3.4.1 INTRODUCTION

This section of the draft environmental impact report (EIR) evaluates the potential historic, archeological, cultural, and paleontological effects that may occur as a result of project implementation. "Cultural resource" is the term used to describe several different types of resources, including archeological, architectural, and traditional cultural properties. Archaeological sites include both prehistoric and historical deposits. Architectural properties include buildings, bridges, and infrastructure. Traditional cultural properties include those locations of importance to a particular ethnic group such as Native Americans.

This section provides a brief background discussion to better understand the context of the prehistoric and historical cultural resources associated with the project sites and surrounding area. Additionally, this section provides federal, state, and local policies and regulations that apply to cultural resources in the project area for the purpose of analyzing potential impacts. Finally, impacts associated with the proposed project are identified, and mitigation measures are proposed that would mitigate the significant impacts.

As described in **Section 2.0, Project Description**, the proposed project comprises two new sites, Sycamore Crossing and Hill Town. A cultural resources survey of the Hill Town site was completed by William Self Associates, Inc., (WSA) in 2005 and is appended in its entirety in **Appendix 3.4.** The Sycamore Crossing project site and vicinity has been disturbed by its previous use as part of the California (Hercules) Powder Works (abandoned in the 1970s) and as a spoil site for soil excavated for adjacent development. Due to the disturbed nature of the site and the relevancy of the data in the Hill Town cultural study, an additional specific survey of the Sycamore Crossing site for cultural resources was not conducted.

3.4.2 ENVIRONMENTAL SETTING

3.4.2.1 Physical and Natural Environment

The project sites are located within the City of Hercules in Contra Costa County. Both the Sycamore Crossing and Hill Town sites are located northwest of Interstate 80 (I-80).

The Sycamore Crossing site is bounded on the north by Sycamore Avenue, the south by San Pablo Avenue, the east by the intersection of San Pablo Avenue and Sycamore Avenue, and the west by Tsushima Way. The Sycamore Crossing site is bisected by the west branch of Refugio Creek, which flows within a localized canyon that traverses the site from south to north. The portion of the site west of this seasonal creek was used as a spoil site for excess cut material from nearby developments, and it rises

10 to 25 feet above the surrounding area. The land east of the creek is more low lying with no distinguishing landforms.

The Hill Town site is located northeast of the Sycamore Crossing site and is bounded on the north by the Victoria by the Bay residential project, on the south by John Muir Parkway and a Bay Area Rapid Transportation (BART) Park and Ride Lot, on the east by I-80, and on the west by San Pablo Avenue and the North Shore Business Park. The Hill Town site is situated on a prominent hillside overlooking the intersection of I-80 and State Route (SR) 4. The site slopes downward toward the south and southwest, with elevations ranging from approximately 240 feet above mean sea level (msl) in the northern portion of the site to approximately 30 feet along the southwestern edge of the property.

Both sites are irregularly shaped parcels with a total area of 58 acres. Sycamore Crossing is vacant land. The Hill Town site includes a tank farm that is no longer in use and is being removed from the site, a stormwater treatment facility, and vacant land.

3.4.2.2 Prehistoric Archaeology

WSA conducted a cultural resources survey of the Hill Town site. Research showed that the area may have been an estuary prior to modern land use. The area would have provided an ecologically rich habitat that would have attracted prehistoric hunters and gatherers. The diversity of local microenvironments, a warm climate, and nearby sources of fresh water could have encouraged human habitation as well as the presence of animals that could support hunter-gatherer populations.

A sequence of tertiary, marine sedimentary rocks containing Miocene-era fossils underlies the Updated 2009 Redevelopment Plan Area. The upper layers of this marine accretion consist of yellowish to brownish-gray concretionary sandstone. Native soils consist of the strongly to moderately acidic, darkgray to gray Terra Loam series that forms on upland terraces from weathered sedimentary terrace deposits. The area is located in an ethnographic area associated with the Ohlone or Costanoan group of Native Americans.

3.4.2.3 Ethnography

The project sites are within a region occupied by the Ohlone, also known as the Costanoan group of Native Americans. The term "Costanoan" is derived from the Spanish word for "coast people"; this term is applied to early residents of the region based upon linguistics. The Costanoans spoke a language now considered one of the major subdivisions of the Miwok-Costanoan, which belonged to the Utian family.

It is thought that the ancestors of the Ohlone arrived in the San Francisco Bay Area about 1,500 years ago. The arrival of the Spanish in the San Francisco Bay Area in 1775 led to a rapid and major reduction in Native California populations. Native populations were affected by disease, declining birth rates and the effects of the Spanish mission system, which largely eradicated the Natives' traditional patterns. Natives who had previously survived as hunters and gatherers were transformed into agricultural laborers under the mission system.

Descendents of the Ohlone live throughout the Bay Area. Several Ohlone groups (e.g., Muwekma and Amah) have banded together to seek federal recognition. Many Ohlone, both individuals and groups, are active in preserving and reviving elements of their traditional culture, such as dance, basketry, and song, and are active participants in the monitoring and excavation of archaeological sites.

3.4.2.4 History

Beginning around 1824, Ygnacio Martinez, a Spanish officer associated with the development of San Francisco and of Contra Costa County, occupied lands in the area. After receiving a land grant in 1842, he formed the Rancho El Pinole and later sold portions of the ranch. The California Powder Works Company established an explosives factory along the San Pablo Bay shoreline in 1879 and, following ownership changes, the business became the Hercules Powder Company in 1912.

The company owned 1,300 acres of land in the area and established the town of Hercules on company property to provide residences for factory employees. To avoid potential damage from explosions from manufacturing operations, dirt barriers were erected around the factory buildings and underground facilities were built. The company manufactured dynamite and TNT during World War II. after the war, it primarily manufactured fertilizer. Lands lying outside the factory complex that were no longer in use by the company were sold, with some sold to the City of Hercules. The Hercules Powder Company closed in 1976. Production of fertilizer also ceased at this time. By the 1990s, only remnants of the facility were visible. Portions of the area were subsequently used for cattle grazing. The former factory site was designated as a redevelopment area by the City of Hercules in 1983. Beginning in the 1990s, much of the area has been redeveloped with residential and mixed residential-commercial uses.

In the early 1900s, the Sycamore Crossing site was part of the California Powder Works operation; however, this particular site was not within the facility's main production area. Since the abandonment of munitions and fertilizer production in Hercules, the Sycamore Crossing site was used for recreational ball fields and more recently as a spoil site for excess earth material.

The Hill Town area is currently the site of the abandoned Hercules Pump Station, a component of Pacific Gas and Electric (PG&E) Richmond-to-Pittsburg fuel pipeline. The pipeline was constructed in 1975 and

used to transport oil, petroleum, and other products to power plants. The pipeline was in use until 1982 when PG&E reduced its use of low-sulfur fuel oil due to its expense. The pipeline was maintained to provide stand-by capability in case of natural gas supply interruptions or other circumstances. In 1999 PG&E sold the power plants supplied by the pipeline. Use and maintenance of the plants stopped with the 1999 sale.

3.4.3 REGULATORY FRAMEWORK

3.4.3.1 Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act (NHPA) (16 USC Sec. 470 et seq.) established the Advisory Council on Historic Preservation. Section 106 of this act requires federal agencies to "take into account the effects of their undertakings on historic properties and afford the Council a reasonable opportunity to comment on such undertakings." To assist the council, the act requires each state to designate a State Historic Preservation Officer (SHPO). The SHPO is responsible for "advising and assisting Federal agencies in carrying out their Section 106 responsibilities and cooperating with such agencies, local governments, and organizations and individuals to ensure that historic properties are taken into consideration at all levels of planning and development."

For the purposes of the NHPA, historic properties include any site listed or eligible for listing on the National Register of Historic Places (NRHP). Historic properties can include districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture. (See the **National Register of Historic Places** section below for the criteria for listing.)

National Register of Historic Places

The National Historic Preservation Act authorized the NRHP, which is the nation's official list of cultural resources worthy of preservation. The US Department of the Interior's National Park Service administers the NRHP.

Resources eligible to be listed on the NRHP include districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and

- a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. that are associated with the lives of persons significant in our past; or

- 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 in prehistory or history.

3.4.3.2 State Regulations

California Register of Historical Resources

The California Register of Historical Resources (California Register or CRHR) is the state equivalent of the National Register of Historic Places program. The California Register program was enacted in 1992, and became official on January 1, 1998. As defined in *Public Resources Code* (PRC) Section 5024.1, a resource may be listed as an historical resource in the California Register CRHR if it meets any of the following criteria:

- 1. 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 US.
- 2. It is associated with the lives of persons important to local, California, or national history.
- 3. 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.
- 4. It has yielded or has the potential to yield information important to the prehistory or history of the local area, California, or the nation.

California properties formally determined eligible for, or are listed in, the NRHP are also included in the California Register, per PRC Section 5024.1. In addition, state historical landmarks, points of historical interest, and locally designated historical resources are given consideration for listing in the California Register.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires the lead agency of a project to consider the project's potential impacts on significant historical resources, archaeological sites that qualify as significant historical resources, and unique archaeological resources. CEQA defines significant historical resources as those resources "listed in, or determined eligible for listing in, the California Register of

Historical Resources" (PRC Section 21084.1). CEQA (PRC Section 21083.2) defines a unique archaeological resource as

... an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- 1. Contains information needed to answer important scientific research questions and 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 available example of its type.
- 3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Office of Historic Preservation/State Historic Preservation Officer

The Office of Historic Preservation (OHP) is the governmental agency primarily responsible for the statewide administration of the historic preservation program in California. The chief administrative officer of the OHP is the SHPO. The SHPO is also Executive Secretary of the State Historical Resources Commission.

In addition to their role in the identification of NRHP properties, OHP and SHPO are responsible for administering the State Historical Landmark, State Point of Historical Interest, California Register of Historical Resources, California Historical Resources Information Systems, and California Heritage Fund programs. As previously discussed above under the heading "National Historic Preservation Act," the SHPO is also responsible for advising and assisting federal agencies in carrying out their Section 106 responsibilities.

3.4.4 IMPACTS AND MITIGATION MEASURES

3.4.4.1 Significance Criteria

For the purposes of this document, the proposed project would result in a significant impact on cultural resources if it would

- cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5 of the *State CEQA Guidelines* (as reiterated below);
- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the *State CEQA Guidelines* (as reiterated below);

- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- disturb any human remains, including those interred outside of formal cemeteries.

Section 15064.5 of the State CEQA Guidelines states in relevant part:

- (b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.
 - (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
 - (2) The significance of an historical resource is materially impaired when a project:
 - (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
 - (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
 - (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

3.4.4.2 Methodology

The cultural assessment conducted by WSA included a records search, cultural resource survey, and an assessment of the Hill Town project site. A records search was requested from the Northwest Information Center at Sonoma State University in Rohnert Park; it included a review of all cultural resources and excavation reports and recorded archaeological sites within a 0.25-mile radius of the project site. The study included a review of archaeological, ethnographic, historical, and environmental literature as well as records and maps on file at the Central Archeological Inventory. A pedestrian survey of the Hill Town project site was conducted on October 31, 2005. The area was evaluated for the presence of historic or prehistoric site indicators. The cultural resource survey was conducted using transects at intervals of 50 feet in open areas; paved, developed, and landscaped areas were not surveyed using transects. The objective of the cultural resource survey was to locate, record, and evaluate the significance of all cultural resources within the Hill Town project site. The visible ground surface was examined for the presence of

historic or prehistoric site indicators, such as charcoal; obsidian or chert flakes; grinding bowls; shell fragments; bone; and pockets of dark, friable soils (for prehistoric sites); and glass; metal; ceramics; brick; wood; and similar debris (for historic sites). The results of the cultural assessment were used to evaluate potential impacts to cultural resources with project implementation.

The Sycamore Crossing project site and vicinity has been disturbed by previous use of the California (Hercules) Powder Works (abandoned in the 1970s) and as a spoil site for soil excavated during adjacent development. Due to the disturbed nature of the site and the relevancy of the data in the Hill Town cultural study, a site-specific survey of the Sycamore Crossing site for cultural resources was not conducted.

As part of the cultural assessment, WSA contacted the Native American Heritage Commission (NAHC) in Sacramento, California, on October 19, 2005, by letter with a description of the proposed Hill Town project. The letter included a request for a listing of local, interested Native American representatives and information on traditional sacred lands within the project area and vicinity. NAHC staff responded that a "search of the sacred lands file has failed to indicate the presence of Native American cultural resources in the immediate project area." No individual or tribal members were notified by WSA as part of the cultural assessment. However, on March 26, 2008, and December 9, 2008, the City of Hercules requested tribal consultation with the Amah/Mutsum Tribal Band, the Indian Canyon Band of Mutsum (Costanoan) Indians, and the Ohlone Indian Tribe (see **Appendix 3.4**). No responses have been received to date.

Issues Not Discussed Further

The proposed project does not have the potential to cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the *State CEQA Guidelines* because none exists within the project sites. Both the Sycamore Crossing and Hill Town sites are largely vacant. None of the structures or remnants on either site is considered historic and none possesses historic qualities. Therefore, the proposed project would have no impact on historic resources, and this issue is not further discussed.

3.4.4.3 Project Impacts and Mitigation Measures

Impact Cult-1: The proposed could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines. (Potentially Significant; Less than Significant with Mitigation)

This proposed project includes a request to change the land use and zoning designations of the Hill Town and Sycamore Crossing sites and establish a new redevelopment area on those sites. Although conceptual

land uses have been developed (i.e., residential/mixed use), no specific developments have been proposed for the Sycamore Crossing part of the project. Due to the extensive earth disturbance from the previous uses, it is unlikely that any archaeological artifacts would be found on the Sycamore Crossing site.

WSA completed a survey of the Hill Town site in 2005. This survey concluded that no archaeological sites have been recorded at the site and that buried archaeological deposits are not likely to be present because the underlying sandstone is close to the ground surface.

Despite the low potential for archaeological resources to exist in the project sites, the possibility that archaeological resources could be discovered during construction activities cannot be precluded. This is considered a potentially significant impact. **Mitigation Measure CUL-1**, which applies to both the Sycamore Crossing and Hill Town sites, has been included to protect any archaeological resources that have not been documented as part of previous development or surveys.

MM CUL-1: If prehistoric or unique archaeological resources are discovered during construction of any projects undertaken as a result of the proposed Updated 2009 Redevelopment Plan, all work within a 50-foot radius of the find shall halt until a qualified archaeologist evaluates and determines the significance of the find pursuant to Section 15064.5 of the *State CEQA Guidelines* and until the finding can be fully investigated and proper protection measures, as determined by qualified experts, can be implemented. Work shall not resume within a 50-foot radius of the find until the project archaeologist states in writing that such work would not substantially affect the significance of an historical or unique archaeological resource pursuant to Section 15064.5 of the *State CEQA Guidelines* and the City of Hercules concurs with such finding. Construction of the project can continue outside of the 50-foot radius of the find, so long as such activities would not physically damage any discovered cultural resources or reduce the data recovery potential of the find.

Significance after Mitigation: Implementation of **Mitigation Measure CUL-1** would reduce the potentially significant impact to archeological resources to a less than significant level.

Impact Cult-2: The proposed project could potentially destroy unknown unique paleontological resources on the site. (Potentially Significant; Less than Significant with Mitigation)

Paleontological resources have been discovered in the vicinity of the project sites. Paleontological investigations during construction of the Victoria by the Bay Project (immediately north of the Hill Town

site) discovered invertebrate marine fossils in San Pablo Group sediments and terrestrial vertebrate fossils in the Montezuma Formations (LSA 2005). Construction activities on the sites within the Updated Redevelopment Plan Area would have the potential to accidentally destroy unique paleontological resources. This is considered a potentially significant impact. **Mitigation Measure CUL-2** would protect any paleontological resources that may be encountered during development.

MM CUL-2: As part of the review of specific development proposals for either the Sycamore Crossing or Hill Town site and to the satisfaction of the City of Hercules, a paleontologist shall evaluate the geological conditions of the involved sites to determine the sensitivity of the sites for paleontological resources. If the sites are determined to be sensitive for vertebrate fossils or important marine invertebrate fossils, a paleontological monitoring program shall be implemented during the grading phases of the respective project, and during other construction activities that affect previously undisturbed soils, such as trenching for pipes and foundations. The paleontologist must be knowledgeable of the paleontological resources in Contra Costa County; must have the minimum of a bachelor's degree in paleontology or a related field; and must be prepared to perform data recovery tasks, analysis, and preparation of a technical report addressing any results of the program, if monitoring is deemed necessary. If necessary, the paleontological monitoring program must include the maintenance of daily field logs, the recovery of soil samples for micro-screening for small fossil remains, and the ability to remove vertebrate remains as they are identified (e.g., with proper location data and associations). In addition, a photographic record must be maintained over the course of the program and, if resources are found in a context too extensive for the monitoring program, the monitor must have the authority to halt any activities adversely impacting the resource, and arrange for the additional personnel needed to adequately manage the resources.

Impact Cult-3: The proposed project could disturb previously unidentified human remains, including those interred outside of formal cemeteries. (Potentially Significant; Less than Significant with Mitigation)

According to the cultural resources records search, the local area includes several Native American archaeological sites and there is a moderate potential for archaeological resources, including human remains, to be present on site. As discussed above, the Sycamore Crossing site and the low-lying areas of the Hill Town site have been extensively disturbed, while the upland portions of the Hill Town site are characterized by shallow soils over bedrock that are unlikely to contain significant archaeological deposits. Therefore, it is not likely that the construction of the proposed project would encounter new and undiscovered archaeological resources or human remains during development. However, **Mitigation**

Measures CUL-1, CUL-2, and CUL-3 will be implemented in the event that human remains are found during construction activities. These measures would reduce any potential impacts to a less-than-significant level.

MM CUL-3: If human remains are discovered at the project site during construction, work at the specific construction site at which the remains have been uncovered shall be suspended, and the City of Hercules Public Works Department and County coroner shall be immediately notified. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.

Significance after Mitigation: Implementation of Mitigation Measures CUL-1, CUL-2, and CUL-3 would reduce the potentially significant impact to archeological resources to a less than significant level.

3.4.5 CUMULATIVE IMPACTS

Impact Cult-4: The proposed project, in conjunction with other reasonably foreseeable projects, would not result in a significant cumulative impact on cultural resources. (Less than Significant)

Planned and approved projects would occur on undeveloped lands both in the Redevelopment Plan Area and in the surrounding region. These projects would be required to halt construction in the event that previously unknown archeological resources are encountered during ground-disturbing activities. Furthermore, as specific projects are proposed in the vicinity of the project sites, the City would have to determine, on a case-by-case basis, whether the potential for historical or archaeological resources to be disturbed or adversely affected exists at a particular site. Therefore, site-specific research on the presence of historical and/or archeological resources is frequently one of the first considerations in project planning and CEQA review. Accordingly, implementation of the proposed project, in conjunction with other reasonably foreseeable development, is not expected to result in a significant cumulative effect on historical or archeological resources.

Mitigation Measure: No mitigation measure required.

3.4.6 REFERENCES

LSA Associates. 2005. "Paleontological Mitigation for the Victoria by the Bay Project, Hercules, Contra Costa County, California." October.