3.6 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section describes the regulatory and existing environmental setting as it relates to cultural and paleontological resources located within and near the project site. The environmental setting with respect to cultural resources is contained in Section 3.6.2, while the paleontological setting is described in Section 3.6.4. The general and site-specific profiles of resources contained herein provide the environmental baseline by which environmental impacts are identified and measured. Environmental impacts are discussed in Section 4.0.

3.6.1 CULTURAL RESOURCES REGULATORY SETTING

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Numerous laws, regulations, and statutes at the federal, state, and local level govern archaeological and historic resources deemed to have scientific, historic, or cultural value. The pertinent regulatory framework of these laws is summarized below.

FEDERAL

National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) as amended, and its implementing regulations found in 36 Code of Federal Regulations (CFR) Part 800, require federal agencies to identify cultural resources that may be affected by actions involving federal lands, funds, or permitting. The significance of the resources must be evaluated using established criteria outlined in 36 CFR 60.4, as described below.

If a resource is determined to be a historic property, Section 106 of the NHPA requires that effects of the development on the resource be determined. A historic property is defined as:

“…any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property…” (NHPA Sec. 301[5]).

If a historic property would be adversely affected by development, then prudent and feasible measures to avoid or reduce adverse impacts must be taken. The State Historic Preservation Officer (SHPO) must be provided an opportunity to review and comment on these measures prior to project implementation.

The criteria for listing on the National Register of Historic Places (NRHP), defined in 36 CFR 60.4, are as follows:
The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

A. That 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 the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. That have yielded, or may be likely to yield, information important to prehistory or history.

Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

In addition to meeting at least one of the criteria listed above, the property must also retain enough integrity to enable it to convey its historic significance. The National Register recognizes seven aspects or qualities that, in various combinations, define integrity (NPS, 1990). These seven elements of integrity are: location, design, setting, materials, workmanship, feeling, and association. To retain integrity, a property will always possess several, and usually most, of these aspects.

While most historic buildings and many historic archaeological properties are significant because of their association with important events, people, or styles (criteria A, B, and C), the significance of most prehistoric and some historic-period archaeological properties are usually assessed under criterion D (above). This criterion stresses the importance of the information contained in an archaeological site, rather than its intrinsic value as a surviving example of a type or its historical association with an important person or event.

**National Environmental Policy Act (NEPA)**

NEPA requires that federal agencies take all practical measures to “preserve important historic, cultural, and natural aspects of our national heritage.” NEPA’s mandate for considering the impacts of a federal project on important historic and cultural resources is similar to that of Section 106 of the NHPA, and the two processes are generally coordinated when applicable. Section 800.8(a) of NHPA’s implementing regulations provides guidance on coordination with NEPA.
STATE REGULATIONS

California Environmental Quality Act (CEQA)

CEQA requires that, for projects financed by, or requiring the discretionary approval of public agencies in California, the effects that a project has on historical and unique archaeological resources must be considered (Public Resources Code [PRC] Section 21083.2). Historical resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, or scientific importance (PRC Section 50201). The CEQA Guidelines (Section 15064.5) define three cases in which a property may qualify as a historical resource for the purpose of CEQA review:

A. The resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR). Section 5024.1 defines eligibility requirements and states that a resource may be eligible for inclusion in the CRHR if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

As with the NRHP, properties must retain integrity to be eligible for listing on the CRHR. Properties that are listed in or eligible for listing in the NRHP are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC section 5024.1(d)(1)).

B. The resource is included in a local register of historic resources, as defined in section 5020.1(k) of the PRC, or is identified as significant in a historical resources survey that meets the requirements of section 5024.1(g) of the PRC (unless the preponderance of evidence demonstrates that the resource is not historically or culturally significant).

C. The lead agency determines that the resource may be a historical resource as defined in PRC section 5020.1(j), 5024.1, or significant as supported by substantial evidence in light of the whole record.

PRC Section 21083.2 governs the treatment of unique archaeological resources, defined as “an archaeological artifact, object, or site about which it can be clearly demonstrated” as meeting any of the following criteria:
3.6 Cultural Resources

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

**LOCAL POLICIES**

The City of Richmond (City) designates *historical structures* (defined as sites, buildings, structures, and groups of structures of particular historic significance) pursuant to the Richmond Municipal Code, Chapter 6.06, Historic Structures Code. Application approval is required for demolition, structural alteration, or removal of a City-designated historic structure, including those listed on the CRHR and the NRHP. The City’s ordinance includes standards for design review of exterior modifications to historic structures for consistency with the Secretary of Interior’s Standards. The City of Richmond General Plan Open Space and Conservation Element includes a goal (OSC-E) to “Provide a legacy of the history, archaeology, and culture of the area for present and future residents” (1994). Policies directed at supporting this goal include identification, protection, and interpretation of historically, archaeologically, and culturally important resources (OSC-E.1-3). Furthermore, new development adjacent to areas of historic importance is directed to incorporate design elements complementary to existing historic structures (OSC-E.4).

**3.6.2 CULTURAL SETTING**

A full accounting of known cultural resources within the project site was achieved by consulting pertinent anthropological literature, historic documents and maps, conducting records searches at the Northwest Information Center (NWIC), conducting Native American consultation, and undertaking field examinations of the area of potential effects (APE) by archaeologists and architectural historians who meet the Secretary of the Interior’s standards for their respective fields. The APE includes the approximately 420 acre project site, a 40-meter wide linear corridor along Western Drive running from the project site to Interstate 580 (approximately 0.95 mile), two potential sewer routes, and four locations where transportation infrastructure improvements area proposed as mitigation. A stand-alone report (two volumes) documents the scope and results of a cultural resources inventory, evaluation, consultation, and impact analysis for the Proposed Project (*Appendix N; Appendix Y*).

The records search indicated that the APE has been the subject of numerous archaeological, historic, and architectural studies and documentation. As detailed below, eight previous studies have been carried out within the confines of the project site beginning in 1909. Three additional studies have been conducted along Western Drive near its intersection with Interstate 580. The records search is provided in the confidential cultural resources inventory and finding of effect report (AES, 2009c; *Appendix Y*).
Native American consultation was initiated on June 29, 2008, when AES contacted the Native American Heritage Commission (NAHC). The NAHC was asked to query the sacred lands database for the presence of such resources within the project site, as well as locations outside of the project footprint identified for infrastructure improvements. Additionally, contact information was requested for Native American individuals and organizations on file with the NAHC. The NAHC responded with a list of seven individuals, who were then contacted by mail on September 3, 2008. Follow-up phone calls were made in October of 2008. Correspondence and phone logs are included in Appendix Y.

Field examination of the APE was conducted by AES archaeologists and historians, architectural historians from Historic Environment Consultants, and Bureau of Indian Affairs (BIA) archaeologists on several occasions between June 2007 and August 2008. Considering the frequency and intensity of past cultural resource inventories within the project site, as well as the extent of historic disturbance, the BIA, acting as the federal lead agency, determined that past studies were adequate to identify all cultural resources within the project site. Targeted survey work for the Proposed Project was undertaken to collect data necessary to evaluate the significance of a segment of the Richmond Belt Line Railway, identify contributing elements of the Winehaven National Register District (District), and examine off-site locations that may be affected by the Proposed Project. The historic resource evaluations, reported in Volume I of the stand-alone cultural study (Appendix N), recommended that the extant section of the Richmond Beltline Railway within the project site is not a historic property or a historical resource as defined in 36 CFR 60.4 and California PRC Section 15064.5, respectively. The evaluation also clarified which structures located within the District contribute to its significance (i.e., are contributing elements).

As a result of past and present studies, a total of six cultural resources have been documented within the project’s APE, including off-site locations. Resources located within the former fuel depot include three prehistoric archaeological sites (CA-CCO-282, -283, and -423), one historic archaeological site (CA-CCO-506H), and the Winehaven National Register Historic District (CA-CCO-422H). Each resource is considered in detail below.

**Native American Occupation**

An analytic framework for the interpretation of Contra Costa County prehistory is provided by Fredrickson (1973, 1974), who divided human history in California into three broad periods: the Paleoindian period, the Archaic period, and the Emergent period. This scheme used sociopolitical complexity, trade networks, population, and the introduction and variations of artifact types to differentiate between cultural units; although several refinements have been proposed, the scheme remains the dominant framework for the prehistoric archaeological research in this region.

The Paleoindian period (12,000 to 8,000 years before present [B.P.]) was characterized by small, highly mobile groups occupying broad geographic areas. During the Archaic period, consisting of the Lower
3.6 Cultural Resources

Archaic period (8,000 to 5,000 B.P.), Middle Archaic period (5,000 to 3,000 B.P.), and Upper Archaic period (3,000 B.P. to A.D. 500), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The addition of milling tools and concave-base points, as well as the occurrence of sites in a wider range of environments, suggest that the economic base was more diverse than in preceding periods. By the Upper Archaic, mobility was being replaced by a more sedentary adaptation in the development of numerous small villages, and the beginnings of a more complex society and economy began to emerge. During the Emergent period (A.D. 500 to historic contact), social complexity developed toward the ethnographic pattern of large, central villages where political leaders resided, with associated hamlets and specialized activity sites. Artifacts associated with the Emergent period include the bow and arrow, small corner-notched points, mortars and pestles, and a diversity of beads and ornaments.

The first intensive survey of archaeological sites in the San Francisco Bay Area (Bay Area) was conducted by N. C. Nelson between 1906 and 1908. Nelson explored the San Francisco Bay (Bay) shoreline, including the Point Molate area, documenting 425 shell mounds and was the first to recognize the Bay Area as a discrete archaeological entity (Moratto 1984:227). In December of 1907, Nelson recorded five sites along the coast from Castro Point north to Point San Pablo in the vicinity of the current project site. Two of these sites that Nelson recorded, CA-CCO-282 and CCO-283, are located within the project site. Nelson revisited CA-CCO-283 in 1909 and collected a number of artifacts and eocfacts including whalebone, some skeletal remains, obsidian projectile points, shell detritus, a pestle fragment, and other groundstone implements. Of the fifteen shell mounds recorded by Nelson along the shoreline of the San Pablo Peninsula, most, if not all, have been severely damaged or destroyed since his initial recording.

The most intensive subsurface archaeological exploration of cultural resources in the Point Molate area occurred in 1939 when Driver and Treganza excavated a portion of CA-CCO-283 (cf. Wiberg 1999:2-21). During the excavation of 12 five-foot-square units, Driver and Treganza recovered twenty prehistoric burials. Unfortunately, the results of this excavation were never published. However, the burial data was used by Beardsley (1954) in a comparison with other sites excavated along the Bay. Beardsley placed the antiquity of the site at circa 2,500 to 1,100 B.P. Diagnostic traits from this period include loosely flexed burial positions, perforated charmstones, non-stemmed projectile points, red ochre associated with burials, and distinctive Haliotis shell beads. Beardsley’s analysis of Bay Area prehistory tied together a number of excavations and contributed to the development of Fredrickson’s model (1973, 1974) introduced above.

3.6 Cultural Resources

Studies were surface surveys undertaken in support of various infrastructure upgrades on the former Navy facility and surrounding properties. All told, three prehistoric archaeological sites have been documented within the project site as a result of past studies: CA-CCO-282, CA-CCO-283, and CA-CCO-423. The studies by Rippey and Praetzellis (1980) and Chavez and Holson (1985) provide the most relevant information concerning the location, character, and integrity of archaeological sites located within the project site and are discussed below.

The geographic distribution of the various Native American groups occupying California in the distant past has been the subject of anthropological inquiry for many years (Dixon and Kroeber, 1919; Krantz 1977; Levy, 1978; Moratto, 1984; Breschini and Haversat, 1997). It is widely recognized that ancestors of the Costanoan groups, who historically occupied the vicinity of the project site, moved into the Bay Area during the Archaic period, most likely expanding out of the Sacramento – San Joaquin delta region (Levy, 1978). Levy (1978:486) suggests that this emigration into the eastern Bay Area occurred ca. 1,500 B.P., while Moratto (1984:554) argues that it may have occurred as early as 3,500 B.P. Remarking on this expansion of territory, Levy (1978:486) states, “Linguistic evidence indicates that [proto-Costanoan] were then in contact with speakers of a Hokan language that shared vocabulary with ancestral Pomoan and Esselen. This long-extinct Hokan language probably occupied at least a portion of the territory into which the Costanoan expanded.”

Ethnographic literature indicates that at the time of historic contact, the project site was located within the territory occupied by the Costanoan-speaking people (Levy, 1978:485; Milliken, 1991:424). Costanoan, or Ohlone, is a linguistic designation for a family of eight languages that were spoken by approximately 50 autonomous groups occupying land from the Carquinez Straight in Contra Costa County south into Monterey County. Each group had one or more permanent village sites with an average population of 200 people. More specifically, the project site is within an area attributed to the Huchiun Costanoan (Milliken, 1995:229). “The Huchiun lands seem to have extended over a large area along the East Bay shore, from Temescal Creek opposite the Golden Gate north at least to the lower San Pablo and Wildcat Creek drainages in the present area of Richmond (Milliken, 1995:243).”

The open water adjacent to the project site was likely used by native peoples from all around the northern Bay Area. Remarking on the lack of defined territory within the waters near the project site, Barrett (1908:307) states that, “There is no definite knowledge obtainable concerning fishing and other rights on the waters of San Francisco and San Pablo Bays, but from all that can be gathered it seems probable that these were neutral grounds and that the Indians of the region all had equal rights in these waters off shore.”

**Spanish Period**

Seven missions were established in the region between 1770 and 1823. The Huchiun, like most of the Costanoan-speaking groups in the region, were relocated to Mission San Jose and Mission San Francisco
(Dolores) between the years 1802 and 1805. Missionization, disease, and displacement severely impacted all Costanoan people; as a result, the language was functionally extinct by ca. 1935 (Levy 1978:486-487).

In 1772, the first recorded contact with the Huchiun occurred at the Richmond Wildcat Creek village during the Spanish expedition by Lt. Pedro Fages and Father Juan Crespi, who were trying to find a land route to the Point Reyes area from the South Bay region. During the expedition, Pedro Fages drew a map of the Richmond Peninsula (San Pablo Peninsula), which at the time he believed was an island due to extensive marshlands to the east and southeast (Banks and Orlins, 1981).

There are five missions surrounding the project site that had the greatest impact on Native Americans occupying the region: San Francisco (Mission Dolores), Santa Clara, San Jose, San Rafael, and San Francisco de Solano (Sonoma). The policy of recruiting and indoctrinating California Indians employed by the Spanish missionaries brought many tribal groups together at the missions. Between 1788 and 1803, Huchiun tribelets moved to Mission San Francisco (Dolores) where they intermarried with other Costanoan tribelets and non-Costanoan people from the Bay Area. By mid-1801, all coastal Huchiun villages had been abandoned (Milliken 1995:171) and the Huchiun lands were left vacant from 1803 until the period between 1813 and 1817, while large segments of the population were living at Mission San Francisco (Banks and Orlins, 1981:4.94). In 1806, at least one-third of the Mission San Francisco (Dolores) population was from the East Bay Area (Banks and Orlins, 1981). Besides the Huchiuns, the Saclan (aka Sacalan, Acalanes, Cheaclan, Chaclan, Bay Miwok) were the only other group to be baptized in large numbers at Mission San Francisco (Dolores) prior to 1800 and were frequently linked to the Huchiuns by marriage (Banks and Orlins, 1981:4.34). Missions San Rafael and San Francisco Solano were populated by numerous Pomo, Miwok, and Wappo people, who were brought to the missions following Spanish raids. Levy (1978:299) notes that more than 600 Pomoans were baptized at missions San Rafael and San Francisco (Solano) during their period of operation.

The Spanish occupation of northern California had a devastating effect on the native population, which reduced their numbers by 80 percent or more as a result of disease, hardship, and forced labor (Pritzker, 2000).

Sometime between 1813 and 1817, the padres of Mission San Francisco established an outpost in the Richmond-San Pablo area called San Ysidro de Los Juchiunes—later becoming part of Rancho San Pablo (Milliken, 1995:243). Rancho San Pablo consisted of five square leagues or approximately 13 square miles. It adjoined the Peralta Grant on the north and roughly embraced what are now the towns of El Cerrito, Kensington, and a large part of the present day City of Richmond, including the project site.

**MEXICAN PERIOD**

Secularization of the missions of California was initiated in 1813, and formally declared in 1821 (Caughey, 1940). That same year, Mexican forces prevailed in their struggle for independence and
declared California part of the Mexican empire. This event marked the beginning of the short-lived Mexican Period in California history. In 1833, the formal process of secularizing the missions began and their land holdings were divided among the Californios. The grants, known as ranchos, enriched those individuals fortunate enough to receive one, while effectively subjugating the native tribes as an indentured labor force.

Until the secularization of the missions, the Franciscan fathers at Mission San Francisco (Dolores) held claim to the San Ysidro de Los Juchiunes outpost, using it for pasturage. Francisco Maria Castro filed a petition for the land that comprised San Ysidro de Los Juchiunes in 1817, which was granted in 1823. Father Altimira, with the permission of the Mexican authorities in San Jose (but without permission from his superior), granted Castro’s grant application that included land held in trust by the Mission for the local Indians. This land grant was first called El Rancho de Los Cuchinaynes [Huchiun] and later became known as Rancho San Pablo. This covered land that is now Richmond, El Sobrante, and Pinole, and extended all the way out into the San Francisco and San Pablo Bays. Castro raised cattle for the hide and tallow trade and planted the first fruit trees and grape cuttings provided by the mission (Hoover et al., 1990). Castro’s family continued to graze cattle after his death in 1831. Castro left half of the rancho to his wife and the other to his ten children.

**American Period**

The Bay Area and the City of San Francisco in particular, underwent significant transformations after gold was discovered at Coloma in 1848. At the time of the discovery, San Francisco had a population of about 500 to 600, but by the end of the next year it had increased to nearly 25,000 (Wollenberg, 2002). The city had come to be an urban center, as well as a center of influence over the social and economic affairs of much of the American west. This influence affected matters in the East Bay region as well, including the Castro land grant.

The U.S. Government recognized Castro’s land patent in 1873. Due to land disputes by people who had settled on the rancho in the intervening years, the expense involved having the patent confirmed, and infighting among Castro’s heirs, the rancho was subdivided in 1893 into 200 parcels. The project site area includes two of these parcels, one held by A. Maraschi and the other by Richard O’Neil (Wiberg 1999:2-8). The City of Richmond was established on a portion of Castro's land grant some 70 years after his death.

**Chinese Shrimp Camp (ca. 1870 – 1912)**

In the decade following California’s admission to the United States (1850), the population of the Bay Area grew rapidly. San Francisco’s population grew from a community of roughly 200 houses and 850 people in early 1848 to more than 56,000 in 1850. By 1870, the population of San Francisco had reached more than 149,000 people (Gilman et al., 1904). To meet the growing demands for food, Chinese shrimp camps were established throughout the Bay Area. Sometime between 1865 and 1870 a shrimp camp was
established at Point Molate on the beach to the south of the point. By 1904, the camp consisted of about 30 shacks, five wharves, and ten boats. The boats measured approximately 40 feet by 10 feet and had a 30-foot mast with a typical Chinese square sail. The Chinese were a familiar sight in Point Richmond as they peddled their shrimp, which they carried in wicker baskets located at the ends of a 10-foot pole balanced across their shoulders (Cole, 1980). **Figure 3.6-1** below presents an undated photo of the village looking north towards Point Molate.

![Undated Photo of Chinese Shrimp Camp at Point Molate–View to the North/Northwest](image)

**Figure 3.6-1 Undated Photo of Chinese Shrimp Camp at Point Molate–View to the North/Northwest**

Efforts to severely restrict the burgeoning Chinese fishing industry began shortly after Chinese immigrants established themselves. A variety of measures, including intimidation, the imposition of race-based taxes, and legislation were used against Chinese fisherman working the Bay. The period between 1884 and 1900 witnessed a determined campaign by the California State Commission on Fisheries to force Chinese shrimp fishermen out of business, which resulted in the abandonment of half of the established shrimp camps on the Bay. In 1901, legislation was passed forbidding shrimp fishing during the height of the season (May through August), driving still more Chinese fisherman from the shores of the Bay. Exportation of shrimp was banned in 1905. Finally, bag nets were outlawed in 1911, marking the death knell for the Chinese shrimp industry in the Bay Area (Hill, 2001; Ellinger, 2002). While the
encampment near Point Molate was reportedly abandoned by 1912, the settlement appears on the 1915 San Francisco United States Geological Survey (USGS) 15’ quadrangle. Previous editions of the map, published in 1895 and 1899, did not depict the shrimp camp. The 1915 version shows eighteen structures west of Western Drive and four short wharfs extending into the Bay.

**Winehaven (ca. 1907 – 1920)**

Seven of California’s top wine producers consolidated in 1894 forming the California Wine Association (CAWA), which proved to be the dominant force in the western wine industry until the coming of prohibition (AES, 2009b). The CAWA had offices and wineries at numerous domestic and foreign ports and centers of commerce. In the 1902 vintage, the CAWA’s 50+ wineries produced nearly 30,000,000 gallons of wine from over 225,000 tons of grapes.

By 1906, the City of San Francisco shipped more wine than any other area in the State. The City had become the capital of the California wine industry. The giant San Francisco wine houses that united as the CAWA shared trade with numerous large and medium wine producers and family-owned cellars throughout California. The catastrophic earthquake and fire of 1906 destroyed virtually all of the CAWA’s huge wine storage facilities in San Francisco. Millions of gallons of cooperage valued at $500,000 dollars were lost.

Despite the losses associated with the earthquake and fire, the CAWA had more than $8,100,000 in assets, which included a vast inventory of wine, valued at more than $2,000,000 (AES, 2009b). They weathered the loss of their San Francisco facilities by producing and storing wine closer to the sources on the numerous outlying vineyards and wineries. The President of CAWA, Percy Morgan, had envisioned the consolidation of the seven San Francisco depots under one roof. In late 1906, the CAWA purchased 47 acres on the eastern shore of the Bay on the north side of Point Molate. Work soon began on the CAWA’s last and greatest enterprise – a complex for wine production, storage, and distribution named Winehaven. Construction was undertaken for two immense buildings needed for wine production and storage, a hotel/boarding house for 100 employees, a power house, a firehouse, a bottling plant, a laboratory, cooperage shops, and other utility buildings. Thirty-five of the original Winehaven buildings survive today, and together form the Winehaven National Register Historic District (CA-CCO-422H).

**Table 3.6-1** summarizes the historic uses of the contributing elements of the District and their current condition.

The main three story brick fortress-like wine storage cellar (Building No.1), measuring 800 by 185 feet, was the dominant structure, both visually and physically. It is architecturally dramatic with round corner turrets, windows with hood molds, and castellated parapets; its image is reflective of a European castle. The foundation and basement were constructed of reinforced concrete to counteract potential earthquake damage.
A fermenting cellar (Building No.6) was located just south of the wine cellar, measuring 600 by 150 feet, with the annual crushing capacity of 25,000 tons. The winery would eventually have a storage capacity of 10,000,000 gallons of wine. It had 3,000 barrels for aging wine and roughly 15 million bottles in stock at any given time (AES, 2009b).

A wharf, extending 1,800 feet into deep water, was built immediately west of Buildings No.1 and No.6 to load and unload ocean-going ships, as well as riverboats from the interior of northern California. Winehaven had its own electric switching engine to move freight cars up and down the pier and around the property. Shipping capacity was 500,000 gallons of wine per month. Annually, some 40 loaded ships sailed for New York alone (AES, 2009b).

The CAWA bought a steamboat and anchored it in the bay to provide the builders of the complex with housing. The first building constructed was the 29-room hotel that also provided housing for the married workers and their families. By September of 1907, the fermentation facility (the first phase of Building No.6) was ready for a small crush. By 1908, 4,500 tons of grapes were being crushed to produce 675,000 gallons of wine. As the volume grew, a spur from the Richmond Belt Line railroad was extended to the site in 1908, giving the Winehaven access to the Southern Pacific and Santa Fe railroads. The capacity of the winery facility and ready transportation access encouraged farmers and

<table>
<thead>
<tr>
<th>Structure</th>
<th>Historic Use</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building 1</td>
<td>Wine Cellar / Storage and</td>
<td>Fair - Significant deterioration of exterior brick work; partial</td>
</tr>
<tr>
<td></td>
<td>Recreation</td>
<td>roof collapse in northern addition</td>
</tr>
<tr>
<td>Building 6</td>
<td>Wine Cellar / Administration</td>
<td>Poor - Significant roof deterioration / partially collapsed; significant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>water damage to exterior concrete walls</td>
</tr>
<tr>
<td>Building 10</td>
<td>Warehouse</td>
<td>Good - Minor water damage; deterioration of dock walls</td>
</tr>
<tr>
<td>Building 13</td>
<td>Power House</td>
<td>Poor - Significant water damage; collapsed roof</td>
</tr>
<tr>
<td>Building 17</td>
<td>Work Shop / Storage</td>
<td>Good - Slab foundation cracking/settling</td>
</tr>
<tr>
<td>Building 63</td>
<td>Storage / Fire Station</td>
<td>Fair - Water damage and excessive roof joist spans in additions on north</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and south side</td>
</tr>
<tr>
<td>Buildings 31 - 54</td>
<td>Cottages</td>
<td>Generally good - in need of lead paint and asbestos remediation</td>
</tr>
<tr>
<td>Buildings 56 - 59</td>
<td>Cottages</td>
<td>Generally good - in need of lead paint and asbestos remediation</td>
</tr>
<tr>
<td>Building 60</td>
<td>Winemaster's House</td>
<td>Good - in need of lead paint remediation</td>
</tr>
</tbody>
</table>

growers to expand their vineyards. The railroads added two special freight trains per week to handle the volume of grapes coming in from the Central Valley.

**Figure 3.6-2** below depicts the facility as it appeared in 1908. The completed Building No.6 is visible on the right side of the frame, with numerous casks stacked outside. Building No.1 is still under construction, however the powerhouse (Building No.13) and wharf both appear to be complete and in use.

Considering the volume of wine being produced at Winehaven, it is likely that the majority of the wine-producing complex was completed and in operation by the end of 1908. It is certain that the complex was completed by 1909, when the structures were depicted on the Sanborn Fire Insurance Map Book (Sanborn, 1909). Of the buildings still in existence today, Building No.6 was still in its first phase of development, but the brick storage facility (Building No.1, sans the northern extension), powerhouse (No.13), machine shop & planing mill (No.17), and the three portions of building No.10 were all completed and shown on the map. None of the cottages are shown on the 1909 Sanborn map.
Historic photographs on file at the California State Library, dated 1909, also do not depict the cottages, with perhaps the exception of the large winemaker’s house. This suggests that the cottages were built sometime between 1909 and 1916.

**Figure 3.6-3** depicts Winehaven as it appeared circa 1918. Numerous rail cars, loaded with very large redwood cooperages, sit on the tracks of the Belt Line railroad next to Building No.6. The castle-like Building No.1 is located in the distance. Winehaven’s wharf is visible on the left, between the two large buildings. The smokestack of the powerhouse (Building No.13) is visible to the right, which is located south of the cottages depicted in the upper right portion of the frame.

In 1911, a 600-horsepower generator was installed to handle the needs of the entire plant. In 1912, a new cooperage shop was built and the bottling plant was expanded. Another story was added to the already massive concrete fermenting cellar (Building No.6) and a new trolley switching system was installed for the Belt Line railroad. Ten new five-room cottages were built, along with a social hall and a school house for children of the employees.

**Figure 3.6-3** View of Winehaven ca. 1918 – View North
Figure 3.6-4 below depicts Building No.1 as it appeared circa 1918. Two rail cars with very large cooperages sit on the tracks on the west side of the building, and one spur splits off in the left portion of the frame, heading towards the wharf.

![Figure 3.6-4 View of Winehaven Building No.1 ca. 1918 – View to the North](image)

CAWA announced a series of improvements to the facility in early 1913 including additions to the fermenting and storage facilities. Space for an additional 1.5 million gallons of wine was completed on the lower floor of Building No.6 and the upper floor fermenting room was increased by two million gallons, all at a cost of $500,000. With new crushers in the expanded fermenting room and increased storage space, Winehaven could handle and ship one million gallons of bulk wine per month (AES, 2009b).

By the time the 1916 Sanborn Map Book was issued, Building No.6 had been fully built out to its current extent and additional cottages are depicted. The Fresno Warehouse for wooden barrels had been added, in addition to a small extension for barrel storage and shipping, all of which were located to the north of Building No.1. The extension of Building No.1 to the north probably took place in 1916, too late to be recorded on the 1916 Sanborn Map. An interesting note to the 1916 map was that the Bottling Plant, which used to stand across West Avenue (Western Drive) from Building No.6 to the east, was now...
labeled *Grape Juice Plant*. This is a strong indication that CAWA was starting to react to the gaining popularity of prohibition and was attempting to develop products and the marketing of non-alcoholic beverages.

By 1917, as states began to ratify the Eighteenth Amendment to the Constitution, the market for alcoholic beverages shrank and business began to slow. In December 1917 the CAWA announced to its stockholders (Peninou and Unzelman, 2000): “The further pursuit of a business with a future so uncertain is not wise and any plans for its continued development are not warranted. It is to the interest of all stockholders that steps be taken for a liquidation of the affairs to the Association as fast as it may be effected without unnecessary sacrifice.”

Some subsidiary companies of CAWA were dissolved and others were consolidated. Some of the CAWA’s wineries were sold and plans were made to convert the vineyards to other uses. In 1919, the CAWA did the best it could to dispose of its wine inventory overseas, but with Europe still recovering from World War I, it was too large a task. Anticipating passage of the Volstead Act in 1919, which would enable federal enforcement of the Eighteenth Amendment, an attempt was made to manufacture non-alcoholic grape juices, producing two million gallons that year. In 1920 the CAWA added a cold storage unit to Building No.6 to house the grape juice.

After January 16, 1920 the company could no longer sell wine except for medicinal and sacramental use. Although the early years of prohibition showed little promise, Winehaven did what it could to stay in business. In 1920 the Fresno Cooperage was moved to Winehaven and was installed into an expanded version of the Fresno Warehouse. The production and selling of wooden barrels was still a viable business. By early 1920, the CAWA was making 1,000 barrels a day.

In the mid-1920s the CAWA was split into two corporations. The CAWA was retained and was given control of the remaining stocks of wine on hand. Another corporation was formed called Calwa and it had the job of selling off the other properties and assets. Around this time was probably when all production ceased at Winehaven and the buildings became vacant.

The CAWA sold its name and the remaining wine to a prominent Santa Rosa vintner, Joseph T. Grace. After the Repeal of Prohibition in 1933, Grace sold the CAWA name and the wine on hand to a San Francisco cooperative called the Fruit Industries, Ltd. In mid-1935 the CAWA was dissolved, and in 1937, the cooperage and fixtures were removed from Winehaven.

Calwa had to wait until 1941 to find a buyer for Winehaven when Hiller Industries of San Francisco purchased the site for $250,000. Their plans for the site were to rehabilitate the buildings and establish an industrial wartime defense complex. The Navy stepped in very soon thereafter and took possession of the facility as a Naval Supply Center.
The legacy of the CAWA was the establishment of high standards for grape and wine production. They tirelessly experimented with methods to improve their product. Before the advent of CAWA many California vintners sold their wine in bulk to distant distributors who would repackage the wine under their own label or under the name of a well-known local label. These distributors did not have the facilities and knowledge for proper handling of fine wines. The CAWA was largely responsible for the prestige that California wines attained in the early 20th century, a reputation that has continued into modern times. Winehaven shared in the production of that legacy as the primary production facility of the CAWA.

**Richmond Belt Line Railway and San Pablo Quarries Company (ca. 1902 – 1939)**

The Richmond Belt Line Railway was established in 1902 by Colonel William S. Rheem in order to serve the Standard Oil Refinery (now Chevron). In 1908 the manager of the Belt Line announced that additional spur lines were being added at Winehaven to handle the volume of material entering and exiting the facility. Inspection of the San Francisco 15’ USGS quadrangle indicates that the railroad originally approached Winehaven from the north, passing Point San Pablo first. The Belt Line connected Winehaven to the Southern Pacific and Santa Fe railroads.

A segment of the Richmond Belt Line Railway is evident on the project site today. The significance of this segment was evaluated in 2008 and recommended ineligible for listing on the NRHP or the CRHR because of its inability to meet any of the eligibility requirements and the poor integrity of the feature (AES, 2009b).

In the following decades, San Pablo Quarries Company acquired the property to the south of Point Molate. In 1915, the Richmond-San Rafael Ferry Company constructed a ferry terminal at Point Castro. The Richmond Belt Line then constructed three miles of new track, with a tunnel, south from Winehaven along the shore to the ferry company’s pier. This line connected with those of the East Shore and Suburban Railway and the Blake Brothers Quarry track. Sometime between 1924 and 1939, a quarry was established at Point Molate and rock from this quarry was hauled by railroad to the Blake Brothers operation (formerly San Pablo Quarries Company) (Wiberg 1999:2-12). Additional information regarding the quarry operations is contained in Section 3.2.3.

**Richmond – San Rafael Ferry and Transportation Company (1924 – 1956)**

Charles Van Damme founded the Richmond – San Rafael Ferry and Transportation Company in 1915. The ferry service ran between the former Pacific Coast wharf at Point San Quentin on the Marin County side, to a wharf located at Point Castro. In 1924 the company purchased the “extensive properties adjoining and including Point Molate” and soon moved their terminal to that location (Harland and Fisher, 1951:142). The terminal made use of the very tip of Point Molate and built a short wharf into the Bay. Figure 3.6-5 depicts the ferry terminal at Point Molate as it appeared circa 1942. Construction of
the Richmond – San Rafael Bridge, begun in 1952 following several ferry strikes, marked the beginning of the end for the Richmond – San Rafael Ferry and Transportation Company. The strikes, which commenced in 1949, severely impacted commerce and transportation in the North Bay, causing the City of Richmond and Marin County to each put up $1,000 for a survey of the proposed bridge alignment. In 1953, the California Legislature allocated $950,000 for engineering and construction began that year (Mitchell, 2002).

![Image of Richmond – San Rafael Ferry at Point Molate ca. 1942 – View to the West](from Harlan and Fisher 1951:143)

**Figure 3.6-5.** Richmond – San Rafael Ferry at Point Molate ca. 1942 – View to the West (from Harlan and Fisher 1951:143)

**Naval Fuel Depot (1941 – 1995)**

On February 1, 1941 the Pacific Fleet established its headquarters at Pearl Harbor. Subsequently, Winehaven was acquired by the U.S. Navy in 1941 and was modified for use as a fuel supply depot. That same year the Japanese attacked Pearl Harbor and drew the United States into World War II. As a fuel depot supporting the Pacific Fleet, the Point Molate Naval Fuel Depot (NFD) quickly became invaluable to the Fleet.

The Navy built a new pier at the Point, which extended a considerable distance into the Bay. It is interesting to note that the new pier and Naval facilities are not depicted on any of the USGS quadrangles until 1947, likely as a security measure during World War II. The old wharf used by Winehaven last
appears on the 1947 San Quentin 7.5’ quadrangle, though it was fragmented and no longer connected to the shoreline. The Winehaven Hotel was used as a barracks and mess hall, while the cottages were used as housing for Navy personnel. The NFD commander occupied the spacious Winemaker’s house.

The Navy began to burrow into the hillsides to hide large storage tanks for bulk fuel and oil, which could be piped to tankers waiting at the end of the new pier. By 1944 the Navy had built 43 underground and 32 above-ground storage tanks (USTs and ASTs, respectively). The large storage capacity in Buildings No.1 and 6 were used to store the ubiquitous 55-gallon drums. Between 1949 and 1960 the Navy demolished several buildings, including two large-frame industrial buildings and the schoolhouse. The Winehaven hotel and the administration building burned down in 1967 and most of the historical records were lost. The administration building was located at the current site of Building No.123.

Following the end of World War II, activity at the NFD began to slow down. At various times the government talked about closing the facility, but a string of foreign conflicts kept the Pacific Fleet and the NFD busy. The NFD was kept active during both the Korean War in the early 1950s and the Vietnam War in the mid 1960s to mid 1970s.

In the mid-1970s a NRHP nomination was prepared under the direction of Lucretia Edwards and the Winehaven Historical Study Committee. On October 2, 1978 Winehaven was listed in the NRHP while still under the Navy’s control. The fuel depot was among those military installations slated for closure with the 1990 passage of the Base Closure Act. The fuel depot was finally decommissioned in 1995.

**PREVIOUS CULTURAL RESOURCES STUDIES**

**Archaeological**

In addition to the early and largely academic archaeological work undertaken at Point Molate in the first half of the twentieth century (Nelson, 1909; Driver and Treganza, 1939; and Beardsley, 1954), five modern studies, employing survey and/or test excavations, have been conducted within the project site over the last thirty years (Rippy and Praetzellis, 1980; Roscoe, 1980; Chavez, 1981; Chavez and Holson, 1985; and Wiberg et al., 1999).

In 1980, a ten-acre portion of the project site was studied by Rippy and Praetzellis that included a records search, survey, Native American consultation, and auger boring program (Rippy and Praetzellis, 1980). This study resulted in the identification of five loci representing CA-CCO-423, only one of which was found to have integrity. The remaining four loci contained prehistoric cultural material that had been mixed and redeposited. Also completed in 1980, a one-acre survey was conducted by Roscoe for the Bypass Pipeline Project that resulted in negative findings (Roscoe, 1980).

In 1981 Chavez performed a records search of the NFD and field study of a portion of the project site for the replacement of the water distribution system (Chavez, 1981). The results of this study determined that
portions of the pipeline trenching could affect two previously recorded prehistoric sites (CA-CCO-282 and -423) and recommended a monitoring program during construction.

Subsequently, Chavez and Holson (1985), in conjunction with a storm damage repair project, conducted a thorough cultural resources investigation of the entire NFD, which included archival and historic research, an intensive survey covering the vast majority of the NFD (excluding paved or otherwise developed portions), and a subsurface examination of CA-CCO-282, -283, and the northwestern portion of the Chinese Shrimp Camp. The Chavez and Holson (1985) study was the first archaeological work to firmly establish the location of the former camp. Artifacts recovered from the site include an array of domestic items such as ceramic food storage and consumptive containers, bottle glass, window pane, wire nails, etc. In addition, two small jetties and a possible pier remnant were noted protruding into the Bay at low tide. The authors concluded that the once-extensive midden deposits at CA-CCO-283 were greatly disturbed, and therefore lacked integrity. However, while recommending the site ineligible for listing on the NRHP, the study did recommend construction monitoring due to the previously documented presence of human remains at CA-CCO-283. The evaluation of CA-CCO-282 concluded that “CA-CCO-282 has been totally destroyed and no further management considerations at that location are necessary (Chavez and Holson, 1985:55).”

In 1999, Holman and Associates conducted a cultural resources evaluation and impact mitigation program for the Western Drive Pipeline Replacement Project (Wiberg et al., 1999). This linear study involved test excavations of two prehistoric sites (CA-CCO-281 and -284), one of which is located in the Proposed Project’s APE. The study did not result in the identification of any previously unknown resources within the project site.

Finally, in 2002, Garcia and Associates (Reutter, 2002) conducted auger testing along Western Drive near its junction with Interstate 580. The work was done in conjunction with a planned cell tower at the location of the excavation. The auger testing verified that site CA-CCO-284, located near the Richmond-San Rafael Bridge, does not extent to Western Drive, and is therefore well outside of the APE for the Proposed Project.

**Architectural**

Historic architectural studies of the project site began in 1976 with the NRHP nomination of the Winehaven Historic District, prepared by the Winehaven Historic Study Committee (Edwards, 1976). This nomination resulted in the District’s listing on the NRHP in 1978. In 1995 William Self and Associates (Wills et al., 1995) evaluated the remaining WWII-era buildings/structures and underground storage tanks within the NFD and concluded that “None of the individual World War II-era buildings or structures at Point Molate that have been evaluated…appear to retain integrity sufficient to meet the criteria of eligibility for National Register listing (Wills et al., 1995:7).” The Navy adopted the recommendations of Wills et al. and SHPO concurred in a letter dated September 27, 1996.
A Historic American Buildings Survey (HABS) was undertaken to document Winehaven in 1995, and was accepted by the National Park Service in a letter dated May 6, 1996. In 1996, JRP Historical Consulting Services (JRP, 1996) conducted research into the proposed revision of the Winehaven Historic District boundaries. The study resulted in the recommendation that the District boundary be reduced from 71 to 27 acres, thereby increasing the ratio of contributing to non-contributing elements from 55 to 76 percent. The JRP study identified 35 structures within the District that were judged to be contributing elements. SHPO concurred with the assessment of contributing elements in a letter dated May 8, 1996.

**SUMMARY OF CULTURAL RESOURCES WITHIN THE AREA OF POTENTIAL EFFECTS**

Based on comprehensive archaeological investigations undertaken at sites CA-CCO-282, -283, -423, and -506H by AES in 2008, it was determined that only a portion of one of the sites (CA-CCO-506H) qualifies as a historic property/resource, pursuant to the criteria of the NRHP and CRHR ([Appendix Y](#)). A fourth site, CA-CCO-284, was previously determined to be significant archaeological site (Wiberg, 1999). Of the sites intensively examined by AES, one (CA-CCO-282) was found to have been completely destroyed, with no physical evidence of the deposit remaining. Two of the prehistoric archaeological sites (CA-CCO-283 and -423) retain an extremely limited amount of constituents and have been subject to severe disturbances as a result of historic land uses, rendering them ineligible to the national and state registers. Despite the lack of information potential that would qualify site CA-CCO-283 as a historic property/resource, the site does retain a limited amount of previously disturbed, disarticulated human bone, which necessitates continued management and protection.

In addition to the archaeological investigation, AES conducted a targeted historic resources inventory and evaluation within the APE. As a result of the work, a segment of the Richmond Belt Line Railroad was recorded and recommended ineligible for listing on the NRHP and CRHR ([Appendix N](#)). Additionally, all of the buildings within the Winehaven District (CA-CCO-422H) were evaluated to clarify the contributing versus non-contributing components. Site-specific summaries are provided below.

**CA-CCO-282.** Originally recorded by Nelson in 1907, this site is described as a prehistoric shell mound. Artifacts and ecofacts noted at the site include whalebone, skeletal remains, several types of shell, hammerstones, a pestle fragment, and a 12-inch triangular anvil or pounding stone. After excavating a number of test units within the plotted site boundary, Chavez and Holson concluded that the site had been “totally destroyed (Chavez and Holson, 1985:55).”

The findings of Chavez and Holson were confirmed through fieldwork conducted by AES in 2008 that included intensive surface examination, as well as excavation of auger probes and ten shovel probes at the plotted location of the site. As a result of these efforts, no prehistoric cultural materials were identified. Comparison of the historic topography of the area (based on examination of historic maps) and the modern landform configuration indicate that the location of the site was likely destroyed in the course of
3.6 Cultural Resources

historic grading within the project site and may have been used as fill in the Bay. Based on the results of the comprehensive testing regime, it was determined that CA-CCO-282 is not a historic property or historic resource as defined by the NRHP and CRHR, respectively.

CA-CCO-283. Originally recorded by Nelson in 1907, this site is described as a prehistoric shell mound. Measuring approximately 45 by 61 meters, excavations of this site by Driver and Treganza in 1939 produced 20 burials. In addition to the burials, site constituents included faunal remains, chert and obsidian debitage and tools, and ground and battered stone. In 1954, Beardsley analyzed the remains of the 1939 excavation and was able to identify temporally diagnostic artifacts. This site is thought to have been occupied from approximately 2,500 BP to A.D. 500.

In 1985, Chavez and Holson reported on test excavations at the site. The authors employed a series of one-by-one meter units, auger probes, and shovel probes throughout the site. Testing revealed considerable disturbance and re-deposition of the archaeological matrix. The researchers concluded that “CA-CCO-283 lacks depositional integrity and is unlikely to yield information which could significantly contribute to the understanding of history or prehistory (Chavez and Holson, 1985:55).” The authors go on to recommend that the site is ineligible for listing on the NRHP. Despite these findings, Chavez and Holson note that the presence of human remains within the site matrix make it “an important cultural resource to the Native American community,” and thus worthy of protection (Chavez and Holson, 1985:55).

In the course of removing a buried fuel line in December of 1999, the Navy encountered numerous artifacts and two disarticulated human bones associated with site CA-CCO-283. Artifacts recovered include a portable mortar, two pestles, a hammerstone, numerous chert flakes, an obsidian biface, a charmstone, one porcelain shard, and a historic glass bottle (Busch, 2007). The Navy requested a curation agreement with Phoebe Hearst Museum of Anthropology, who declined to accept the collection. The artifacts are currently in possession of the Navy. Following the discovery, the Navy held two Native American consultation meetings to discuss the disposition of the human remains. The Navy’s records do not indicate precisely who was consulted, although the Indian Canyon Mutsum Band of Costanoan was one party. The Navy concluded that the cultural affiliation of the human remains could not be determined (Busch, 2007).

AES implemented an archaeological testing project at site CA-CCO-283 in the spring of 2008 (Appendix Y) that used intensive surface survey and excavation of a series of auger probes (n=13), shovel probes (n=16), and control units (n=3) to characterize the site. Cultural material recovered from CA-CCO-283 was dominated by marine shell ecofacts. A few of the excavation units produced a very modest array of artifacts and disarticulated human bone fragments.
The subsurface observations indicate that past land use has resulted in severe impacts to the content and integrity of the cultural deposit at CA-CCO-283. Disturbances to the deposit resulted in truncation, re-deposition, feature destruction, and constituent removal. Observations made by AES in the course of fieldwork, viewed in light of past findings (Nelson, 1909; Chavez and Holson, 1985), indicate that the site once occupied a knoll above a seasonal drainage and was re-deposited over a large area during the past 90 years. While it was possible to identify the former nucleus of the archaeological site, the constituents that remain in that locale have been disturbed to such an extent that the is not considered a historic property or historic resource as defined by the NRHP and CRHR, respectively. Nonetheless, the identification of previously disturbed, disarticulated human bone in a limited area requires continued management of a portion of the site to prevent any future disturbance of human remains.

**CA-CCO-284.** This site is what remains of a prehistoric shell midden recorded by Nels Nelson in 1907. Very little information was provided about the site when initially recorded, except to note the general location and character. Following Nelson’s recording of the site, significant development and landform alterations occurred atop and adjacent to the site. Prior to 1997 it was assumed that the site had been destroyed. However, archaeological monitoring in 1997 encountered midden, two ash lenses, one intact human burial, and two loci of disturbed and disarticulated human remains (Wiberg, 1999). Wiberg concluded that the “data clearly indicate that the CCO-284 shellmound possesses intact cultural deposit containing important archaeological materials, making possible a determination of significance under Section 210083.2 of CEQA (Wiberg, 1999:4-9).”

**CA-CCO-422H.** The Winehaven Historic District was listed on the NRHP on October 2, 1978. The original nomination was prepared by Lucretia Edwards of the Winehaven Historical Study Committee in 1976. Constructed between 1907 and 1919, the Winehaven Historic District is composed of 35 buildings that together are significant historically and architecturally in the areas of wine production and industrial design. The contributing elements of the District include 29 residences, two large winery buildings (Buildings No.1 and No.6), a warehouse (Building No.10) a powerhouse (Building No.13), a fire station (Building No.63), as well as a workshop and planing mill (Building No.17). Refer to Figure 3.6-6 for a map of the District, and to Table 3.6-1 for a summary of the contributing elements. Reanalysis of the original 71-acre District boundary from the 1976 nomination by JRP (1996) concluded that the boundary should be revised to encompass a 27-acre core area of concern. Though the SHPO concurred, these changes were rejected by the Keeper of the NRHP (National Park Service) on October 27, 1998. A subsequent petition for the reduction to the District boundary was prepared in 2003 by the Navy. The SHPO concurred with the boundary revision and subsequently forwarded a Department of Parks and Recreation (DPR) Continuation Sheet detailing the proposed change to the Keeper of the NRHP (Appendix N).

The Keeper of the NRHP has since rejected the boundary revision (Lusignan, 2008). The revision was rejected on the grounds that federal regulations bar the reduction of district boundaries of properties listed...
Figure 3.6-6
Winehaven Historic District

prior to December 13, 1980 unless “the property has ceased to meet the criteria for listing in the National Register because the qualities which caused it to be originally listed have been lost or destroyed, or such qualities were lost subsequent to nomination and prior to listing (36 CFR 60.15 (a)(1)).” AES has since clarified the contributing elements of the District and prepared a National Register nomination amendment (Appendix N). The amended nomination identifies 35 contributing structures in the District (same as those recommended by the Navy with SHPO concurrence in 2003), provides additional information as requested by the Keeper of the NRHP, and does not call for a physical reduction in the District boundary.

CA-CCO-423. Originally recorded by Rippey, Gerike, and Praetzellis in 1980, this site is characterized by the presence of five loci of prehistoric shell midden and contains a very limited variety of artifacts and ecofacts. The site was auger tested in 1980 to define the vertical and horizontal boundaries, as well as to assess its integrity. Following subsurface examination, four loci were found to lack integrity, while one locus was thought to retain sufficient integrity to warrant future investigation (Rippy and Praetzellis, 1980).

Archaeological work conducted at site CA-CCO-423 by AES in 2008 included intensive survey of all loci reported for the site, extensive auger probing (n=73), shovel probe excavation (n=14), as well as excavation of three subsurface control units (Appendix Y). The majority of the prehistoric deposit observed was intermittent midden dominated by weathered marine shell. Only trace amounts of cultural material was identified within two of the loci, while one proved to be virtually devoid of constituents. The artifacts recovered from CA-CCO-423 are minimal in number. Although what was recovered represents some form of prehistoric bayside occupation and resource processing, the cultural deposit at the site lacks any stratigraphic integrity and cannot be dated. The lack of any discrete features or diagnostic artifacts precludes the site's ability to provide important information as it relates to paleoenvironmental conditions, site formation processes, cultural chronology, or culture process. The fragmentary nature of the artifact assemblage and the presence of a high frequency of modern and historic items suggests an extreme degree of postdepositional disturbance. Based on the previous testing work (Rippy and Praetzellis, 1980) as well as information collected during the recent work by AES, it was determined that CA-CCO-423 is not a historic property/resource as defined by the NRHP and CRHR.

CA-CCO-506H. This is a historic archaeological site representing the remains of a historic-period Chinese shrimp camp occupied from circa 1860s through 1912. The camp was mentioned in field notes of Nelson in 1909. At its peak, the camp contained 30 shacks, five wharves, and ten boats. Listed as a “Chinese Fishing Camp” in the California Inventory of Historic Resources, it was originally recorded in 1985 by Chavez and Holson. A limited number of shovel probes, auger probes, and a single control unit were excavated within the northern margin of the site in 1985 (Chavez and Holson, 1985). Artifacts collected by Chavez and Holson include ceramic food storage and consumption containers, bottle glass, canning jars, condiment jars, window pane glass, and wire nails. In addition, two small jetties were noted
protruding into the Bay from the former camp at low tide. A portion of the site is said to overlap with CA-CCO-283. Results of this study determined that the integrity of this site has been affected by the grading and construction of a railroad and other developments.

CA-CCO-506H was subject to archaeological testing by AES in 2008 (Appendix Y). As the largest of the sites under consideration, it presented a number of unique challenges. Unlike the prehistoric sites at Point Molate, the historic deposit at CA-CCO-506H has been buried over large portions with modern fill. The extant deposit is shallow, diffuse, with limited stratification. As such, the methods that were employed differed significantly from those used for the other sites. A combination of manual (hand excavation) and mechanical excavation (backhoe) techniques were used, which provided an effective means of identifying site constituents and characterizing the nature of the deposit.

A total of 17 backhoe trenches, 33 shovel probes, and three control units were excavated at the site. The extensive stratigraphic profiles exposed during exploratory trenching allowed for a firm definition of depth and extent of the historic deposit. Once the site stratigraphy was firmly established, 33 locations were selected for shovel probe excavation to provide for a finer resolution examination of subsurface deposits. Once features of interest were identified, control units were excavated in order to collect a representative sample of the associated constituents. The investigation identified sporadically distributed historic artifacts, with only a few areas of concentrated constituents and a few well defined features. Results of the 2008 investigation include a refining of the spatial extent of the site, collection and analysis of a sample of the deposit, and significance evaluation. The investigation concluded that a portion of the area recorded as CA-CCO-506H contains requisite data potential to qualify as a historic property/resource pursuant to the NRHP and CRHR. A National Register nomination has been prepared for the site and is included in Appendix Y.

Memorandum of Agreement - 2002

In the course of disposing of the NFD and deeding most of the property to the City of Richmond, the Navy entered into a Memorandum of Agreement (MOA) with the SHPO in 2002, with the City of Richmond as an invited signatory (CA SHPO, 2002). The MOA provided for the treatment of recognized historic properties located within the NFD (Winehaven Historic District), required the nomination of site CA-CCO-506H to the National Register, and required the evaluation of the other three resources (CA-CCO-282, -283, and -423). The MOA was to be considered in effect until such time that “all stipulations have been fulfilled as determined by the Navy in consultation with the other signatory parties and the concurring party, or until such time that as the historic properties covered by this agreement are no longer under federal ownership, whichever occurs first (CA SHPO, 2002:E32-b).” Key stipulations of the MOA include:

- Nomination of CA-CCO-506H to the NRHP,
• Evaluation of sites CA-CCO-282, -283, and -423, followed by nomination to the NRHP if found eligible;
• Consultation with the Bay Miwok Band prior to any archaeological work;
• Petition the Keeper of the Register for a boundary reduction for the Winehaven Historic District;
• Appeal to the California Historical Resources Commission for a boundary reduction for the Winehaven Historic District, as depicted on the State Register;
• Provisions for licensing and leasing of buildings in the District;
• Designation of the contributing elements of the Winehaven Historic District as Historic Structures, pursuant to the Richmond Municipal Code;
• Amendment of any relevant City of Richmond codes, ordinances, and regulations to identify and protect the historic and prehistoric sites located at Point Molate;
• The City of Richmond shall observe the measures presented in Professional Guide for the Preservation and Protection of Native American Remains and Associated Grave Goods (California Native American Heritage Commission);
• Completion of an annual report concerning the status of compliance; and
• Provisions for the treatment of unknown resources in the course of ground-disturbing activities at Point Molate.

The portions of the former NFD that contain sites CA-CCO-282, -283, -423, and the contributing elements of CA-CCO-422H have been transferred to the City, while a portion of –506H is located on land still retained by the Navy. Sites CA-CCO-282, -283, and -423 were not evaluated prior to transfer. A recent query of the NRHP database (December 2007) and discussion with personnel at the National Register failed to identify CA-CCO-506H as a property listed on the NRHP (Lusignan, 2008), indicating that the site has not been nominated. In a letter dated September 17, 2003, the SHPO concurred with the Navy’s proposed boundary revision for the Winehaven District (Appendix N). However, as previously noted, the Keeper of the NRHP has since rejected the boundary revision (Lusignan, 2008).

In the fall of 2008, an amendment to the 2002 MOA was drafted that recognizes the change in ownership of some of the cultural resources at Point Molate and clarifies the roles of the Navy and City. The amendment calls for the evaluation and, if eligible, nomination of the archaeological resources to the National Register. The amendment also stipulates that the contributing elements of the Winehaven District must be clarified by way of an amended National Register nomination. Work undertaken by AES in 2008, and reported in Appendices N and Y, address the outstanding stipulations of the amended MOA as it relates to resource evaluations, preparation of National Register nomination for qualifying resources, and District element clarification.

### 3.6.3 Paleontological Resources Regulatory Setting

Paleontological resources are the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints or endocasts, and reside in sedimentary rock
layers. Paleontological resources are protected by several federal and state regulations and policies including the Antiquities Act, NEPA, CEQA, and the PRC.

**FEDERAL**

**Antiquities Act**

Passed in 1906, the Antiquities Act prohibits the collection, destruction, injury, or excavation of “any historic or prehistoric ruin or monument, or any object of antiquity” that is situated on federal land without permission of the appropriate land management agency. The Act also provides for the criminal prosecution, including fines and imprisonment, for individuals who commit one or more of the acts described above. While neither the Antiquities Act nor its implementing regulations (found at 43 CFR 3) explicitly mention fossils or paleontology, the inclusion of “object[s] of antiquity” in the Act has been interpreted to extend to paleontological resources by many federal agencies. As such, projects involving federal lands require permits for paleontological resource evaluation and mitigation efforts that involve excavation, collection, etc.

**National Environmental Policy Act**

NEPA’s requirement that federal agencies take all practical measures to “preserve important historic, cultural, and natural aspects of our national heritage” has been widely interpreted to cover paleontological resources potentially impacted by federal projects (emphasis added). Thus, whenever possible, mitigation measures are recommended to lessen impacts to paleontological resources as a result of federal projects.

**STATE**

**California Environmental Quality Act**

CEQA provides protection for unique paleontological resources and unique geologic features, and requires that impacts to such resources be considered in the project review process. The Act distinguishes between ubiquitous fossils that are of little scientific consequence, and those which are of some importance by providing protection for the latter. While CEQA does not precisely define unique paleontological resources, criteria established by the Society of Vertebrate Paleontology (SVP) provide guidance. The SVP defines a significant paleontological resource as one which meets one or more of the following criteria (SVP, 1995):

- Provides important information shedding light on evolutionary trends and/or helping to relate living organisms to extinct organisms;
- Provides important information regarding the development of biological communities;
- Demonstrates unusual circumstances in the history of life;
- Represents a rare taxon or a rare or unique occurrence, is in short supply and in danger of being destroyed or depleted;
• Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
• Provides important information used to correlate strata for which it may be difficult to obtain other types of age dates.

CEQA similarly fails to precisely define a unique geologic feature. For the purpose of this analysis, a unique geologic feature is defined as a resource or formation that:

• Is the best example locally or regionally;
• Embodies distinct characteristics of a geologic principal that is exclusive locally or regionally;
• Provides a key piece of geologic information important in geology or geologic history;
• Is a type locality of a geologic feature;
• Contains a mineral not known to occur elsewhere locally or regionally; or
• Is used repeatedly as a teaching tool.

California Public Resources Code

Section 5097.5 of the PRC prohibits “knowing and willful” excavation, removal, destruction, injury, or defacement of paleontological resources on public lands without prior permission from the appropriate agency. Public lands include those “owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.” If paleontological resources are identified within a given project area, the lead agency must take those resources into consideration when evaluating project impacts. The level of consideration may vary with the importance of the resource in question.

3.6.4 PALEONTOLOGICAL ENVIRONMENTAL SETTING

The presence of paleontological resources at any particular site is influenced by geological composition resulting from formation processes occurring over long periods of time. Fossils typically reside in sedimentary layers, and may or may not become mineralized dependent upon the mineral composition within their depositional environment.

As described in Section 3.2, the region’s geologic history is characterized by old volcanic formations and tectonic uplifting of ancient sea floor deposits, which together form the Coast Ranges. East-to-west trending expansion of the area between the Hayward and San Andreas faults produced the basin now filled by the San Francisco Bay. The geology of the project site is dominated by Franciscan formation out-crops composed of sandstone, serpentine, chert, shale, greenstone, and metamorphic rocks. Imported fill materials are present along the Bay margin and are composed of a highly variable mix consisting of poorly sorted gravel, silt, sandy silt, sandy clay, and bedrock fragments. The fill materials have been placed over Bay Mud and marsh deposits along the shoreline areas. Significant fossil resources rarely
occur in the Franciscan formation, due to the heavily deformed and metamorphosed nature of the materials. However, fossiliferous components containing primarily invertebrate marine fossils have been identified within the Franciscan complex.

A search of the University of California Paleontology Museum’s (UCMP) database indicates that 10,449 paleontological specimens have been reported in Contra Costa County (UCMP, 2007). Areas in proximity to Mount Diablo have the highest frequency of fossils in the County, and nearly all reported vertebrate and mammalian specimens are from this locale. Regionally, the most prolific producer of important paleontological specimens is the Blackhawk Ranch Fossil Quarry, located roughly 35 miles southwest of the project site, on the southern flank of Mount Diablo. The quarry contains the Bay Area’s richest deposit of plant and animal fossils, including numerous vertebrate specimens. The UCMP lists more than 3,000 specimens collected from this quarry. The fossiliferous deposit, which dates to roughly nine to ten million years ago, has produced a number of simpsoni (precursor of mastodons and elephants), beavers, mice, squirrels, foxes, hayaenoid dogs, saber-toothed cats, skunks, weasels, otters, horses, camels, rhinoceros, llamas, antelope, salmon, turtles and cranes. Plant fossils recovered from the site include leaves of poplar, willow, oak, elm, sycamore, mahogany and sumac (Lane, 2007).

One hundred and sixty-nine fossil specimens have been reported within a roughly 12-mile radius of the project site, excluding areas outside of Contra Costa County (UCMP, 2007). Localities within this radius that have yielded specimens include: Pinole, Point Richmond, Rodeo, San Pablo, San Pablo Bay, San Pablo Creek, San Pablo Reservoir (vicinity), Selby, and Wildcat Canyon. The locality of Selby, in unincorporated Contra Costa County east of the project site, has produced at least 109 specimens (UCMP, 2007). Thirty-one specimens have been reported from the vicinity of Pinole. Specimens reported from the immediate area include two fossils from the Potrero Hills, as well as two from Point Molate. The two specimens reported from Point Molate are invertebrate fossils that date to the Holocene epoch (most recent ~10,000 years), while the two specimens from an undefined area in the Potrero Hills are invertebrates from the Eocene and Paleocene epochs (34 – 55 million and 60 – 66 million years ago, respectively) (UCMP, 2007).

Several sources were consulted to identify unique geologic formations within the project site. Sources reviewed include: the California Geotour Index maintained by the California Geologic Survey (CA Geologic Survey, 2007); California Geology (Harden, 2004); California Landscape (Hill, 1984); Roadside Geology of Northern and Central California (Alt and Hyndman, 2000); California Fossils for the Field Geologist (Schenck and Keen, 1955); and A Natural History of California (Schoenherr, 1992). A review of the above-referenced sources did not identify the presence of any unique geologic features within or in close proximity to the project site. Overall, the geology of the project site is typical of the surrounding eastern Bay Area.
PALEONTOLOGICAL SUMMARY

Despite a handful of invertebrate fossil specimens documented within and near the project site, indicators of unique paleontological resources within the project site are absent in the sources consulted, and no such resources were observed in the course of a surface reconnaissance survey by AES archaeologists in 2007. The geologic formation upon which the project site is located has produced few significant paleontological specimens of scientific consequence and thus would not be likely to yield unique paleontological resources. Furthermore, no unique geologic features are known to exist within the project site.