

## 4.6 CULTURAL RESOURCES

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2 Section 4.6 provides a detailed description of existing cultural resources in the vicinity of  
3 the Amorco Marine Oil Terminal (Amorco Terminal) Lease Consideration Project  
4 (Project), and addresses the potential cultural resources impacts that could result from  
5 the granting of a new lease for Amorco Terminal operations, as well as for Project  
6 alternatives.

### 7 4.6.1 CONCEPTS AND TERMINOLOGY

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

- 10
- 11 • **Cultural resource:** A term used to describe several different types of resources,  
12 including prehistoric and historic-period archaeological resources; historic-period  
13 architectural structures such as buildings, bridges, and infrastructure; and  
resources of importance to Native Americans.
  - 14 • **Historic properties:** A term defined by the National Historic Preservation Act  
15 (NHPA) as any prehistoric or historic district, site, building, structure, or object  
16 included, or eligible for inclusion, in the National Register of Historic Places  
17 (National Register), including artifacts, records, and material remains related to  
18 such a property.
  - 19 • **Historical resource:** A term defined under the California Environmental Quality  
20 Act (CEQA) (Pub. Resources Code, § 21084.1 and State CEQA Guidelines §  
21 15064.5, subds. (a) and (b)), as any resource (including buildings, sites, structures,  
22 objects, records, manuscripts, etc.) listed, or determined eligible for listing, in the  
23 California Register of Historic Resources (California Register). The California  
24 Register includes resources listed, or formally determined eligible for listing, in the  
25 National Register, as well as some California State Landmarks and Points of  
26 Historical Interest.
  - 27 • **Unique archaeological resource:** A CEQA term defined under Public Resources  
28 Code section 21083.2, subdivision (g) as an archaeological artifact, object, or site  
29 about which it can be clearly demonstrated that there is a high probability that it  
30 meets any of the following criteria: (1) contains information needed to answer  
31 important scientific research questions and there is a demonstrable public interest  
32 in that information, (2) has a particular quality such as being the oldest of its type  
33 or the best available example, or (3) is directly associated with a scientifically  
34 recognized important prehistoric or historic event or person.

1 **4.6.2 ENVIRONMENTAL SETTING**

2 **4.6.2.1 Prehistoric, Ethnographic, and Historic Background**

3 ***Natural Conditions***

4 The Project area is in the southeastern Carquinez Strait near the southern border of the  
5 Suisan Bay/Sacramento River Delta in Contra Costa County, California, within the larger  
6 San Francisco Bay Area. The region in which the Project is located has a Mediterranean  
7 climate and supports a variety of wetland communities and grasslands.

8 ***Prehistoric Setting***

9 This section describes the cultural changes in the San Francisco Bay Area. No discussion  
10 of the Clovis time (11500 to 8000 calibrated Before Present [cal. B.P.]) is provided, as  
11 there has been no evidence related to this time found in the area, presumably because it  
12 has been submerged or buried (Milliken et al. 2007). The sequence used here is very  
13 broad and includes the Lower, Middle, and Late Archaic periods, and the Emergent  
14 Occupation.

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

19 *Middle Archaic (3500 to 500 cal. B.P.)* During the Middle Archaic there appears to be an  
20 increase in regional trade and possibly signs of sedentism. The first cut shell beads  
21 appear in mortuaries. Mortars and pestles are documented shortly after 4000 cal. B.P.  
22 Net sinkers are a typical marker for this time. The burial complexes with ornamental grave  
23 associations seem to represent a movement from forager to semi-sedentary land use  
24 (Milliken et al. 2007).

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

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

## 1 ***Ethnographic Setting***

2 The Project lies within the territory occupied by the Native American group known to the  
3 Spanish as the Costanoan (Levy 1978). The contemporary descendants of this group are  
4 members of the Ohlone Indian Tribe. The Costanoan group occupied the coast of  
5 California from San Francisco to Monterey and inland to include the mountains from the  
6 southern side of the Carquinez Strait to the eastern side of the Salinas River south of the  
7 Chalone Creek.

8 Costanoan is a linguistic term for a family of eight related languages. Each language was  
9 spoken by a distinct group of people within a recognized geographic area. In the Martinez  
10 area the spoken language was Karkin. This language was spoken only in a very small  
11 area and probably all the speakers were related. Political units within each ethnic group  
12 were called tribelets and each tribelet contained between 50 and 500 people. Each tribelet  
13 had one or more permanent villages and probably several temporary camps within its  
14 territory.

15 The Costanoans were hunter gatherers, with acorns being the most important plant food.  
16 Various roots, nuts, berries, and seeds were important. The Costanoan group's practices  
17 included managed burning of chaparral to encourage sprouting of seed plants and  
18 improve browsing for deer and elk. The favored animals for hunting were deer and rabbit.  
19 Whales and sea lions were eaten when found stranded on the beach. Waterfowl were  
20 captured in nets using decoys. Important fish were steelhead, salmon, and sturgeon, and  
21 mussels and abalone were the preferred shellfish.

22 Dome thatched houses with rectangular doorways and a central hearth were the standard  
23 dwellings. Technology included tule balsa canoes, bows and arrows, and baskets.

## 24 ***Historic Overview***

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

29 The Spanish government founded missions and secular towns with the land itself being  
30 held by the government. The Mexican government closed the missions in the early 1830s  
31 and former mission lands were given to individuals as land grants.

32 The Martinez area was originally part of two Mexican land grants. The Rancho El Pinole  
33 was granted to Ygnacio Martinez in 1824 and Rancho La Juntas was granted to William  
34 Welch in 1844. The town of Martinez can be traced to the 1847 establishment of a ferry  
35 service that crossed the Carquinez Strait. The ferry was part of the main route from San  
36 Francisco to the gold mining areas in the Sierras. The town grew rapidly by providing

1 supplies and other services to the miners using the ferry route (City of Martinez 2013).  
2 Martinez was designated as the county seat for Contra Costa County in 1851. After the  
3 gold rush, the area continued to flourish due to agriculture, predominantly wheat and fruit.  
4 John Muir lived in Martinez from 1890 to 1914, and his home is preserved as the John  
5 Muir National Historic Site. Commercial salmon fishing began in the 1870s and soon two  
6 fish canneries opened in Martinez.

7 Martinez became an industrial center in the early 20<sup>th</sup> century when chemical and  
8 petroleum facilities were built. The Mountain Copper smelter was built at Bull's Head  
9 Point, and several refineries were opened in 1915. The Martinez location provided a  
10 deep-water harbor and rail connections for these industrial facilities.

11 Refer to Section 1.0, Introduction for a discussion of the history of the existing facility.

#### 12 **4.6.2.2 Cultural Resources in the Vicinity of the Amorco Terminal**

##### 13 ***Summary of Known Cultural Resources and Significance Findings***

###### 14 Archaeological Record Search

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

25 The archaeological record search for the project was requested on May 23, 2013, and  
26 was conducted on June 20, 2013. The record search identified no cultural resources  
27 within the footprint of the Project area, but one resource was identified within the tank  
28 farm portion of the Amorco Terminal (07-000132). There are a total of 12 previously  
29 recorded cultural resources within a 1-mile radius (see Table 4.6-1).

30 There are no sites currently listed on the National Register, California Register, Contra  
31 Costa County Historic Resources Inventory, or the list of California Historical Landmarks  
32 within 1 mile of the Project area.

33 The record search indicated that a total of 40 cultural resource studies have been  
34 completed within a 1-mile radius of the Project area; of these, two include portions of the  
35 Project area.

1 **Table 4.6-1: Cultural Resources Previously Recorded within 1 Mile of the**  
 2 **Project Site**

Primary Number*	Brief Description	Recorder and Date
07-000132	Shell mound	Pilling 1910
07-000499	Southern Pacific Railroad Line	Unknown 1994
07-000521	Martinez Railroad Station	Hill 1995
07-000522	Concrete warehouse	Hill 1995
07-000523	Large industrial building	Hill 1995
07-000859 (same as 48-000445)	Southern Pacific Martinez-Benicia Bridge	Unknown 1989
07-002543	Mountain Copper Company Wharf	Hill 1995
07-002545	Mountain Copper Company West Pier	William Self & Associates 2000
07-002685	Peyton Marsh Drainage System	JRP Historical Consulting 1997
07-002750	Sharkey Building	Henderson 2006
07-002759	1927 L-shaped school building	Grover 2007
07-003083	Multi-level government building	Weatherford 2011
48-000445 (same as 07-000859)	Southern Pacific Martinez-Benicia Bridge	Unknown 1989

Source: Northwest Information Center 2013

3 The California State Lands Commission (CSLC) online database for shipwrecks (CSLC  
 4 2013c) was checked on June 17, 2013. The database lists shipwrecks by county and is  
 5 based primarily on historical accounts of these incidents. This database search is by  
 6 latitude and longitude. No known shipwrecks appeared within the Project footprint. One  
 7 shipwreck does appear on the U.S. Geological Survey (USGS) topographic map over 1  
 8 mile to the south of the Project area. The cultural resource studies that include portions  
 9 of the Project area were marine archaeological studies, and were both negative for  
 10 shipwrecks in the vicinity of the Project.

#### 11 Native American Heritage Commission

12 TRC Solutions, Inc. (TRC) contacted the Native American Heritage Commission (NAHC)  
 13 on May 23, 2013 regarding the potential presence of burials and sacred lands in the  
 14 Project area and vicinity (see Appendix F for the NAHC correspondence). In its June 11,  
 15 2013 response, the NAHC stated that the sacred lands file records search did not indicate  
 16 the presence of any known Native American cultural resources within the immediate

1 Project area. The NAHC enclosed a list of Native American individuals and/or  
2 organizations that might have knowledge of cultural resources in or near the Project area.

3 On June 14, 2013, TRC sent letters with a Project location map to all individuals/groups  
4 on the list requesting information and comments. There have been no responses at the  
5 time of this writing.

#### 6 Paleontological Record Search

7 On June 18, 2013, a locality record search was conducted on the University of California,  
8 Museum of Paleontology website (University of California 2013). No localities were found  
9 within the Project area for invertebrates, microfossils, or vertebrates. An online search  
10 was done at the USGS (USGS 2013b) for the geologic rock units for the Project area.  
11 The maps show that the Project area is predominantly Alluvium dating from the Holocene  
12 and a few portions are from the Pleistocene, with some pockets of mud deposits from the  
13 late Holocene. There is minimal potential for fossils, due to previous dredging and  
14 because the depositional environment for fossil preservation is low.

### 15 **4.6.3 REGULATORY SETTING**

16 Federal and State laws that may be relevant to the Project are identified in Table 4-1.  
17 Local laws, regulations, and policies are discussed below.

#### 18 ***Contra Costa County***

19 The following goal and policy from the Open Space Element of the *Contra Costa County*  
20 *General Plan* (2005) may be applicable to the Project.

- 21 • Goal 9-31: To identify and preserve important archaeological and historic  
22 resources within the County.
- 23 • Policy 9-32: Areas which have identifiable and important archaeological or historic  
24 significance shall be preserved for such uses, preferably in public ownership.

### 25 **4.6.4 IMPACT ANALYSIS**

#### 26 **4.6.4.1 Significance Criteria**

27 For the purposes of this analysis, an impact was considered to be significant and to  
28 require mitigation if it would result in any of the following:

- 29 • Cause a substantial adverse change in the significance of a historical or  
30 archaeological resource as defined in State CEQA Guidelines section 15064.5.

#### 1 4.6.4.2 Assessment Methodology

2 For the purposes of this Environmental Impact Report, potential impacts to cultural  
3 resources were evaluated based on a review of all known and recorded archaeological  
4 and historic sites within 1 mile of the Project area. Additional resources that were  
5 consulted include cultural resource reports, the California Register, National Register,  
6 California Inventory of Historic Resources, California Historical Landmarks, historic maps,  
7 and the CSLC online database for shipwrecks.

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

#### 10 4.6.4.3 Impacts Analysis and Mitigation Measures

11 The following subsections describe the Project's potential impacts on cultural resources.  
12 Where impacts are determined to be significant, feasible mitigation measures are  
13 described that would reduce or avoid the impact.

#### 14 Proposed Project

15 **Impact Cultural Resources (CR)-1: Have the potential to disturb previously**  
16 **unrecorded historical, archaeological, or paleontological resources, and human**  
17 **remains. (No impact.)**

18 No construction activities would occur as part of the lease renewal; therefore, there would  
19 be no disturbance to previously unrecorded or recorded historical, archaeological, or  
20 paleontological resources, or human remains. Because there are no shipwrecks in the  
21 immediate area of the Amorco Terminal, maintenance dredging would also have no  
22 impact on cultural resources.

23 **Mitigation Measure:** No mitigation required.

#### 24 Alternative 1: No Project

25 **Impact CR-2: Have the potential to disturb previously unrecorded historical,**  
26 **archaeological, or paleontological resources, and human remains. (Potentially**  
27 **significant.)**

28 Under the No Project Alternative, Tesoro's lease would not be renewed and the existing  
29 Amorco Terminal would be subsequently decommissioned with its components  
30 abandoned in place, removed, or a combination thereof. The decommissioning of the  
31 Amorco Terminal would follow an Abandonment and Restoration Plan.

1 After decommissioning, the No Project Alternative assumes that incoming tankers would  
2 instead go to the Avon Terminal, located approximately 2.5 miles east of the Amorco  
3 Terminal. Because the Avon Terminal is currently in operation, no impacts to cultural  
4 resources would occur at the Avon Terminal.

5 The Amorco Terminal may eventually be converted to another use, which would require  
6 a separate CEQA environmental review. Because no shipwrecks have been found in the  
7 project vicinity and maintenance dredging has taken place as recently as 2005, no  
8 impacts to cultural resources would be anticipated during the decommissioning and  
9 dismantling process.

10 This alternative assumes that there would be no Amorco Terminal to receive crude or  
11 transport product and, therefore, refinery operations would be dependent on crude oil  
12 receipts through non-marine sources in order to meet regional refining demands. Sources  
13 may include land-based transportation such as rail cars and trucks, and/or pipeline  
14 connections to other San Francisco Bay Area marine oil terminals, or a combination  
15 thereof. Crude oil transportation by rail car would involve constructing additional rail lines  
16 and associated handling facilities. Pipeline delivery would require construction of new  
17 pipelines and/or the purchase of existing pipeline capacity from other local petroleum  
18 refinery competitors.

19 Construction of railroads and/or pipelines, including, but not limited to, clearing of  
20 vegetation, grading, and excavation, could result in significant impacts to historical,  
21 archaeological, and/or paleontological resources, and/or human remains if these  
22 resources cannot be avoided. Should this alternative be selected, it would be subject to  
23 substantial CEQA environmental review and permitting by local and State agencies.

#### 24 **Alternative 2: Restricted Lease Taking Amorco Out of Service for Oil Transport**

25 **Impact CR-3: Have the potential to disturb previously unrecorded historical,**  
26 **archaeological, or paleontological resources, and human remains. (No impact.)**

27 The Amorco Terminal may eventually be converted to another use, which would require  
28 a separate CEQA environmental review. Because no shipwrecks have been found in the  
29 project vicinity and maintenance dredging has taken place as recently as 2005, no  
30 impacts to cultural resources would be anticipated. Refer to Impact CR-3 for land-based  
31 impacts.

32 **Mitigation Measure:** No mitigation required.

1 **Cumulative Impact Analysis**

2 Because no construction would occur as part of the proposed Project, there would be no  
 3 disturbance to previously unrecorded or recorded historical, archaeological, or  
 4 paleontological resources, or human remains. Therefore, routine operations at the  
 5 Amorco Terminal would not contribute to cumulative cultural resource impacts.

6 **4.6.5 SUMMARY OF FINDINGS**

7 Table 4.6-2 includes a summary of anticipated impacts to cultural resources and  
 8 associated mitigation measures.

9 **Table 4.6-2: Summary of Cultural Resources Impacts and Mitigation Measures**

Impact	Mitigation Measure(s)
<b><i>Proposed Project</i></b>	
CR-1: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains.	No mitigation required.
<b><i>Alternative 1: No Project</i></b>	
CR-2: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains.	Should this alternative be selected, mitigation measures would be determined during a separate environmental review under CEQA.
<b><i>Alternative 2: Restricted Lease Taking Amorco Out of Service for Oil Transport</i></b>	
CR-3: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains.	No mitigation required.

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