); and the testimony of Princess Isidora, wife of Chief Solano (Sanchez 1930). There are also numerous secondary sources and overviews of Patwin culture (e.g., Cook 1976; Johnson 1978).

Patwin is the southernmost division of the Wintuan population, a distinction based primarily on linguistic variation. Patwin, like Wintuan, are members of the California Penutian linguistic stock. The Patwin occupied the southwest portion of the Sacramento Valley, from the lower hills of the eastern North Coast Ranges to the Sacramento River, and from Princeton south to San Pablo and Suisun Bays. Comprised of numerous different tribal groups, each with a separate dialect, the Patwin are usually separated into two primary subdivisions: Hill Patwin and River Patwin. The Hill Patwin occupied the lower, eastern slopes of the southern North Coast Ranges. Kroeber (1932) later subdivided the River Patwin to include the Southern Patwin, whose territory encompassed Solano County, including lower Putah Creek (Cook 1976, pg. 11). Territorial boundaries, however, between Patwin subgroups (i.e., Hill, River and Southern) are not clearly defined (e.g., Cook 1976, pg. 13). Scant ethnographic information exists regarding the southern River Patwin. Powers (1877) had difficulty finding the Southern Patwin, and McKern's (1922, 1923) data are limited geographically to the area near Colusa in northern California. River Patwin generally occupied the west side of the lower Sacramento River below the mouth of the Feather River and the lower reaches of Cache Creek and Putah Creek in the Sacramento Valley.

Patwin political organization was the tribelet, which was composed of a principal village and a few satellite settlements under the authority of a head chief. Tribelets were small, autonomous, and sometimes bounded by the limits of a small drainage. The chief of each village administered its economic and ceremonial activities. The position was usually passed from father to son, but some chiefs were chosen by the village elders. The chief possessed political, ceremonial, and economic powers and enjoyed high prestige (McKern 1922, pg. 246). He was the commissioner of crops, determined annual harvesting times, allocated lands to family groups, organized resource expeditions (e.g., hunting and wood gathering), and served as the primary resource distributor (McKern 1922).

Patwin subsistence relied on hunting, fishing, and gathering the various and abundant plant resources within their territory. Acorns were a major part of their diet, and were obtained from hill and mountain oaks communally owned by the tribelet (Johnson 1978, pg. 355). Other easily gathered resources included blackberries, elderberries, wild grapes, new tule shoots, certain roots and bulbs, honey, salt (acquired from burning salt grass), and tobacco (Kroeber 1932, pg. 280). Ethnographic records indicate that large game (e.g., deer, tule elk, antelope) were captured using nets or were shot using bows and arrows (Johnson 1978, pg. 355). Fish resources were also a prime resource for River Patwin. Fish (e.g., salmon, sturgeon,

perch, chub, sucker, hardhead, pike, and trout) and other riverine species (e.g., turtles and mussels) were caught with bone fishhooks and/or nets, seines, and weirs.

Patwin traded for various commodities and subsistence resources, using clamshell disc beads as a medium of exchange. River Patwin initially obtained shell beads from the Pomo through their Hill Patwin neighbors. Subsequently, River Patwin traded for whole shells from the Pacific Coast and made beads themselves (Johnson 1978, pg. 352). Obsidian was obtained from sources in the southern North Coast Ranges, primarily Napa Valley (Johnson 1978, pg. 352). Johnson (1978, pg. 352) suggests that not all external relationships were friendly, particularly with the Napa Valley region, and that conflicts with Napa Valley groups probably affected the availability of obsidian from the area.

Mortuary customs of the ethnographic Patwin and/or southern Wintuan involved elaborate mourning ceremonies over the deceased, burial rather than cremation, interment in tightly flexed positions, and the simultaneous burial of one's possessions at death. Less evident is the practice of burning or pre-interment grave pit preparation. Kroeber (1925, pg. 359-361) observed that the Patwin buried their dead in "little graveyards not more than 100 yards from the houses of the living, and often in the village" to prevent grave robbery. Johnson (1978, pg. 357) reiterates that cemeteries were usually located within "one end of the community." Property was buried with the dead in large quantities and in some areas burned near the grave. At death, long burial robes of hemp, or sometimes of bear fur, were wrapped around the deceased body (Johnson 1978, pg. 356; Kroeber 1932, pgs. 281-282).

Euro American Contact

Spanish exploration of the Central Valley dates to the late 1700s, but exploration of the northern section of the Central Valley and contact with its Native American population did not begin until the early 1800s (Beck and Haase 1974). At this time, the attention of Spanish missionaries shifted away from the coast, and its dwindling Native American population, to the conversion and missionization of interior populations such as the Patwin. This period also marks the beginning of the decline of Native American populations because of an influx of new Euro American diseases and relocation of many groups to missions. Many Native American groups, however, were not willing converts, and there are numerous accounts of groups fleeing missions. Subsequent attempts by the Spanish to return Native Americans to missions led to a series of "Indian Wars," which resulted not only in the loss of life but also the loss of Native American traditional culture.

The second quarter of the nineteenth century encompasses the Mexican Period (ca. 1821-1848) in California. This period is an outgrowth of the Mexican Revolution, and its accompanying social and political views affected the mission system across California. In 1833, the missions were secularized and their lands divided among the Californios as land grants called ranchos. These ranchos facilitated the growth of a semi-aristocratic group that controlled the larger ranchos. Work on many of these large tracts of land was accomplished by local Native American populations, who were essentially used as forced labor. Consequently,

Native American groups across California were forced into a marginalized existence as peons or vaqueros on large ranchos. The current project area is either within or near the Tolenas and Suisun land grants (Beck and Haase 1974).

Simultaneously with exploration of the Central Valley and the flanks of the Sierra Nevada, trails were being blazed across the plains and mountains—facilitating the westward migration of Euro Americans. These early immigrants are typified by groups such as the 1841 Bartleson-Bidwell party and the 1844 Stevens-Murphy party. The commencement of the Mexican-American War in 1846 also affected the exploration and development of California, including the identification of new trails across the Sierra Nevada. The exploits of the Mormon Battalion and the establishment of the Mormon Emigrant Trail highlight these activities. The discovery of gold at Sutter’s Mill in Coloma in 1848, however, was the catalyst that caused a dramatic alteration of both Native American and Euro American cultural patterns in California. Once news of the discovery of gold spread, a flood of Euro Americans entered the region and gravitated to the area of the “Mother Lode.” Initially, the Euro American population grew slowly but soon exploded as the presence of large deposits of gold was confirmed in the Sacramento area. The population of California quickly swelled from an estimated 4,000 Euro Americans in 1848 to 500,000 in 1850. Sacramento, established in 1848 by John A. Sutter, Jr., also reflected regional changes in population and was incorporated as a city in 1850 (Hoover et al. 1990). The discovery of gold and the large influx of Euro American immigrants positively affected the growth and economic development of Sacramento but negatively affected Native American cultures. Indeed, the discovery of gold in California marked the beginning of a relatively rapid decline of both Native American populations and culture.

The latter half of the nineteenth century witnessed an ongoing and growing immigration of Euro Americans into the area that was accompanied by regional cultural and economic changes. These changes are highlighted by the development of Sacramento, Fairfield, Suisun City, and other towns associated with expanding business opportunities related to gold mining, agriculture, or ranching. The project area highlights the development of agriculture and ranching in the region.

4.11.2 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

The following criteria were used to evaluate the significance of potential impacts on cultural resources. An impact on cultural resources was considered significant if the proposed project would affect a resource eligible for inclusion in the National Register of Historic Places (NRHP), eligible for inclusion in the California Register of Historical Resources (CRHR), or identified as a unique archaeological resource.

Section 106 of the National Historic Preservation Act shows guidance for the identification of historic properties and determining their historical significance. Section 106 shows the following eligibility criteria for inclusion in the NRHP at 36 CFR 60.4 [a-d]:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

- ▶ that are associated with events that have made significant contributions to the broad patterns of our history; or
- ▶ that are associated with the lives of persons significant in our past; or
- ▶ that embody the distinctive characteristics of type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- ▶ that have yielded, or may likely yield, information important in prehistory or history.

CEQA and the State CEQA Guidelines define a historical resource as “a resource listed in or determined to be eligible for listing in the CRHR” (§§21083.2 and 15064.5). According to State CEQA Guidelines §15064.5(a)(3), a historic resource may be eligible for inclusion in the CRHR if the resource:

- ▶ Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- ▶ Is associated with the lives of persons important in the state’s past;
- ▶ 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 values; or
- ▶ Has yielded, or may be likely to yield, important information regarding prehistoric or historical conditions.

State CEQA Guidelines §21083.2(g) also shows criteria for the identification of unique archaeological resources. An archaeological resource is considered unique if the resource:

- ▶ Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- ▶ Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- ▶ Is directly associated with a scientifically recognized important prehistoric or historic event.

Impact
4.11-1

Disturbance of Unidentified Cultural Resources. *No known cultural resources would be affected by project implementation. However, site construction would include the removal of vegetation and soils through grading and excavation activities. Because Native American and historical cultural resources may be present within subsurface soils on the project site, these grading and excavation activities could cause the disturbance of these resources. The disturbance of previously unidentified cultural resources would be considered a **potentially significant** impact.*

The pedestrian surface survey of the project APE identified a windmill and barn that were recorded as site PHLF-1. No other cultural resources (i.e., prehistoric sites, historic sites, or isolated artifacts) were identified within the project APE.

Both the windmill and barn generally lack integrity of design, materials, workmanship, feeling, and association. Both structures are in poor condition because of a lack of maintenance. The windmill lacks all but one of its blades, and its integrity has been affected by the addition of electrical facilities to both its exterior and interior. In addition, archaeological investigations did not identify any evidence to suggest that the two structures are associated with events important in regional or local history, are associated with individuals important in regional or local history, embody distinctive characteristics of design or a particular period of use, or possess the potential to provide additional significant information relevant to regional or local history. Therefore, the windmill and associated barn within the APE of the Phase II Project do not meet the eligibility requirements for inclusion in either the NRHP or CRHR, or for consideration as significant archaeological resources. In addition, these structures would not be disturbed by site development. Both structures are located outside of the development footprint for the landfill expansion and its accessory facilities. Therefore, no significant cultural resource impacts associated with these facilities would be anticipated with project implementation. (Please see Section 4.3 concerning the barn's potential for provision of California tiger salamander habitat.)

Although no significant cultural resources have been identified on the site, the removal of vegetation and soils through grading and excavation activities could reveal previously unidentified Native American and/or historical cultural resources. The greatest potential of discovering cultural resources exists while excavating for a new landfill cell. The potential disturbance of previously unidentified cultural resources would be considered a potentially significant impact.

Mitigation Measure 4.11-1 Disturbance of Unidentified Cultural Resources

The project applicant shall implement the following measures for cultural resources discovered during project implementation activities.

- ▶ In the event that cultural or paleontological resources are encountered during project construction, all earth-moving activity in the specific construction area shall cease until the applicant retains the services of a qualified archaeologist or paleontologist. The archaeologist or paleontologist shall examine the findings, assess their significance, and

offer recommendations for procedures deemed appropriate to either further investigate or mitigate adverse impacts on those cultural or paleontological archaeological resources that have been encountered (e.g., excavate the significant resource).

- ▶ If human bone or bone of unknown origin is found during project construction, all work shall stop in the vicinity of the find and the County Coroner shall be contacted immediately. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission. The Native American Heritage Commission shall notify the person considered to be the most likely descendant. The most likely descendant will work with the project applicant to develop a program for the re-internment of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the identified appropriate actions have been completed.
- ▶ Project personnel shall not collect or retain artifacts found at the site. Prehistoric resources may include, but would not be limited to, chert or obsidian flakes; projectile points; mortars and pestles; and dark friable soils containing shell and bone, dietary debris, scorched rock, or human remains. Historic resources may include, but would not be limited to, stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits, including those in old wells and privies.

Level of Significance after Mitigation

With implementation of the identified mitigation measure, potential impacts on unidentified cultural resources would be considered less than significant.