8.0 CULTURAL RESOURCES

This chapter describes the cultural setting of the proposed project area, including existing cultural resources, and analyzes the project's potential effects on these resources that may occur with implementation of the proposed project. Applicable federal, state, and local regulations that have been enacted to protect cultural resources are identified.

Guidelines and key sources of data used in the preparation of this chapter include the following:

- Northwest Information Center
- California State Lands Commission Shipwreck Database
- Native American Heritage Commission
- University of California, Museum of Paleontology

8.1 ENVIRONMENTAL SETTING

8.1.1 Concepts and Terminology

The following definitions are common terms used to discuss the regulatory requirements and treatment of cultural resources:

- **Cultural resource:** A term used to describe several different types of resources, including prehistoric and historic-period archaeological resources; historic-period architectural structures such as buildings, bridges, and infrastructure; and resources of importance to Native Americans.

- **Historic properties:** A term defined by the National Historic Preservation Act (NHPA) as any prehistoric or historic district, site, building, structure, or object included, or eligible for inclusion, in the National Register of Historic Places (National Register), including artifacts, records, and material remains related to such a property.

- **Historical resource:** A term defined under the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21084.1 and CEQA Guidelines, Section 15064.5(a) and (b)), as any resource (including buildings, sites, structures, objects, records, manuscripts, etc.) listed, or determined eligible for listing, in the California Register of Historic Resources (California Register). The California Register includes resources listed, or formally determined eligible for listing, in the National Register, as well as some California State Landmarks and Points of Historical Interest. Additional

criteria for a lead agency's evaluation of historical resources are discussed in Section 8.1.2.2.

- **Unique archaeological resource:** A CEQA term defined under Public Resources Code, Section 21083.2(g) as an archaeological artifact, object, or site about which it can be clearly demonstrated that 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 particular quality such as being the oldest of its type or the best available example, or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

8.1.2 Regulatory Context

Cultural resources in the State of California are recognized as non-renewable resources that require management to assure their benefit to present and future Californians. Therefore, cultural resources management work conducted as part of any proposed undertaking must comply with applicable federal, state, and/or local regulations designed to protect the cultural heritage within the proposed project area.

8.1.2.1 Federal Regulations

Enacted in 1966, the NHPA has become the foundation and framework for historic preservation in the United States. The NHPA authorizes the Secretary of the Interior to expand and maintain a National Register; establishes an Advisory Council on Historic Preservation as an independent federal entity; requires federal agencies to take into account the effects of their undertakings on historic properties; affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that may affect historic properties listed, or eligible for listing, in the National Register; and makes the heads of all federal agencies responsible for the preservation of historic properties owned or controlled by their agencies.

Section 106 of the NHPA governs federal regulations for cultural resources. The goal of the Section 106 process is to offer a measure of protection to sites that are determined eligible for listing in the National Register. The criteria for determining National Register eligibility are found in Title 36, Code of Federal Regulations (CFR), Part 60.

8.1.2.2 State Regulations

Discretionary actions undertaken by state or local governments in California, unless otherwise exempted, must comply with CEQA and its implementing Guidelines. Under CEQA, public agencies must consider the effects of their actions on both historical resources and unique archaeological resources. Pursuant

to Public Resources Code, Section 21084.1, a project 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." Section 21083.2 requires that public agencies determine whether a proposed project would have effects on unique archaeological resources. Effects on cultural resources that qualify as historical resources or unique archaeological resources may be considered adverse if they involve 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.

CEQA directs lead agencies to first determine whether a cultural resource is historically significant. In the protection and management of the cultural environment, the CEQA Guidelines provide definitions and standards for cultural resources management. As set forth above, the term "historical resource" is defined in Public Resources Code, Section 21084.1 and CEQA Guidelines, Section 15064.5(a) and (b)[1]. In addition to evaluating whether historical resources potentially impacted by a proposed project are listed, or determined eligible for listing, in the California Register, or have been identified in a survey process, the lead agency should evaluate the resources under California Register listing criteria (Public Resources Code, Section 21084.1 and Guidelines, Section 15064(a)(3)). In general, a cultural resource is historically significant if the resource satisfies the following criteria:

- is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California; and

- meets any of the following criteria:

  – is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

  – is associated with the lives of persons important in our past;

[1]Properties of local significance that have been designated under a local preservation ordinance or that have been identified in a local historical resources inventory may also be eligible for listing in the California Register and are presumed to be historical resources for CEQA purposes unless a preponderance of the evidence indicates otherwise (Public Resources Code, Section 5024.1 and Title 14, California Code of Regulations, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or a preponderance of evidence indicates that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the California Register.

- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

- has yielded, or may be likely to yield, information important in prehistory or history (CEQA Guidelines, Section 15064.5(a)(3)).

Accordingly, the fact that a resource is not listed, or determined to be eligible for listing, in the California Register, or is not included in a local register of historical resources or identified in a historical resources survey, does not preclude a lead agency from determining that the resource may be a historical resource within the meaning of CEQA (Guidelines, Section 15064.5).

Prehistoric and historical resources deemed historically significant must be considered in project planning and development. In addition, any proposed undertaking that may affect historically significant cultural resources must be submitted to the State Historic Preservation Officer for review and comment prior to project approval by the responsible agency and prior to construction[2] (CEQA Guidelines, Section 21083.2).

As noted above, CEQA also requires that a lead agency consider whether a project would impact unique archaeological resources (Public Resources Code, Section 21083.2(g)). CEQA further details methods by which significant effects may be avoided. Treatment options under Section 21083.2 include activities that preserve such resources in place, including construction that avoids archaeological sites, deeding archaeological sites into permanent conservation easements, capping or covering archaeological sites, and planning other amenities to incorporate these sites.

Advice on procedures to identify cultural resources, evaluate their significance, and estimate potential effects is provided by agencies such as the Governor's Office of Planning and Research (OPR). The OPR recommends that Native American concerns, and concerns of others, be solicited as part of the cultural resources inventory.

California law further protects Native American burial sites, skeletal remains, and associated grave goods regardless of antiquity, and provides for the sensitive treatment and disposition of such remains. California Health and Safety Code, Section 7050.5(b) specifies the protocol for treatment of human remains

[2]The California Office of Historic Preservation (OHP) administers the California Register, California Historical Landmarks, and California Points of Local Historical Interest programs. The State Historic Preservation Officer enforces the designation and protection process and is the head of the California OHP. The California OHP ensures that the State has a qualified historic preservation review commission, maintains a system for surveys and inventories, and provides for adequate public participation in its activities. The California OHP also administers the Certified Local Government program for the State of California.

discovered in the course of project development. In addition, CEQA Guidelines, Section 15064.5(e) requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the coroner determines that the remains are of Native Americans, the Native American Heritage Commission (NAHC) must contacted within 24 hours and the lead agency must consult with the appropriate representatives, if any, as timely identified by the NAHC. Under certain circumstances, the lead agency must develop an agreement with the Native Americans for treatment and disposition of the remains.

8.1.2.3 Local Regulations

Contra Costa County General Plan

Contra Costa County (County) has adopted polices and goals to preserve cultural resources in the Open Space Element of its general plan (2005). The portions applicable to the project are:

Historic and Cultural Resource Goals

9-31 To identify and preserve important archaeological and historic resources within the County.

Historic and Cultural Resource Policies

9-32 Areas which have identifiable and important archaeological or historic significance shall be preserved for such uses, preferably in public ownership.

City of Pittsburg General Plan

The *City of Pittsburg General Plan* (2001), Resource Conservation Element contains the goals and policies adopted to preserve cultural resources within the City of Pittsburg (City) are:

Historic and Cultural Resource Goals

9-G-13 Encourage municipal and community awareness, appreciation, and support for Pittsburg's historic, cultural, and archaeological resources.

Historic and Cultural Resource Policies

9-P-39 Ensure the protection of known archaeological resources in the City by acquiring a records review for any development proposed in areas of known resources. If such resources are found, limit urban development in the vicinity or account for the resources.

9-P-40 In accordance with State law, ensure the preparation of a resource mitigation plan and monitoring program by a qualified archaeologist in the event that archaeological resources are uncovered.

CEQA requires the evaluation of any archeological resource on the site of a development project. State law also protects these resources. City involvement in the identification, mitigation, and monitoring of project impacts on these resources will ensure the protection of Pittsburg's cultural heritage.

9-P-41 If archaeological resources are found during ground breaking for new urban development, halt construction immediately and conduct an archaeological investigation to collect all valuable remnants.

9-P-41 Develop an identification and preservation system for cultural resources—those places or structures that qualify as "important" or "unique" to local community, ethnic, or social groups.

In addition to the goals and policies listed above, the general plan also includes an inventory (Table 9-2) of historical resources within City limits. The resource sites are all located in the downtown core (approximately 0.5 mile away) and as such, none would be affected as a result of this project.

8.1.3 Existing Conditions

8.1.3.1 Natural Conditions

The proposed project area is at the southern border of the Suisan Bay/Sacramento River Delta in Contra Costa County, California, within the larger San Francisco Bay Area. The region in which the project is located has a Mediterranean climate and supports a variety of wetland communities and grasslands.

8.1.3.2 Prehistoric Setting

This section describes the cultural changes in the San Francisco Bay Area. No discussion of the Clovis time (11,500 to 8000 calibrated Before Present [cal. B.P.]) is provided, as there has been no evidence for this time found in the area, presumably because it has been submerged or buried (Milliken *et al*., 2007). The sequence utilized here is broad and includes the Lower, Middle, and Late Archaic periods, and the Emergent Occupation.

Lower Archaic (8000 to 3500 cal. B.P.) A generalized mobile forager pattern among prehistoric groups is characterized by portable milling stones, milling slabs (metates) and handstones (manos), as well as wide-stemmed projectile points. Archaeobotanical remains suggest an economy focused on acorns.

Middle Archaic (3500 to 500 cal. B.P.) During the Middle Archaic there appears to be an increase in regional trade and possibly signs of sedentism. The first cut shell beads appear in mortuaries. Mortars and pestles are documented shortly after 4000 cal B.P. Net sinkers are a typical marker for this time. The burial complexes

with ornamental grave associations seem to represent a movement from forager to semi-sedentary land use (Milliken *et al.*, 2007).

Upper Archaic (500 cal. B.P. to cal. Anno Domini [A.D.] 1050) The Upper Archaic period shows continued specialization and an increase in the complexity of technology. Acorns and fish are the predominant food sources. New bone tools and ornaments appear, including whistles and barbless fish spears. Beads become very prominent with several types. Mortars and pestles continue to be the sole grinding tools. Net sinkers disappear at most sites. Mortuary practices change from a flexed position to an extended position.

Emergent (cal. A.D. 1050 to Historic) Many archaeologists believe that craft specialization, political complexity, and social ranking were highly developed. New bead types and multi-perforated and bar-scored ornaments appear. The bow and arrow replace the dart and atlatl as the favored hunting tools (Moratto, 1984). Cultural traditions seem to be very similar to those witnessed at the time of European contact.

8.1.3.3 Ethnographic Setting

The proposed project region is recognized as being part of the linguistic group known as the Eastern Miwok (Levy, 1978), and more specifically lying within the territory of the Bay Miwok group. The Bay Miwok occupied the eastern portions of what is now Contra Costa County, from Mount Diablo northeast into the Sacramento-San Joaquin Delta.

The Eastern Miwok were successful hunters and food collectors who lived in a favorable environment, rich in resources. The populations living adjacent to the bays and waterways relied heavily on shellfish and aquatic animals for their food. Plant foods were gathered on a seasonal basis, with acorns being the most important staple because they could be stored in great quantity. Tools and ornaments were manufactured from stone, bone, and shell, and basketry was well developed. The Miwok cultivated tobacco and domesticated the dog.

The Eastern Miwok had several types of structures. Semi-subterranean, earth-covered dwellings served as winter homes. Other structures included sweathouses, acorn granaries, and conical grinding huts over bedrock mortars. The focal point of most ritual and social gatherings were large, semi-subterranean structures.

The Bay Miwok were some of the first Miwok peoples to be missionized and the largest group went to Mission San Jose. Ethnographic data for the San Francisco Bay Area is not extensive. It appears that much of the aboriginal lifestyle was severely impacted by the introduction of EuroAmerican diseases, a declining birth rate, and the mission system (Bennyhoff, 1977; Kroeber, 1925; Levy, 1978; Milliken, 1995).

8.1.3.4 Historic Overview

A number of Spanish expeditions passed through the area between 1769 and 1776, including those led by Portola, Fages, Anza, and Rivera. Although the exact routes of the early explorers cannot be determined, none is thought to have traveled near the project area (Beck and Haase, 1974; Milliken, 1995).

The Spanish government founded missions and secular towns with the land itself being held by the government. The later Mexican policy stressed individual ownership of land, and land grants were given to individuals.

In 1839, the Mexican government granted approximately 10,000 acres of land to Jose Antone Mesa and Miguel Jose Garcia. This land later became the City of Pittsburg. The original small town was known as New York of the Pacific and in 1868 was renamed Black Diamond after coal was discovered in the nearby hills. A nearby river landing, called Pittsburg Landing, became a major shipping point. On February 11, 1911, the name was officially changed to Pittsburg, and it is thought to have been named after the eastern birthplace of the steel industry (City of Pittsburg, 2011).

Refer to Chapter 1.0: Introduction and Project Goals and Objectives for a discussion of the history of the existing facility.

8.1.3.5 Summary of Known Cultural Resources and Significance Findings

Archaeological Record Search

The California Historic Resources Information System maintains regional offices that manage site records for known cultural resource locations and related technical studies. The regional office for Contra Costa County is the Northwest Information Center at Sonoma State University in Rohnert Park, California. Information regarding cultural resource studies and archaeological sites was compiled using a 1-mile radius around the project area. Sources reviewed include all known and recorded archaeological and historic sites and cultural resource reports. Additional resources that were consulted for relevant information include the California Register, National Register, California Inventory of Historic Resources, California Points of Historical Interest, California Historical Landmarks, and historic maps.

The archaeological record search for the project was requested on August 25, 2011, and was conducted on September 20, 2011. The record search identified no archaeological or historic resources within the footprint of the project area. There are 17 previously recorded cultural resources within a 1-mile radius (see Table 8-1). None of the previously recorded sites within the 1-mile radius is a prehistoric archaeological site; all the sites are historic resources.

Table 8-1: Cultural Resources Previously Recorded within 1 Mile of the Project Site

Primary Number*	Brief Description	Recorder and Date
07-000806	Railroad	Jones & Stokes, 1998
07-000813	San Pedro and Tulare Railroad	Unknown, 1999; Baker, 2006
07-000869	One-story industrial building	Billat, 2002
07-001922	Camp Stoneman warehouse	Hill, 1995
07-001936	Commercial structure from 1952	Jones & Stokes, 2000
07-002498	Railroad Avenue overcrossing	Jones & Stokes, 2000
07-002501	1952 wood-frame house	Jones & Stokes, 2000
07-002502	1952 wood-frame house	Jones & Stokes, 2000
07-002503	1953 wood-frame house	Jones & Stokes, 2000
07-002504	1953 wood-frame house	Jones & Stokes, 2000
07-002505	1951 wood-frame house	Jones & Stokes, 2000
07-002506	1952 wood-frame house	Jones & Stokes, 2000
07-002507	1952 wood-frame duplex	Jones & Stokes, 2000
07-002508	1952 wood-frame duplex	Jones & Stokes, 2000
07-002509	1952 wood-frame duplex	Jones & Stokes, 2000
07-002510	National Guard Armory	Jones & Stokes, 1999, 2000
07-002956	Pittsburg-Tesla Transmission Line	GANDA, 2008

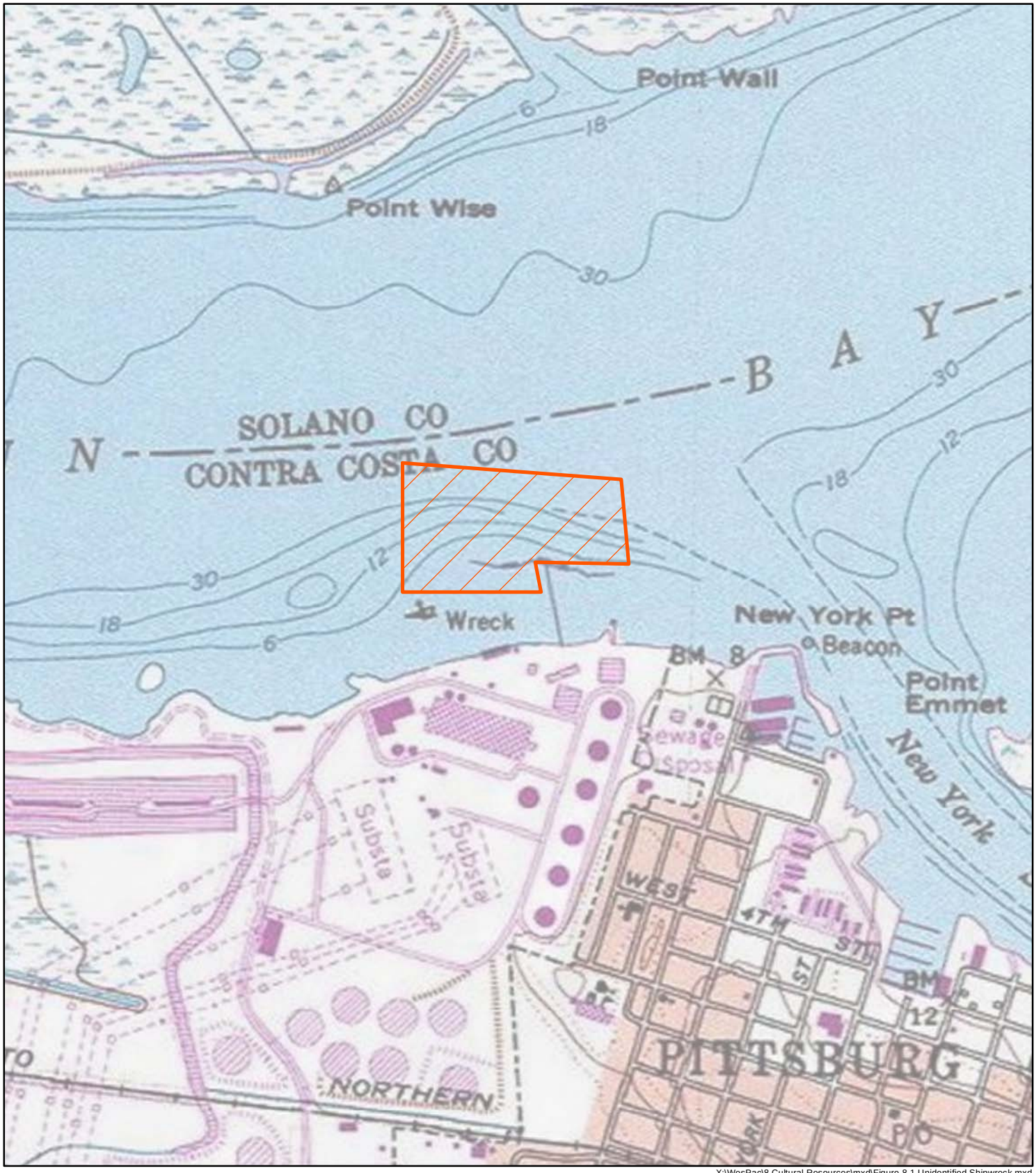
Source: Northwest Information Center, 2011

There are no sites currently listed in the National Register, California Register, Contra Costa County Historic Resources Inventory, or the list of California Historical Landmarks within 1 mile of the project area.

The record search indicated that a total of 40 cultural resource studies have been completed within a 1-mile radius of the project area, but only one of the studies included the majority of the project area. This study, *Cultural Resource Inventory Report for the Montezuma Enhancement Site, Southern Energy's Multispecies Habitat Conservation Plan for Pittsburg and Contra Costa Power Plants, Solano and Contra Costa Counties, California,* was prepared by Jones & Stokes in 2001, and evaluated the NRG Energy, Inc. Pittsburg Generating Station for National Register eligibility. The findings indicated that the Pittsburg Generating Station was not eligible for the National Register and no further cultural resources work was recommended. Portions of the former Pittsburg Generating Station are within the footprint of the proposed project.

The title to all abandoned shipwrecks, archaeological sites, and historical or cultural resources on or in the tideland submerged lands of California would be vested in the State and under the jurisdiction of the California State Lands Commission (CSLC). The CSLC online database for shipwrecks (CSLC, 2011) was checked on September 15, 2011. The database lists shipwrecks by county and is based primarily on historical accounts of these incidents. This database search is by latitude and longitude. No shipwrecks appeared within the project footprint. One shipwreck does appear on the U.S. Geological Survey (USGS) topographic map just outside the project area. This shipwreck does not appear on the 1918 Honker Bay USGS topographic map but is included on the 1953 Honker Bay topographic map. An email was sent to Ms. Pamela Griggs, Senior Staff Counsel at the CSLC, on September 15, 2011 requesting a search for any additional information from their files.

On December 8, 2011, Ms. Griggs responded that she had checked the California State Lands Shipwrecks Database (Database). Information on several shipwrecks that are potentially located in or near the project area was provided. Not all shipwrecks are listed in the Database and some listed vessels were re-floated or salvaged. Eight shipwrecks were listed near the project area. The eight shipwrecks are: Charles B Kennedy, sunk in 1926; Golden Shore, sunk in 1928; Golden Shore, sunk in 1922; Leader, sunk in 1893; Miner, sunk in 1851; Lizzie Theresa, sunk in 1920; San Joaquin, sunk in 1951; and the Swastika, sunk in 1933. The latitude and longitude coordinates added by the CSLC represent a guess, and must be considered along with other information to determine possible locations. In addition, the National Oceanic and Atmospheric Administration nautical chart and USGS topographic map show an unidentified wreck close to the potential dredging footprint (see Figure 8-1: Unidentified Shipwreck). This wreck is close to shore and in shallow water.



X:\WesPac\8 Cultural Resources\mxd\Figure 8-1 Unidentified Shipwreck.mxd

Figure 8-1
Unidentified Shipwreck
City of Pittsburg
WesPac Pittsburg Energy Infrastructure Project

TRC

3/29/2012

Dredging Area

1:12,000

1 inch = 1,000 feet

0 500 1,000 ft

However, the project area has been dredged multiple times in the same relative location as the dredging proposed as part of the project. All reported shipwrecks occurred prior to previous dredging and/or dock work, and were not previously observed in these areas during prior work (CSLC, 1974). According to the 1974 *Fuel Oil Unloading Dock Modification at Pittsburg Power Plant* Environmental Impact Report in which Pacific Gas and Electric Company proposed to modify the existing fuel oil unloading dock at the Pittsburg Generating Station, the dock and Pittsburg Generating Station have been in operation since 1954, and the most recent dredging occurred in 1970. The dredging proposed in this document was a total of 5.5 acres (56,000 cubic yards) and required the removal of more material than typical to maintain the existing facility (CSLC, 1974). More recent dredging has occurred during dock renovation and repairs, and no shipwrecks were encountered.

Native American Heritage Commission

TRC Solutions, Inc. (TRC) contacted the NAHC on August 25, 2011 regarding the potential presence of burials and sacred lands in the project area and vicinity (see Appendix J for the NAHC correspondence). In its September 26, 2011 response, the NAHC stated that the sacred lands file records search did not indicate the presence of any known Native American cultural resources within 0.5 mile of the project area. The NAHC enclosed a list of three Native American individuals and/or organizations that might have knowledge of cultural resources in or near the project area.

On October 4, 2011, TRC sent letters with a project location map to all individuals/groups on the list requesting information and comments. There have been no responses at the time of this writing.

Paleontological Record Search

On September 16, 2011, a locality record search was conducted on the University of California, Museum of Paleontology website (University of California, 2011). No localities were found within the project area or the County for invertebrates, microfossils, or vertebrates. An online search was done at the USGS (USGS, 2011) for the geologic rock units for the project area. The maps show that the project area is predominantly Alluvium dating from the Holocene and a few portions are from the Pleistocene, with some pockets of mud deposits from the late Holocene. A portion of the project area is documented artificial fill. Only the portion of the project area known to have Pleistocene Alluvium (fan-derived sediments) would have the possibility of containing fossils (this includes the East Tank Farm). These areas have a moderate potential for fossils because the depositional environment for fossil preservation is good and similar rock units in the region have yielded vertebrate fossils.

8.2 IMPACT ANALYSIS

8.2.1 Methodology for Impact Analysis

Sources reviewed include all known and recorded archaeological and historic sites and cultural resource reports. Additional resources that were consulted include the California Register, National Register, California Inventory of Historic Resources, California Historical Landmarks, and historic maps. Information regarding cultural resource studies and archaeological sites was compiled using a 1-mile radius around the project area.

A paleontological record search was conducted online through the University of California, Museum of Paleontology website.

8.2.2 Significance Criteria

Under federal regulations, adverse effects need only be analyzed if a resource meets the eligibility criteria for listing in the National Register. Federal regulations define an adverse effect to a resource as an effect that may diminish the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. The criteria used for determining the significance of an impact on cultural resources are based on Appendix G of the CEQA Guidelines (Environmental Checklist) and professional standards and practices. An impact to cultural resources was considered to be significant and to require mitigation if it would result in any of the following:

- Cause the physical destruction of or damage to all or part of the resource

- Alter a resource, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, in a way that is not consistent with the Secretary of the Interior's standards for the treatment of historic properties (36 CFR part 68) and applicable guidelines

- Change the character of the resource's use or of physical features within the resource's setting that contribute to its historic significance

- Introduce visual, atmospheric, or audible elements that diminish the integrity of the resource

- Neglect a resource that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property or religious and cultural significance to an Indian tribe

- Cause a substantial adverse change in the significance of an historical or archaeological resource as defined in Guidelines, Section 15064.5

8.2.3 Impacts and Mitigation Measures

8.2.3.1 Proposed Project

Construction-related Impacts

Impact Cultural Resources (CR)-1: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains. (Less than significant with mitigation.) An archaeological record search found no previously recorded cultural resources within the footprint of the project area, but it indicated that a total of 40 cultural resource studies had been completed within a 1-mile radius of the project with one study covering the majority of the project footprint. Much of the project area has been previously disturbed, and portions of the project area are artificial fill. No intact surface archaeological sites are visible, and the potential for subsurface intact archaeological sites is relatively low.

A fossil locality record search did not produce any localities within the County for invertebrates, microfossils, or vertebrates. A large portion of the project area is either recent Alluvium or artificial fill; only the portion of the project area having Pleistocene Alluvium (fan-derived sediments) would have the possibility of containing fossils (this includes the East Tank Farm). This area has a moderate potential for fossils because the depositional environment for fossil preservation is good and similar rock units in the region have yielded vertebrate fossils. Although much of the East Tank Farm has been previously disturbed, there is still the potential for undisturbed areas to contain fossils. The East Tank Farm should be monitored for paleontological resources during construction to insure that subsurface paleontological resources are adequately protected.

A cultural resource record search did not indicate any burials within the project site or within 1 mile of the project area. TRC also contacted the NAHC regarding the presence of burials and sacred lands for the project, which confirmed that the sacred lands records search did not indicate the presence of any known Native American cultural resources within 0.5 mile of the project area.

The CSLC Database search and research did indicate the potential for possible shipwrecks in or near the project area. A list of eight shipwrecks near the project area was provided. In addition, the National Oceanic and Atmospheric Administration nautical chart shows an unidentified wreck outside the footprint of the project area (to the west) in very shallow water; the footprint of the project area is much larger than the actual dredging area (refer to Figure 8-1). Historically the project area has been dredged multiple times in the same relative locations. All reported shipwrecks are historic and occurred prior to these previous dredging/dock work efforts, and were not observed in these areas during prior deployments. There is no expectation that shipwrecks would be encountered during the proposed work in these local waters.

Nonetheless, construction of the project, including, but not limited to, clearing of vegetation, grading, excavation, and dredging could result in significant impacts to historical, archaeological, and/or paleontological resources, and/or human remains. Implementation of Mitigation Measures CR-1 through CR-4 would reduce project impacts to cultural resources to a less-than-significant level. Therefore, construction of the project would not cause a substantial adverse change in the significance of a cultural, historical, or archaeological resource, would not directly or indirectly destroy a unique paleontological resource, and would not disturb any human remains, including those interred outside of formal cemeteries. Project-related impacts to cultural, archaeological, paleontological, and historical resources would be less than significant with implementation of the following mitigation measures.

Mitigation Measure CR-1: Pre-construction worker education training. Prior to the beginning of construction, the construction crew shall be informed that cultural resources (archaeological and paleontological) may be encountered during construction of the project. A preconstruction meeting shall be conducted at an on-site location to educate the construction crew about the cultural resources that may be encountered during project construction. The training shall be conducted by an archaeologist/paleontologist, and may be conducted by any member of the cultural resources team. The training may be conducted in conjunction with other project-related environmental/safety training.

The training shall include:

- a discussion of applicable laws and penalties under those laws,
- samples or visual images of artifacts/fossils that might be found in the project area, and
- an explanation of what to do if artifacts/fossils are found, including a communication plan and contact information.

Mitigation Measure CR-2: Unanticipated discovery. In the event of an unanticipated encounter with a cultural resource during construction, including, but not limited to, a shipwreck, the following course of action shall be implemented immediately by the construction manager and/or authorized site representative[3].

[3]The title to all abandoned shipwrecks, archaeological sites, and historical or cultural resources on or in the tideland submerged lands of California would be vested in the State and under the jurisdiction of the California State Lands Commission.

- Work within 50 feet of the find shall be halted, although construction activities can continue in other areas.

- A qualified archaeologist/paleontologist shall be consulted to evaluate the find, make recommendations on the significance of the find, and determine the appropriate course of action to ensure proper treatment.

- If significant or unique cultural resources are found, a time allotment for implementation of avoidance measures or other appropriate treatment shall be established.

- Consultation shall be initiated with the CSLC.

Mitigation Measure CR-3: Accidental discovery of human remains. In the event of an accidental discovery or recognition of human remains during construction, based on State of California Health and Safety Code, Section 7050.5, the following course of action shall be implemented immediately by the construction manager and/or authorized site representative.

- No further excavation or disturbance of the site shall occur within 100 feet of the find and construction personnel shall promptly vacate the 100-foot buffer zone.

- The county coroner shall be immediately notified of the find.

- Consultation shall be initiated with the CSLC.

- There shall be no further activity at the site until the county coroner has made a determination of origin and disposition pursuant to Section 5097.98 of the Public Resources Code. If the human remains are determined to be prehistoric, the county coroner shall notify the NAHC, and the NAHC shall determine and notify a Most Likely Descendent. The Most Likely Descendent shall complete inspection of the site within 48 hours of such notification.

- The Most Likely Descendent then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing of, with appropriate dignity, the human remains and associated grave goods.

Mitigation Measure CR-4: Paleontological monitoring. A paleontological monitor shall be present during all ground-disturbing activities in the areas of moderate potential for fossils (all deposits from the Qpf-Latest Pleistocene alluvial fan deposits; this includes the East

Tank Farm [see Figure 9-1: Regional Geology]), to ensure that subsurface paleontological resources are adequately protected.

- If unique paleontological resources are discovered, all significant fossil material shall be collected, prepared, identified, and curated, and then placed into a scientific repository. Work within 50 feet of the find shall be halted, although construction activities can continue in other areas.

- Consultation shall be initiated with the CSLC.

- If necessary, salvage operations of significant fossils shall be conducted in accordance with the professional standards set forth by the Society of Vertebrate Paleontology.

Operational Impacts

Impact CR-2: Have the potential to disturb previously unrecorded archaeological or paleontological resources, or human remains. (No impact.) During regular operations and maintenance activities there would be no impacts to archaeological resources, paleontological resources, or human remains, as no excavation would occur.

Mitigation Measure: No mitigation required.

8.2.3.2 Alternative 1: Reduced Onshore Storage Capacity

Construction-related Impacts

Impact CR-3: Have the potential to disturb previously unrecorded historical, archaeological, paleontological resources, and human remains. (Less than significant with mitigation.) Although Alternative 1 is a reduction in size and scope to the proposed project, there would still be the possibility that construction, including, but not limited to, clearing of vegetation, grading, excavation, and dredging, could result in potentially significant impacts to historical, archaeological, and/or paleontological resources, and/or human remains. These potential impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures CR-5 through CR-8.

Mitigation Measure CR-5: Pre-construction worker education training. Refer to Mitigation Measure CR-1.

Mitigation Measure CR-6: Unanticipated discovery. Refer to Mitigation Measure CR-2.

Mitigation Measure CR-7: Accidental discovery of human remains. Refer to Mitigation Measure CR-3.

Mitigation Measure CR-8: Paleontological monitoring. Refer to Mitigation Measure CR-4.

Operational Impacts

Impact CR-4: Have the potential to disturb previously unrecorded archaeological resources, paleontological resources, or human remains. (No impact.) During regular operations and maintenance activities there would be no impacts to archaeological resources, paleontological resources, or human remains, as no excavation occur.

Mitigation Measure: No mitigation required.

8.2.3.3 Alternative 2: No Project

Impact CR-5: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains. (No impact.) Since no construction would occur under Alternative 2, there would be no impact to archaeological resources, paleontological resources, or human remains. The project would remain similar to existing conditions and the site would remain in caretaker status.

Mitigation Measure: No mitigation required.

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