

*California State Lands Commission*

# **PART III – REVISIONS TO DRAFT EIR**

Final Environmental Impact Report for the Tesoro Avon Marine Oil  
Terminal Lease Consideration, January 2015

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### 1 INTRODUCTION

2 Tesoro Refining and Marketing Company, LLC (Tesoro) is the owner and operator of  
3 the Tesoro Avon Marine Oil Terminal (Avon Terminal), a tanker and barge petroleum  
4 export facility, and associated Golden Eagle Refinery (Refinery), located in Contra  
5 Costa County (see Figure ES-1). The Avon Terminal and Refinery have operated at  
6 their current locations since approximately 1925 and 1913, respectively. The Avon  
7 Terminal is on sovereign public land leased from the California State Lands  
8 Commission (CSLC). The CSLC is considering an application for a new 30-year lease  
9 of sovereign land to Tesoro for the Avon Terminal, otherwise known as the Avon Marine  
10 Oil Terminal Lease Consideration Project (Project). Since 2009, the CSLC has  
11 considered the current lease agreement, Lease PRC 3454.1, to be in a “holdover”  
12 status (i.e., the Avon Terminal continues to operate under the terms of its existing lease  
13 while a decision on a new lease is pending). The issuance of a new 30-year lease, if  
14 granted, would allow Tesoro to continue to operate its Avon Terminal through 2044.

15 To grant the new 30-year lease, the CSLC must document the current and planned  
16 conditions at the Avon Terminal, including compliance with the Marine Oil Terminal  
17 Engineering and Maintenance Standards (MOTEMS).<sup>1</sup> In addition to the application for  
18 a new 30-year lease, Tesoro will also be conducting upgrades on the Avon Terminal to  
19 successfully meet MOTEMS for the upcoming 2014 MOTEMS audit. The Project scope  
20 includes: decommissioning of Berth 1; construction of a new berthing area, Berth 1A;  
21 repairs, retrofits, and construction on the existing approach trestle; and demolition and  
22 removal of existing Berth 5.

23 The CSLC is serving as the lead agency responsible for preparing this Environmental  
24 Impact Report (EIR) in compliance with the California Environmental Quality Act  
25 (CEQA) to analyze the environmental impacts associated with the continued operation  
26 and MOTEMS compliance-related renovation of the Avon Terminal. Particular emphasis  
27 will be placed on oil transfer operations at the Avon Terminal; and vessel transit along  
28 shipping routes within Carquinez Strait and San Pablo, Suisun, and San Francisco  
29 Bays, and along the outer coast. This EIR will provide the CSLC the information  
30 required to exercise its jurisdictional responsibilities for the proposed new lease.

### 31 PROJECT OBJECTIVE

32 The Applicant has identified the following basic objective for the Project:

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<sup>1</sup> MOTEMS are codified in California Code of Regulations, Title 24, California Building Code, Chapter 31F—Marine Oil Terminals (Cal. Code Regs., tit. 24, § 3101F et seq.).



1        *To obtain a CSLC lease to continue operations at, and maintain existing transport*  
2        *levels of petroleum products for marketing through the upgraded Avon Terminal,*  
3        *thereby maintaining the operation and viability of Tesoro's associated Golden Eagle*  
4        *Refinery*

## 5        **ORGANIZATION OF THE EIR**

6        The EIR contains the following sections:

- 7        • **Section 1.0 – Introduction** includes a general overview of the proposed project,  
8        the environmental review process, and purpose and scope of the EIR;
- 9        • **Section 2.0 – Project Description** describes the proposed Project, its location  
10       and facilities, an overview of its operation, and schedule;
- 11       • **Section 3.0 – Alternatives and Cumulative Projects** describes the alternatives  
12       to the Project carried forward for analysis, the alternatives that were considered  
13       but eliminated from detailed evaluation, and those projects considered during the  
14       evaluation of cumulative impacts to the Project;
- 15       • **Section 4.0 – Environmental Impact Analysis** describes existing  
16       environmental conditions within issue areas, Project-specific impacts and  
17       associated mitigation measures, and includes impact analysis of Project  
18       alternatives and cumulative impacts;
- 19       • **Section 5.0 – Other Required CEQA Sections** addresses other required CEQA  
20       elements, including evaluation of growth-inducing impacts of the Project;
- 21       • **Section 6.0 – Commercial and Sport Fisheries** addresses impacts to these  
22       resources;
- 23       • **Section 7.0 – Socioeconomics and Environmental Justice** describes existing  
24       conditions and Project-related effects related to socioeconomics and  
25       environmental justice;
- 26       • **Section 8.0 – Mitigation Monitoring and Reporting Program** summarizes all  
27       Applicant-proposed measures and recommended mitigation measures identified  
28       to avoid or reduce significant impacts, the party(ies) responsible for tracking each  
29       mitigation measure, and how compliance with the measure will be reported; and
- 30       • **Section 9.0 – List of Preparers and References** presents information on the  
31       individuals who prepared the EIR and their qualifications and list of reference  
32       materials used to prepare the report.

33       The EIR also contains six appendices.

- 34       • **Appendix A** – includes the EIR distribution list of agencies/organizations and  
35       individuals that will receive notice that the EIR is available, a copy of the NOP, an

- 1 index indicating where all scoping comments are addressed in the EIR, and a  
2 copy or transcript of each letter received in response to the NOP and verbal  
3 comment presented at the scoping meetings.
- 4 • **Appendix B** – contains the oil spill trajectory models and results that were used  
5 as part of the risk of accidents analysis.
  - 6 • **Appendix C** – includes tabular lists of the biological resources in the study area.
  - 7 • **Appendix D** – includes detailed baseline condition and annual operating  
8 emissions calculations and renovation-related emissions calculations.
  - 9 • **Appendix E** – contains the Project-related Native American Heritage  
10 Commission correspondence.
  - 11 • **Appendix F** – includes tabular lists of San Francisco Bay charter boat and  
12 commercial fisheries landings for catch block 308.

### 13 **PROPOSED PROJECT**

14 The Avon Terminal operates as an export facility, transferring petroleum products  
15 (including premium fuel oil, gas oil, diesel, and cutter stock) from the Refinery to tanker  
16 vessels, and currently consists of approximately 11.24 acres of State-owned sovereign  
17 land leased from the CSLC, which will be increased to 13.33 acres under the new 30-  
18 year lease proposed as part of the Project. The Avon Terminal supports the Refinery,  
19 located approximately 0.5 mile south, and is capable of operating 365 days a year, 24  
20 hours a day, although actual operation depends on shipping demands.

21 The Avon Terminal is an existing multiple-berth terminal docking facility consisting of  
22 two berths: Berth 1 and Berth 5. While in the past the Avon Terminal has supported  
23 multiple active berths, the existing Avon Terminal is a single-berth docking facility  
24 supporting one active berth (Berth 1, located on the eastern end of the wharf). The  
25 entire existing docking facility is approximately 1,520 feet long and ranges from 20 to 80  
26 feet wide, and is constructed of marine timbers and concrete. Access to the Avon  
27 Terminal is provided by an approximately 1-mile-long approachway.

28 The Avon Terminal is currently authorized to accommodate up to 113,635 dead-weight-  
29 ton vessels with displacements up to 102,600 long tons. Vessel traffic and throughput  
30 volumes at the Avon Terminal are summarized below.

- 31 • Annual ship and barge traffic currently averages 124 vessels per year (between  
32 2004 and 2013). Avon Terminal throughput ranges from 5.1 million barrels per  
33 year (bpy) to 12.8 million bpy.
- 34 • Future estimates are 70 to 120 vessels per year. Future Avon Terminal  
35 throughput estimates range from 10 million bpy to an anticipated maximum of 15  
36 million bpy.

- 1       • The maximum capacity that the Avon Terminal could handle is 45 million bpy.  
2       Maximum throughput is based on Tesoro's Bay Area Air Quality Management  
3       District Title V Permit to Operate for the Refinery.

4 Section 4.0, Environmental Impact Analysis is based on the anticipated future estimates  
5 provided above, as well as MOTEMS compliance-related construction.

## 6 **ALTERNATIVES TO THE PROPOSED PROJECT**

7 The CEQA requires consideration of a range of reasonable alternatives to the project or  
8 project location that: (1) could feasibly attain most of the basic project objectives, and  
9 (2) would avoid or substantially lessen any of the significant impacts of the proposed  
10 project. The following is a summary of alternatives analyzed in this EIR. For more detail,  
11 see Section 3.0, Alternatives and Cumulative Projects.

### 12 **No Project**

13 Under the No Project alternative, the Avon Terminal lease would not be renewed, and  
14 the existing Avon Terminal would be subsequently decommissioned. Tesoro may  
15 choose to pursue transitioning the Tesoro Amorco Marine Oil Terminal (Amorco  
16 Terminal; currently an import-only marine oil terminal located in Martinez, California) to  
17 absorb all export operations from the Avon Terminal, thereby increasing the throughput  
18 at the Amorco Terminal to the Golden Eagle Refinery to meet regional refining  
19 demands.<sup>2</sup>

20 In addition, Tesoro may consider alternative means of product transportation to absorb  
21 export operations from the Avon Terminal. Sources may include land-based  
22 transportation such as rail cars and trucks, and/or pipeline connections to other San  
23 Francisco Bay Area (Bay Area) terminals, or a combination thereof. While the CSLC  
24 may have no jurisdiction over any of these land-based forms of transportation (except  
25 for pipeline or road and railway construction underneath and/or across waterbodies  
26 under CSLC jurisdiction), construction and operation of facilities would be subject to  
27 substantial environmental review and permitting by other local and State agencies.

### 28 **Restricted Lease Taking Avon Terminal Out of Service for Oil Transport**

29 Under this alternative, Tesoro's Avon Terminal lease would be renewed with  
30 modification to restrict its allowed use such that the existing Avon Terminal would be left

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<sup>2</sup> While currently an import-only marine oil terminal, Tesoro's Amorco Terminal is capable of operating as both an import and export facility, provided that the wharf is upgraded and expanded to meet the current throughput capacities for the Avon and Amorco Terminals. The Amorco Terminal is currently subject to CEQA evaluation by the CSLC for a new 30-year lease of sovereign land to continue the Refinery's importing operations through the Amorco Terminal.

1 in place, taken out of service, and placed into caretaker status for any petroleum  
 2 product transfer, and not decommissioned or demolished. No environmental impacts  
 3 would be associated with these activities. Because the structure of the Avon Terminal  
 4 would remain in place, Tesoro would retain the option to apply to bring it back into  
 5 service for oil transport at some time in the future, should the need arise. Any future  
 6 change in use of the Avon Terminal would require a lease action and potential separate  
 7 CEQA review by the CSLC. Alternative uses for the Avon Terminal could include:

- 8 • use of the Avon Terminal as a staging area for dredging operations, maintenance  
 9 and upgrades to other terminals, or training exercises;
- 10 • the option for Tesoro to bring the Avon Terminal back into service as a fully  
 11 operational petroleum product transfer facility; or
- 12 • sale of the Avon Terminal to another entity for the above, or for other uses.

13 As with the No Project alternative, Tesoro might absorb export operations from the Avon  
 14 Terminal by transitioning the Amorco Terminal to import and export operations or  
 15 consider alternative means of product transportation, such as a pipeline and/or rail  
 16 transportation, or use some combination of the these sources.

17 **ENVIRONMENTAL IMPACTS AND MITIGATION**

18 This EIR includes a detailed evaluation of the potentially significant environmental  
 19 effects that could result from implementation of the Project on a variety of resource  
 20 topics, including: operational safety/risk of accidents; biological resources; water quality;  
 21 air quality, greenhouse gas emissions; geology, soils, and seismicity; cultural resources;  
 22 land-based transportation; land use and recreation; noise; and visual resources, light  
 23 and glare. Table ES-1 presents a summary of potential impacts and mitigation  
 24 measures for the proposed Project.

**Table ES-1: Summary of Environmental Impacts and Mitigation Measures for the Proposed Project**

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
<b>Section 4.1 Operational Safety/Risk of Accidents (OS)</b>		
<b>OS-1:</b> Potential for oil spills and response capability for containment of oil spills from the Avon Terminal during continued operations.	<b>SU</b>	<ul style="list-style-type: none"> <li>• <b>MM OS-1a:</b> Remote Release Systems</li> <li>• <b>MM OS-1b:</b> Tension Monitoring Systems</li> <li>• <b>MM OS-1c:</b> Allision Avoidance Systems</li> <li>• No additional MMs available</li> </ul>
<b>OS-2:</b> Potential for spills from Avon Terminal pipelines during non-transfer periods during continued operations.	<b>SU</b>	No mitigation measures available
<b>OS-3:</b> Potential for fires and explosions	<b>SU</b>	• <b>MM OS-3:</b> Fire Protection Assessment

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
during continued operations, and response capability.		<ul style="list-style-type: none"> <li>• Refer also to <b>MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>OS-4:</b> Potential for spills and response capability for containment of oil spills for accidents in the San Francisco Bay and outer coast during continued operations.	<b>SU</b>	<ul style="list-style-type: none"> <li>• <b>MM OS-4a:</b> USCG Ports and Waterways Safety Assessment (PAWSA) Workshops</li> <li>• <b>MM OS-4b:</b> Spill Response to Vessel Spills</li> <li>• No additional MMs available</li> </ul>
<b>OS-5:</b> Potential for a significant hazard to the public or environment as a result of being included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5.	<b>LTS</b>	No mitigation required
<b>OS-6:</b> Potential for oil spills and response capability for containment of oil spills from the Avon Terminal during renovation.	<b>LTS</b>	No mitigation required
<b>OS-7:</b> Potential for spills from Avon Terminal pipelines during non-transfer periods during renovation.	<b>SU</b>	<ul style="list-style-type: none"> <li>• <b>MM OS-7:</b> Pipeline Purging and Removal Plan</li> <li>• No additional MMs available</li> </ul>
<b>OS-8:</b> Potential for fires and explosions during renovation, and response capability.	<b>LTS</b>	No mitigation required
<b>OS-9:</b> Potential for spills and response capability for containment of oil spills for accidents in the San Francisco Bay and outer coast during renovation.	<b>LTS</b>	No mitigation required
<b>CUM-OS-1:</b> Upset conditions.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-1a, OS-1b, OS-1c, OS-7, OS-4a, and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>Section 4.2 Biological Resources (BIO)</b>		
<b>BIO-1:</b> Cause substantial impact to special-status species or sensitive habitat due to increased fill area and bay cover.	<b>B</b>	No mitigation required
<b>BIO-2:</b> Cause substantial impact to special-status species or sensitive habitat during operations due to marsh vegetation removal on either side of and below the approachway.	<b>LTS</b>	No mitigation required
<b>BIO-3:</b> Increase deposition or erosion of sensitive habitats along the vessel path, including marshlands within and adjacent to the lease area, resulting from the resuspension of sediments by calling vessels.	<b>LTS</b>	No mitigation required

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
<b>BIO-4:</b> Cause substantial impact to special-status wildlife species, including impact to behavior and the composition of biotic communities, in the vicinity of the Avon Terminal as a result of the use of bright lights during nighttime operations.	<b>LTS</b>	No mitigation required
<b>BIO-5:</b> Cause substantial direct and/or indirect impacts on aquatic biota through the changing of physical and chemical environmental factors as a result of maintenance dredging.	<b>LTS</b>	No mitigation required
<b>BIO-6:</b> Cause injury or behavioral interruptions to aquatic species as a result of noise from vessels.	<b>LTS</b>	No mitigation required
<b>BIO-7:</b> Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of minor fuel, lubricant, and/or boat-related spills.	<b>LTS</b>	No mitigation required
<b>BIO-8:</b> Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of major fuel, lubricant, and/or boat-related spills.	<b>SU</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-8a:</b> Bird Rescue Personnel and Rehabilitators</li> <li>• <b>MM BIO-8b:</b> Cleanup of Oil from Biological Area</li> <li>• <b>MM BIO-8c:</b> Natural Resource Damage Assessment (NRDA) Team</li> <li>• Refer also to <b>MM OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>BIO-9:</b> Introduce invasive nonindigenous aquatic species to the San Francisco Bay Estuary.	<b>SU</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-9a:</b> Marine Invasive Species Act Reporting Forms</li> <li>• <b>MM BIO-9b:</b> Invasive Species Action Funding</li> <li>• No additional MMs available</li> </ul>
<b>BIO-10:</b> Cause substantial temporary impacts to special-status species due to MOTEMS renovation activity.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-10a:</b> Pre-renovation Surveys for Key Special-status Species</li> <li>• <b>MM BIO-10b:</b> Designated Work Areas</li> <li>• <b>MM BIO-10c:</b> Worker Environmental Awareness Program</li> <li>• <b>MM BIO-10d:</b> Safe and Clean Work Area Maintenance</li> <li>• <b>MM BIO-10e:</b> Biological Monitoring</li> <li>• <b>MM BIO-10f:</b> Post-renovation Cleanup</li> </ul>
<b>BIO-11:</b> Cause disturbance or loss of special-status fish.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-11a:</b> In-water Work Restrictions</li> <li>• <b>MM BIO-11b:</b> Nearshore Habitat Disturbance Minimization</li> <li>• <b>MM BIO-11c:</b> Anchoring Plan</li> </ul>

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
<b>BIO-12:</b> Cause disturbance or loss of special-status plant populations.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-12a:</b> Pre-renovation Special-status Plant Surveys</li> <li>• <b>MM BIO-12b:</b> Special-status Plant Avoidance and Protection</li> <li>• <b>MM BIO-12c:</b> Salvage and Recovery Plan for Special-status Plants</li> </ul>
<b>BIO-13:</b> Cause disturbance of nesting migratory birds and raptors.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-13a:</b> Pre-renovation Nesting Bird Surveys</li> <li>• <b>MM BIO-13b:</b> Osprey Nest Protection</li> <li>• Refer also to <b>MM BIO-19b</b></li> </ul>
<b>BIO-14:</b> Cause disturbance of California clapper rail and California black rail and habitat.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-14a:</b> Survey and Avoidance Measures for California Capper Rail and California Black Rail</li> </ul>
<b>BIO-15:</b> Cause disturbance of salt marsh harvest mouse and Suisun shrew and habitat.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-15a:</b> Salt Marsh Harvest Mouse and Suisun Shrew Impact Avoidance Measures</li> <li>• <b>MM BIO-15b:</b> Compensation for Temporary and Permanent Loss of Salt Marsh Harvest Mouse Habitat</li> </ul>
<b>BIO-16:</b> Cause disturbance to marine mammals.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-16a:</b> Adjust Vessel Speed</li> <li>• <b>MM BIO-16b:</b> Implementation of a Marine Mammal Contingency Plan</li> <li>• <b>MM BIO-16c:</b> Prioritize Removal of Potential Haul-out Locations</li> <li>• Refer also to <b>MM BIO-18b</b></li> </ul>
<b>BIO-17:</b> Cause substantial impact to special-status species or sensitive habitat due to degradation of water quality.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-17a:</b> Lead-based Paint Management Plan</li> <li>• <b>MM BIO-17b:</b> Post-demolition Bathymetric Survey</li> <li>• <b>MM BIO-17c:</b> Stub/scour Monitoring</li> <li>• <b>MM BIO-17d:</b> Minimization of Creosote Release</li> <li>• Refer also to <b>MM WQ-11</b></li> </ul>
<b>BIO-18:</b> Cause substantial impact to special-status species or sensitive habitat due to increased sound levels from MOTEMS renovation.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-18a:</b> Sound-attenuation Measures</li> <li>• <b>MM BIO-18b:</b> Hydroacoustic Monitoring Plan</li> </ul>
<b>BIO-19:</b> Cause substantial impact to wetlands and other waters of the United States and waters of the State.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM BIO-19a:</b> Avoidance and Minimization Measures for Impacts to Wetlands and Waters</li> <li>• <b>MM BIO-19b:</b> Revegetation and Restoration Plan</li> </ul>
<b>BIO-20:</b> Cause substantial impact to Essential Fish Habitat (EFH) due to	<b>PS</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs BIO-8b, BIO-8c, BIO-9a, BIO-9b, BIO-11b, BIO-17b, BIO-17c,</b></li> </ul>

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
renovation of new and replacement overwater structures.		<b>BIO-18a, BIO-18b, and WQ-11</b>
<b>BIO-21:</b> Isolate wildlife populations and/or disrupt wildlife migratory or movement corridors, or use of native wildlife nursery sites.	<b>PS</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs BIO-15a, BIO-11a, BIO-10b, BIO-13a, and BIO-19b</b></li> </ul>
<b>BIO-22:</b> Conflict with any local policies or ordinances protecting biological resources or provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	<b>LTS</b>	No mitigation required
<b>CUM-BIO-1:</b> Cause cumulative adverse impacts to special-status species, biotic communities, and habitat through vessel resuspension of sediment, use of bright nighttime lights, routine dredging, shipping noise, and potential minor oil spills as a result of Avon Terminal operations.	<b>LTS</b>	No mitigation required
<b>CUM-BIO-2:</b> Cause cumulative impacts to San Francisco Bay Estuary and associated biota from oil spills from all marine oil terminals combined, or from all tankering combined.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs BIO-8a, BIO-8b, and BIO-8c</b></li> <li>• No additional MMs available</li> </ul>
<b>CUM-BIO-3:</b> Cause cumulative impacts by increasing the risk of introduction of nonindigenous aquatic species from vessel traffic to San Francisco Bay.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs BIO-9a and BIO-9b</b></li> <li>• No additional MMs available</li> </ul>
<b>CUM-BIO-4:</b> Cause cumulative impacts to the biota of the San Francisco Bay Estuary resulting from degradation of water quality from vessels visiting the Avon Terminal that are coated with antifouling paints.	<b>LTS</b>	No mitigation required
<b>CUM-BIO-5:</b> Cause cumulative adverse impacts to special-status species, biotic communities, and habitat through MOTEMS renovation and replacement of Avon Terminal structures.	<b>PS</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs BIO-19b and BIO-15b</b></li> </ul>
<b>Section 4.3 Water Quality (WQ)</b>		
<b>WQ-1:</b> Degrade water quality as a result of maintenance dredging.	<b>LTS</b>	No mitigation required

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
<b>WQ-2:</b> Degrade water quality as a result of sediment disturbance from vessel maneuvers.	<b>LTS</b>	No mitigation required
<b>WQ-3:</b> Degrade water quality by the discharge of ballast water.	<b>SU</b>	<ul style="list-style-type: none"> <li>• <b>MM WQ-3:</b> Advise Vessels of the Coastal Ecosystems Protection Act and Associated Regulations</li> <li>• No additional MMs available</li> </ul>
<b>WQ-4:</b> Degrade water quality as a result of discharge of cooling water, sanitary wastewater, bilge water, non-segregated ballast water, or other liquid wastes.	<b>LTS</b>	No mitigation required
<b>WQ-5:</b> Degrade water quality as a result of vessel biofouling.	<b>SU</b>	<ul style="list-style-type: none"> <li>• <b>MM WQ-5:</b> Biofouling Regulations and Standards</li> <li>• Refer also to <b>MMs BIO-22a and 22b</b></li> <li>• No additional MMs available</li> </ul>
<b>WQ-6:</b> Degrade water quality due to anti-fouling paints used on vessel hulls.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM WQ-6:</b> Tributyltin (TBT) Ban Requirements</li> </ul>
<b>WQ-7:</b> Degrade water quality as a result of cathodic protection on vessels.	<b>LTS</b>	No mitigation required
<b>WQ-8:</b> Degrade water quality as a result of storm water runoff from the Avon Terminal.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM WQ-8:</b> Update Existing Facility Stormwater Pollution Prevention Plan (SWPPP)</li> </ul>
<b>WQ-9:</b> Degrade water quality as a result of oil leaks and spills during unloading.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-1a, OS-1b, and OS-1c</b></li> <li>• No additional MMs available</li> </ul>
<b>WQ-10:</b> Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-4a and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>WQ-11:</b> Re-direct flood flows within the 100-year flood plain, or expose people, structures, or facilities to significant risk from flooding. (Less than significant.	<b>LTS</b>	No mitigation required
<b>WQ-12:</b> Degrade water quality as a result of discharges of firewater during fire system testing.	<b>LTS</b>	<u>No mitigation required.</u>
<b>WQ-132:</b> Degrade surface water quality as a result of onshore MOTEMS renovation.	<b>LTS</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs BIO-19a and BIO-19b</b></li> </ul>
<b>WQ-143:</b> Degrade groundwater quality as a result of onshore MOTEMS renovation activities.	<b>LTS</b>	No mitigation required

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
<b>WQ-154:</b> Degrade surface water quality as a result of offshore MOTEMS renovation activities.	<b>PS</b>	<ul style="list-style-type: none"> <li>• <b>MM WQ-154:</b> Utilize Local Construction Vessels</li> <li>• Refer also to <b>MMs BIO-17d and WQ-5</b></li> </ul>
<b>CUM WQ-1:</b> Cause contaminant impacts on San Francisco Bay Estuary water quality.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs BIO-9a, WQ-3, and WQ-5</b></li> <li>• No additional MMs available</li> </ul>
<b>CUM WQ-2:</b> Cause re-suspension of sediment.	<b>LTS</b>	No mitigation required
<b>CUM WQ-3:</b> Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-4a, and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>Section 4.4 Air Quality (AQ)</b>		
<b>AQ-1:</b> Conflict with or obstruct implementation of an applicable air quality plan, permit, or standard, or create an air quality violation.	<b>LTS</b>	No mitigation required
<b>AQ-2:</b> Result in a considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, including releasing emissions that exceed quantitative thresholds for ozone precursors.	<b>LTS</b>	No mitigation required
<b>AQ-3:</b> Expose sensitive receptors to substantial pollutant concentrations.	<b>LTS</b>	No mitigation required
<b>AQ-4:</b> Create objectionable odors affecting a substantial number of people.	<b>LTS</b>	No mitigation required
<b>Section 4.5 Greenhouse Gas Emissions and Climate Change (GHG)</b>		
<b>GHG-1:</b> Generate GHG emissions, but not in levels that would result in a significant cumulative impact on the environment.	<b>LTS</b>	No mitigation required
<b>GHG-2:</b> Generate GHG emissions, directly or indirectly, that conflict with an applicable plan, policy, or regulation adopted for the purposes of GHG reduction.	<b>LTS</b>	No mitigation required
<b>Section 4.6 Geology, Sediments, and Seismicity (GSS)</b>		
<b>GSS-1:</b> Expose people or structures to surface faulting and ground rupture, resulting in substantial structural damage and risk of injury or loss of life.	<b>LTS</b>	No mitigation required
<b>GSS-2:</b> Expose people or structures to strong ground shaking, slope instability, and/or seismically induced landslides causing substantial structural damage and	<b>LTS</b>	No mitigation required

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
risk of injury or loss of life.		
<b>GSS-3:</b> Expose people or structures to liquefaction and seismically induced settlement causing substantial structural damage and risk of injury or loss of life.	<b>LTS</b>	No mitigation required
<b>GSS-4:</b> Expose people or structures to the risk of loss, injury, or death as a result of tsunamis and/or seiches.	<b>LTS</b>	No mitigation required
<b>GSS-5:</b> Cause structural damage to the Avon Terminal due to an Increase in loading conditions, vessel size, or number of vessels calling.	<b>LTS</b>	No mitigation required
<b>GSS-6:</b> Cause substantial soil erosion or impact known mineral resources.	<b>LTS</b>	No mitigation required
<b>Section 4.7 Cultural Resources (CR)</b>		
<b>CR-1:</b> Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains.	<b>NI</b>	No mitigation required
<b>Section 4.8 Land-based Transportation (LT)</b>		
<b>LT-1:</b> Generate Project-related traffic that would cause LOS to drop below standards established by local jurisdictions; increase risk of accidents due to design elements of the project; generate significant parking demand; conflict with adopted policies, plans, or programs regarding land-based transportation; or substantially affect emergency response capabilities.	<b>LTS</b>	No mitigation required
<b>Section 4.9 Land Use and Recreation (LUR)</b>		
<b>LUR-1:</b> 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.	<b>LTS</b>	No mitigation required
<b>LUR-2:</b> 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.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>LUR-3:</b> 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.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>LUR-4:</b> Conflict with established or proposed land uses, including potentially sensitive land uses.	<b>LTS</b>	No mitigation required

Impact	Impact Class*	Recommended Mitigation Measures (MMs)
<b>Section 4.10 Noise (NO)</b>		
<b>NO-1:</b> Cause a violation of local noise ordinances or any other exceedance of applicable noise standards in regulations promulgated at the county, State, or federal level.	<b>LTS</b>	No mitigation required
<b>Section 4.11 Visual Resources, Light and Glare (VR)</b>		
<b>VR-1:</b> Create visual effects from continued routine operations over the 30-year lease period.	<b>LTS</b>	No mitigation required
<b>VR-2:</b> Create visual effects from accidental releases of oil at or near the Avon Terminal.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>VR-3:</b> Create visual effects from oil spills from vessels in transit.	<b>SU</b>	<ul style="list-style-type: none"> <li>• Refer to <b>MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b</b></li> <li>• No additional MMs available</li> </ul>
<b>VR-4:</b> Cause adverse impacts on a scenic vista or scenic highway.	<b>LTS</b>	No mitigation required
<b>VR-5:</b> Cause adverse impacts by contrasting with or degrading the character of the viewshed from MOTEMS renovation.	<b>LTS</b>	No mitigation required
<b>VR-6:</b> Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area (including views from land or water).	<b>LTS</b>	No mitigation required

\* Impact Classes: SU = Significant and unavoidable; PS = Potentially significant that is reduced to less than significant with mitigation; LTS = Less than significant; NI = No impact; B = Beneficial impact

## 1 Summary of Major Potential Impacts of the Project

2 Potential impacts associated with small oil leaks and spills at the Avon Terminal are  
3 addressed in part through compliance with the CSLC’s MOTEMS, which became  
4 effective on February 6, 2006. The standards apply to all existing and new marine oil  
5 terminals in California, and include criteria for inspection; structural analysis and design;  
6 mooring and berthing; geotechnical considerations (a seismic and structural  
7 assessment, based on current seismic criteria); and analysis and review of the fire,  
8 piping, mechanical, and electrical systems. MOTEMS require each terminal operator  
9 (such as Tesoro) to conduct audits and inspections to determine level of compliance  
10 and evaluate continuing fitness for purpose of the facility, and submit the results to the  
11 CSLC’s Marine Facilities Division for review and concurrence. Depending on the results,  
12 operators must then determine what actions are required, and provide a schedule for  
13 implementation of deficiency corrections and/or rehabilitation. The schedule must be  
14 mutually agreeable between the CSLC and the terminal operator.

1 The Avon Terminal is subject to MOTEMS, and Tesoro completed its initial MOTEMS  
2 audit of the Avon Terminal in March 2008, including comprehensive inspections and  
3 evaluations of the existing structural and non-structural facilities. The Avon Terminal  
4 was evaluated for compliance with MOTEMS again in March 2011. Based on Tesoro's  
5 findings some seismic structural strengthening, fire system upgrades, and structural and  
6 non-structural improvements were completed at the Avon Terminal between 2008 and  
7 2014. Completion of some of this work is reported in the 2013 MOTEMS Interim  
8 Update, Revision 5A, dated November 2013. These MOTEMS improvements are  
9 categorically exempt from CEQA, as specified in the State CEQA Guidelines section  
10 15301, subdivision (d) for repairs to existing facilities. The repairs were performed after  
11 the appropriate permits had been obtained, and with the review and concurrence of the  
12 CSLC. The proposed Project, which would be performed as the result of the 2008 and  
13 2011 MOTEMS audits, consists of renovations intended to bring the Avon Terminal into  
14 compliance with the most recent MOTEMS requirements.

15 Tesoro is required to continue to perform routine audits and inspections of the Avon  
16 Terminal in accordance with MOTEMS. Future actions to comply with MOTEMS audit  
17 and inspection findings may include physical changes to the Avon Terminal and  
18 associated lease area. Depending on the nature and extent of any such changes,  
19 additional discretionary review by the CSLC Marine Facilities Division and/or Land  
20 Management Division may be required. Such discretionary review may also trigger  
21 CEQA review of future actions. For more information regarding MOTEMS requirements  
22 and Avon Terminal compliance, see Section 2.0, Project Description.

23 Even with compliance with MOTEMS, moderate or large spills may originate from the  
24 Avon Terminal due to natural factors (e.g., earthquake and/or tsunami), human error  
25 (e.g., berth collision and/or bad hose connection), or from a vessel moored at the Avon  
26 Terminal or transiting the tanker lanes in the San Francisco Bay or along the outer  
27 coast. While the risk of moderate to large spills is small, the potential for impacts is  
28 significant for many environmental areas. The fate of spilled oil in the marine  
29 environment is determined by a variety of complex and interrelated physical, chemical,  
30 and biological transformations. Moderate to severe oil spills could result in impacts to  
31 water quality, biological resources, commercial and sport fisheries, shoreline land uses,  
32 shoreline and water recreational uses, and visual quality of surface water and  
33 shorelines.

34 Significant adverse impacts can also occur from releases of toxic algae or other harmful  
35 microorganisms in a vessel's ballast water. The introduction of invasive, non-native  
36 species via ship's ballast water has severely disturbed the aquatic communities of San  
37 Francisco Bay.

## 1 **COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES**

2 The State CEQA Guidelines (§ 15126.6, subd. (d)) require that an EIR include sufficient  
3 information about each alternative to allow meaningful evaluation, analysis, and  
4 comparison with the proposed Project. A matrix displaying the major characteristics and  
5 significant environmental effects of each alternative may be used to summarize the  
6 comparison. Table ES-2 provides a comparison of the proposed Project with each of the  
7 alternatives evaluated in this document, including the No Project alternative.

### 8 **Environmentally Superior Alternative**

9 State CEQA Guidelines section 15126.6, subdivision (e)(2) states:

10 The "no project" analysis shall discuss the existing conditions at the time the notice  
11 of preparation is published, or if no notice of preparation is published, at the time  
12 environmental analysis is commenced, as well as what would be reasonably  
13 expected to occur in the foreseeable future if the project were not approved, based  
14 on current plans and consistent with available infrastructure and community  
15 services. *If the environmentally superior alternative is the "no project" alternative, the*  
16 *EIR shall also identify an environmentally superior alternative among the other*  
17 *alternatives.* (Emphasis added.)

18 While the No Project alternative eliminates operational impacts associated with the  
19 Avon Terminal, implementation of the No Project alternative would shift similar levels of  
20 impact to other Bay Area marine oil terminals that would make up the differential for  
21 crude oil and product transport throughout the San Francisco Bay. By eliminating  
22 impacts of Avon Terminal operations at the Refinery, the No Project alternative appears  
23 to be environmentally superior, but actually has significant impacts to the operational  
24 viability of the Refinery without a method of crude oil and product transport, and to the  
25 remaining marine oil terminals. Hence, the No Project alternative would not meet the  
26 Project objective of maintaining existing transport levels of petroleum products for  
27 marketing through the upgraded Avon Terminal, thereby maintaining the operation and  
28 viability of Tesoro's associated Refinery, and would potentially transfer similar direct  
29 impacts to other Bay Area marine oil terminals. The capacity of other Bay Area  
30 terminals may be taxed, potentially increasing vessel congestion, collisions, and costs  
31 while vessels wait to berth and offload/load.

32 This alternative could also shift Tesoro's sources for export of product to land-based  
33 means of traditional crude oil transportation, such as a pipeline and/or rail, to absorb  
34 import operations from the Avon Terminal, resulting in potentially significant land-based  
35 impacts on operational safety/risk of accidents, water quality, land use/recreation, and  
36 visual resources due to the risk of spills, fire, or explosion. In addition, construction of  
37 pipelines and/or rail lines would potentially impact biological resources, cultural  
38 resources, land-based transportation, and noise.

1 The Restricted Lease Taking Avon Terminal Out of Service for Oil Transport alternative  
2 would also potentially shift similar levels of impact to other Bay Area marine oil  
3 terminals, and/or to land-based means of traditional crude oil transportation, such as  
4 pipeline and/or rail, to make up the differential for crude oil and product transport  
5 throughout San Francisco Bay Area. All potential impacts remain the same as for the  
6 No Project alternative.

7 Because both the No Project alternative and the Restricted Lease Taking Avon  
8 Terminal Out of Service for Oil Transport alternative move impacts from the Avon  
9 Terminal to the locations of other marine oil terminals, and have the added potential for  
10 land-based transportation-related spills, they represent a greater potential adverse  
11 environmental impact than the proposed Project.

12 For the reasons mentioned previously, both the No Project alternative and the  
13 Restricted Lease Taking Avon Terminal Out of Service for Oil Transport alternative are  
14 considered to represent a greater potential adverse environmental impact than the  
15 proposed Project. Therefore, the proposed Project is selected as the environmentally  
16 superior alternative.

17 The comparison between the proposed Project and alternatives is presented in Table  
18 ES-2.

## 19 **KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES**

20 There are no known areas of controversy surrounding the Project. No objections to the  
21 Project were raised during public scoping and no correspondence has been received  
22 challenging the Project or its potential environmental effects.

**Table ES-2: Summary of Environmental Impacts for Proposed Project and Alternatives**

**Impact Classes:**

SU = Significant and unavoidable

PS = Potentially significant that is reduced to less than significant with mitigation

LTS = Less than significant

NI = No impact

B= Beneficial Impact

N/A = Not Applicable; defined as either lack of relevance to the alternative, or because a given impact would be evaluated as part of a separate CEQA evaluation, as discussed in the EIR.

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
<b>Section 4.1 Operational Safety/Risk of Accidents</b>			
OS-1: Potential for spills and response capability for containment of oil spills from the Avon Terminal during continued operations.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>
OS-2: Potential for spills from Avon Terminal pipelines during non-transfer periods during continued operations.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>
OS-3: Potential for fires and explosions during continued operations, and response capability.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>
OS-4: Potential for spills and response capability for containment of oil spills for accidents in the San Francisco Bay and outer coast during continued operations.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>
OS-5: Potential for significant hazard to the public or environment as a result of being included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
OS-6: Potential for spills and response capability for containment of oil spills from the Avon Terminal during renovation.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
OS-7: Potential for spills during renovation from Avon Terminal pipelines during non-transfer periods during renovation.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>
OS-8: Potential for fires and explosions during renovation, and response capability.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
OS-9: Potential for spills and response capability for containment of oil spills for accidents in the San Francisco Bay and outer coast during renovation.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
OS-10/OS-11: Risk of spills, fire, or explosion from displaced product transit.	<b>N/A</b>	<b>SU</b>	<b>SU</b>
CUM-OS-1: Upset Conditions.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
<b>Section 4.2 Biological Resources</b>			
BIO-1: Cause substantial impact to special-status species or sensitive habitat due to increased fill area and bay cover.	<b>B</b>	<b>N/A</b>	<b>N/A</b>
BIO-2: Cause substantial impact to special-status species or sensitive habitat during operations due to marsh vegetation removal on either side of and below the approachway.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
BIO-3: Increase deposition or erosion of sensitive habitats along the vessel path, including marshlands within and adjacent to the lease area, resulting from the resuspension of sediments by calling vessels.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
BIO-4: Cause substantial impact to special-status wildlife species, including impact to behavior and the composition of biotic communities, in the vicinity of the Avon Terminal as a result of the use of bright lights during nighttime operations.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
BIO-5: Cause substantial direct and/or indirect impacts on aquatic biota through the changing of physical and chemical environmental factors as a result of maintenance dredging.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
BIO-6: Cause injury or behavioral interruptions to aquatic species as a result of noise from vessels.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
BIO-7: Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of minor fuel, lubricant, and/or boat-related spills.	<b>LTS</b>	<b>N/A</b>	<b>N/A</b>
BIO-8: Cause impacts to the San Francisco Bay Estuary and associated aquatic biota as a result of major fuel, lubricant, and/or boat-related spills.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>
BIO-9: Introduce invasive nonindigenous aquatic species to the San Francisco Bay Estuary.	<b>SU</b>	<b>N/A</b>	<b>N/A</b>
BIO-10: Cause substantial temporary impacts to special-status species due to MOTEMS renovation activity.	<b>PS</b>	<b>N/A</b>	<b>N/A</b>
BIO-11: Cause disturbance or loss of special-status fish.	<b>PS</b>	<b>N/A</b>	<b>N/A</b>
BIO-12: Cause disturbance or loss of special-status plant populations.	<b>PS</b>	<b>N/A</b>	<b>N/A</b>
BIO-13: Cause disturbance of nesting migratory birds and raptors.	<b>PS</b>	<b>N/A</b>	<b>N/A</b>

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
BIO-14: Cause disturbance of California clapper rail and California black rail and habitat.	PS	N/A	N/A
BIO-15: Cause disturbance of salt marsh harvest mouse and Suisun shrew and habitat.	PS	N/A	N/A
BIO-16: Cause disturbance to marine mammals.	PS	N/A	N/A
BIO-17: Cause substantial impact to special-status species or sensitive habitat due to degradation of water quality.	PS	N/A	N/A
BIO-18: Cause substantial impact to special-status species or sensitive habitat due to increased sound levels from MOTEMS renovation.	PS	N/A	N/A
BIO-19: Cause substantial impact to wetlands and other waters of the United States and waters of the State.	PS	N/A	N/A
BIO-20: Cause substantial impact to Essential Fish Habitat (EFH) due to renovation of new and replacement overwater structures.	PS	N/A	N/A
BIO-21: Isolate wildlife populations and/or disrupt wildlife migratory or movement corridors, or use of native wildlife nursery sites.	PS	N/A	N/A
BIO-22: Conflict with any local policies or ordinances protecting biological resources or provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	LTS	N/A	N/A
BIO-23: Cause impacts to the San Francisco Bay Estuary and associated biota resulting from the decommissioning and abandoning in place of existing structures.	N/A	SU	N/A
BIO-24: Cause impacts to the San Francisco Bay Estuary and associated biota resulting from the partial or complete removal of Avon Terminal structures.	N/A	PS	N/A
BIO-25: Cause impacts to the San Francisco Bay Estuary and associated biota by decommissioning and removing the Avon Terminal and shifting import and refined crude oil exports to the Amorco Terminal, overland transport, or some combination of these.	N/A	SU	N/A
BIO-26: Cause impacts to the San Francisco Bay Estuary and associated biota by using the Avon Terminal for other purposes and shifting imports and refined crude oil exports to the Amorco Terminal or overland transport.	N/A	N/A	SU

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
CUM-BIO-1: Cause cumulative adverse impacts to special-status species, biotic communities, and habitat through vessel resuspension of sediment, use of bright nighttime lights, routine dredging, shipping noise, and potential minor oil spills as a result of Avon Terminal operations.	LTS	N/A	N/A
CUM-BIO-2: Cause cumulative impacts to San Francisco Bay Estuary and associated biota from oil spills from all marine oil terminals combined, or from all tankering combined.	SU	N/A	N/A
CUM-BIO-3: Cause cumulative impacts by increasing the risk of introduction of nonindigenous aquatic species from vessel traffic to San Francisco Bay.	SU	N/A	N/A
CUM-BIO-4: Cause cumulative impacts to the biota of the San Francisco Bay Estuary resulting from degradation of water quality from vessels visiting the Avon Terminal that are coated with antifouling paints.	LTS	N/A	N/A
CUM-BIO-5: Cause cumulative adverse impacts to special-status species, biotic communities, and habitat through MOTEMS renovation and replacement of Avon Terminal structures.	PS	N/A	N/A
<b>Section 4.3 Water Quality</b>			
WQ-1: Degrade surface water quality as a result of maintenance dredging.	LTS	N/A	N/A
WQ-2: Degrade water quality as a result of sediment disturbance from vessel maneuvers.	LTS	N/A	N/A
WQ-3: Degrade water quality by the discharge of segregated ballast water.	SU	N/A	N/A
WQ-4: Degrade water quality as a result of discharge of cooling water, sanitary wastewater, bilge water, non-segregated ballast water, or other liquid wastes.	LTS	N/A	N/A
WQ-5: Degrade water quality as a result of vessel biofouling.	SU	N/A	N/A
WQ-6: Degrade water quality due to anti-fouling paints used on vessel hulls.	PS	N/A	N/A
WQ-7: Degrade water quality as a result of cathodic protection on vessels.	LTS	N/A	N/A
WQ-8: Degrade water quality as a result of stormwater runoff from the Avon Terminal.	PS	N/A	N/A
WQ-9: Degrade water quality as a result of oil leaks and spills during unloading.	SU	N/A	N/A

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
WQ-10: Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast.	<b>SU</b>	N/A	N/A
WQ-11: Re-direct flood flows within the 100-year flood plain, or expose people, structures, or facilities to significant risk from flooding.	LTS	N/A	N/A
WQ-12: Degrade water quality as a result of discharges of firewater during fire system testing.	LTS	N/A	N/A
WQ-132: Degrade surface water quality as a result of onshore MOTEMS renovation activities.	PS	N/A	N/A
WQ-143: Degrade groundwater quality as a result of onshore MOTEMS renovation activities.	LTS	N/A	N/A
WQ-154: Degrade surface water quality as a result of offshore MOTEMS renovation activities.	PS	N/A	N/A
WQ-165: Degrade water quality during decommissioning of the Avon Terminal.	N/A	LTS	LTS
WQ-176/WQ-198: Degrade water quality due to accidental spills from rail cars, trucks, and/or pipelines.	N/A	<b>SU</b>	<b>SU</b>
WQ-187/WQ-2049: Degrade water quality due to stormwater runoff during construction.	N/A	LTS	LTS
CUM WQ-1: Cause contaminant impacts on San Francisco Bay Estuary water quality.	<b>SU</b>	N/A	N/A
CUM WQ-2: Cause re-suspension of sediment.	LTS	N/A	N/A
CUM WQ-3: Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast.	<b>SU</b>	N/A	N/A
<b>Section 4.4 Air Quality</b>			
AQ-1: Conflict with or obstruct implementation of an applicable air quality plan, permit, or standard, or create an air quality violation.	LTS	N/A	N/A
AQ-2: Result in a considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, including releasing emissions that exceed quantitative thresholds for ozone precursors.	LTS	N/A	N/A

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
AQ-3: Expose sensitive receptors to substantial pollutant concentrations.	LTS	N/A	N/A
AQ-4: Create objectionable odors affecting a substantial number of people.	LTS	N/A	N/A
AQ-5: Impact air quality during activities associated with decommissioning.	N/A	LTS	N/A
AQ-6/AQ-7: Create air quality impacts by the transfer of operations to other Bay Area terminals and/or land based alternatives such as railcar or trucking.	N/A	PS	PS
<b>Section 4.5 Climate Change and Greenhouse Gas Emissions</b>			
GHG-1: Generate GHG emissions, but not in levels that would result in a significant cumulative impact on the environment.	LTS	N/A	N/A
GHG-2: Generate GHG emissions, either directly or indirectly, that conflict with an applicable plan, policy, or regulation adopted for the purposes of GHG reduction.	LTS	N/A	N/A
GHG-3: Generate significant greenhouse gas emissions from heavy equipment associated with decommissioning.	N/A	LTS	N/A
GHG-4/GHG-5: Generate significant greenhouse gas emissions from the transfer of operations to other Bay Area terminals and/or land based alternatives such as railcar or trucking.	N/A	PS	PS
<b>Section 4.6 Geology, Sediments, and Seismicity</b>			
GSS-1: Expose people or structures to surface faulting and ground rupture, resulting in substantial structural damage and risk of injury or loss of life	LTS	N/A	N/A
GSS-2: Expose people or structures to strong ground shaking, slope instability, and/or seismically induced landslides causing substantial structural damage and risk of injury or loss of life.	LTS	N/A	N/A
GSS-3: Expose people or structures to liquefaction and seismically induced settlement causing substantial structural damage and risk of injury or loss of life.	LTS	N/A	N/A
GSS-4: Expose people or structures to the risk of loss, injury, or death as a result of tsunamis and/or seiches.	LTS	N/A	N/A
GSS-5: Cause structural damage to the Avon Terminal due to an increase in loading conditions, vessel size, or number of vessels calling.	LTS	N/A	N/A
GSS-6: Cause substantial soil erosion or impact known mineral resources.	LTS	N/A	N/A
GSS-7: Elimination of long-term potential for structural damage.	N/A	B	B

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
GSS-8/GSS-11: Potential to cause substantial soil erosion or impact a known mineral resource.	N/A	LTS	LTS
GSS-9/GSS-12: Potential to cause damage and/or failure to pipelines as a result of a seismic event.	N/A	LTS	LTS
GSS-10: Expose people or structures to seismically induced ground shaking, slope instability, landslides, liquefaction, settlement, or tsunamis/ seiches, causing substantial structural damage and risk of injury or loss of life.	N/A	N/A	PS
<b>Section 4.7 Cultural Resources</b>			
CR-1/CR-2/CR-3: Have the potential to disturb previously unrecorded historical, archaeological, or paleontological resources, and human remains.	NI	PS	NI
<b>Section 4.8 Land-based Transportation</b>			
LT-1: Generate project-related traffic that would cause LOS to drop below standards established by local jurisdictions; increase risk of accidents due to design elements of the project; generate significant parking demand; conflict with adopted policies, plans, or programs regarding land-based transportation; or substantially affect emergency response capabilities.	LTS	N/A	N/A
LT-2: Generate traffic resulting from the dismantling of existing structures.	N/A	LTS	N/A
LT-3/LT-4: Construction of pipeline or rail improvements could increase traffic substantially in relation to existing traffic load and capacity of the street system.	N/A	PS	PS
<b>Section 4.9 Land Use and Recreation</b>			
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.	LTS	N/A	N/A
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.	SU	N/A	N/A
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.	SU	N/A	N/A
LUR-4: Conflict with established or proposed land uses, including potentially sensitive land uses.	LTS	N/A	N/A

Impact	Impact Class		
	Proposed Project	No Project	Restricted Lease Taking Avon Terminal Out of Service for Oil Transport
LUR-5/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.	N/A	B	B
LUR-6/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.	N/A	SU	SU
<b>Section 4.10 Noise</b>			
NO-1: Cause a violation of local noise ordinances or any other exceedance of applicable noise standards in regulations promulgated at the county, State, or federal level.	LTS	N/A	N/A
NO-2: Effects on noise with no new Avon Terminal lease.	N/A	LTS	N/A
NO-3: Effects on noise by transferring product using non-marine sources.	N/A	PS	N/A
NO-4: Effects on noise by taking Avon Terminal out of service for oil transport.	N/A	N/A	B
<b>Section 4.11 Visual Resources, Light, and Glare</b>			
VR-1: Create visual effects from continued routine operations over the 30-year lease period.	LTS	N/A	N/A
VR-2: Create visual effects from accidental releases of oil at or near the Avon Terminal.	SU	N/A	N/A
VR-3: Create visual effects from oil spills from vessels in transit.	SU	N/A	N/A
VR-4: Cause adverse impacts on a scenic vista or scenic highway.	LTS	N/A	N/A
VR-5: Cause adverse impacts by contrasting with or degrading the character of the viewshed from MOTEMS renovation.	LTS	N/A	N/A
VR-6: Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area (including views from land or water).	LTS	N/A	N/A
VR-7: Effects on visual resources with no new Avon Terminal lease.	N/A	B	N/A
VR-8: Effects on visual resources by taking Avon Terminal out of service for oil transport.	N/A	N/A	LTS

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