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# Section 4-5

## Cultural Resources

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This section provides information on cultural resources located in the study area. A discussion of federal, state, and local laws, policies, and regulations that influence cultural resources is also presented in this section. Impacts on cultural resources that may result from the Proposed Project are identified, and mitigation measures to avoid, minimize, and compensate for significant impacts on these resources are described.

### 4-5.1 STUDY METHODS

Methods used to assess the Proposed Project's potential impacts on cultural resources consisted of pre-field archival research, consultation with Native American groups and individuals as well as with local historical societies, an archaeological field survey, and a subsurface inventory in areas with a potential to contain buried archaeological materials. A summary of the region's prehistory, history, and ethnography is also provided as context within which the potential impacts are analyzed.

#### 4-5.1.1 Study Area Defined

For the purposes of this EIR, the study area consists of two separate project sites—the Alamo site and the Ulatis Creek site, collectively referred to as Project sites. The study area for evaluating cultural resources is the Area of Potential Effects (APE) for cultural resources. This area is defined as the entirety of both project parcels as all portions of the sites will be either directly affected by construction activities, or used as staging areas during construction. No land outside the boundaries of either parcel is considered part of the APE.

#### 4-5.1.2 Records Search

Before beginning fieldwork, a request was sent to the Northwest Information Center (NWIC) of the California Historical Resources Information System to conduct a search of materials on file for the area in and within a 0.25-mile radius of the Alamo and Ulatis site boundaries.

Specialized listings that were consulted include the Historic Properties Directory for Solano County, which includes the most recent updates of the National Register of Historic Places (National Register), California Register of Historic Resources (California Register), California Historical Landmarks, and California Points of Historical Interest, as well as evaluations of properties reviewed by the State of

California Office of Historic Preservation. The California Inventory of Historic Resources was also reviewed, as were local inventories, lists, and historic maps.

### **4-5.1.3 Native American Consultation**

#### **4-5.1.3.1 Alamo Site**

For the Alamo site, a letter was sent to Ms. Debbie Pilas-Treadway of the Native American Heritage Commission (Commission) on July 1, 2009, requesting a search of the Sacred Lands files and a list of interested Native American individuals and parties. A reply was received on July 7, 2009, stating that there were no known sacred sites in the Proposed Project area and providing a list of eight interested parties. Letters were sent to these individuals on July 7, 2009. Follow-up phone calls were made to all individuals on the list on August 18, 2009. A letter from Marshall McKay, tribal chair of the Rumsey Indian Rancheria, was received on July 15, 2009, expressing the tribe's desire to be involved in any future work at the site and providing contact information for the tribal Cultural Resources Information Specialist.

In addition to the correspondence with the Commission and interested Native American parties, the designated Most Likely Descendent (MLD), Kesner Flores, was contacted prior to the inception of ground-disturbing trenching activities.

#### **4-5.1.3.2 Ulati Site**

For the Ulati site, a fax was sent to the Commission on January 16, 2009, requesting a search of the Sacred Lands file and the contact information for any Native American groups or individuals who might be interested in the Proposed Project. The Commission responded on January 27, 2009, stating that there was no record of sacred lands in or around the Proposed Project area and providing the contact information for two individuals. A call was made to Debbie Pilas-Treadway of the Commission on January 27 and again on February 4 to confirm that there were no other interested parties. These calls, however, were not returned. A letter was sent to the two listed individuals on January 28, 2009, detailing the Proposed Project and requesting their input. Follow-up phone calls were made on February 11, 2009. No comments from either of these individuals has been received.

### **4-5.1.4 Archaeological Survey**

#### **4-5.1.4.1 Alamo Site**

The Alamo site was intensively surveyed by Far Western archaeologists on June 29, 2009. The survey consisted of archaeologists walking transects from north to south at 15-meter intervals over the entire area. Cultural remains were marked with pin flags when found, and sites were recorded after the entire area had been surveyed.

The Alamo site consists of apricot and prune orchards, fallow fields, and a thick riparian forest along the banks of Alamo Creek. The orchard had been disked just prior to the survey and visibility was excellent along the rows of trees. A swath approximately 30 meters wide had been disked around the fallow field and visibility was likewise excellent in this area. Visibility within the fallow field itself, however, was very poor; only small patches of dirt were visible between waist-high grasses, offering less than 1% ground visibility. Areas along the creek margin were likewise overgrown and visibility was minimal. Other obstacles to ground visibility included several piles of recent debris from orchard operations, a slash pile, and the recent remains of a demolished outbuilding or house.

#### **4-5.1.4.2 Ulati Site**

The Ulati site was intensively surveyed by Far Western on January 16, 2009. The survey consisted of archaeologists walking transects spaced 20 meters apart. In addition, any exposed surfaces or cutbanks in Ulati Creek were examined for evidence of archaeological resources. Unfortunately, ground cover was heavy throughout the majority of the parcel, including the heavily vegetated cutbanks of the creek. The exception was an exposed (disked) swath of land approximately 20 meters wide around the entire parcel. This area was examined more closely given the enhanced visibility of native soils.

### **4-5.1.5 Geoarchaeological Study**

Both sites contain late Holocene soils with a high probability for buried surfaces and archaeological deposits; consequently, a geoarchaeological sensitivity study was conducted to predict the likely locations of buried archaeological resources at the two sites.

#### **4-5.1.5.1 Alamo Site**

Exploration trenches were excavated at 28 locations at the Alamo site in an effort to determine the presence or absence of buried prehistoric archaeological remains. All trenching was performed outside of a 100-foot radius buffer from elderberry shrub locations. The exact location and size of each trench were determined in the field based on existing conditions and constraints, and the ongoing results of trenching. The trench dimensions averaged about 1.0 meter (3.3 feet) wide, 3.8 meters (~12.5 feet) deep, and 3.9 meters (~12.8 feet) long, although some were excavated longer and/or deeper in areas where the subsurface deposits appeared younger and/or variable. The presence or absence of archaeological materials was determined by examining and raking the deposits as they were removed from the trenches and by examining the trench walls whenever possible. Given the agricultural history of the site, there was potential for archaeological materials to have been redeposited by plowing and land-leveling activities. Two buried soils were identified in several of the backhoe trenches. The older of these was dated to the Pleistocene-Holocene transition while the younger is at least 7,000 years old.

#### **4-5.1.5.2 Ulati Site**

Subsurface testing at the Ulati site was performed by Far Western personnel on May 27 and 28, 2009. The work generally focused on the margins of the site where substantial Project-related earth disturbances are proposed, while remaining outside of a 100-foot radius around elderberry shrub locations. Exploration trenches were excavated at 23 locations in an effort to determine the presence or absence of

buried prehistoric archaeological remains. The exact location and size of each trench were determined in the field based on existing conditions and constraints, and the ongoing results of trenching. The trench dimensions were generally about 1 meter (3 feet) wide, 4 meters (~13 feet) deep, and 3.7 meters (~12 feet) long, although some were excavated longer and/or deeper in areas where the subsurface deposits appeared younger and/or variable. Buried Holocene-age soils or land surfaces overlain by younger alluvium were identified in all but two trenches. The buried soil/land surfaces occurred at depths ranging from 0.7 to 4.0 meters (~2.3-13.1 feet) below the present ground surface. The stratigraphic sequence generally consisted of three thick deposits of alluvium exhibiting weakly to moderately developed soils constituting a surface soil (A-horizon), an upper buried soil (2Ab horizon), and a lower buried soil (3Ab horizon).

## 4-5.2 ENVIRONMENTAL SETTING

This section describes the regional setting and existing conditions related to cultural resources in the study area.

### 4-5.2.1 Regional Setting

#### 4-5.2.1.1 Archaeological Overview

##### Prehistoric Cultural Chronology for the Vacaville Area

The following discussion focuses on cultural assemblages from a sequence of time periods in Solano and neighboring counties to the south. The time periods have been modified from those of Fredrickson (1974) in accordance with recent findings from central California (e.g., Meyer and Rosenthal 1997). Within these sections, concordance with the Bay Area Dating Scheme D (Groza 2002) is discussed.

##### ***LOWER ARCHAIC (10,000–6000 BEFORE PRESENT [BP])***

The oldest archeological component found so far in the Bay–Delta region derives from the Los Vaqueros Reservoir area in eastern Contra Costa County. Two sites at the reservoir (CCO-637, -696) have produced artifact assemblages and human burials dated between 9,870 and 6,600 years ago (Meyer and Rosenthal 1997, 1998). These deposits were buried at depths of from two to four meters below the surface in alluvial fan/floodplain sediments along Kellogg Creek.

The combined Lower Archaic assemblage at Los Vaqueros included handstones and millingslabs, cobble-core tools, and a wide-stemmed obsidian projectile point, reminiscent of archaeological deposits found in the southern Clear Lake Basin and elsewhere in the southern North Coast Ranges dating to this time (White 2002). At least three human burials from Los Vaqueros are known to date to this period, one of which was buried under a stone cairn. Small but diverse floral and faunal assemblages indicate that a variety of animal and plant species were utilized by the site inhabitants. Large nuts (acorns and wild cucumber) and berries (manzanita) were the dominant plant resources represented in the archaeological deposits. Obsidian from both the North Coast Ranges and eastern Sierra Nevada was utilized. Overall,

the Lower Archaic assemblage from Contra Costa County appears to have affinities with assemblages assigned to the Borax Lake Pattern in the North Coast Ranges and “Milling Stone Horizon” assemblages to the south. Sites of this age are unknown from Solano County.

### ***INITIAL MIDDLE ARCHAIC (6000–4500 BP)***

Extensive early Middle Archaic deposits are rare in central California, but two sites of this age are known from Los Vaqueros (Meyer and Rosenthal 1997, 1998). Site CCO-637, located in a small valley, included deeply buried components found in an alluvial fan adjacent to Kellogg Creek. The site was contained in a buried soil and included a diverse assortment of habitation debris, several human burials, and residential and processing features.

Several characteristics of this important deposit, including exclusive use of the mortar and pestle, suggest that this assemblage may be affiliated with the Berkeley Pattern, previously placed no further back in time than the Terminal Middle Archaic or Early Period (Fredrickson 1973). Among the distinctive artifacts associated with this component is one of the oldest dated shell bead lots in central California (4160 BP) and a unique type of pestle apparently used with a wooden mortar (Meyer and Rosenthal 1997).

### ***TERMINAL MIDDLE ARCHAIC (4500–2500 BP)***

A number of archaeological sites in Contra Costa and Solano Counties date to the Terminal Middle Archaic period, including portions of CCO-637 and -696 at Los Vaqueros Reservoir (Meyer and Rosenthal 1997, 1998), CCO-308 in the San Ramon Valley (Fredrickson 1966), and SOL-315 (Wiberg 1992) and SOL-391 (Wohlgemuth and Rosenthal 1999) in Green Valley, just west of Vacaville. These latter two sites are the oldest well-dated archaeological deposits in Solano County. Initial use of the shell mound sites along the San Francisco estuary also appears to have begun during this time interval (Banks and Orlins 1985; Broughton 1997; Lightfoot 1997; Waechter 1992). The Terminal Middle Archaic is equivalent to the Early Period in Dating Scheme B, the earliest time period covered by that scheme.

All of the known Terminal Middle Archaic sites in Solano and Contra Costa Counties have produced human remains, and most contain intact burials. A variety of artifacts are associated with this time period, including side-notched and stemmed projectile points, rectangular *Haliotis* (abalone) ornaments, shaped and unshaped mortars and pestles, and rectangular *Olivella* shell beads (Fredrickson 1966; Meyer and Rosenthal 1997). Of particular interest is the vibrant Windmill Culture that existed in the lower Sacramento Valley during this period; however, no evidence of its distinctive mortuary pattern has been discovered in Solano County.

Obsidian from the North Coast Ranges and eastern Sierra continued to be used during this period (Jackson 1974; Meyer and Rosenthal 1997; Waechter 1992; Wiberg 1996); however, in Solano County, obsidian from a source in the northern Napa Valley was now used almost exclusively (Wiberg 1992; Wohlgemuth and Rosenthal 1999). Nut and berry crops (i.e., acorn, manzanita, and pine nut) appear to have been the primary plant resources targeted during this time period (Meyer and Rosenthal 1997). Along the bayshore, marine shellfish species were an important subsistence resource (Banks and Orlins 1985; Waechter 1992), as were marine fishes and mammals (Broughton 1997; Simons 1992). Interior sites include a similar assortment of faunal resources, although freshwater fish, shellfish, and terrestrial mammals were used exclusively.

### ***UPPER ARCHAIC/MIDDLE PERIOD (2500–1300 BP)***

The Upper Archaic is equivalent to the Early/Middle Transition and the Middle Period in Dating Scheme B of Bennyhoff and Hughes (1987). Upper Archaic deposits are found throughout the lowland valleys of the Coast Ranges and along the shores of San Francisco and Suisun Bays. These sites are typically located near freshwater streams, and many have been found in buried contexts (Banks and Orlins 1979, 1981, 1985; Cook and Elsasser 1956; Fredrickson 1966, 1968; Hammel 1956; Heizer 1949; Holman and Clark 1982; Lightfoot 1997; Meyer and Rosenthal 1997; Waechter et al. 1995). Several excavated sites in Solano County date to this time interval, including sites in Green Valley (SOL-11, SOL-355/H [Rosenthal 1996; Snoke 1967; Wiberg 1993]), in Vaca Valley (P-48-816, SOL-320/H, SOL-357, SOL-425/H; SOL-451; [Rosenthal et al. 2009; Whitaker et al. 2009]); and in the Sacramento Valley near Dixon (SOL-363, -379, -380 [Chatten et al. 1994; Rosenthal and White 1994; Shapiro and Tremaine 1995]).

Upper Archaic sites are typically composed of well-developed midden deposits containing hundreds of human burials and habitation features, representing long-term residential villages. The earliest Upper Archaic sites contain classic Berkeley Pattern assemblages, characterized by well-developed bone tool and ornament industries, numerous saucer- and saddle-shaped Olivella shell beads, steatite disk beads, Haliotis ornaments and pendants, and both unshaped and well-shaped mortars and pestles (Rosenthal 1996; Wiberg 1993). Projectile points are typically shouldered Lanceolate forms, although side-notched and stemmed points also occur, along with large Lanceolate bifaces. Well-made charmstones from various types of stone as well as baked clay are frequently found at sites in Solano County. Human interments are typically placed in a flexed position with distinct burial postures and orientations identified at different sites (c.f., Fredrickson 1973; Rosenthal 1996). In the north bay, obsidian from Napa Valley appears to have remained an important tool stone (Rosenthal and White 1994; Shapiro and Tremaine 1995; Wiberg 1992).

Subsistence remains indicate that acorns and other large nut and seed crops were an important part of the diet, with a growing emphasis on small-seeded resources (Meyer and Rosenthal 1997; Rosenthal et al. 2009; Rosenthal and White 1994; Whitaker et al. 2009; Wiberg 1993; Wohlgenuth 1996). Faunal assemblages continue to reflect either marine or terrestrial taxa, depending on the location of the site (Broughton 1997; Fredrickson 1966, 1968; Meyer and Rosenthal 1997; Wiberg 1992)—although during the Upper Archaic, marine shellfish first occurred in appreciable amounts in interior valley sites (Fredrickson 1966, 1968).

Well-entrenched social boundaries have been identified through burial pattern analysis of sites in Suisun, Fairfield, Vacaville, and Dixon. Rosenthal (1996) identified a difference between the Green Valley and Dixon Aspects during this time with a regimented burial pattern of north- and west-facing burials interred on their right or left sides in the Green Valley Aspect, and no patterning of burial orientation for interments from the Dixon Aspect. Whitaker et al. (2009) and Rosenthal et al. (2009) incorporated data from several sites in Vacaville (SOL-320, -425, -451, P-48-816) deduced that the social boundary lies somewhere between Ulati and Alamo Creeks, with Alamo Creek making up the northern boundary of the Green Valley Aspect. The stark delineation of social boundaries is thought to have reduced the ability of people to access distant resource patches, perhaps requiring them to increase the diversity of resources exploited and the intensity of use for lower-ranking resources.

### ***EMERGENT PERIOD/LATE PERIOD PHASE I (1300–200 BP)***

The Emergent Period is equivalent to the Middle/Late Transition and the Late Period in the Dating Scheme B chronology. The distinctive cultural pattern of the Emergent Period is marked by the appearance of small arrow-sized projectile points, beautifully trimmed “show” mortars, flanged pestles, flanged steatite pipes, and chevron-designed bird-bone tubes. Emergent Period sites have been excavated at several locations in Solano County, including SOL-356 in Green Valley (Wiberg 1996), SOL-30 in Lagoon Valley, the Nakamura and Glasshoff sites in Suisun Valley (Phebus 1990), the Peterson Mounds (SOL-1, -2 and -3) west of Vaca Valley, and the Glenn Cove site (SOL-236) near the Carquinez Bridge (Beardsley 1954).

Emergent Period deposits are documented in most interior valleys and bayshore locations, as well as in upland contexts, where habitation and task-specific sites are reported (Atchley 1994; Baker 1987; Banks and Orlins 1979; Bramlette 1989; Fredrickson 1966, 1968; Holson et al. 1993; Lillard et al. 1939; Meyer and Rosenthal 1997; Wills 1994). Buried sites dating to the Emergent Period have been found in some of the interior valleys (Fredrickson 1966; Meyer and Rosenthal 1997; Wiberg 1996), although most of the recorded sites are located at the surface. Typically, these sites are well-developed midden deposits containing both human cremations and standard burials. Residential features, including house floors, are common (Phebus 1990; Wiberg 1996).

It was also during the Emergent Period that bedrock mortar milling stations were first established, beginning in the East Bay area around 1,300 years ago (Meyer and Rosenthal 1997). Portable mortars and pestles continued to be used, although smaller specimens were preferred. Changes in the size of these tools may have been in response to increasing use of small-seeded plant resources (Meyer and Rosenthal 1997; Wohlgenuth 1996). Olivella and clam shell disc beads are frequently found with Emergent Period burials and in midden deposits. Manufacturing debris has been found, suggesting that at least some of these beads were made locally (Hartzell 1991; Meyer and Rosenthal 1997; Palumbo 1964; Wiberg 1996). Obsidian from the Napa Valley was used almost exclusively, arriving in the form of small, unmodified pebbles or large flake blanks—later made into serrated arrow points (Bieling 1996; Meyer and Rosenthal 1997; Wiberg 1996).

Large mammals appear to have taken a more prominent role in the diet during this period, as did small-seeded resources. Marine shellfish and marine fishes were moved inland in much larger quantities during the Emergent Period (Baker 1987; Fredrickson 1968; Meyer and Rosenthal 1997). Large villages composed of hundreds of people are thought to have been located in the Delta region, while smaller hamlets composed of one or two extended families were located in some of the smaller valleys (Meyer and Rosenthal 1997).

#### **4-5.2.1.2 Ethnographic Overview**

Several ethno-historical and ethnographic accounts provide descriptions of the Native inhabitants of the southern Sacramento Valley at the time of contact. When Euro-Americans first entered central California, the area west of the Sacramento River and north of Suisun Bay (including the entire Sacramento Valley as far north as Princeton in Colusa County) was occupied by linguistically and culturally related tribelets. These groups had no common name, collective identity, or political unity, but did speak dialects of the same historically related language. This linguistic similarity led Powers (1877) to call the groups “Patwin,” a term each group used in reference to themselves (Johnson 1978:350; Powers 1877:218). The Patwin, along with their neighbors, the Nomlaki and Wintu, speak Wintuan, a

language that is part of the larger Penutian language family (which also includes Miwok, Maidu, Coastanoan, and Yokuts).

The Proposed Project sites are within the traditional territory of the Ululato Patwin, whose principle village is thought to have been along Ulati Creek in modern urban Vacaville (Bennyhoff 1994; Johnson 1978; Powers 1877). On October 23, 1821, the Ululato were visited by an expedition of more than 70 men headed by Luis Arguello, Commandant of the Presidio of San Francisco. Arguello also visited several other Patwin villages on his way up the Sacramento Valley. During that same year, 215 Ululato were baptized at Mission San Francisco de Asis (Mission Dolores), probably comprising the majority of the tribelet. Just 67 Ululato were baptized at the mission in the subsequent 10 years, the last in 1833 (Milliken 1995). When the missions were secularized beginning in 1834, surviving Ululato probably went to work for Mexican ranch owners in the Bay Area. Modern Patwin are mainly members of two federally recognized political entities: the Cortina Band of Wintun Indians and the Rumsey Indian Rancheria of Wintun.

### 4-5.2.1.3 Historical Overview

Historic-era use of the area surrounding Vacaville began in 1842 with the construction of Peña Adobe by Juan Felipe Peña. The adobe was the headquarters of the Los Putos land grant, deeded in 1842 to Peña and Manuel Cabeza de Vaca. The Los Putos grant extended as far north as Putah Creek, encompassing 44,386 acres. The Peña Adobe, restored in 1962 and listed on the National Register of Historic Places (NRHP) in 1972, still stands, and is the centerpiece of Peña Adobe Park, located in Vacaville and owned by the City. By the mid-1840s, Peña and Vaca were grazing as many as 2,000 head of cattle on the rancho.

By the 1870s, two additional adobes had been constructed: Jose Demetrio Peña's adobe was located at or near the present site of the Rancho Motel, while Manuel Peña's adobe was located north of the present route of I-80. During this time, wheat and livestock production were the primary economic pursuits in the valley, lasting until the 1880s. In 1884, Eliza Buckingham purchased a portion of Jose Demetrio's property and began the extensive orchard planting that made Vacaville famous for fruit production in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Buckingham established large tracts of apricots and peaches to supplement the pears, figs, and walnuts previously planted by Jose Demetrio.

The California Pacific Railroad, which ran from Vallejo to Sacramento, was constructed just southwest of Vacaville in 1868. A spur line was constructed into the City, which aided the developing horticultural industry in the area. By 1888, over half of the deciduous fruit produced in California came from Solano County (Koenig and Praetzellis 2007).

Following World War I, the orchard industry declined from drought and unfavorable economic conditions brought on by the Great Depression. Beginning in the 1920s, the old families, such as the Peñas and Buckinghams, began to subdivide and sell off their land. By the early 1950s, most of the orchards that once covered most of Lagoon and Vaca Valleys were gone, and much of the region reverted to pasture land or was converted to commercial land incorporated into the city of Vacaville.

The earliest mapping showing the property for the Alamo site is the 1879 Thompson and West Map. At that time, W. J. Dobbins owned a parcel of more than 14,000 acres that included the southern and eastern portions of the proposed basin. Dobbins' property extended farther to the south, where a farmstead was located near the current intersection of Monte Vista Avenue and Gibson Canyon Road.

By 1890, much of the parcel had been subdivided, as fruit culture began to form the economic base of the area. E. I. Upham owned 59.56 acres constituting the southern portion of the proposed detention basin. The northeast portion was Lot 7 of the Long Tract, and the western portion was part of the B. Long holdings. The 56 acres held by Upham became Lot 11 of the Long Tract by 1909. James N. Rogers purchased both lots by 1915, in addition to the 161-acre Rogers fruit ranch farther north in Pleasants Valley and established before 1890; therefore, it is probable that this smaller holding may have been a tenant farm. The Corps Mount Vaca Quadrangle, which was surveyed in 1915 and printed in 1921, indicates that the area was planted in orchards; no buildings are indicated. The first indication of buildings is found in the 1937 aerial photographs that show a few buildings along the west side of Rogers Lane and an outbuilding west of Rogers Lane along Alamo Creek. The orchards matured and were thinned by 1957, and were renewed in the ensuing years.

The northwestern portion of the Alamo site began as a 139-acre parcel owned by W. B. Long in 1876. The Long residence was located on the western side of Pleasants Valley Road, with the portion in the current study area unoccupied. The current parcel remained in the Long family until between 1915 and 1925, although the surrounding land was subdivided and sold. G. W. Samuels owned the land in 1925, and the first indications of buildings are in the 1937 aerial photographs. The photographs show a farmstead of two buildings next to Pleasants Valley Road and two barns, one to the north and the other to the south (visible on the study area map). Between 1957 and 1964, the northern barn was removed, and between 1972 and 1984, a second long and narrow barn was added near the southern barn. The farmstead appears to have remained intact since then, although the orchards on the lot were removed after 1984.

Reuel Drinkwater Robbins, who owned the Ulati site, was one of the large landholders who created tenant farms during the agricultural boom of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. Robbins came to California in 1860 and began work as a laborer in quarries and lumber operations. He was able to purchase part of the lumber company he worked for and became a successful businessman. Robbins established the Bank of Suisun in 1876 and invested in real estate. He combined the cherry orchard of W. W. Smith with farmland of J. M. Pepper into a large tenant farm. The property remained in the family until the 1970s.

## **4-5.3 REGULATORY FRAMEWORK**

The regulatory framework that mandates consideration of cultural resources in project planning includes federal, state, and local regulations. Cultural resources include prehistoric and historic-era archaeological sites, districts, and objects; standing historic-era structures, buildings, districts, and objects; and locations of important historic events or sites of traditional and/or cultural importance to various groups. Cultural resources may be determined significant or potentially significant in terms of national, state, or local criteria either individually or in combination.

### **4-5.3.1 Federal Regulations**

#### **4-5.3.1.1 National Historic Preservation Act**

Criteria for defining significant cultural resources are stipulated in the National Historic Preservation Act (NHPA; new regulations issued 1999) and CEQA (revised January 2008). The NHPA, which is

applicable to all undertakings that involve federal lands, permits, or funds, defines a significant cultural property as one that is eligible for listing on the NRHP. Eligible properties are those that “(a)...are associated with events that have made a significant contribution to the broad patterns of our history; (b) that are associated with the lives of persons significant in our past; (c) that embody the distinctive characteristics of a type, period, or method of construction, 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” (36 CFR 60.4). Typically, historic-era properties are evaluated under each of these criteria, while prehistoric properties are evaluated under Criterion D only. In practice, unevaluated resources usually are treated as potentially significant.

Under the NHPA, the lead federal agency must consider effects to eligible or potentially eligible properties from the proposed undertaking. This includes identification of eligible properties (usually through archival research, field inventories, public interpretation, and/or test evaluations), assessment of potential adverse effects on eligible properties, and development of mitigation measures to offset those effects. The new regulations emphasize consultation with appropriate Native American communities, in the case of prehistoric or ethnographic properties, or Traditional Cultural Properties; and the preparation of Memoranda of Agreement (MOA) between all involved agencies and parties.

## 4-5.3.2 State Regulations

### 4-5.3.2.1 CEQA Guidelines Section 15064.5

CEQA requires a review to determine if the project will have a significant effect on archaeological sites or properties of historic or cultural significance to a community or ethnic group eligible for inclusion in the California Register. The California Register (Section 5024.1) is a listing of those properties that are to be protected from substantial adverse change, and it includes properties that are listed, or have been formally determined to be eligible for listing in the National Register, State Historical Landmarks, and eligible Points of Historical Interest. A cultural resource may be listed in the California Register if it meets one or more of the following criteria:

- is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- is associated with the lives of persons important to local, California, or national history;
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- has yielded, or has the potential to yield, information important in the prehistory or history of the local area, California, or the nation.

## Architectural Resources

Public Resources Code (PRC) Section 21084.1 stipulates that any resource listed in, or eligible for listing in, the California Register is presumed to be historically or culturally significant. Resources listed in a local historic register or deemed significant in a historical resource survey (as provided under PRC Section 5024.1g) are presumed historically or culturally significant unless the preponderance of evidence demonstrates they are not. A resource that is not listed in or determined to be eligible for listing in the California Register, not included in a local register or historic resources, or not deemed significant in a historical resource survey, may nonetheless be historically significant (PRC Section 21084.1). This

provision is intended to give the Lead Agency discretion to determine that a resource of historic significance exists where none had been identified before and to apply the requirements of PRC Section 21084.1 to properties that have not previously been formally recognized as eligible.

CEQA equates a substantial adverse change in the significance of an historical resource with a significant effect on the environment (PRC Section 21084.1) and defines substantial adverse change as demolition, destruction, relocation, or alteration that would impair a resource's historical significance (PRC Section 5020.1).

## Archaeological Resources

Where a project may adversely affect a unique archaeological resource, PRC Section 21083.2 requires the Lead Agency to treat that impact as a significant environmental effect. When an archaeological resource is listed in or is eligible to be listed in the California Register, PRC Section 21084.1 requires that any substantial adverse effect on that resource be considered a significant environmental impact. PRC Sections 21083.2 and 21084.1 operate independently to ensure that potential impacts on archaeological resources are considered as part of a project's environmental analysis. Either of these benchmarks may indicate that a project may have a potential adverse impact on archaeological resources.

### 4-5.3.2.2 Other State Laws and Regulations

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

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

### 4-5.3.3 Local Plans and Policies

The following local planning documents contain plans and policies related to cultural resources in the study area.

#### 4-5.3.3.1 Solano County General Plan

The Solano County General Plan (Solano County 2008) contains various policies and programs to maintain, protect, and preserve cultural resources in the County. The Solano County General Plan policies relevant to cultural resources within the study area are listed below:

#### Policies

RS.P-38	Identify and preserve important prehistoric and historic structures, features, and communities.
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- RS.P-39 Tie historic preservation efforts to the County's economic development pursuits, particularly those relating to tourism.
- RS.P-40 Consult with Native American governments to identify and consider Native American cultural places in land use planning.

#### **4-5.3.3.2 City of Vacaville General Plan**

The City of Vacaville General Plan (City of Vacaville 1990) policies relevant to cultural resources include the following:

##### **Guiding Policies**

- 8.5-G 1 Continue to protect historic sites and archaeological resources for their aesthetic, scientific, educational, and cultural values.

##### **Implementing Policies**

- 8.5-I 1 Working in conjunction with the California Archaeological Inventory, review each proposed development project to determine whether the site contains known prehistoric or historic cultural resources and/or to determine their potential for as-yet-undiscovered cultural resources.
- 8.5-I 2 Require that areas found to contain significant historic or prehistoric artifacts be examined by a qualified consulting archaeologist or historian for appropriate protection and preservation, if feasible.

## **4-5.4 CULTURAL RESOURCES IN THE STUDY AREA**

### **4-5.4.1 Records Search Results**

An archaeological records search of the two sites was conducted on August 17, 2007, by Far Western archaeologist Lindsey Hartman at the California Historical Resources Information System's Northwest Information Center at Sonoma State University.

The records search for the Alamo site revealed that no archaeological resources had been recorded within the property and that the site had not been previously surveyed by archaeologists.

The search for the Ulatis site revealed that there were no previously recorded archaeological resources in, or immediately adjacent to, the parcel. Two previous archaeological surveys included narrow transects through the parcel. The first (undated) was for the proposed Solano Irrigation District pipeline extension. The survey included a short portion of the parcel. The second, done in 1987 by Holson and Hager, was a survey of the Vaca Dixon-Moraga 230kV Transmission Line. This survey included a diagonal transect through the center of the parcel along the existing power line.

#### 4-5.4.1.1 Cultural Resources at the Alamo Site

Two prehistoric archaeological sites and several historic-era isolates were identified at the Alamo site (Table 4-5.1).

**Table 4-5.1 Cultural Resources in the Alamo Detention Basin Study Area**

Resource I.D.	Era	Description
AD-P1	Prehistoric	Multi-component archaeological site with surface and buried archaeological deposits. Initial dating indicates that the surface deposit dates to 2200 cal BP and the buried component to between 4000 and 7000 cal BP <sup>1</sup>
AD-P2	Prehistoric	Buried archaeological site with stone tools (flaked and ground) and fire-cracked rock <sup>1</sup>
AD-H1	Historic-era	Concrete pad, possible modern.
AD-H2	Historic-era	Belt-driven sprayer from Niagra Sprayer Company, which operated from 1904–1943
AD-H3	Historic-era	These are two six-burner wood stoves and are made of iron. The first is stamped with the words “Taunton Iron Works/Makers/Taunton Mass”. The second is stamped with “Home Comfort”. Taunton Iron Works was the oldest successful iron manufacturing plant in New England and was operated between 1652 and 1876.
AD-H4	Historic-era	A heavy-duty Ford truck chassis with two metal-rimmed, wood-spoked, 22-inch wheels and two side steps both stamped with the Ford Motor Company logo. The wooden spokes and metal rims indicate that the truck dated to the 1910s–1920s.

<sup>1</sup> FEMA, as the federal lead agency for the Proposed Project has assumed this site is eligible for listing on the California Register of Historical Resources and NRHP

#### 4-5.4.1.2 Cultural Resources at the Ulatis Site

One prehistoric archaeological site and two historic-era resources were identified in the Ulatis site (Table 4-5.2).

**Table 4-5.2 Cultural Resources in the Ulatis Detention Basin Study Area**

Resource I.D.	Era	Description
UD-P1	Prehistoric	Limited archaeological remains (chert flake, fire-affected rock) found at a depth of 1.6 m below surface.
UD-H1	Historic-era	Check dam, determined ineligible for listing on National and California Register of Historic Places
UD-H2	Historic-era	Erosion-control drop structure, determined ineligible for listing on National and California Register of Historic Places

### 4-5.5 SIGNIFICANCE CRITERIA

The Proposed Project would result in a significant impact on cultural resources if it would:

- adversely affect the significance of a historic resource;
- adversely affect the significance of an archaeological resource; or

- disturb any human remains.

No impacts have been identified for the following criteria:

- **Potential to Adversely Affect the Significance of a Historic Resource.**

The two water control structures listed in Table 4-5.2 and located in the APE for the Ulatis site do not appear to meet the criteria for listing in the California Register. These resources have been evaluated by JRP 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 do not appear to be historic resources for the purposes of CEQA. Additionally, the Proposed Project will not alter these structures; therefore, there is *no impact* and no mitigation is required.

There are no historic resources on the Alamo site.

## **4-5.6 IMPACTS AND MITIGATION MEASURES OF THE PROPOSED PROJECT**

### **4-5.6.1 Potential to Adversely Affect the Significance of an Archaeological Resource**

#### **IMPACT 5-1: LOSS OF INTEGRITY OF CULTURAL DEPOSITS, LOSS OF INFORMATION, AND THE ALTERATION OF A SITE SETTING AT THE ALAMO SITE AND ULATIS SITE**

The Proposed Project includes excavation and grading to construct project features. The historic-era isolates found during survey at the Alamo site are secondarily deposited and therefore lack integrity or association. The items were documented in the field, exhausting their research potential; no further action is necessary for these items; therefore there is *no impact* and no mitigation is required.

Both prehistoric archaeological sites at the Alamo site and the single buried archaeological deposit at the Ulatis site will be affected by proposed construction. FEMA, as the federal lead agency for the Proposed Project, has assumed that these sites are eligible for listing on the California Register of Historical Resources and NRHP for the purposes of this project. Ground-disturbing activities associated with construction of the Proposed Project will disturb both surface and subsurface soils. Impacts on archeological resources could result from grading and excavation of inlet and outlet channels and of the detention basins. These impacts are considered *significant*; implementation of Mitigation Measures 5-1a, 5-1b, and 5-1c would reduce impacts on archaeological resources to a *less-than-significant* level.

**MITIGATION MEASURE 5-1A: DEVELOP AND IMPLEMENT A TREATMENT PLAN FOR THE  
ALAMO SITE**

1. Prior to any ground-disturbing activities (including grading and equipment staging), the City shall prepare an evaluation/treatment plan to determine the significance of the two prehistoric archaeological sites identified in the Alamo site. FEMA has assumed that these sites are eligible for listing on the California Register for the sake of this project. Therefore, the treatment plan shall include recommendations for mitigating impacts on cultural sites that are determined eligible for listing on the California Register, and for handling and disposition of any human remains found.
2. Mitigation for archaeological deposits shall involve data recovery excavations to obtain a sufficient sample from the Alamo site so as to exhaust the research potential of the deposits. This shall be accomplished through a combination of hand excavation, supervised backhoe trenching, and monitored grading of archaeological deposits. The City shall implement the treatment plan.
3. In addition, one goal of archaeological mitigation shall be the recovery of any human interments or remains prior to the inception of construction at the Alamo site. The removal, treatment, and repatriation of any such remains shall be undertaken in accordance with Mitigation Measure 5-1c.

**MITIGATION MEASURE 5-1B: DEVELOP AND IMPLEMENT A TREATMENT PLAN FOR THE  
ULATIS SITE**

1. Before any ground-disturbing activities (including grading and equipment staging), the City shall prepare an evaluation/treatment plan to determine the significance of the archaeological deposits noted during geoarchaeological testing of the Ulati site. This plan shall include provisions for additional exploration to look for archaeological resources that are likely to be found along the creek margin, where backhoe trenching was not previously possible because of the presence of sensitive biological resources (elderberry shrubs). These areas shall be tested once impacts on the elderberries have been permitted and mitigation has been approved by the USFWS. The archaeological evaluation plan shall also include recommendations for mitigation of impacts on sites that are determined eligible for listing on the California and National Registers, and for handling and disposition of any human remains found.
2. Mitigation for archaeological deposits shall involve data recovery excavations to obtain a sufficient sample from the Ulati site so as to exhaust the research potential of the deposits. This shall be accomplished through a combination of hand excavation, supervised backhoe trenching, and monitored grading of archaeological deposits. The City shall implement the evaluation/treatment plan.
3. In addition, one goal of archaeological mitigation shall be the recovery of any human interments or remains prior to the inception of construction at the Ulati site. The removal, treatment, and repatriation of any such remains shall be undertaken in accordance with Mitigation Measure 5-1c.

### **MITIGATION MEASURE 5-1C: TREATMENT OF NATIVE AMERICAN HUMAN REMAINS**

If human remains are discovered anywhere on either Proposed Project site, work shall immediately stop in the vicinity of the discovery and the Solano County Coroner shall be contacted. If the skeletal remains are found to be prehistoric Native American (not modern), the coroner shall call the Native American Heritage Commission (NAHC) in Sacramento within 24 hours. The NAHC shall identify the person(s) it believes to be the “Most Likely Descendant.” Responsible for recommending the disposition and treatment of the remains, the Most Likely Descendant may make recommendations for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.

## **4-5.6.2 Potential to Disturb Any Human Remains**

### **IMPACT 5-2: DISTURBANCE OF HUMAN REMAINS**

There are no known human remains within either the Alamo or Ulati sites; however, there is an extremely high probability of uncovering human remains during project construction. Over the past several years, human interments have been uncovered in similar contexts at both the nearby Encinosa Detention Basin and within the Downtown Vacaville area along the banks of Ulati Creek. If Native American remains are found in either of the Proposed Project sites, impacts of construction shall be considered *significant*, implementation of Mitigation Measure 5-1c (above) shall reduce this impact to *less than significant*.

## **4-5.7 CUMULATIVE IMPACTS AND MITIGATION MEASURES**

The cumulative context for cultural resources is the City and County. The Solano County Draft General Plan EIR (Solano County 2008b) concluded that implementation of the Solano County General Plan would substantially alter the visual character of Solano County by converting agricultural lands and open space to developed urban uses. Implementation of the Solano County General Plan would result in construction of urban development that could include large and tall buildings, soundwalls, berms, and other infrastructure that could impact the historic character of the area.

### **IMPACT 5-3: CUMULATIVE CONTRIBUTION TO IMPACTS ON HISTORIC RESOURCES AND PREVIOUSLY UNIDENTIFIED SUBSURFACE ARCHEOLOGICAL RESOURCES**

Buildout of the Proposed Project will not have any cumulative impacts on historical resources because there are no significant historic resources within the Proposed Project site. Any other local projects and impacts on individual archaeological resources are, or will be, reduced to less than significant by proposed mitigation measures and provided that this and future projects comply with provisions of the NHPA and CEQA for the identification and treatment of cultural resources. Mitigation measures 5-1a, 5-

1b, and 5-1c have been included in this EIR to mitigate for potential impacts on previously unidentified subsurface archaeological resources through the development and implementation of a treatment plan. Therefore, the Proposed Project would not result in cumulatively considerable impacts on cultural resources and this impact is considered *less-than-significant*.

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