

4.7 CULTURAL RESOURCES

Section 4.7 provides a detailed description of existing cultural resources in the vicinity of the Tesoro Avon Marine Oil Terminal (Avon Terminal) Lease Consideration Project (Project), and addresses the potential cultural resources impacts that could result from the granting of a new lease for Avon Terminal continued operations and associated Marine Oil Terminal Engineering Maintenance Standards (MOTEMS) compliance-related renovation, as well as for Project alternatives.

4.7.1 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 property:** A term defined by the National Historic Preservation Act 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) (Pub. Resources Code, § 21084.1 and State CEQA Guidelines § 15064.5, subds. (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.
- **Paleontological resource:** A term used to describe fossilized remains, traces, or imprints of organisms. Paleontological resources, which are considered nonrenewable resources, provide information about the history of life on earth.
- **Unique archaeological resource:** A CEQA term defined under Public Resources Code section 21083.2, subdivision (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 that there is a demonstrable public interest in that information, (2) has a special and particular quality such as being the oldest of its type or the best available example of its

1 type, or (3) is directly associated with a scientifically recognized important
2 prehistoric or historic event or person.

3 **4.7.2 ENVIRONMENTAL SETTING**

4 **4.7.2.1 Prehistoric, Ethnographic, and Historic Background**

5 **Natural Conditions**

6 The Project area is in the lower Suisun Bay near the southern border of the Suisun
7 Bay/Sacramento River Delta in unincorporated Contra Costa County, within the larger
8 San Francisco Bay Area. The region in which the Project is located has a
9 Mediterranean climate and supports a variety of wetland communities and grasslands.

10 **Prehistoric Setting**

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

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

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

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

34 *Emergent (cal. A.D. 1050 to Historic)* – Many archaeologists believe that craft
35 specialization, political complexity, and social ranking are highly developed. New bead

1 types and multi-perforated and bar-scored ornaments appear. The bow and arrow
2 replace the dart and atlatl as the favored hunting tools (Moratto 1984). Cultural
3 traditions seem to be very similar to those witnessed at the time of European contact.

4 **Ethnographic Setting**

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

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

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

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

28 **Historic Overview**

29 A number of Spanish expeditions passed through the area between 1769 and 1776,
30 including those led by Portola, Fages, Anza, and Rivera. Although the exact routes of
31 the early explorers cannot be determined, none are thought to have traveled near the
32 Project area (Milliken 1995).

33 The Spanish government founded missions and secular towns, with the land itself being
34 held by the government. The Mexican government closed the missions in the early
35 1830s, and former mission lands were given to individuals as land grants.

1 A portion of unincorporated Contra Costa County, including the unincorporated area of
 2 Avon, was originally part of two Mexican land grants. Rancho El Pinole was granted to
 3 Ygnacio Martinez in 1824 and Rancho La Juntas was granted to William Welch in 1844.
 4 Avon was originally called Marsh, and in 1913, its name was changed to Associated.
 5 After the gold rush, the area continued to flourish due to agriculture, with predominantly
 6 wheat and fruit crops. John Muir lived in Martinez from 1890 to 1914, and his home is
 7 preserved as the John Muir National Historic Site. Commercial salmon fishing began in
 8 the 1870s, and soon, two fish canneries opened in Martinez.

9 The area in and around the Avon Terminal became an industrial center in the early 20th
 10 century, when chemical and petroleum facilities were built. The Mountain Copper
 11 smelter was built at Bull's Head Point, and several refineries were opened in 1915. The
 12 area provided a deep-water harbor and rail connections for these industrial facilities.

13 Refer to Section 1.0, Introduction for a brief discussion of the history of the existing
 14 facility.

15 **4.7.2.2 Cultural Resources in the Vicinity of the Avon Terminal**

16 **Summary of Known Cultural Resources and Significance Findings**

17 Archaeological Record Search

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

28 The archaeological record search for the Project was requested on May 5, 2014, and
 29 was conducted on May 28, 2014. The record search identified no cultural resources
 30 within the footprint of the Project. One previously recorded cultural resource is located
 31 within a 1-mile radius (see Table 4.7-1).

Table 4.7-1: Cultural Resources Previously Recorded within 1 Mile of the Project Site

Primary Number	Brief Description	Recorder and Date
07-000130	Habitation site, partially destroyed	Nelson 1909

Source: Northwest Information Center 2014

1 No sites currently listed on the National Register, California Register, Contra Costa
2 County Historic Resources Inventory, or the list of California Historical Landmarks are
3 located within 1 mile of the Project area.

4 The record search indicated that a total of nine cultural resource studies have been
5 completed within a 1-mile radius of the Project; of these, one includes portions of the
6 Project area. The cultural study that includes portions of the Project area was a
7 submerged cultural resources survey (Sullivan and Allan 1996). The study for
8 submerged cultural resources was negative in the area that included portions of the
9 Project area.

10 The California State Lands Commission (CSLC) online database for shipwrecks (CSLC
11 2014) was checked on May 5, 2014. The database lists shipwrecks by county and is
12 based primarily on historical accounts of these incidents; the database search was by
13 latitude and longitude. No known shipwrecks appeared within the Project footprint; the
14 closest known shipwreck is located approximately 0.5 mile south of the Project footprint.

15 Native American Heritage Commission

16 TRC Solutions, Inc. (TRC) contacted the Native American Heritage Commission
17 (NAHC) on May 5, 2014, regarding the potential presence of burials and sacred lands in
18 the Project area and vicinity (see Appendix E for the NAHC correspondence). In its May
19 6, 2014 response, the NAHC stated that the sacred lands file records search did not
20 indicate the presence of any known Native American cultural resources within the
21 immediate Project area. The NAHC enclosed a list of Native American individuals
22 and/or organizations that might have knowledge of cultural resources in or near the
23 Project area.

24 On May 13, 2014, TRC sent letters with a Project location map to all individuals/groups
25 on the list, requesting information and comments. On May 30, 2014, a response was
26 received from Ms. Michelle Zimmer, Enrollment and Communications Officer of the
27 Amah Mutsun Tribal Band of Mission San Juan Bautista. Ms. Zimmer offered her
28 assistance and made the following recommendations:

- 29 • Conduct cultural sensitivity training for all crews if digging is to occur.
- 30 • Have a California-trained archaeological monitor on site while digging, when and
31 if necessary.
- 32 • Have a qualified, trained Native American monitor on site while digging, when
33 and if necessary.

34 This has been the only response at the time of this writing.

1 Paleontological Record Search

2 On May 9, 2014, a locality record search was conducted of the University of California,
3 Museum of Paleontology website (University of California Berkeley 2014). There are 33
4 fossil localities within the Vine Hill quadrangle, but none of the localities are within the
5 Project area for invertebrates, microfossils, or vertebrates. An online search was done
6 at the U.S. Geologic Survey ([USGS] 2014) for the geologic rock units in the Project
7 area. The maps show that the Project area contains late Holocene mud deposits
8 (Qhym). Late Holocene deposits are considered low potential for fossils, as they are
9 usually considered too young (less than 10,000 years old) in geologic time to preserve
10 fossils, and in the case of mud deposits, the depositional environment is also
11 considered low for fossil preservation.

12 **4.7.3 REGULATORY SETTING**

13 Federal and State laws that may be relevant to the Project are identified in Table 4-1.
14 Local laws, regulations, and policies are discussed in the following paragraphs.

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

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

22 **4.7.4 SIGNIFICANCE CRITERIA**

23 For the purposes of this analysis, an impact was considered to be significant and to
24 require mitigation if it would cause a substantial adverse change in the significance of a
25 historical and unique archaeological resource, as defined in State CEQA Guidelines
26 section 15064.5.

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

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

1 4.7.5 IMPACT ANALYSIS AND MITIGATION

2 The following subsections describe the Project's potential impacts on cultural resources.
3 Where impacts are determined to be significant, feasible mitigation measures (MM) are
4 described that would reduce or avoid the impact.

5 4.7.5.1 Proposed Project

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

9 No digging or other ground-breaking activities would occur on land, but new piles would
10 be installed in open water as part of the MOTEMS renovation. The submerged cultural
11 resources survey (Sullivan and Allan 1996) was negative in the area that included
12 portions of the Project area, and a search of the CSLC online shipwrecks database was
13 also negative for shipwrecks within the Project footprint. Pile installation would not
14 cause any disturbance to previously unrecorded or recorded historical, archaeological,
15 or paleontological resources, and human remains. Therefore, there would be no impact.

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

17 4.7.5.2 Alternative 1: No Project

18 **Impact CR-2: Have the potential to disturb previously unrecorded historical,**
19 **archaeological, or paleontological resources, and human remains. (Potentially**
20 **Significant.)**

21 Under the No Project alternative, the Avon Terminal lease would not be renewed and
22 the existing Avon Terminal would be decommissioned, with its components abandoned
23 in place, removed, or a combination thereof. Since no shipwrecks have been found in
24 the Project vicinity and maintenance dredging has taken place as recently as 2012, no
25 impacts on cultural resources would be anticipated during the decommissioning and
26 dismantling process.

27 Under the No Project alternative, Tesoro would have to pursue other means of export to
28 continue to meet existing regional demands and the current throughput from the Avon
29 Terminal. Options that Tesoro might pursue include: (1) transitioning the Tesoro Amorco
30 Marine Oil Terminal (Amorco Terminal) (currently an import-only facility) to absorb
31 export operations from the Avon Terminal; (2) land-based alternatives such as pipeline,
32 rail, or truck transportation; or (3) some combination of these alternatives. All of these
33 alternatives would require the construction or modification of facilities and infrastructure,
34 as well as lengthy and complex regulatory processes, and subsequent environmental
35 review.

1 After decommissioning, if the Amorco Terminal were transitioned to absorb export
2 operations from the Avon Terminal, the No Project alternative assumes that tankers
3 would instead go to the Amorco Terminal, located approximately 2.5 miles east of the
4 Avon Terminal. Since the Amorco Terminal is currently in operation, no impacts on
5 cultural resources would occur at the Amorco Terminal.

6 Construction of railroads and/or pipelines—including, but not limited to, clearing of
7 vegetation, grading, and excavation—could result in significant impacts on historical,
8 archaeological, and/or paleontological resources, and/or human remains, if these
9 resources cannot be avoided.

10 The potential implementation of one or more future crude oil or product alternatives to
11 the Golden Eagle Refinery would be the subject of a subsequent application to other
12 agencies that have jurisdiction relevant to the proposed alternative. Decommissioning,
13 abandonment, and/or deconstruction of the Avon Terminal, or any other proposed reuse
14 of the Avon Terminal, would require separate CEQA review by the CSLC.

15 **Mitigation Measures:** Should this alternative be selected, MMs would be determined
16 during a separate environmental review under CEQA.

17 **4.7.5.3 Alternative 2: Restricted Lease Taking Avon Terminal Out of Service for Oil** 18 **Transport**

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

21 Under this alternative, Tesoro's Avon Terminal lease would be renewed with
22 modification to restrict its allowed use, such that the existing Avon Terminal would be
23 left in place, taken out of service, and placed into caretaker status for any petroleum
24 product transfer, and not decommissioned or demolished. Since no shipwrecks have
25 been found in the Project vicinity and maintenance dredging has taken place as recently
26 as 2012, no impacts on cultural resources would be anticipated.

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

28 **4.7.6 CUMULATIVE IMPACT ANALYSIS**

29 The submerged cultural resources survey (Sullivan and Allan 1996) and the CSLC
30 online shipwrecks database were negative in the Project footprint; therefore, pile
31 installation during the MOTEMS renovation would not cause any disturbance to
32 previously unrecorded or recorded historical, archaeological, or paleontological
33 resources, and human remains. Routine continued operations at the Avon Terminal
34 would not contribute to cumulative cultural resource impacts.

1 **4.7.7 SUMMARY OF FINDINGS**

- 2 Table 4.7-2 includes a summary of anticipated impacts on cultural resources and
 3 associated mitigation measures.

Table 4.7-2: Summary of Cultural Resources Impacts and Mitigation Measures

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

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