

4.5 CULTURAL RESOURCES

There is one historic site located in the project area that appears to be eligible to the California Register of Historical Resources (CRHR); further testing is required and if eligible, an Archaeological Data Recovery Plan (ADRP) shall be developed to mitigate project effects.

No significant prehistoric archaeological resources, areas of Native American concern, or Hispanic era resources are known in the project site area.

No formally listed local, state, or federal historically or architecturally significant structures, landmarks, or points of interest have been recorded or identified in or adjacent to the project area.

This section identifies cultural resources within the project area, evaluates the significance of the cultural resources, assesses the impacts from the project on the significant cultural resources, and recommends mitigation measures to reduce or eliminate those project impacts that have the potential to damage significant resources. This section evaluates impacts to cultural resources within the project site and proposed utility corridors along Empire Mine Road and Deer Valley Road. As discussed in **Chapter 3.0, Project Description**, extension of the utility lines from Heidorn Ranch Road to Deer Valley Road have been evaluated as part of the Aviano Adult Community Project EIR (2008) and are not included as part of this analysis.

4.5.1 EXISTING SETTING

Methodology

William Self Associates (WSA) conducted a review of records, literature and historic maps on file at the California Historical Resources Information System (CHRIS), Northwest Information Center, Sonoma State University (NWIC); at the Contra Costa County Historical Society, Martinez; and at WSA offices to identify and evaluate the potential for the presence of cultural resources. In addition, WSA performed research to determine historical ownership of the early ranches, now represented by historic sites. Field work consisted of an intensive pedestrian survey of a previously unsurveyed section of the Deer Valley Road utilities corridor and the reevaluation of three historic sites that were previously recommended eligible for the California Register of Historical Resources (CRHR).

Records Search and Literature Reviews

The NWIC conducted records searches¹ to identify previous archaeological studies and previously recorded sites within the project area and a quarter-mile radius thereof. Reference materials at WSA and the Contra Costa County Historical Society also were consulted for the project.

Native American Consultation

The Native American Heritage Commission (NAHC) was consulted as part of the Roddy Ranch Reorganization Project, during which the results of the search were negative. The NAHC was not re-contacted for the Roddy Ranch Project.

Archaeological Survey

The West and East phases of the Roddy Ranch subdivision area, the hotel/villa development area, the golf course improvements area, and the future commercial development area have all been intensively surveyed by archaeologists meeting the Secretary of the Interior's Standards as defined in 36 CFR 61, as part of the Horse Valley and Adjoining Lands Project conducted as part of a feasibility assessment in consideration of future development of the area,² the Roddy Ranch Golf Course Project,³ and the Horse Valley Estates Project.⁴ The Horse Valley Estates Project does not appear to have come to fruition as that project area remains undeveloped. The northern half of the Deer Valley Road utilities corridor and the southern and central portion of the Empire Mine Road water line corridor were intensively surveyed as part of the Future Urban Area 1 Project,⁵ and the Kellogg Unit Reformulation Projects undertaken to assess alternatives for improving water quality in eastern Contra Costa County.⁶ Most of the northern portion of the Empire Mine Road water line corridor was surveyed as part of Parcels "A" and "B," for the North American Development Corporation Project.⁷

WSA archaeologists Angela Cook and Aimee Arrigoni revisited the three previously recorded sites located within the East and West phases of the subdivision area, and the Smith property area on June 2, 2008. The current conditions of the sites were recorded and the sites were reevaluated for their eligibility to the CRHR. The previously unsurveyed portion of the Deer Valley Road utilities corridor was surveyed by WSA archaeologist, Angela Cook, on July 11, 2008. The small portion of the Empire Mine Road

¹ NWIC File No. 07-1554 and 07-1887.

² WSA 1998a.

³ WSA 1998b.

⁴ Baker 1984.

⁵ WSA 1994.

⁶ West 1982; Jensen & Associates 1986.

⁷ Chavez 1988.

water line corridor that had not been previously surveyed was not surveyed as part of this project, as trenching activities will occur through the existing paved road and construction impacts will not extend outside of the existing right-of-way (ROW).

Existing Conditions

The project area and corridors within the project area typically have been used for agricultural purposes. Mining also was undertaken within the area surrounding the Empire Mine Road water line corridor. A portion of the project area also is currently used as a golf course. Areas surrounding the project site (such as to the north and east of the project area) are currently vacant and have generally been designated by the General Plan for open space and residential purposes.

Cultural resources are traces of human occupation and activity. In northern California, cultural resources extend back at least 8,000 years, with Native American occupation and use of central California extending over 5,000 to 8,000 years and possibly longer.

The Antioch region appears to have been favored by Native Americans for hunting and collecting activities. The area would have provided a favorable environment during the prehistoric period, with riparian and inland resources readily available and the Bay shore in relatively close proximity. Archaeological information suggests an increase in the prehistoric population over time with an increasing focus on permanent settlements in later periods. This change from hunter and collector to an increased sedentary lifestyle is due to more efficient resource procurement but with a focus on staple food exploitation, the increased ability to store food at village locations, and the development of increasingly complex social and political systems, including long-distance trade networks. Habitation sites in the area appear to have been selected for accessibility, protection from seasonal flooding, and availability of resources.

Prehistoric site types recorded throughout eastern Contra Costa County consist of lithic scatters, quarries, habitation/village sites (including burials), bedrock mortars or other milling feature sites, petroglyph sites, and isolated burial sites. No archaeological evidence dating to pre-8000 B.C. has been located in the Bay Area. Milliken et al.⁸ posit that this dearth of archaeological material may be related to subsequent environmental changes that submerged sites, buried sites beneath alluvial deposits, or destroyed sites through stream erosion.

Historical Background

The history of the project area can be divided into several periods including the Spanish Period (1775-1822), the Mexican Period (1822-1848), and the American Period (1848-

⁸ Milliken et al. 2007: 99-123.

present) which encompasses the Coal Mining Period (1855-1907) and the Ranching and Farming Period (1880s-present).

At the time of historic contact with the Spanish missionaries and explorers (beginning in 1775), the project area was occupied by the Bay Miwok group of Native Americans. Levy⁹ places the Bay Miwok territory from the Suisun Bay to just south of Mount Diablo and from there, eastward to the Sacramento-San Joaquin Delta.

Coal Mining

The first intensive settlement of the project vicinity began in the mid-1850s when coal was discovered in Contra Costa County. Coal in California is generally of poor quality, found in small quantities, or is situated in locations where transportation costs exceed the value of the coal.¹⁰ As a result coal was, for the most part, played-out by the mid-1880s. However, believing that both the coal and the demand for coal would last for years, many miners sent for their wives and children starting in 1861,¹¹ which led to the creation of towns such as Somersville and Nortonville.

By the mid-1870s, smaller mines began to boom and the towns of Judsonville and Empire (associated with the Empire Mine) and West Hartley (associated with the West Hartley Mine) were founded.¹² These three communities are located in proximity to the current project area. When the mines closed at the turn of the century, the towns of Nortonville, Somersville, Stewartville, West Hartley, and Judsonville became ghost towns almost overnight.

Ranching and Farming

During the Mexican Period, ranching and stock raising were primary concerns, with farming undertaken on a small scale to provide subsistence for the area's ranchos. With the advent of the American Period, farming on a large scale was introduced.

By the 1880s, two-thirds of the cultivated land was devoted to wheat. Fruit and nuts, such as grapes, apples, oranges, plums, pomegranates, olives, figs, and almonds, also were cultivated throughout parts of the County. Dairying and raising of cattle, horses, sheep, and hogs imported from the East Coast were also important industries at this time.¹³

By 1918, three-fourths of the county was under cultivation. Within eastern Contra Costa County, the cultivated lands were located between the Mount Diablo foothills and the San

⁹ Levy 1978a:399.

¹⁰ Goodyear 1877:6.

¹¹ Jones 1988:5.

¹² Antioch Ledger 1951:11.

¹³ Munro-Fraser 1882:57, 59, 60.

Joaquin River. Wheat, barley, alfalfa, fruit, and vines were the principal crops, though the area also was considered suitable for growing almonds. Stock raising also continued to be a primary industry, with the reclaimed lowlands used for summer grazing and the hill areas for winter grazing.¹⁴

Cultural Resources in the Area

No significant prehistoric archaeological resources, areas of Native American concern or Hispanic-era resources are known in the project site area. No formally listed local, state, or federal historically or architecturally significant structures, landmarks, or points of interest have been recorded or identified in or adjacent to the project area. Three historic sites (see **Table 4.5-1**) that are potentially eligible for the CRHR have been recorded within the East and West phases of the subdivision area. No historic sites have been recorded within the golf club improvements area, Deer Valley Road utilities corridor, or Empire Mine Road water line corridor.

Archaeological Sensitivity

The Contra Costa County General Plan (2005) includes an archaeological sensitivity map, which ranks areas according to their potential for archaeological sites to exist. The County is divided into “extremely sensitive areas,” “highly sensitive areas,” “areas of medium sensitivity,” “moderately sensitive areas,” “areas of low sensitivity,” and areas that are urbanized and/or publicly owned and were excluded from the map. The East and West phases are located in areas considered to have medium sensitivity, while the utilities and water line corridors extend through areas of medium and high sensitivity.

Records Search Results

A total of 10 previous studies were conducted within the Roddy Ranch Project area, and another four were conducted within a quarter mile of the project area. Approximately 90 percent of the project area was previously surveyed as a result of these studies.

Historic Resources

Four previously recorded sites are located within the project area, three of which were recommended eligible for inclusion in the CRHR as shown in **Table 4.5-1**. The fourth site was recommended ineligible due to a lack of integrity.

There are no previously recorded sites located within the Deer Valley Road utilities corridor, or the Empire Mine Road water line corridor, although five sites were recorded within a quarter mile, and three of these sites that are located adjacent to the Empire Mine Road water line corridor, have been recommended eligible to the CRHR as shown in **Table 4.5-2**.

¹⁴ California State Board of Agriculture 1919:323; Hulaniski 1917:89-90.

Table 4.5-1 Sites in Project Area Recommended Eligible for Inclusion in CRHR

Site No.	Site Constituents	Cultural/Temporal Affiliation	Eligibility	Reference
P-07-000268 CA-CCO-496H	Remains of historic ranching/farming complex consisting of a brick foundation, a well or cistern, the remains of a possible barn, the remains of a windmill, a remnant olive orchard, a trash pit, watering troughs and historic trash	Historic, ca. 1880s or 1890s, likely associated with either A.G. Darby or Andrew Smith family	Recommended eligible	Site Records: Baker and Salzman 1984a; Wills 1998 Reports: Baker 1984; WSA 1998a, 1998b
P-07-000269 CA-CCO-497H	Remains of historic ranching complex consisting of at least three foundations, a buried trash deposit, and a brick and artifact scatter likely representing a former house site	Historic, ca. 1870-1900, likely associated with the James Stockton family	Recommended eligible	Site Records: Baker and Salzman 1984b; Claiborne and Wills 1998 Reports: Baker 1984; WSA 1998a, 1998b
P-07-000763	A brick cistern and a large eucalyptus tree	Historic	Recommended eligible	Site Record: Martin et al. 1998b Report: WSA 1998a

Source: William Self Associates, 2008.

Table 4.5-2 Sites Adjacent to the Project Area Recommended Eligible for Inclusion in CRHR

Site No.	Site Constituents	Cultural/Temporal Affiliation	Eligibility	Reference
P-07-000008 CA-CCO-685H	Previous townsite of Judsonville	Historic	Recommended eligible	Site Record: Wills and Samuelson 1990 Report : WSA 1994a
P-07-000009 CA-CCO-686H	Location of a former school house, possibly related to previous town of Judsonville	Historic	Recommended eligible	Site Record: Samuelson et al. 1993a Report : WSA 1994a
P-07-000011 CA-CCO-688H	Historic district encompassing West Hartley Mine, Empire Mine, sections of the Empire Railroad, town sites of West Hartley and Empire, and historic trash, with a total of 54 townsite and mining-related features	Historic	Recommended eligible	Site Record: Samuelson et al. 1993b Report: WSA 1994a

Source: William Self Associates, 2008.

Survey Results

WSA archaeologists Angela Cook and Aimee Arrigoni revisited the three historic sites listed in **Table 4.5-1** on June 2, 2008. They found that two of these three sites continue to appear to be eligible to the CRHR, and also identified an environmentally sensitive area, where potential subsurface historic material may exist. All of these resources are discussed below.

CA-CCO-496H

CA-CCO-496H is the site of an historic ranching complex that was first recorded by Baker and Salzman in 1984 during a cultural resource survey for the Horse Valley Estates project.¹⁵ WSA revisited the site in 1998 as part of the Horse Valley Project¹⁶ and the Roddy Ranch Golf Club Project,¹⁷ and recommended that the site was potentially eligible to the CRHR under Criterion 4 (that it has yielded or has the potential to yield information important in the prehistory or history of the local area, California, or the nation).¹⁸ All of the previously recorded features were located during WSA's 2008 revisit and one additional feature was recorded.

Historic research undertaken at the Contra Costa County Historical Society indicated that by the mid- to late-1800s, the parcel was owned and farmed by James D. Darby. Darby was an active member of Antioch society, and served as a county auditor and a county recorder in the early 1880s.¹⁹ He also served as the first secretary of the Antioch division of the National Grange of the Order of Patrons of Husbandry. By 1908, the land had changed hands and was owned by Andrew Smith. Smith, an Irishman, had immigrated to America in 1840, and the Smith family had been resident in the neighborhood for at least two decades.

WSA concurs with the previous recommendation that the site appears eligible to the CRHR under Criterion 4. No archaeological excavations have been undertaken at this site previously. The site has the potential to contribute to our understanding of the early ranching and farming period within Contra Costa County. In addition, dateable artifacts would allow attribution of features to the Darby and Smith families.

¹⁵ Baker 1984; Baker and Salzman 1984a.

¹⁶ WSA 1998a.

¹⁷ WSA 1998b.

¹⁸ Wills 1998.

¹⁹ Purcell 1940:291-292.

CA-CCO-497H

CA-CCO-497H is also the site of an historic ranching complex that was originally recorded by Baker and Salzman in 1984²⁰ as part of the Horse Valley Estates project. WSA revisited the site in 1998 as part of the Horse Valley Project²¹ and the Roddy Ranch Golf Club Project,²² and recommended that the site was potentially eligible to the CRHR under Criterion 4.

By the mid- to late-1800s, James Stockton owned and farmed the parcel. The Deer Valley School also was relocated from a nearby ranch to the Stockton ranch in the late 1800s. Sometime later the original building was abandoned and a new building was erected on the same property, "just behind the hill from its original location."²³ The building still functioned as the Deer Valley School in 1917, with the land owned by J. Van Buren.²⁴ The original location of the school within the Stockton ranch property may have been close to the ranch house and it is unknown whether the schoolhouse would have been located within the boundaries of site CA-CCO-497H.

WSA concurs with the previous recommendation that the site appears eligible to the CRHR under Criterion 4. No archaeological excavations have been undertaken at this site previously. The site may have the potential to contribute to our understanding of the early ranching and farming period and possibly the early development of rural schools within Contra Costa County if remains associated with the Deer Valley Schoolhouse are within the site area. In addition, dateable artifacts would allow attribution of features to the Stockton and Van Buren families.

Environmentally Sensitive Area

The Environmentally Sensitive Area (ESA-1) is the site of the possible second location of the Deer Valley School within the Stockton Ranch. The designation ESA-1 is given as there is potential for subsurface remains relating to the school to exist at this location. This area is part of an existing conservation easement and would not be disturbed by project development.

P-07-000763

P-07-000763 was first recorded by WSA in 1998 for the Roddy Ranch Golf Course Project.²⁵ P-07-000763 was recorded as a brick cistern resembling a beehive in shape and

²⁰ Baker 1984; Baker and Salzman 1984b.

²¹ WSA 1998a.

²² WSA 1998b.

²³ Hulaniski 1917:211.

²⁴ Hulaniski 1917:211, 216.

²⁵ WSA 1998b.

containing modern debris, and included a large eucalyptus tree next to which the cistern was built. During WSA's 2008 site revisit, P-07-000763 was determined to have sustained significant damage since it was originally recorded. No historic artifacts were observed in the disturbed soil; however, it was suggested by WSA in 1998 that intact subsurface historic deposits may exist within the cistern and subsequently covered with soil and modern trash. The internal portion of the well does not appear to have been affected by the damage that was inflicted on the eucalyptus tree and brick cistern, nor by the excavation of the surrounding trench.

By the mid- to late-1800s, this land was being farmed by J.O. Diffin. Diffin also served as a trustee of the Deer Valley School.²⁶ Sometime prior to 1900, the property had been acquired by Silas B. Joslin. Joslin was a harness maker, who had a shop in Antioch in the late 1870s. In 1872, he was one of the signatories of the petition for the incorporation of the town of Antioch and in 1874 he became the first elected treasurer of the newly organized Antioch Fire Department.²⁷

As a result of the 2008 site revisit, WSA recommends the site is ineligible for the CRHR. While historic trash deposits may exist within the cistern, it is unlikely to be of sufficient scale to produce information important to local history. There are other nearby sites that are more complex and contain a wider variety of likely intact features that are more suitable for researching themes associated with the early development of farming and ranching in Contra Costa County.

Survey of Deer Valley Road Utilities Corridor

The previously unsurveyed portion of the 500-foot-wide Deer Valley Road utilities corridor was surveyed by WSA archaeologist, Angela Cook, on July 11, 2008. Two historic period sites, RR1 and RR2, were identified, but found to be ineligible for listing, as described below.

Site RR1

Site RR1 consists of a light scatter of fragmentary ceramics, glass, red brick, wrought iron nails (one with a rose head), and miscellaneous metal debris washed down a drainage channel. The material appears to have originated from a deposit located up an adjoining hill and is likely associated with a structure depicted on the 1942 Mt. Diablo topographic map. The structure is not depicted on the 1916 topographic map, and it is likely that it was built sometime between these two dates.

The Harding family is listed as the owners of the parcel on both the 1908 and 1938 Official Map of Contra Costa County, California (Contra Costa County 1908, 1938). As the site

²⁶ Huliniski 1917:216.

²⁷ Munro-Fraser 1882:488, 495.

appears to date to the early to mid-1900s, it is likely associated with the Harding family. As the cultural material has been washed out of its original location, the site does not retain integrity and therefore does not appear eligible to the CRHR.

Site RR2

Site RR2 is located on the slope of a low hill on the east side of Deer Valley Road. The site consists of a scatter of wood planks and worked and unworked sandstone blocks in a roughly rectangular configuration, likely representing foundations of a small structure. The site does not appear eligible for the CRHR. The original use of the structure and who used it remains unknown. Furthermore, based on the level of disturbance to the site – its erosion-prone location on the slope of a hill and the lack of any subsurface historic deposits observed within disturbed areas – there is a low potential for intact subsurface remains to exist at this location.

4.5.2 REGULATORY ENVIRONMENT

Federal Regulations

Section 106, Protection of Historic Properties. The Federal Advisory Council on Historic Preservation accommodates preservation of historic resources through consultation among the Agency Official, the State Historic Preservation Office (SHPO), and other interested persons during the early stages of planning. To this end, the Council encourages agencies to examine their administrative processes to see that they provide adequately for the efficient identification and consideration of historic properties, for participation by SHPO and others interested in historic preservation, for timely requests for Council comment, and for the promotion of cost-effective implementation of the Section 106 process.

Regulatory Historic Property Regulations (33 CFR 325, Appendix C). This section of the Code of Federal Regulations (CFR) establishes the procedures to be followed by the USACE to fulfill the requirements set forth in the National Historic Preservation Act (NHPA), other applicable historic preservation laws, and Presidential directives as they relate to the regulatory program of the USACE (33 CFR Parts 320-334).

The regulatory framework that mandates consideration of cultural resources in project planning includes federal, state, and local governments. Cultural resources include prehistoric and historic archaeological sites, districts, and objects; standing historic 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. Resource evaluation criteria are determined by the compliance requirements of a specific project.

State Regulations

California Environmental Quality Act

The California Environmental Quality Act (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 of Historical Resources (CRHR). A historical resource may be listed in the CRHR if it meets one or more of the following criteria:

- It 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;
- It is associated with the lives of persons important to local, California, or national history;
- It 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; and/or
- It has yielded or has the potential to yield information important in the prehistory or history of the local area, California, or the nation.

Even if a resource does not meet these criteria, a lead agency is not precluded from determining that the resource may be a historical resource as defined in PRC sections 5020.1(j) or 5024.1.

City of Antioch General Plan

The General Plan contains numerous objectives and polices designed to implement its vision related to cultural resources. The applicable policies of the General Plan relating to cultural resources are included in Section 10.9.2 Cultural Policies, which recognize the irreplaceable nature of cultural properties and require that preservation should be a key consideration in the development review process.

Policy Consistency Analysis

The project would be in compliance with the General Plan polices related to cultural resources. Implementation of the mitigation measures in the following section require further testing of potentially significant resources to determine their eligibility for listing, treatment, and data recovery if the resource is found to be significant.

4.5.3 IMPACTS AND MITIGATION MEASURES

Significance Criteria

Appendix G of the CEQA Guidelines identified environmental issues to be considered when determining whether a project could have significant effects on the environment. As identified in Appendix G, the project would have significant impacts to cultural resources if it would:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines;
- b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines;
- c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- d. Disturb any human remains, including those interred outside of formal cemeteries.

A project's impacts involve the level of direct and indirect physical changes to the resource caused by the project. Examples of direct physical changes are vegetation removal, vehicular travel over the surface, earth-moving activities, excavation, or alteration of the setting of a resource. Indirect impacts may result from increased erosion due to site clearance and preparation, inadvertent damage, or outright vandalism to exposed resources due to improved visibility or access.

Substantial adverse change in the significance of a resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate setting such that the significance of the resource would be materially impaired. As the project would involve ground disturbance within site CA-CCO-497H, the project would have a significant impact on this historic resource. The recommended mitigation measures are designed to meet the requirements of 14 CCR Section §15126.4(b).

Less Than Significant Impacts

Cultural Resources on Site CA-CCO-496H and ESA 1

Site CA-CCO-496H is not located on the project site; rather, it is located on the Smith property along Deer Valley Road. Therefore, the project would not impact Site CA-CCO-496H.

ESA 1 also is not located on the project site, as it is located in the 115-acre conservation easement south of the West Phase and would not be disturbed by project construction. Therefore, the project would not impact ESA 1.

Significant Impacts

Impact 4.5-1: Ground-disturbing activities could impact cultural resources on site CA-CCO-497H

Site CA-CCO-497H is located within the West Phase of the project area. Due to the potential for subsurface historic deposits that may produce important information regarding the early development of the area on a local scale, ground-disturbing activities could adversely impact site CA-CCO-497H. Implementation of the following mitigation measures would reduce potential impacts to the site to a less than significant level.

Mitigation Measure 4.5-1a: Prior to issuance of grading permits, an Archaeological Research Design and Testing Plan (ARDTP) shall be developed and approved by the City for site CA-CCO-497H. A report on the testing shall be submitted to the project applicant, the City of Antioch, and the Northwest Information Center (NWIC), detailing the methods and results, and the site will be evaluated using CRHR eligibility criteria.

If the site is recommended as ineligible for the CRHR, project construction within site CA-CCO-497H may begin. If the site is found to be potentially eligible for the CRHR, an Archaeological Data Recovery Plan (ADRP) shall be developed and executed prior to issuance of grading permits to mitigate project effects. Data recovery shall include curation of the artifacts in a curatorial facility that meets the Secretary of the Interior's Standards for Archaeological Documentation, at the expense of the applicant. Once the ADRP is approved by the City and the work completed, project construction activities within the site area can begin.

An Archaeological Data Recovery Report (ADRR), detailing methods and results of the ADRP, shall be prepared and submitted to the project applicant and the City for review and comment. Final copies of the ADRR shall be submitted to the project applicant, and the City of Antioch, and the NWIC.

Mitigation Measure 4.5-1b: Prior to issuance of grading permits, all construction crews that work on the project shall undergo a training session to inform them of the presence and nature of CRHR-eligible cultural resources and the potential for previously undiscovered archaeological resources and human remains within the project area, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.

Significance After Mitigation. Less than significant

Impact 4.5-2: Ground-disturbing activities could impact previously undiscovered archeological resources

Site preparation, grading, and construction activities could adversely impact previously undiscovered archeological resources. Due to the proximity of recorded archeological sites, the potential exists for unknown archeological resources to be encountered on the project site. Although there are no previously recorded Native American cultural resources within the immediate vicinity of the project area, the potential exists for undiscovered Native American resources to be encountered within the project area. Implementation of the following mitigation measure would reduce potential impacts to undiscovered archeological resources to a less than significant level.

Mitigation Measure 4.5-2a: If deposits of prehistoric or historic archeological materials are encountered during project activities, all work within 25 feet of the discovery shall be stopped and a qualified archeologist meeting federal criteria under 36 CFR 61 shall be contacted to assess the deposit(s) and make recommendations.

While deposits of prehistoric or historic archeological materials should be avoided by project activities, if the deposits cannot be avoided, they shall be evaluated for their potential historic significance. If the deposits are recommended to be non-significant, avoidance is not necessary. If the deposits are determined to be potentially significant, they shall be avoided. If avoidance is not feasible, project impacts shall be mitigated in accordance with the recommendations of the evaluating archaeologist and CEQA Guidelines §15126.4 (b)(3)(C), which requires implementation of a data recovery plan. Upon completion of the archaeologist's assessment, the archaeologist shall prepare a report documenting the methods and results, and provide recommendations for the treatment of the discovered archaeological materials. The report shall be submitted to the project applicant, the City of Antioch, and the NWIC. Once the report is reviewed and approved by the City, and any appropriate resource recovery completed, project construction activity within the area of the find may resume.

Mitigation Measure 4.5-2b: Prior to issuance of grading permits, all construction crews that work on the project shall undergo a training session to inform them of the presence and nature of CRHR-eligible cultural resources and the potential for previously undiscovered archaeological resources and human remains within the project area, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.

Significance After Mitigation. Less than significant

Impact 4.5-3: Ground-disturbing activities could impact previously undiscovered human remains

Ground-disturbing activities associated with site preparation, grading, and construction activities could disturb human remains, including those interred outside of formal cemeteries. The potential to uncover Native American human remains exists in locations

throughout California. Although not anticipated, human remains may be identified during site-preparation and grading activities, resulting in a significant impact to Native American cultural resources. Implementation of the following mitigation measure would reduce potential adverse impacts to human remains to a less than significant level.

Mitigation Measure 4.5-3a: If human remains are encountered, work within 25 feet of the discovery shall be stopped and the Contra Costa County Coroner notified immediately. At the same time, a qualified archaeologist meeting federal criteria under 36 CFR 61 shall be contacted to assess the situation and consult with the appropriate agencies. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Upon completion of the assessment, the archaeologist shall prepare a report documenting the background to the finds, and provide recommendations for the treatment of the human remains and any associated cultural materials, as appropriate and in coordination with the recommendations of the MLD. The report shall be submitted to the project applicant, the City of Antioch, and the Northwest Information Center. Once the report is reviewed and approved by the City, and any appropriate treatment completed, project construction activity within the area of the find may resume.

Mitigation Measure 4.5-3b: Prior to issuance of grading permits, all construction crews that work on the project shall undergo a training session to inform them of the presence and nature of CRHR-eligible cultural resources and the potential for previously undiscovered archaeological resources and human remains within the project area, of the laws protecting these resources and associated penalties, and of the procedures to follow should they discover cultural resources during project-related work.

Impact 4.5-4: In constructing the water line extension along Empire Mine Road, ground-disturbing activities outside of Empire Mine Road right-of-way could have adverse effects on sites CA-CCO-685H, -686H, and -688H

Sites CA-CCO-685H, -686H, and -688H are located outside of the project area, but immediately adjacent to the Empire Mine Road water line corridor. All three of the sites have been recommended potentially eligible for the CRHR. The applicant has indicated that no disturbance is planned outside the right-of-way of Empire Mine Road as part of the water line extension.

Mitigation Measure 4.5-4: For the construction of the water line extension along Empire Mine Road, the grading plans shall not include any ground-disturbing activities outside the Empire Mine Road right-of-way. If any ground-disturbing activities associated with the water line extension are contemplated

outside of the Empire Mine Road right-of-way—such as the placement of staging areas or parking areas—grading permits shall not be issued until protective measures are developed and implemented to ensure that there are no significant impacts to these sites.

Significance After Mitigation. Less than significant

Cumulative Impacts

Cumulative impacts are addressed in **Chapter 6.0, CEQA Required Conclusions**, of this EIR.