4.9 LAND USE AND RECREATION

Section 4.9 provides a detailed description of the existing land use and recreation conditions around the Tesoro Avon Marine Oil Terminal (Avon Terminal) Lease Consideration Project (Project) study area, outlines applicable land use plans and policies, and summarizes potential land use and recreation-related impacts and mitigation measures (MMs) associated with the proposed lease renewal and Marine Oil Terminal Engineering Maintenance Standards (MOTEMS) compliance-related renovation.

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 Land Uses near the Avon Terminal

The Avon Terminal is located in unincorporated Contra Costa County, on the south shore of Suisun Bay, east of the Benicia-Martinez Bridge (Interstate 680). Land immediately surrounding the Avon Terminal is primarily open marsh land, with the Point Edith Wildlife Area bordering immediately east, and open marsh land located directly west. The Terminal is located on public land leased from the California State Lands Commission (CSLC). The Avon Terminal is a heavy industrial facility located in an area characterized by open space areas, wildlife preserves, the Suisun Bay shoreline, and several heavy industrial facilities. Figure 4.9-1 shows the Contra Costa County land use designations in the vicinity of the Avon Terminal. There are no sensitive land uses, such as hospitals, retirement communities, or schools, located adjacent to or near the Avon Terminal. The nearest residential area is almost 2 miles southwest of the Avon Terminal, and is adjacent to heavy industrial uses on land zoned as single-family residential. The following summarizes land uses that surround the Project site.

- North of the Avon Terminal are Suisun Bay and Carquinez Strait, which provide industrial transport access, commercial and recreational water uses, and wildlife habitat. Suisun Bay provides transport access for cargo vessels, and supports hunting (primarily waterfowl), sport fishing, commercial shrimp fishing, shellfish harvesting, recreational boating and kayaking, shoreline hiking, and other water-related recreational activities. A portion of the Grizzly Island Wildlife Area is also located along the shoreline north of the Avon Terminal, across Suisun Bay.

- South of the Avon Terminal is the shoreline of Suisun Bay, which is characterized by open marsh land. Further inland are the bio-oxidation pond and Tesoro Refining and Marketing Company, LLC’s (Tesoro) Golden Eagle Refinery (Refinery).

- West of the Avon Terminal are the shoreline of Suisun Bay and open-space marshlands, managed by the State, the Plains Products Marine Oil Terminal (Plains Terminal), and the Benicia-Martinez Bridge.
4.9 Land Use and Recreation

- East of the Avon Terminal is Suisun Bay and Point Edith Wildlife Area. Land further east is occupied by a mix of Wildlife Areas and privately owned land. The Military Ocean Terminal Concord is located approximately 4.5 miles east of the Avon Terminal, which consists of an approximately 6,526-acre tidal area, including 2,045 acres of offshore islands.

The Avon Terminal operates on approximately 11.24 acres of sovereign land, under the jurisdiction of the CSLC as an export facility, transferring petroleum products (including premium fuel oil, gas oil, diesel, and cutter stock) from Tesoro’s Refinery to tanker vessels. Pursuant to the McAteer-Petris Act of 1965, the San Francisco Bay Conservation and Development Commission (BCDC) has regulatory jurisdiction over land-use activities within the first 100 feet from the shore of San Francisco Bay, which gives the BCDC jurisdiction over the Avon Terminal. According to the San Francisco Bay Plan (amended 2011), which is produced by the BCDC to guide jurisdictional development activities, the Avon Terminal site is designated for Water-Related Industry. The Avon Terminal is consistent with this use designation.

Although Contra Costa County does not have jurisdiction over the Avon Terminal, the county does have jurisdiction over the land occupied by the associated onshore Refinery. The county’s General Plan (GP) designates the Refinery as Heavy Industrial (H-I), and the area is designated H-I in the county Zoning Code, as well. The GP land use and zoning designations are consistent with existing and surrounding uses.

4.9.1.2 Recreational Uses on Suisun Bay and Carquinez Strait

As a heavy industrial use, no recreational facilities or activities are directly associated with the Avon Terminal. However, there are a number of recreational facilities (designated parks, wildlife preserves, open space, etc.) and recreational uses (nature viewing, hiking, boating, hunting, fishing, surfing, etc.) in the Project vicinity, including:

- hiking, bird watching, or nature viewing in open space and wildlife preserves near the site;
- water uses on Suisun Bay and Carquinez Strait by recreational boat users and sport fishermen, including recreational marinas such as the Martinez Marina, Benicia Marina and Yacht Club, Glen Cove Marina, McAvoy Yacht Harbor, and Pittsburg Marina; and
- near-shoreline picnicking and park activities associated with the East Bay Regional Park District facilities.

Recreational facilities in the immediate Project vicinity are shown on Figure 4.9-2, and described by jurisdiction in the following paragraphs.
San Francisco Bay Conservation and Development Commission

The BCDC controls a tidal marsh east of the Avon Terminal, which provides access to the shoreline trail, wildlife observation, and non-motorized small boat access (BCDC 2011).

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) manages several Wildlife Areas in the Suisun Bay region, including Point Edith and Grizzly Island. The 760-acre Point Edith Wildlife Area is located on the eastern border of the Avon Terminal approachway on the shoreline of Suisun Bay (CDFW 2014d). Grizzly Island occupies approximately 15,300 discontinuous acres in a patchwork of 10 distinct parcels around the Suisun Bay shoreline (CDFW 2014c). The nearest parcel of the Grizzly Island Wildlife Area is located approximately 1.75 miles northwest of Avon Terminal, across Suisun Bay, and the remaining parcels are located further north and east across the bay.

East Bay Regional Park District

The East Bay Regional Park District manages several open-space recreational parks near the Project site and on the shorelines of Suisun Bay and Carquinez Strait. Table 4.9-1 provides a brief summary of these facilities and their locations, relative to the Avon Terminal.

Table 4.9-1: East Bay Regional Park District Parks near the Project Site

<table>
<thead>
<tr>
<th>Regional Park</th>
<th>Description</th>
<th>Location</th>
<th>Approximate Distance from Avon Terminal</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martinez Regional Shoreline</td>
<td>Marshland, hiking and horse trails, boating, multi-use field facilities</td>
<td>City of Martinez shoreline</td>
<td>3.5 miles to the west</td>
<td>314</td>
</tr>
<tr>
<td>Carquinez Strait Regional Shoreline</td>
<td>Marshland, hiking and horse trails</td>
<td>Along Carquinez Scenic Drive between Crockett and Martinez</td>
<td>5 miles to the west</td>
<td>1,415</td>
</tr>
<tr>
<td>Waterbird Regional Preserve</td>
<td>Wetland; associated uplands with hiking trails</td>
<td>East of Interstate 680</td>
<td>1.75 miles to the southeast</td>
<td>198</td>
</tr>
<tr>
<td>Point Pinole Regional Shoreline</td>
<td>Hiking and horse trails, fishing, camping</td>
<td>Giant Highway, Richmond</td>
<td>16 miles to the west</td>
<td>2,315</td>
</tr>
<tr>
<td>Browns Island</td>
<td>No facilities</td>
<td>Island north of Pittsburg</td>
<td>14 miles to the east</td>
<td>595</td>
</tr>
<tr>
<td>Bay Point Regional Shoreline</td>
<td>Hiking, bird watching, fishing</td>
<td>End of McAvoy Road, Bay Point</td>
<td>7 miles to the east</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: East Bay Regional Park District 2012
4.9 Land Use and Recreation

4.9.1.3 Recreational Uses on San Francisco Bay and San Pablo Bay

This section describes the land use and recreation setting within San Francisco Bay and San Pablo Bay for the evaluation of risks to recreation uses from oil spills from vessels servicing the Avon Terminal. Table 4.9-2 lists major recreational park areas and sensitive land uses, including wildlife reserves/refuges, in San Francisco and San Pablo Bays.

Table 4.9-2: Major Shoreline Recreational Areas, San Francisco and San Pablo Bays

<table>
<thead>
<tr>
<th>Bay/Shoreline Parks</th>
<th>Refuges/Preserves/Wildlife Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angel Island State Park</td>
<td>Alameda National Wildlife Refuge*</td>
</tr>
<tr>
<td>Bay View Park</td>
<td>Bair Island Ecological Reserve</td>
</tr>
<tr>
<td>Bayside Park</td>
<td>Brooks Island Regional Preserve</td>
</tr>
<tr>
<td>Benicia State Recreation Area</td>
<td>Browns Island Regional Shoreline</td>
</tr>
<tr>
<td>Berkeley Waterfront – Cesar Chavez Park</td>
<td>Castro Rocks</td>
</tr>
<tr>
<td>Candlestick Point State Recreation Area*</td>
<td>Don Edwards San Francisco Bay National Wildlife Refuge</td>
</tr>
<tr>
<td>Carquinez Strait – Vallejo Shoreline</td>
<td>Eden Landing Ecological Preserve</td>
</tr>
<tr>
<td>Carquinez Strait Regional Shoreline</td>
<td>Greco Island</td>
</tr>
<tr>
<td>China Camp State Park</td>
<td>Grizzly Island Wildlife Area</td>
</tr>
<tr>
<td>Coyote Hills Regional Park</td>
<td>Hamilton Field*</td>
</tr>
<tr>
<td>Coyote Point County Park</td>
<td>Hill Slough Wildlife Area</td>
</tr>
<tr>
<td>Eastshore State Park*</td>
<td>Marin Baylands National Wildlife Refuge*</td>
</tr>
<tr>
<td>Gateway Shoreline Park*</td>
<td>Marin Islands National Wildlife Refuge and State Ecological Reserve</td>
</tr>
<tr>
<td>Golden Gate National Recreation Area</td>
<td>Mount Tamalpais Waterfowl Refuge</td>
</tr>
<tr>
<td>Hayward Regional Shoreline</td>
<td>Napa-Sonoma Marshes Wildlife Area*</td>
</tr>
<tr>
<td>Keil Cove-Bluff Point Park*</td>
<td>Palo Alto Baylands Nature Reserve</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Regional Shoreline Park</td>
<td>Petaluma Marsh</td>
</tr>
<tr>
<td>Martinez Regional Shoreline and Martinez</td>
<td>Point Edith Wildlife Area</td>
</tr>
<tr>
<td></td>
<td>Rat Rock</td>
</tr>
<tr>
<td></td>
<td>Ravenswood Open Space Preserve</td>
</tr>
<tr>
<td></td>
<td>Red Rock</td>
</tr>
<tr>
<td></td>
<td>Redwood Shores Ecological Reserve</td>
</tr>
<tr>
<td></td>
<td>San Francisco Bay National Estuarine Research Reserve (China Camp State Park)</td>
</tr>
<tr>
<td></td>
<td>San Pablo Bay National Wildlife Refuge</td>
</tr>
<tr>
<td></td>
<td>Skaggs Island Naval Reservation*</td>
</tr>
<tr>
<td></td>
<td>The Brothers</td>
</tr>
<tr>
<td></td>
<td>The Sisters</td>
</tr>
</tbody>
</table>

Source: BCDC 2006
*Proposed facility
Developed parks and recreational and sightseeing areas that provide access to the shoreline are found along the urbanized sections of San Francisco Bay, particularly along the waterfront areas of the San Francisco Peninsula. In addition, there are approximately 140 boat-launching ramps/marinas and associated facilities (including fishing piers) throughout San Francisco Bay. Extensive private boating (both sail and power) occurs throughout San Francisco Bay. Undeveloped marsh areas are located to the south. The San Francisco Bay National Wildlife Refuge and Coyote Hills Regional Park, at the southern end of San Francisco Bay, provide opportunities for hiking and biking in selected areas and near the shore.

The northern end of San Pablo Bay is not as urbanized as the southern portions of San Pablo Bay. Most of the shoreline along north San Pablo Bay, and across the bay from the Project area, consists of the San Pablo National Wildlife Refuge, where hiking and hunting activities are allowed. Only a few boat ramps and fishing piers are in this area.

### 4.9.1.4 Recreational Uses on the Outer Coast

This section describes the land use and recreation setting along the Pacific outer coast, for the evaluation of risks associated with oil spills from vessels servicing the Avon Terminal. The outer coast consists of a broad mix of land uses, including undeveloped open coastal areas, wetlands, unique shoreline and coastal resource areas, and areas of concentrated development and urban uses. The conditions of the various uses range from relatively undisturbed land areas to degraded coastal zones affected by urban development and pollution. Opportunities for recreation vary along the shoreline. Coastal features range from coastal bluffs and beaches to nearby mountains and forests, offering a diversity of recreational opportunities. The more urbanized areas tend to have more “developed” recreational opportunities, such as trails with manicured vegetation, while less urbanized areas and remote locations tend to have more natural settings with “undeveloped” recreational uses. Some of the less developed areas are designated as preserves or wilderness. Recreational activities include nature viewing, hiking, biking, and equestrian trails, with beaches providing a range of uses, such as picnicking, shore fishing, volleyball, windsurfing/sailing, and surfing. All along the outer coast are fishing piers and berthing and launching facilities for recreational boats; however, the greatest concentrations of these facilities are found in urbanized areas.

### 4.9.2 REGULATORY SETTING

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

The *Contra Costa County General Plan* (2005) is a comprehensive, long-range planning document stating the county’s development goals and policies. The GP includes policies related to land use and recreation, recognizing both the natural environment and port-oriented heavy industrial uses that are important to the county’s economic
base. Policies pertaining to land use and recreation that could be applicable to the Project include the following:

**Land Use Element**

- Policy 3-42: Industrial development shall be concentrated in select locations adjacent to existing major transportation corridors and facilities.
- Policy 3-43: Industrial employment centers shall be designed to be unobtrusive and harmonious with adjacent areas and development.

**Open Space Element**

- Goal 9-A: To preserve and protect the ecological, scenic and cultural/historic, and recreational resource lands of the County.
- Goal 9-36: To develop a sufficient amount of conveniently located, properly designed park and recreational facilities to serve the needs of all residents.
- Goal 9-37: To develop a system of interconnected hiking, riding and bicycling trails and paths suitable for both active recreational use and for the purpose of transportation/circulation.
- Policy 9-16: Providing public facilities for outdoor recreation should remain an important land use objective in the County, as a method of promoting high scenic quality, for air quality maintenance, and to enhance outdoor recreation opportunities for all residents.
- Policy 9-43: Regional-scale public access to scenic areas on the waterfront shall be protected and developed, and water-related recreation, such as fishing, boating, and picnicking, shall be provided.

**Transportation and Circulation Element – Ports and Proprietary Wharves**

- Goal 5-S: To maintain the economic viability of the county’s existing ports, wharves, and shipping lanes.
- Policy 5-80: Water-oriented industrial uses which require deep water access shall be encouraged along the shoreline, while other industrial uses which could be located on inland sites shall be discouraged.
- Policy 5-81: New or replacement proprietary wharfs shall be allowed adjacent to industrial use areas, as long as environmental safeguards are followed and public access to the shoreline is provided.

**Zoning Code**

The lease area is zoned Unrestricted (U) by the Contra Costa County Zoning Code. The onshore Golden Eagle Refinery is zoned Heavy-Industrial (H-I).
4.9.3 SIGNIFICANCE CRITERIA

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

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project, adopted for the purpose of avoiding or mitigating an environmental effect
- Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil
- Conflict with established or proposed land uses, including potentially sensitive land uses

Environmental impacts are discussed in this section relative to the areas adjacent to the Project. Potential land use and recreational impacts relate to MOTEMS compliance-related renovation and continued operation of the Avon Terminal. Potential long-term land and recreational use impacts relate to such issues as compatibility of the facilities with existing and proposed land uses in the surrounding area (e.g., changes in land use, land use conflicts, and effects on potentially sensitive land uses) and conformity with governmental land use and recreation plans, policies, and regulations.

4.9.4 IMPACT ANALYSIS AND MITIGATION

The following subsections describe the Project’s potential impacts on land use and recreation; where impacts are determined to be significant, feasible MMs are described that would reduce or avoid the impact.

4.9.4.1 Proposed Project

Impact Land Use and Recreation (LUR)-1: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect. (Less than significant.)

The Avon Terminal is located on sovereign lands under the jurisdiction of the CSLC. As such, the CSLC and BCDC are the only agencies with land use jurisdiction over the site. The BCDC’s San Francisco Bay Plan (amended 2011) is the most comprehensive planning document for water-related development around San Francisco Bay. According to the San Francisco Bay Plan, the Avon Terminal site is designated for Water-Related Industry, and use of the Avon Terminal is consistent with this designation.
Although Contra Costa County does not have jurisdiction over the Avon Terminal, the county does have jurisdiction over the area that encompasses the Refinery. The county’s GP designates this land as an industrial area with the zoning designation of Heavy Industrial. These land use and zoning designations are consistent with existing and surrounding land uses.

The use of the Avon Terminal as an industrial facility in an area planned and zoned for industrial uses is consistent with all applicable local and regional land use plans and policies. Since applicable planning documents designate the Avon Terminal and surrounding areas for industrial uses, which currently exist and are compatible, future planning policies and plans over the proposed 30-year lease term would likely continue to designate the area in a similar manner. Impacts would be less than significant.

Mitigation Measure: No mitigation required.

Impact LUR-2: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil at or near the Avon Terminal. (Significant and unavoidable.)

An accidental spill of oil at or near the Avon Terminal could cause residual impacts on sensitive shoreline lands and recreation in Suisun Bay and Carquinez Strait, including Point Edith Wildlife Area, Grizzly Island Wildlife Area, Bay Point Regional Shoreline, Browns Island, Martinez Regional Shoreline, Martinez Waterfront Park, and Carquinez Strait Regional Shoreline, and to recreational boats (refer to Section 4.9.1.2). In addition, an extremely low-probability spill could reach the outer coast under summer conditions (see Appendix B for the results of several oil spill trajectory models previously conducted for projects at nearby locations). The greatest risk of a spill is from small accidents at the Avon Terminal during continued operations. While there is less risk of spill during tankering, the size of a spill that could result would be much greater and more severe. The degree of impact is influenced by factors such as location, spill size, type of material spilled, prevailing wind and current conditions, the vulnerability and sensitivity of the shoreline, and effectiveness of early containment and cleanup efforts.

The Avon Terminal primarily operates as an export facility, transferring petroleum products (including premium fuel oil, gas oil, diesel, and cutter stock). Infrequently, the Avon Terminal imports refinery feedstocks. Light product spills generally volatize relatively rapidly, and little remains within 24 to 48 hours after a spill. Heavy crude oil may disappear over a period of several days, with remaining heavy fractions lasting from several weeks to several months floating at or near the surface in the form of mousse, tar balls, or mats.
If a spill were to occur at the Avon Terminal, transfer operations would be suspended. The capability to immediately respond and deploy appropriate containment booming would influence the extent of affected shoreline. Tesoro has contracted with Bay Area Ship Services to assist with initial oil spill response services, including the immediate execution of approximately 600 feet of harbor boom in approximately 30 minutes. In addition, Tesoro contracts with Marine Spill Response Corporation to serve as the primary Oil Spill Response Organization contractor in its Oil Spill Response Plan for offshore, onshore, and shallow-water response services. Refer to Section 2.4.16, Emergency Response, for a more thorough description of the Avon Terminal oil spill response capabilities.

During MOTEWS renovation, an accidental spill or release of oil during use and refueling of construction equipment could cause residual impacts on sensitive shorelines and recreation areas, with the area of immediate concern being the Point Edith Wildlife Area. However, the impact that could occur from a spill during renovation would be much less than from a spill during continued operations. To minimize risks, the refueling of derrick barges and tugboats would be conducted at nearby fuel docks to the extent possible. Best management practices (BMPs) would be employed to minimize the risk of oil releases during on-site vessel and equipment refueling. Refer to Section 2.5.9, Equipment Refueling, for a more detailed description of equipment refueling. If an accidental spill or release of oil were to occur during renovation, activities would immediately stop, and the Avon Terminal oil spill response capabilities could be used to contain an accidental release.

Potential impacts from spills could be significant and unavoidable if first-response efforts would not contain or clean up the spill, resulting in residual impacts that would affect the general public’s use of shoreline or water areas. If a spill occurs that would be contained and cleaned up during the first response, that spill would be considered a less than significant with mitigation impact to land use and recreation.

MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b, presented in Section 4.1, Operational Safety/Risk of Accidents provide improved oil spill prevention measures. However, even with the implementation of mitigation to minimize potential for a spill, spills are possible, and the consequences of a spill could result in significant, adverse impacts to land use and recreation. No additional feasible mitigation measures have been identified that would further reduce the potential for significant impacts.

**Mitigation Measures:** MMs OS-1a, Remote Release Systems; OS-1b, Tension Monitoring Systems; OS-1c, Allision Avoidance Systems; OS-4a, USCG Ports and Waterways Safety Assessment Workshops; and OS-4b, Spill Response to Vessel Spills apply to this impact.
Rationale for Mitigation The mitigation measures identified previously provide improved oil spill capabilities, spill containment measures, and protection of sensitive resources. However, even with implementation of these measures, the impact of a spill on sensitive shoreline lands and recreational resource areas could be significant.

Residual Impacts With implementation of these measures, the risk to shoreline and recreational resources can be reduced to less than significant for small spills; however, impacts would remain significant for large spills.

Impact LUR-3: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil from vessels in transit. (Significant and unavoidable.)

Depending on spill size, location, and wind and current conditions, a spill within San Francisco Bay could affect recreational boating, and shoreline and water-recreation uses in the vicinity of the spill and its area of spread. Oil spill modeling for the vicinity of the Avon Terminal (see Appendix B) shows the potential extent of oil spread based on various scenarios of spill size, wind, tide, and current conditions. Refer to Section 4.1, Operational Safety/Risk of Accidents for a more in-depth discussion of oil spill modeling in the Project vicinity.

Shoreline uses that could be affected by a spill include Wildlife Areas, marshlands, marinas, parks, and other recreational uses, as well as other marine terminals and port and harbor operations. Passenger and cargo vessels, commercial fishing vessels, recreational boaters, and others may have to slow, reroute, or halt operations during cleanup and containment.

Existing land uses and recreational areas along the outer coast are diverse, ranging from heavily used areas to areas that are undeveloped and fairly inaccessible, especially along the northern coast. Spills that beach along heavily used areas and recreational points would limit or preclude such uses and result in significant, adverse impacts, depending on the characteristics of a spill and its residual effects. Oil that spreads to beaches, sand dunes, tide pools, shoreline reserves, harbors, marinas, and other recreational boating and fishing facilities would limit access to these areas due to containment equipment and cleanup activities. Spills that reach the more remote portions of the shoreline may not necessarily decrease the availability of recreational uses because use may be minimal, but would result in impacts to biological resources and water quality (refer to Section 4.2, Biological Resources and Section 4.3, Water Quality for details). Portions of the coastline would also be visually affected by spills, as discussed in Section 4.11, Visual Resources, Light and Glare.
Over the life of the proposed new lease, as more areas of the coastline are developed or made accessible to the public, the likelihood that an established land use or recreational amenity may be affected by a spill would also increase.

Transit of vessels to and from the Avon Terminal would temporarily increase during renovation, with barges being used to transport equipment, workers, prefabricated infrastructure, and other renovation-related items. However, transit of these vessels would be temporary and contained to the project vicinity. Renovation activities are not expected to increase the current average of 124 vessels served per year, and thus, would not contribute a significant risk of spills from vessels in transit beyond current conditions.

Potential impacts from spills could be significant and unavoidable if first-response efforts would not contain or clean up the spill, resulting in residual impacts that would affect the general public’s use of shoreline or water areas. If a spill occurs that would be contained and cleaned up during the first response, that spill would be considered a less than significant with mitigation impact to land use and recreation.

Mitigation measures OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b, presented in Section 4.1, Operational Safety/Risk of Accidents, provide improved oil spill prevention measures. However, even with the implementation of mitigation to minimize potential for a spill, spills are possible, and the consequences of a spill could result in significant, adverse impacts to land use and recreation. No additional feasible mitigation measures have been identified that would further reduce the potential for significant impacts.

**Mitigation Measures:** MMs OS-1a, Remote Release Systems; OS-1b, Tension Monitoring Systems; OS-1c, Allision Avoidance Systems; OS-4a, USCG Ports and Waterways Safety Assessment Workshops; and OS-4b, Spill Response to Vessel Spills apply to this impact.

**Rationale for Mitigation** The mitigation measures presented previously provide improved oil spill capabilities, spill containment measures, and protection of sensitive resources. However, even with implementation of these measures, the impact of a spill on sensitive shoreline lands and recreational resource areas could be significant.

**Residual Impacts** With implementation of these measures, the risk to shoreline and recreational resources can be reduced to less than significant for small spills; however, impacts would remain significant for large spills.

**Impact LUR-4: Conflict with established or proposed land uses, including potentially sensitive land uses. (Less than significant.)**

The Avon Terminal is not immediately surrounded by any other facilities, with the exception of the Plains Terminal to the west. Both of these are industrial facilities, and
4.9 Land Use and Recreation

are allowed land uses within the planning jurisdiction of the BCDC. There are no sensitive or incompatible land uses such as hospitals, retirement communities, or schools located near the Avon Terminal. The nearest residential use is located almost 2 miles southwest of the Avon Terminal, and is adjacent to heavy industrial uses, on land zoned as single-family residential.

In 2006, Senate Bill 1556 mandated that the Delta Protection Commission adopt a plan and implementation program for a continuous recreational corridor trail network through the five Delta counties, linking the San Francisco Bay Trail system to the planned Sacramento River trails in Yolo and Sacramento Counties. The Great California Delta Trail (Delta Trail) is to include routes for bicycling and hiking, with interconnections to other trails, park and recreational facilities, and public transportation. Continued operation of the Avon Terminal and Golden Eagle Refinery prohibits public access to the shoreline, so constructing the Delta Trail through the facility is not feasible. However, the upland portion of the Avon Terminal is not under the jurisdiction of the CSLC, and is not part of the proposed lease. Therefore, issues related to land use associated with the planned trail segments are not applicable to this Environmental Impact Report.

While the continued operations, as part of application for a new 30-year lease at the Avon Terminal, would not conflict with any established or proposed land uses, MOTEMS renovation at the Avon Terminal could be incompatible with uses of the adjacent Point Edith Wildlife Area. However, renovation activities would only occur within the lease area of the Avon Terminal, and would not extend the lease area into Wildlife Area land. Furthermore, as the Point Edith Wildlife Area is under CDFW jurisdiction, no sensitive land uses would be developed on those lands. Other land uses in the vicinity of the Avon Terminal are primarily industrial or open space, and it is unlikely that any sensitive land uses would be developed near the Avon Terminal during the new lease period. Post-MOTEMS renovation transfer activities would not change from the baseline, and would not create any physical land use incompatibilities.

Mitigation Measure: No mitigation required.

4.9.4.2 Alternative 1: No Project

Impact LUR-5: Cause residual impacts on sensitive shoreline lands and/or water recreation due to an accidental release of oil from marine-based sources; or conflict with established or proposed land uses, including potentially sensitive land uses. (Beneficial.)

The No Project alternative involves lease denial and cessation of Avon Terminal operations. The Avon Terminal would eventually be decommissioned, with its
components abandoned in place, removed, or a combination thereof. Decommissioning of the Avon Terminal would be governed by an Abandonment and Restoration Plan.

The localized risk of a spill (i.e., risks associated with the specific location and access route to the Avon Terminal) impacting shoreline land uses and precluding recreational uses in the vicinity of the Avon Terminal would not occur, as the Avon Terminal would not be in use. With no potential for spills in the immediate area, a beneficial impact would occur near the Avon Terminal.

After decommissioning, the No Project alternative assumes the number of tankers servicing the area would remain essentially the same due to regional demands, and assumes that without the Avon Terminal, tankers would instead go to the Tesoro Amorco Marine Oil Terminal (Amorco Terminal) approximately 2.5 miles away, or service another terminal in the vicinity with the capacity to absorb operations. Therefore, the risks associated with the transport of oil would not be removed from the region, but simply shifted to a nearby facility. An incremental increase in risk associated with a rise in vessel activity at the Amorco Terminal would also result, and the potential for oil spill impacts at the Amorco Terminal would be similar to those of the Project.

If the Amorco Terminal were upgraded and expanded to absorb increased demands and export operations, the Amorco Terminal is in an area primarily designated at H-I, and no significant adverse land use or recreation impacts would be anticipated.

**Mitigation Measure:** No mitigation required.

| Impact LUR-6: Cause residual impacts on sensitive lands and/or recreation due to an accidental release of oil from non-marine sources; or conflict with established or proposed land uses, including potentially sensitive land uses. (Significant and unavoidable.) |

This alternative assumes that there would be no Avon Terminal to transport product and, therefore, Tesoro may consider land-based alternatives such as pipeline connections to other San Francisco Bay Area terminals, rail car, and truck transportation, or a combination thereof, to absorb petroleum export operations from the Avon Terminal. Such land-based alternatives would need to be upgraded to absorb throughput from the Avon Terminal, which would require lengthy and complex regulatory processes, land-availability evaluations, and acquisition of easements or rights-of-way.

Rail lines and associated handling facilities would require additional construction. Pipeline shipments of gasoline or diesel products may require construction of new pipelines and/or the purchase of existing pipeline capacity from other local petroleum refinery competitors. However, with regard to either of these options, significant new pipeline installations and connection modifications would be required. Permit
modification might be required for any increased use of the existing pipeline to the Plains Terminal, or the Kinder Morgan Pipeline.

If pipeline and/or rail construction were needed, alignments would need to be identified, and easements obtained. Conversion of some lands in highly developed urban areas could either directly or indirectly affect land use, including recreational use. This could result in significant impacts. In areas where property could be taken to construct pipeline and/or railway alignments, impacts could be wholly or partially mitigated by monetary means or land trades. However, impacts would remain significant in the event that land is deeded to an easement and taken out of public use, such as a public park, if that loss contributes to a decrease in park space with no means for replacement. Incompatible land uses with adjacent property could also result in significant impacts. During operation of the pipeline and or rail cars, accidental oil spills could result in significant and unavoidable impacts.

Mitigation Measures: Should this alternative be selected, MMs would be determined during a separate environmental review under the California Environmental Quality Act (CEQA).

4.9.4.3 Alternative 2: Restricted Lease Taking Avon Terminal Out of Service for Oil Transport

Impact LUR-7: Cause residual impacts on sensitive shoreline lands and/or water recreation due to an accidental release of oil from marine-based sources; or conflict with established or proposed land uses, including potentially sensitive land uses. (Beneficial.)

As discussed in Impact LUR-5, the localized risk of a spill impacting shoreline land uses and precluding recreational uses in the vicinity of the Avon Terminal would not occur, as the Avon Terminal would not be used for oil transport. With no potential for spills in the immediate area, a beneficial impact would occur near the Avon Terminal. However, this alternative assumes that the number of tankers servicing the area would remain essentially the same due to regional demands, and assumes that without the Avon Terminal, incoming tankers would instead go to the Amorco Terminal, approximately 2.5 miles away, or use another marine oil terminal in the vicinity with the capacity to absorb operations. Therefore, the risks associated with the transport of oil would not be removed from the region, but simply shifted to a nearby facility. An incremental increase in risk associated with a rise in vessel activity at the Amorco Terminal or other nearby terminal would also result, and the potential for oil spill impacts at the Amorco Terminal, or other nearby facility, would be similar to those of the Project.

Mitigation Measure: No mitigation required.
Impact LUR-8: Cause residual impacts on sensitive lands and/or recreation due to an accidental release of oil from non-marine sources; or conflict with established or proposed land uses, including potentially sensitive land uses. (Significant and unavoidable.)

This alternative assumes that the existing Avon Terminal would be left in place, but taken out of service for any petroleum product transfer. Without the Avon Terminal to transport product, Tesoro may consider land-based alternatives, such as pipeline connections to other San Francisco Bay Area terminals, rail car, or truck transportation, or a combination thereof, to absorb petroleum export operations from the Avon Terminal. In the case of the Restricted Lease alternative, land-based systems would need to be upgraded to absorb throughput from the Avon Terminal, requiring lengthy and complex regulatory processes, land-availability evaluations, and acquisition of easements or rights-of-way. Refer to Impact LUR-6 for the impact discussion.

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

4.9.5 CUMULATIVE IMPACT ANALYSIS

Continued routine operations at the Avon Terminal would not contribute to cumulative land use or recreation impacts, as the level of shipment activity and throughput is not expected to change substantially over the proposed 30-year lease period. However, during renovation an accidental spill or release of oil from use and refueling of construction equipment could occur, which in combination with other marine oil terminal projects in the region could result in potentially significant impacts to sensitive lands and recreational uses in the area. To minimize risks from the Avon Terminal, the refueling of derrick barges and tugboats would be conducted at nearby fuel docks to the extent possible, and BMPs would be implemented for on-site refueling. When the cumulative environment is considered, the contribution from the Project is small. Even so, impacts to sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil would remain potentially significant. Tesoro would be responsible for spills at or near the Avon Terminal, but not for vessels transiting San Francisco Bay or the outer coast.

4.9.6 SUMMARY OF FINDINGS

Table 4.9-3 includes a summary of anticipated impacts to land use and recreation and associated mitigation measures.
Table 4.9-3: Summary of Land Use and Recreation Impacts and Mitigation Measures

<table>
<thead>
<tr>
<th>Impact</th>
<th>Mitigation Measure(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proposed Project</strong></td>
<td></td>
</tr>
<tr>
<td>LUR-1: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project, adopted for the purpose of avoiding or mitigating an environmental effect.</td>
<td>No mitigation required</td>
</tr>
<tr>
<td>LUR-2: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil at or near the Avon Terminal.</td>
<td>Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b</td>
</tr>
<tr>
<td>LUR-3: Cause residual impacts on sensitive shoreline lands and/or water and non-water recreation due to an accidental release of oil from vessels in transit.</td>
<td>Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b</td>
</tr>
<tr>
<td>LUR-4: Conflict with established or proposed land uses, including potentially sensitive land uses.</td>
<td>No mitigation required</td>
</tr>
<tr>
<td><strong>Alternative 1: No Project</strong></td>
<td></td>
</tr>
<tr>
<td>LUR-5: Cause residual impacts on sensitive shoreline lands and/or water recreation due to an accidental release of oil from marine-based sources; or conflict with established or proposed land uses, including potentially sensitive land uses.</td>
<td>No mitigation required</td>
</tr>
<tr>
<td>LUR-6: Cause residual impacts on sensitive lands and/or recreation due to an accidental release of oil from non-marine sources; or conflict with established or proposed land uses, including potentially sensitive land uses.</td>
<td>Should this alternative be selected, MMs would be determined during a separate environmental review under CEQA</td>
</tr>
<tr>
<td><strong>Alternative 2: Restricted Lease Taking Avon Terminal Out of Service for Oil Transport</strong></td>
<td></td>
</tr>
<tr>
<td>LUR-7: Cause residual impacts on sensitive shoreline lands and/or water recreation due to an accidental release of oil from marine-based sources; or conflict with established or proposed land uses, including potentially sensitive land uses.</td>
<td>No mitigation required</td>
</tr>
<tr>
<td>LUR-8: Cause residual impacts on sensitive lands and/or recreation due to an accidental release of oil from non-marine sources; or conflict with established or proposed land uses, including potentially sensitive land uses.</td>
<td>Should this alternative be selected, MMs would be determined during a separate environmental review under CEQA</td>
</tr>
</tbody>
</table>