CALENDAR ITEM
02

A 14 03/20/15
PRC 3454.1
K. Foster
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CONSIDER CERTIFICATION OF A FINAL ENVIRONMENTAL IMPACT REPORT AND ISSUANCE OF A GENERAL LEASE – INDUSTRIAL USE

APPLICANT:
Tesoro Refining & Marketing Company LLC
150 Solano Way
Martinez, CA 94553

AREA, LAND TYPE, AND LOCATION:
15.42 acres, more or less, of sovereign land in the Carquinez Strait near the city of Martinez, Contra Costa County.

AUTHORIZED USE:
The continued operation and maintenance of an existing marine oil terminal wharf in the Carquinez Strait; for periodic maintenance dredging; and for Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) compliance-related renovations.

LEASE TERM:
30 years, beginning January 1, 2015.

CONSIDERATION:
Parcel #1 and Parcel #2 (marine oil terminal): Initial Base Rent of $302,263; with an annual Consumer Price Index (CPI) adjustment, provided that the Adjusted Annual Rent will never be lower than the Base Rent then in effect; and the State reserving the right to fix a different Base Rent on the 10th and 20th anniversaries of the lease term, as provided in the lease.

Parcel #3 (osprey nesting site): The public benefit, with the State reserving the right at any time to set a monetary rent should the Commission find such action to be in the State's best interests.

SPECIFIC LEASE PROVISIONS:

Crude Oil Transfers: Lessee agrees that no loading or unloading of crude oil to or from a tank vessel or barge over, through, or across the Lease Premises shall be conducted unless and until such activity is expressly authorized in writing by the Commission.

Insurance: In an amount not less than $10,000,000 per occurrence, with the State reserving the right at any time to require an increase in the amount of liability insurance to reflect economic inflation and to cover any additionally authorized improvements or alterations; Lessee may satisfy all or part of the insurance requirements through maintenance of a staff-approved self-insurance program as specified in the Lease.

Performance Deposit: $2,000,000; with the State reserving the right at any time to require an increase in the performance deposit amount to reflect economic inflation or to cover any additionally authorized improvements, alterations, or purposes or any modification of rental.

Dredging: Maintenance dredging may occur a maximum of once every five years, and is limited by specific time restraints and all other conditions as imposed by regulatory agencies having jurisdiction regarding this matter; if dredging is required for safe navigation or operations of the terminal, dredging may occur more often upon the written consent of Commission staff; dredged material shall be disposed of at any U.S. Environmental Protection Agency approved Carquinez Strait site or at any onshore disposal site fully authorized by all governmental entities having jurisdiction; dredged material may not be sold.

Completion of Berth 5 Demolition: Lessee agrees to apply to the Commission to amend this lease upon completion of the Berth 5 decommissioning project to remove the Berth 5 lease area described in Exhibit A and shown on Exhibit B as Parcel #2, and to either: 1) Provide a quitclaim for Parcel #2, if all improvements associated with Berth 5 are entirely removed to Commission staff's satisfaction; or 2) Enter into an Abandonment Agreement with the Commission if all improvements associated with Berth 5 are not removed in their entirety.

BACKGROUND:

Since 1925, various oil companies have operated the wharf that is the subject of this lease, known today as the Avon marine oil terminal (Avon terminal), for the transfer of petroleum products at the subject site adjacent to an upland refinery in Martinez. Lease No. PRC 3454.1 a General Lease – Industrial Use to Tidewater Associated Oil Company (Tidewater), was authorized by the Commission beginning July 26, 1964 for a 15-year period with three (3) renewal option periods of 10 years each.

In addition to Tidewater, the following companies have been under lease for terminal operations since the Commission authorized the Lease in 1964: Phillips Petroleum Company, by assignment effective July 15, 1966; Lion Oil Company, by assignment effective March 31, 1976; Tosco Corporation by merger effective January 30, 1978; Ultramar Incorporated, by assignment effective April 24, 2001; & Tesoro Refining and Marketing Company, by assignment effective May 17, 2002. On January 3, 2013, Tesoro Refining and Marketing Company changed its name to Tesoro Refining & Marketing Company LLC (Tesoro).

The Avon terminal serves primarily to export petroleum products refined at the upland Golden Eagle Refinery. Refined petroleum product exports represent approximately 90 percent of current terminal throughput. The remaining 10 percent of throughput, imported infrequently and as needed, is comprised of refinery decant oil feed stock imports, transferred via pipeline from tank vessels to upland storage tanks before being transferred to the refinery process units. Crude oil is not transferred through the Avon terminal; Tesoro imports crude oil through its nearby Amorco marine oil terminal, which is not a part of the proposed Project.

The Avon terminal Lease expired on December 31, 2009, and has been in holdover status pending the processing of Tesoro's application for a new lease and the preparation of an Environmental Impact Report (EIR) for ongoing operations at the facility, and for MOTEMS compliance-related construction and renovations. Annual rent for Tesoro's use of the lease area presently associated with the terminal was revised by the Commission effective in 2012 and is current while the Lease remains in holdover status, pending application processing and the EIR preparation process. If a new lease is approved by the Commission, annual rent would increase to reflect a larger lease area.

PROPOSED PROJECT:

The proposed Project involves Tesoro entering into a new 30-year lease of State sovereign land with the Commission to continue operating the Avon terminal. The objective for the Project is to continue operations at, and maintain the level of refined petroleum product exported through the existing Avon terminal, thereby maintaining the operation and viability of Tesoro's associated Golden Eagle Refinery. Tesoro is also proposing renovations to the Avon terminal to meet MOTEMS requirements.

The scope of the proposed construction and renovations described and analyzed in the EIR includes: construction of a new berthing area to be designated as Berth 1A; decommissioning of existing Berth 1; renovation of the existing approachway; and demolition and removal of existing Berth 5. The existing Berth 1 is located on the eastern end of the existing terminal, with Berth 1A to be

installed immediately upstream (east), in what is currently open water. Existing Berth 5 is located on the western end of the terminal and is currently inactive. Berth 5 harbors an osprey nesting site which will be lost when the structure is demolished. As a mitigation measure, Tesoro will be constructing a nesting platform nearby to replace the lost nesting site.

The proposed new lease area is divided into three parcels, as follows:

- Parcel #1 encompasses the primary terminal area consisting of the existing Berth 1 and the approachway or trestle, the proposed Berth 1A site, and a water area occupied by vessels moored at the terminal during product transfer operations.
- Parcel #2 encompasses Berth 5.
- Parcel #3 encompasses the new osprey nesting platform.

The Avon terminal is currently seismically deficient under MOTEMS. The proposed renovations and the construction of Berth 1A are intended to address this deficiency and bring the terminal into compliance. Tesoro has committed to the Commission to complete the seismic retrofit and MOTEMS work at the Avon terminal by June 1, 2017. Mitigation measures that would be adopted by the Commission and included as provisions of the proposed new lease would also reduce the risk of oil spills occurring at the Avon terminal. When the MOTEMS work is completed and mitigation measures are implemented at the terminal, the worst-case discharge spill potential will drop by 41 percent, thereby reducing the potential severity of oil spills.

To meet the 2017 deadline, Tesoro must begin in-water work at the Avon Terminal in 2015, during the August 1 to November 30 work window specified by the National Marine Fisheries Service and California Department of Fish and Wildlife. If delays in the permitting process cause Tesoro to miss the 2015 work window, in-water work could not start until August 1, 2016, and project completion would be delayed by at least a year. Therefore, the benefits derived from project implementation — the reduced potential and severity of an oil spill, and consequently, increased protection to California's waters and natural resources — would also be delayed by at least a year.

ENVIRONMENTAL IMPACT REPORT:

Commission staff prepared an EIR for the proposed Project in compliance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (Pub. Resources Code § 21000 et seq. and Cal. Code of Regs., tit. 14, § 15000 et seq., respectively). The EIR examines the potential impacts of the proposed Project.

On September 26, 2014, Commission staff filed a Notice of Availability with the State Clearinghouse and circulated a Draft EIR for a 45-day public comment period, from September 29, 2014 through November 13, 2014. This Final EIR was released and made available on January 30, 2015 (http://www.slc.ca.gov/Division_Pages/DEPM/Reports/Avon/Avon.html).

During the Draft EIR public review period Commission staff received comments on the proposed Project from governmental agencies, environmental organizations, business entities, a law firm, and individuals. During a public hearing held on the proposed Project at the Martinez City Hall, five individual speakers submitted oral comments. Staff received 18 written sets of comments, of which 10 were in support of the proposed Project. Of the substantive comments that were raised, many had recurring themes relating to the proposed Project including:

- The use of a 10-year historical average of vessel calls for Project baseline;
- Oil spill frequency and severity calculations;
- The exclusion of the upland Golden Eagle Refinery and onshore tankage from the Project scope;
- The No Project alternatives analysis;
- Analysis of Crude Importation; and
- Avon terminal oil spill response capability.

Responses to these recurring comments are included in master responses in Part II of the Final EIR (http://www.slc.ca.gov/Division_Pages/DEPM/Reports/Avon/PDF/RTC_1.pdf). The Final EIR also provides responses to all other comments received on the Draft EIR.

Summary of Environmental Impacts:

As analyzed in the EIR, the proposed Project would generate potentially significant environmental impacts associated with the following issue areas:

- Operational Safety/Risk of Accidents
- Biological Resources
- Water Quality
- Land Use and Recreation
- Visual Resources, Light and Glare
- Commercial and Sport Fisheries

With the implementation of mitigation measures specified in the Final EIR, certain impacts related to normal operations and the MOTEMS compliance renovations

would be reduced to *Less than Significant*, but several impacts would remain *Significant and Unavoidable* even after all appropriate and feasible mitigation measures are applied. Specifically, the proposed Project is expected to have *Significant and Unavoidable* impacts associated with the following:

- Operational Safety/Risk of Accidents
- Biological Resources
- Water Quality
- Land Use and Recreation
- Visual Resources, Light and Glare

The *Significant and Unavoidable* impacts are mostly attributed to the inherent risk of oil spills from the proposed Project. These impacts related to oil spills would not arise from the normal operation and functioning of the Avon terminal, but would arise from an accident resulting in a major discharge of oil into marine waters from either the Avon terminal or a tank vessel transiting to/from the terminal. The Final EIR discusses spill response measures and structural improvements through the MOTEMS renovations that would lower the probability for such major accidental discharges to occur over current operations.

Certain *Significant and Unavoidable* Biological Resource and Water Quality impacts relate to marine nonindigenous aquatic species introduction through tank vessel ballast water and hull fouling vectors. Regulations promulgated and enforced by the Commission's Marine Invasive Species Program, along with certain mitigation measures would reduce the potential impact of nonindigenous aquatic species introduction.

OTHER PERTINENT INFORMATION:

1. Applicant owns the upland adjoining the lease premises.

2. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15025), the staff has prepared an EIR identified as California State Lands Commission (CSLC) EIR No. 761, State Clearinghouse No. 2014042013. Such EIR was prepared and circulated for public review in compliance with the provisions of CEQA. A Mitigation Monitoring Program has been prepared in conformance with the provisions of CEQA (Pub. Resources Code, § 21081.6), and is contained in Exhibit C, attached hereto.

3. Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15091) are contained in Exhibit D, attached hereto.

4. A Statement of Overriding Considerations made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15093) is contained in Exhibit D, attached hereto.

5. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon the staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the Project, as proposed, is consistent with its use classification.

EXHIBITS:

A. Land Description
B. Site and Location Map
C. Mitigation Monitoring Program
D. CEQA Findings and Statement of Overriding Considerations

RECOMMENDED ACTION:
It is recommended that the Commission:

CEQA FINDINGS:

1. Certify that CSLC EIR No. 761, State Clearinghouse No. 2014042013, was prepared for this Project in compliance with the provisions of CEQA, that the Commission has reviewed and considered the information contained therein and in the comments received in response thereto and that the EIR reflects the Commission's independent judgment and analysis.

2. Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

3. Adopt the Findings, made in conformance with California Code of Regulations, Title 14, section 15091, as contained in Exhibit D, attached hereto.

4. Adopt the Statement of Overriding Considerations made in conformance with California Code of Regulations, Title 14, section 15093, as contained in Exhibit D, attached hereto.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code sections 6370 et seq.

AUTHORIZATION:

Authorize issuance of a General Lease – Industrial Use to Tesoro Refining & Marketing Company LLC beginning January 1, 2015, for a term of 30 years, for the continued operation and maintenance of existing marine oil terminal facilities, and for MOTEMS compliance-related construction and renovations as described in Exhibit A, and as shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof; maintenance dredging a maximum of once every five years subject to compliance with all applicable permits, recommendations, or limitations of all regulatory agencies having jurisdiction over such activity; if dredging is required for safe navigation or operations of the terminal, dredging may occur more often upon the written consent of Commission staff; Consideration for Parcel #1 and Parcel #2: Initial Base Rent of $302,263 with an annual Consumer Price Index adjustment, as provided in the lease provided that the adjusted Annual Rent will never be lower than the Base Rent then in effect; and the State reserving the right to fix a different rent on the 10th and 20th anniversaries of the lease term, as provided in the lease; consideration for Parcel #3 is the public benefit, with the State reserving the right at any time to set a monetary rent should the Commission find such action to be in the State's best interests; insurance in an amount not less than $10,000,000 per occurrence, with the State reserving the right at any time to require an increase in the amount of liability insurance to reflect economic inflation and to cover any additionally authorized improvements or alterations; Lessee may satisfy all or part of the insurance requirements through maintenance of a staff-approved self-insurance program as outlined in the Lease; performance deposit of $2,000,000 with the State reserving the right at any time to require an increase in the amount of the performance deposit to reflect economic inflation or to cover any additionally authorized improvements, alterations, or purposes or any modification of rental as provided in the Lease.

EXHIBIT A

PRC 3454.1

LAND DESCRIPTION

Three (3) parcels of tide and submerged land, whether filled or unfilled in the bed of Suisun Bay, Contra Costa County, California, more particularly described as follows:

PARCEL 1 (Main Facilities)

BEGINNING at a point from which a brass cap stamped "California State Lands Commission – LANDS ENDS – 1947" being an NGS Monument (PID JT2023) having CCS83, Zone 3 coordinates North(y)=2206332.03 feet, East(x)=6105166.32 feet bears South 41°30'43" East 559.77 feet; thence along the following fourteen (14) courses:

1) South 72°06'25" West 104.12 feet;
2) North 34°04'15" West 1530.50 feet;
3) South 57°05'42" West 30.01 feet;
4) North 34°04'15" West 285.73 feet;
5) South 70°30'45" West 497.49 feet to hereafter referred to "Point A";
6) North 19°29'15" West 330.00 feet;
7) North 70°30'45" East 1160.00 feet;
8) South 19°29'15" East 330.00 feet;
9) South 70°30'45" West 400.00 feet;
10) South 19°29'15" East 51.29 feet;
11) South 70°03'17" West 93.99 feet;
12) South 34°04'15" East 231.74 feet;
13) South 55°55'45" West 20.00 feet;
14) South 34°04'15" East 1521.31 feet to the POINT OF BEGINNING.

PARCEL 2 (Berth 5)

BEGINNING at the above described "Point A" thence South 70°30'45" West 384.00 feet; thence North 19°29'15" West 230.00 feet; thence North 70°30'45" East 384.00 feet; thence South 19°29'15" East 230.00 feet to the POINT OF BEGINNING.

PARCEL 3 (Osprey Nesting Site)

A circular parcel having a radius of 50 feet whose center bears South 20°05'01" East 1162.27 feet from the above described "Point A".

EXCEPTING THEREFROM any validly patented tidelands.

BASIS OF BEARING is CCS83, Zone3 (Epoch 1991.35).

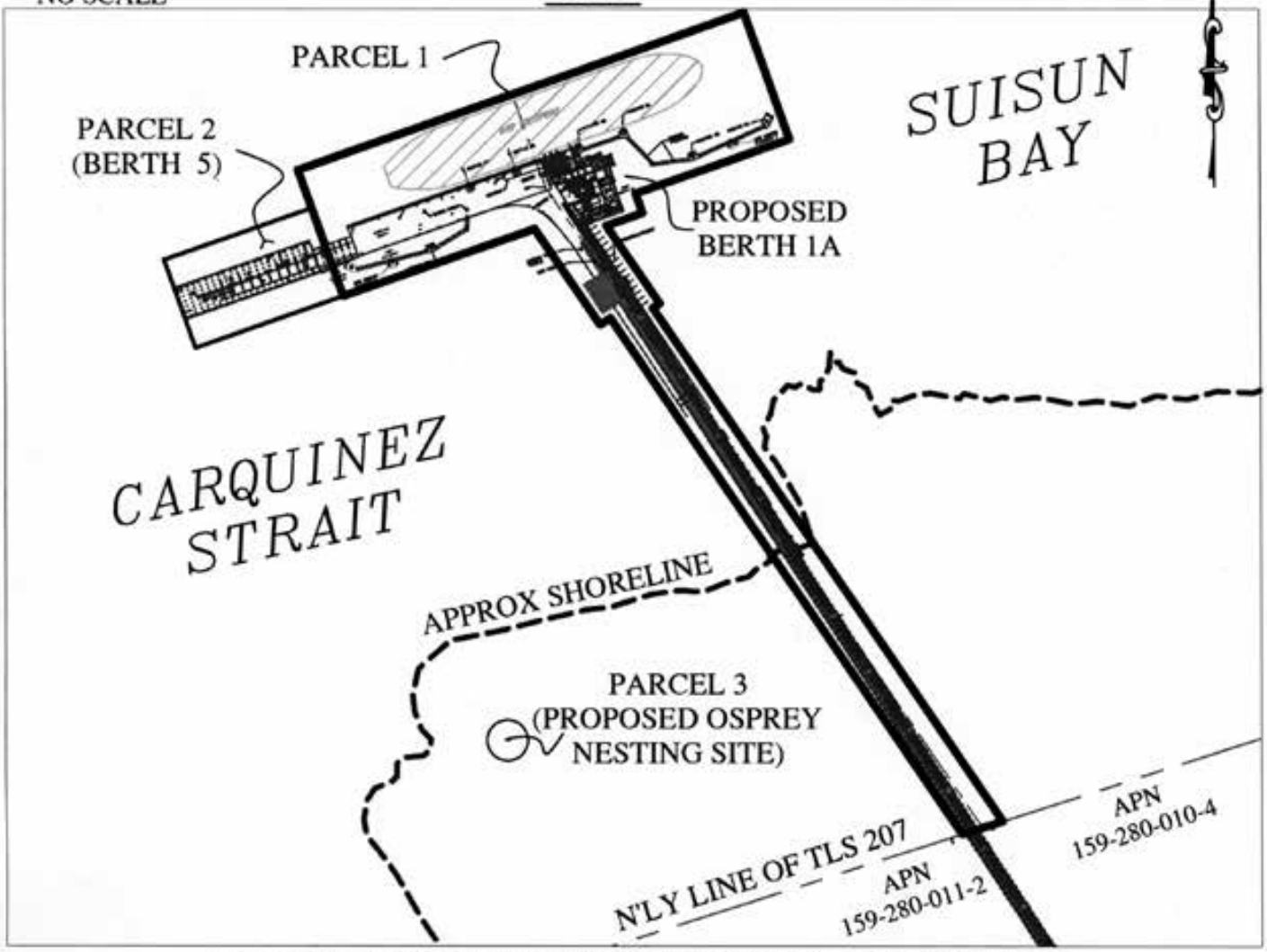
END OF DESCRIPTION

This description is based on applicant provided plans for the removal, remodel, and addition of facilities covering the above 3 parcels. This description is to be updated once final as-built plans are submitted.

Prepared 2/09/15 by the California State Lands Commission Boundary Unit

NO SCALE

SITE



Avon Wharf, Carquinez Strait & Suisun Bay near Martinez

NO SCALE

LOCATION

MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Exhibit B

PRC 3454.1
TESORO AVON MOT
APN 159-280-010-4,-011-2
GENERAL LEASE -
INDUSTRIAL USE
CONTRA COSTA COUNTY

MJF 2/09/15

EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM

Tesoro Avon Marine Oil Terminal Lease Consideration Project
(State Clearinghouse No. 2014042013)

The California State Lands Commission (CSLC) is the lead agency under the California Environmental Quality Act (CEQA) for the **Tesoro Avon Marine Oil Terminal Lease Consideration Project (Project)**. In conjunction with approval of this Project, the CSLC adopts this Mitigation Monitoring Program (MMP) for implementation of mitigation measures (MMs) for the Project to comply with Public Resources Code section 21081.6, subdivision (a) and State CEQA Guidelines sections 15091, subdivision (d), and 15097.

The Project authorizes Tesoro Refining and Marketing Company, LLC (Tesoro or Applicant) to allow the Avon Marine Oil Terminal (Avon Terminal) to continue operations in accordance with the terms and conditions of CSLC Lease No. PRC 3454.1, a 30-year General Lease-Industrial Use.

PURPOSE

It is important that significant impacts from the Project are mitigated to the maximum extent feasible. The purpose of a MMP is to ensure compliance and implementation of MMs; this MMP shall be used as a working guide for implementation, monitoring, and reporting for the Project's MMs.

ENFORCEMENT AND COMPLIANCE

The CSLC is responsible for enforcing this MMP. Tesoro is responsible for the successful implementation of and compliance with the MMs identified in this MMP. This includes all field personnel and contractors working for Tesoro.

MONITORING

The CSLC staff may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as necessary. Some monitoring responsibilities may be assumed by other agencies, such as affected jurisdictions, cities, and/or the California Department of Fish and Wildlife (CDFW). The CSLC and/or its designee shall ensure that qualified environmental monitors are assigned to the Project.

Environmental Monitors**.** To ensure implementation and success of the MMs, an environmental monitor will be notified of all Project activities that have the potential to create significant environmental impacts or impacts for which mitigation is required. Along with the CSLC staff, the environmental monitor(s) are responsible for:

- Ensuring that the Applicant has obtained all applicable agency reviews and approvals;

- Coordinating with the Applicant to integrate the mitigation monitoring procedures during Project implementation (for this Project, many of the monitoring procedures shall be conducted during the renovation phase); and
- Ensuring that the MMP is followed.

The environmental monitor shall immediately report any deviation from the procedures identified in this MMP to the CSLC staff or its designee. The CSLC staff or its designee shall approve any deviation and its correction.

Workforce Personnel**.** Implementation of the MMP requires the full cooperation of Project personnel and supervisors. Many of the MMs require action from site supervisors and their crews. In addition, to ensure successful implementation, all applicable relevant mitigation procedures shall be written into contracts between the Applicant and any contractors.

General Reporting Procedures**.** A monitoring record form shall be submitted to the Applicant, and once the Project is complete, a compilation of all the logs shall be submitted to the CSLC staff. The CSLC staff or its designated environmental monitor shall develop a checklist to track all procedures required for each MM and shall ensure that the timing specified for the procedures is followed. The environmental monitor shall note any issues that may occur and take appropriate action to resolve them.

Public Access to Records. Monitoring records and reports are public documents.

MITIGATION MONITORING TABLE

This section presents the mitigation monitoring table for the following environmental disciplines: Operational Safety/Risk of Accidents; Biological Resources; Water Quality; Land Use and Recreation; and Visual Resources, Light and Glare. All other environmental disciplines were found to have less than significant or no impacts and are therefore not included below. The table lists the following information, by column:

- Impact (impact number, title, and impact class);
- Mitigation measure (full text of the measure);
- Monitoring/reporting action (action to be taken by monitor or Lead Agency);
- Effectiveness criteria (how the agency can know if the measure is effective);
- Responsible agency; and
- Timing (before, during, or after construction; during operation, etc.).

Table C-1: Mitigation Monitoring Program

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Operational Safety/Risk of Accidents					
OS-1: Potential for spills and response capability for containment of oil spills from the Avon Terminal during continued operations. (Significant and unavoidable.)	**OS-1a: Remote Release Systems**. Tesoro Refining and Marketing Company, LLC (Tesoro) shall install remote release systems to allow a vessel to leave the Avon Terminal as quickly as possible in the event of an emergency (fire, explosion, accident, or tsunami) that could lead to a spill. Tesoro shall provide and maintain mooring line quick-release devices that shall be able to be activated within 60 seconds. These devices shall be capable of being engaged by an electric/push-button release mechanism and by an integrated remotely operated release system. • Tesoro shall document procedures and training for systems use and communications between Avon Terminal and the vessel operator(s). • Routine inspection, testing, and maintenance of all equipment and systems shall be conducted in accordance with manufacturers' recommendations and necessity and shall be required to ensure safety and reliability, to the satisfaction of California State Lands Commission (CSLC) staff. • Tesoro may install alternate technology that provides an equivalent level of protection, as reviewed by CSLC staff and approved by the Commission at a publicly noticed meeting.	CSLC monitor to observe properly provided and maintained devices and periodically monitor procedures and training for systems use.	Would allow a vessel to leave the Avon Terminal as quickly as possible in the event of an emergency that could lead to a spill or impact the Avon Terminal or the vessel.	CSLC	Within 24 months of lease implementation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	OS-1b: Tension Monitoring Systems. Tesoro Refining and Marketing Company, LLC (Tesoro) shall provide and maintain tension monitoring systems to effectively monitor all mooring line and environmental loads, and avoid excessive tension or slack-line conditions that could result in damage to the Avon Terminal structure or equipment, and/or vessel mooring line failures that could result in spills. • Line tensions and environmental data shall be integrated into systems that record and relay all critical data in real time to the control room, Avon Terminal operator(s), and vessel operator(s). • This system shall include, but not be limited to, quick-release hooks only (with load cells), site-specific current meter(s), site-specific anemometer(s), and visual and audible alarms that can support effective preset limits and shall be able to record and store monitoring data. • Tesoro shall document procedures and training for systems use and communications between the Avon Terminal and vessel operator(s). • Routine inspection, testing, and maintenance of all equipment and systems, in accordance with manufacturers' recommendations and necessity, shall be required to ensure safety and reliability, to the satisfaction of California State Lands Commission (CSLC) staff.	CSLC monitor to observe properly provided and maintained devices and periodically monitor procedures and training for systems use.	Reduces potential for damages and spills.	CSLC	Within 24 months of lease implementation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	• Tesoro may install alternate technology that provides an equivalent level of protection, as reviewed by CSLC staff and approved by the Commission at a publicly noticed meeting.				
	OS-1c: Allision Avoidance Systems (ASSs). Tesoro Refining and Marketing Company, LLC (Tesoro) shall provide and maintain AASs at the Avon Terminal to prevent damage to the pier/wharf and/or vessel during docking and berthing operations. • The AASs shall be used and alarmed to monitor vessel drift (both surge and sway) during all mooring operations, and shall be equipped with an AIS receiver to capture passing vessel parameters. • The AASs shall be integrated with the tension monitoring systems such that all data collected are available in the control room and to Avon Terminal operator(s) at all times and vessel operator(s) during berthing operations. The AASs shall also be able to record and store monitoring data. • Tesoro shall document procedures and training for systems use and communications between the Avon Terminal and vessel operator(s). • Routine inspection, testing, and maintenance of all equipment and systems, in accordance with manufacturers' recommendations	CSLC monitor to observe properly, provided, and maintained devices and periodically monitor procedures and training for systems use.	Reduces potential for damages and spills.	CSLC	Within 24 months of lease implementation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	and necessity, shall be required to ensure safety and reliability, to the satisfaction of California State Lands Commission (CSLC) staff. • Tesoro may install alternate technology that provides an equivalent level of protection, as reviewed by CSLC staff and approved by the Commission at a publicly noticed meeting.				
OS-3: Potential for fires and explosions during continued operations, and response capability. (Significant and unavoidable.)	**OS-3: Fire Protection Assessment.** Tesoro Refining and Marketing Company, LLC (Tesoro) shall develop a Fire Protection Assessment, including a set of procedures, training, and drills consistent with Marine Oil Terminal Engineering Maintenance Standards (Cal. Code Regs., tit. 24, § 3108F2.2). Tesoro shall also develop a set of procedures and conduct training and drills for managing potential tank vessel fires and explosions for vessels berthed at the Avon Terminal. The procedures shall include the steps to follow in the event of a tank vessel fire and describe how Tesoro and the vessel operator would coordinate activities. The procedures shall also identify other capabilities that can be procured, if necessary, in the event of a major incident. The Fire Protection Assessment shall be submitted to the California State Lands Commission (CSLC) staff within 90 days of lease renewal. Tesoro shall update the plan and procedures to cover the new Berth 1A and submit them to CSLC staff for approval prior to any tank vessel docking at Berth 1A. CSLC staff shall have final approval of the plan and procedures.	Prepare and submit Fire Protection Assessment to CSLC for review and approval.	Provides planning and procedures for emergency response.	CSLC	Submit to CSLC within 90 days of signing the lease agreement.

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	MMs OS-1a, OS-1b, OS-1c, and OS-7 apply to this impact.	Refer to MMs OS-1a, OS-1b, OS-1c, and OS-7	Refer to MMs OS-1a, OS-1b, OS-1c, and OS-7	Refer to MMs OS-1a, OS-1b, OS-1c, and OS-7	Refer to MMs OS-1a, OS-1b, OS-1c, and OS-7
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. (Significant and unavoidable.)	**OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops.** Tesoro Refining and Marketing Company, LLC shall participate in U.S. Coast Guard (USCG) PAWSA workshops for the San Francisco Bay Area (Bay Area) to support overall safety improvements to the existing Vessel Traffic Service in the Bay Area or approaches to the bay, if such workshops are conducted by the USCG during the life of the lease.	Tesoro to demonstrate participation in USCG PAWSA workshops to support overall safety in the bay and to protect sensitive resources.	Reduces potential damage to resources.	CSLC	Life of lease
	OS-4b: Spill Response to Vessel Spills. Tesoro Refining and Marketing Company, LLC shall respond to any spill near the Avon Terminal from a vessel traveling to or from the Avon Terminal or moored at the Avon Terminal, as if it were its own, without assuming liability, until such time as the vessel's response organization can take over management of the response actions in a coordinated manner.	CSLC monitor to observe emergency actions.	Reduces potential damage to resources.	CSLC	Life of lease
OS-7: Potential for spills during renovation from Avon Terminal pipelines during non-transfer periods during renovation. (Significant and unavoidable.)	**OS-7: Pipeline Purging and Removal Plan.** Prior to work on existing pipelines or pipeline support systems, Tesoro Refining and Marketing Company, LLC shall prepare a Pipeline Purging and Removal Plan, identifying practices and procedures to be implemented to minimize the potential for work on the pipelines to result in a spill of oil from the pipelines. The plan shall be signed by a California Professional Engineer with experience in oil spill prevention and submitted to California State Lands	Prepare and submit Pipeline Purging and Removal Plan to CSLC for review and approval.	Reduces potential for pipeline releases during renovation.	CSLC	Prior to start of pipeline renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	Commission (CSLC) staff for review and approval prior to commencing work. The plan shall be implemented for work on the existing pipelines until the pipelines are adequately purged of oil to no longer present threat of a spill.				
CUM-OS-1: Upset Conditions. (Significant and unavoidable.)	MMs OS-1a, OS-1b, OS-1c, OS-7, OS-4a, and OS-4b apply to this impact.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-7, OS-4a, and OS-4b	Refer to MMs OS-1a, OS-1b, OS-1c, OS-7, OS-4a, and OS-4b	Refer to MMs OS-1a, OS-1b, OS-1c, OS-7, OS-4a, and OS-4b	Refer to MMs OS-1a, OS-1b, OS-1c, OS-7, OS-4a, and OS-4b
Biological Resources					
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. (Significant and unavoidable.)	**MM BIO-8a: Bird Rescue Personnel and Rehabilitators**. Tesoro Refining and Marketing Company, LLC shall ensure that procedures are in place to bring bird rescue personnel and rehabilitators to the site following a spill event that is not immediately contained at the Avon Terminal. This requires having contractual arrangements in place as part of the Golden Eagle Refinery Oil Spill Contingency Plan so that bird rescue personnel and equipment can be on site within hours of the onset of an accidental release.	Verify contractual arrangements in place and contact info on site.	Minimize marine bird mortality in the event of a spill.	CSLC	Within 60 days of project approval and EIR certification and for life of lease.
	MM BIO-8b: Cleanup of Oil from Biological Area. If a substantial spill occurs that affects biological resources, Tesoro Refining and Marketing Company, LLC shall develop procedures for cleanup of any sensitive biological areas contacted by oil in consultation with biologists from the California Department of Fish and Wildlife	Verify that cleanup procedures have been developed.	Minimize impacts to sensitive biological areas in the event of a spill.	California State Lands Commission, CDFW, NMFS, USFWS	Within 60 days of project approval and EIR certification and for life of lease.

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	(CDFW), National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS).				
	MM BIO-8c: Natural Resource Damage Assessment (NRDA) Team. Tesoro Refining and Marketing Company, LLC (Tesoro) shall coordinate to the maximum extent feasible with the Natural Resource Damage Assessment (NRDA) team to determine the extent of damage and loss of resources, cleanup, restoration, and compensation. Tesoro shall keep California State Lands Commission (CSLC) staff informed of its participation in such efforts by providing copies of memos, meeting agendas, emails, or other appropriate documentation. Tesoro shall be responsible for cleanup, restoration, and compensation of damages to resources if Tesoro is determined to be the responsible party for a spill.	Tesoro shall provide documentation of participation to CSLC staff.	Reduces potential damage and loss of resources from oil spill.	CSLC, NRDA trustee agencies	In conjunction with NRDA, for life of lease.
	MM OS-4b applies to this impact.	Refer to MM OS-4b	Refer to MM OS-4b	Refer to MM OS-4b	Refer to MM OS-4b
BIO-9: Introduce invasive nonindigenous aquatic species to the San Francisco Bay Estuary. (Significant and unavoidable.)	**MM BIO-9a: Marine Invasive Species Act Reporting Forms.** Following the adoption of the Mitigation Monitoring Program for the Project, Tesoro Refining and Marketing Company, LLC (Tesoro) shall advise both agents and representatives of shipping companies having control over vessels that have informed Tesoro of plans to call at the Avon Terminal about the California Marine Invasive Species Act (MISA) and associated implementing regulations. Tesoro shall satisfy itself that all vessels submit required	Verify documentation of vessel compliance with reporting requirements and associated regulation.	Compliance with MISA to reduce the introduction of nonindigenous aquatic species from ballast water and hull fouling.	CSLC	Life of lease.

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	reporting forms, as applicable for each vessel, to the California State Lands Commission (CSLC) Marine Facilities Division, including, but not limited to, the Ballast Water Reporting Form, Hull Husbandry Reporting Form, Ballast Water Treatment Technology Annual Reporting Form, and/or Ballast Water Treatment Supplemental Reporting Form.				
	MM BIO-9b: Invasive Species Action Funding. Tesoro Refining and Marketing Company, LLC (Tesoro) shall participate and assist in funding ongoing and future actions related to nonindigenous aquatic species (NAS) as identified in the October 2005 Delta Smelt Action Plan (State of California 2005). The funding support shall be provided to the Pelagic Organism Decline Account or other account identified by the California Department of Water Resources (DWR) and California Department of Fish and Wildlife (CDFW), the lead Action Plan agencies. The level of funding shall be determined through a cooperative effort between California State Lands Commission (CSLC) staff, the DWR, CDFW, and Tesoro, and shall be based on criteria that establish Tesoro's commensurate share of the plan's NAS actions costs.	The level of funding shall be determined by the CSLC, DWR, CDFW, and Tesoro as part of the agencies' responsibilities under the Delta Smelt Action Plan and CSLC's administration of MISA.	Contributions will go towards effort in finding a solution to pelagic species decline.	CSLC, DWR, CDFW	Life of lease.
BIO-10: Cause substantial temporary impacts to special-status species due to Marine Oil Terminal Engineering and Maintenance	**MM BIO-10a: Pre-renovation Surveys for Key Special-status Species.** Pre-renovation surveys for special-status species and other species of concern shall be conducted by a qualified biologist to verify their presence or absence. Key special-status species, including California clapper	Conduct surveys and observe activities for compliance.	Avoid or reduce impacts to special-status species.	CSLC, USFWS, CDFW	Prior to and during renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Standards (MOTEMS) renovation activity. (Potentially significant.)	rail, California black rail, rare plants, and other species of concern, including nesting birds, shall be avoided during renovation; if avoidance is not feasible, Tesoro Refining and Marketing Company, LLC shall consult with the California Department of Fish and Wildlife (CDFW) and/or the U.S. Fish and Wildlife Service (USFWS) and submit a plan(s) to minimize impacts to California State Lands Commission (CSLC) staff for approval prior to renovation. Plans for minimizing or mitigating impacts to plants and salt marsh harvest mouse are described in MM BIO-12c and MM BIO-15b, respectively. The plan(s) for other species shall list the species and anticipated temporary or permanent impacts and describe measures that would be taken to minimize and mitigate impacts, which may include, but not be limited to: translocation to suitable habitat out of work areas, restoration, and compensatory mitigation.				
	MM BIO-10b: Designated Work Areas. All work areas in sensitive terrestrial and aquatic habitats shall be confined to the smallest feasible size. Terrestrial work in sensitive areas shall be clearly demarcated with exclusion fencing in coordination with the biological monitor. Aquatic work areas shall be clearly identified on renovation drawings. All personnel and their equipment shall be required to stay within the designated work sites to perform job-related tasks, and shall be directed to stay out of surrounding wetlands and waters.	Clearly delineate work areas.	Work areas confined to the smallest feasible size.	CSLC	Prior to and during renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	MM BIO-10c: Worker Environmental Awareness Program. All renovation personnel shall receive environmental awareness training provided by a U.S. Fish and Wildlife Service (USFWS) approved biological monitor (as described below). The training shall provide information about special-status species potentially occurring in the Project area, measures being implemented to avoid impacts to the species, and procedures to follow should a listed species be encountered during routine activities. Training shall be conducted to assure understanding by both Spanish and English speakers. Training materials shall be submitted to California State Lands Commission (CSLC) staff for approval 2 weeks prior to program initiation.	Submit resume of proposed biological monitor to USFWS for approval 2 weeks prior to program initiation. Submit training materials to CSLC for approval 2 weeks prior to program initiation. Submit attendance records to CSLC within 2 weeks of each training.	All renovation personnel receive training prior to conducting work.	CSLC, USFWS	Prior to and during renovation
	MM BIO-10d: Safe and Clean Work Area Maintenance. Pets shall not be allowed in or near the renovation work areas. Firearms shall not be allowed in or near the renovation areas. No intentional killing or injury of wildlife shall be permitted. No smoking is allowed on the facility. The renovation sites shall be maintained in a clean condition. All trash (e.g., food scraps, cans, bottles, containers, wrappers, and other discarded items) shall be placed in closed containers and properly disposed of off-site.	Renovation work areas shall be kept clean and safe.	Renovation work areas are kept clean and safe.	California State Lands Commission	Prior to and during renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	MM BIO-10e: Biological Monitoring. A qualified biologist shall be present on-site to conduct biological monitoring during vegetation clearing, mouse exclusion fence installation, and pile driving. The biological monitor shall have the authority to stop work if deemed necessary for any reason to protect special-status species. The biological monitor shall have demonstrated experience in monitoring sensitive resource issues on construction projects. Specifically, the biological monitor shall have at least a bachelor's degree in the biological or allied sciences or the equivalent, at least one field season of prior biological monitoring experience under the supervision of a qualified biological monitor, and knowledge of the natural history of the salt marsh harvest mouse and related sensitive biological resources in the vicinity of the Project area. Resumes of candidate biological monitors shall be submitted to California State Lands Commission (CSLC) staff for their approval at least 2 weeks prior to the biological monitor being deployed in the field.	Submit resume of qualified biologist to CSLC for approval 2 weeks prior to deployment. Qualified biologist conduct monitoring during vegetation clearing, mouse exclusion fence installation, and pile driving.	Avoid and reduce impacts to special-status species and habitat.	CSLC	Prior to and during renovation
	MM BIO-10f: Post-renovation Cleanup. After renovation is completed, a final clean up shall include removal of all stakes, temporary fencing, flagging, and other refuse generated during renovation. Upon Project completion, all equipment shall be safely demobilized from the area. Any excess debris shall be placed into trucks or barges for proper disposal.	Clean up site following renovation.	Site is clean.	California State Lands Commission	Post-renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-11: Cause disturbance or loss of special-status fish. (Potentially significant.)	**MM BIO-11a: In-water Work Restrictions**. Tesoro shall implement the following in-water work restrictions: • To the extent feasible, in-water work shall be performed between 30 minutes after sunrise and 30 minutes before sunset. • Pile driving with an impact hammer and in-water deconstruction activity shall only occur during the work window specified by the National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) for avoidance of potential impacts to fish species in this region of the San Francisco Bay Estuary, from August 1 to November 30. The work window proposed may be adjusted based on the U.S. Fish and Wildlife Service's (USFWS) programmatic consultation on the delta smelt and coordination with the CDFW, NMFS, and USFWS.	In-water work activities restricted to the extent feasible.	Impacts to special-status fish avoided or reduced.	California State Lands Commission, NMFS, USFWS, CDFW	During and post-renovation
	MM BIO-11b: Nearshore Habitat Disturbance Minimization. The number of round trips made by barges during renovation activities shall be limited to the extent feasible. Personnel shall be transported daily to the barge by means of a shallow-draft boat. Barge and support vessels shall transit through the shallows at a no-wake-producing speed to minimize disturbance to bottom sediments. Anchoring shall be minimized to the extent possible.	Boat trips minimized and shallow-draft boats used.	Impacts to bottom sediment reduced.	California State Lands Commission	Prior to, during, and post-renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	MM BIO-11c: Anchoring Plan. Tesoro Refining and Marketing Company, LLC shall prepare for inclusion in the Project's renovation Work Plan an Anchoring Plan, which shall require that the use of mooring anchors by deconstruction vessels and barges shall be minimized. The Anchoring Plan shall further specify that if mooring anchors must be used, then a secondary support workboat shall be used to deploy and retrieve mooring anchors and that mooring anchors shall not be dragged along the sea floor. The Anchoring Plan must be submitted to California State Lands Commission (CSLC) staff for approval 30 days prior to renovation.	Anchoring Plan submitted to CSLC 30 days prior to renovation.	Impacts to bottom sediments reduced.	CSLC	Prior to renovation
BIO-12: Cause disturbance or loss of special-status plant populations. (Potentially significant.)	**MM BIO-12a: Pre-renovation Special-status Plant Surveys.** Tesoro Refining and Marketing Company, LLC shall retain a qualified botanist to survey suitable habitat in the Project area for the presence of special-status species. Surveys shall be conducted during April through May and in accordance with standardized protocols as determined by the California Department of Fish and Wildlife (CDFW) and/or U.S. Fish and Wildlife Service USFWS), including visiting nearby known reference populations, and shall be timed to coincide with the blooming periods of known populations (CDFG 2009). Based on the blooming periods of special-status plants known to occur in the region, two surveys (one in late spring/early summer, one in late summer/early fall) shall be conducted to capture the floristic diversity at a level necessary to determine if special-status species are present. Within 30 days of	Qualified botanist to conduct special-status plant surveys during appropriate survey windows Letter documenting survey results submitted to CSLC and CDFW within 30 days of each survey.	Locations, if any, of special-status plants identified.	CSLC, CDFW, USFWS	Prior to renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	the completion of each survey, the results of the survey shall be summarized in a botanical survey letter report and submitted to California State Lands Commission (CSLC) staff and the CDFW.				
	MM BIO-12b: Special-status Plant Avoidance and Protection. If any special-status plants are found during the pre-renovation survey, protective fencing shall be installed under the direction of a qualified biological monitor to ensure that plants are avoided during renovation, if feasible.	Protective fencing installed around special-status plant locations.	Special-status plants protected.	California State Lands Commission	Prior to renovation
	MM BIO-12c: Salvage and Recovery Plan for Special-status Plants. If avoidance is not possible (e.g., if plants are found in areas requiring vegetation clearing), Tesoro Refining and Marketing Company, LLC (Tesoro) shall consult with the California Department of Fish and Wildlife (CDFW) and/or U.S. Fish and Wildlife Service (USFWS) to develop and implement a salvage and recovery plan for the affected species. The plan shall incorporate the following, at a minimum: • preparation by a qualified restoration specialist or botanist experienced in the development and implementation of native plant restoration, mitigation, and monitoring plans; • salvage and/or recovery requirements, including clearly defined goals focusing on plant establishment (stability, succession, reproduction) monitoring, and non-native species control measures; • locations and procedures for	Tesoro to consult with CDFW and/or USFWS to implement a salvage/ recovery plan for special-status plants that would otherwise be impacted by renovation.	Special-status plants salvaged, habitat recovered.	California State Lands Commission, USFWS, CDFW	Prior to renovation, post-renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	restoration of salvaged materials or seeds; • specification of a 5-year post-renovation maintenance and monitoring program by a qualified restoration specialist or botanist to ensure that the Project goals and performance standards are met. The monitoring program shall include provision for remedial action as needed to correct deficiencies. Annual reports and a final report, prepared by Tesoro and subject to approval by the CDFW, shall document the success of the salvage and replanting effort. If replanting is not successful, an additional period of correction and monitoring shall be specified; and • maintenance requirements and the responsibility for implementation. • If salvage and recovery of special-status plants is infeasible, Tesoro shall consult with the CDFW and/or USFWS to implement a compensation plan, which may consist of the following: • preservation of an off-site area containing individuals of the affected species so that there is no net loss of special-status plants; • purchase of plant credits from an off-site, agency-approved mitigation bank; or • other compensatory measures as required by the CDFW and/or USFWS.				

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-13: Cause disturbance of nesting migratory birds and raptors. (Potentially significant.)	**MM BIO-13a: Pre-renovation Nesting Bird Surveys.** To avoid potentially adverse impacts to bird species identified under the Migratory Bird Treaty Act, Tesoro Refining and Marketing Company, LLC shall ensure that prior to any work in Areas A, B, and C (including adjacent staging areas) of the approachway conducted during the nesting season for small birds (March 15 to August 30), a biologist approved by California State Lands Commission (CSLC) staff shall inspect all shrubs, trees, and emergent marsh vegetation in and within 50 feet of the limits of work for nesting birds. The biologist shall also observe all trees and shrubs within 300 feet of the limits of work for evidence of nesting raptors using binoculars and/or spotting scope. The survey shall be conducted no more than seven (7) days prior to the start of work for a given work area, and shall begin within 0.5 hour of sunrise and last a minimum of 2 hours. If the survey indicates the presence of nesting birds, the biologist shall determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged in consultation with the California Department of Fish and Wildlife (CDFW) and/or U.S. Fish and Wildlife Service (USFWS). The size of the nest buffer shall be determined by the biologist and shall be based on the nesting species and its sensitivity to disturbance.	Submit resume for biologist to CSLC for approval prior to survey Surveys conducted by qualified biologist Nest buffer compliance.	Avoid/reduce impacts to nesting birds.	CSLC, CDFW, USFWS	Prior to renovation activities in a given work area

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	MM BIO-13b: Osprey Nest Protection. To avoid and minimize impacts to the osprey pair that nest annually on Berth 5, Tesoro Refining and Marketing Company, LLC (Tesoro) shall consult with the California Department of Fish and Wildlife (CDFW) to remove the nest and replace it in a nearby location not subject to Project disturbance. The nest shall be removed when it is inactive (i.e., does not contain egg or juvenile osprey). The replacement nest shall be located as close to the original nest as feasible. The replacement nest structure shall be of comparable or better quality than the nest support structure removed or destroyed. In addition, prior to any work in Area D of the approachway and at the Avon Terminal (i.e., Berth 1A installation, Berth 5 demolition) conducted during the osprey nesting season (February 15 to August 31), a qualified biologist approved by California State Lands Commission staff shall survey Berth 5 with a spotting scope to determine whether ospreys are nesting. If nesting is observed, the biologist shall watch the nest for a minimum of 2 hours to establish a baseline for the adults' behavioral response to marine traffic and ongoing Avon Terminal operations. In consultation with the CDFW, the resulting information shall be used to determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged.	Tesoro to consult with CDFW to protect and replace on-site osprey nest.	Osprey nest is protected and replaced.	California State Lands Commission, CDFW	Prior to construction
	MM BIO-19b applies to this impact.	Refer to MM BIO-19b	Refer to MM BIO-19b	Refer to MM BIO-19b	Refer to MM BIO-19b

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-14: Cause disturbance of California clapper rail and California black rail and habitat. (Potentially significant.)	**MM BIO-14a: Survey and Avoidance Measures for California Clapper Rail and California Black Rail**. Tesoro Refining and Marketing Company, LLC shall retain a U.S. Fish and Wildlife Service (USFWS) approved permitted biologist to conduct a second year of protocol-level surveys, including rail-call and rail-track surveys at the Project site for California clapper rail and California black rail during the 2015 breeding season, prior to the initiation of renovation. If breeding California clapper rail or California black rail is determined to be present, activities shall not occur within 500 feet of an identified calling center (or a smaller distance if approved by the USFWS and California Department of Fish and Wildlife [CDFW]). If the intervening distance is across a major slough channel or across a substantial barrier between the rail calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season.	Qualified biologist conducts surveys, monitors work activities for compliance.	Avoid or reduce impacts on California clapper rail and California black rail.	California State Lands Commission, CDFW, USFWS	Prior to and during renovation
BIO-15: Cause disturbance of salt marsh harvest mouse and Suisun shrew and habitat. (Potentially significant.)	**MM BIO-15a: Salt Marsh Harvest Mouse and Suisun Shrew Impact Avoidance Measures.** • Any areas dominated by brackish marsh vegetation and adjacent uplands that must be accessed by renovation personnel or equipment shall be cleared of vegetation. All clearing of vegetation shall be done under the direct supervision of a U.S. Fish and Wildlife Service (USFWS) approved biologist. In renovation and staging areas where	Submit biologist resume to USFWS for approval 2 weeks prior to vegetation clearing. USFWS-approved biologist supervises vegetation clearance and	Impacts to salt marsh harvest mouse are avoided. Impacts to Suisun shrew are reduced and/or avoided.	California State Lands Commission, CDFW, USFWS	Prior to and during construction

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	habitat is to be disturbed, vegetation shall be cleared to bare ground or stubble no higher than 3 inches, unless otherwise authorized by the USFWS and California Department of Fish and Wildlife (CDFW). Vegetation clearing shall start at the marsh edge closest to the existing approachway and proceed outward toward the marsh interior. Vegetation shall be removed by hand using hand tools. • If a salt marsh harvest mouse is discovered, the biological monitor shall stop work in the immediate area until the CDFW and USFWS are contacted and the individual has been allowed to leave the work area. If the mouse does not leave the work area, work in the immediate area shall not resume until the CDFW and USFWS are consulted regarding appropriate avoidance measures, and grant permission to commence work. No salt marsh harvest mouse may be handled or captured at any time. • Exclusion fencing shall be installed around the work areas immediately following vegetation removal. The fence shall be a minimum of 2 feet in height. Openings of at least 10 feet in width shall be established at two to four locations such that habitat connectivity across the marsh is maintained. • Exclusion fencing shall be extended	exclusion fencing installation. Exclusion fencing is inspected daily and following high-tide events. Work during high-tide events is avoided. Repairs to fencing are made within 24 hours of discovery, and the fenced area is resurveyed by a USFWS- and CDFW-approved biologist. Night lighting is minimized. Compliance is observed by qualified biologist.			

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	to the high tide line. Tesoro Refining and Marketing Company, LLC shall monitor tidal heights while the exclusion fencing is installed. If areas within the exclusion fencing are flooded, sections shall be temporarily removed to allow exit of any special-status species from the work area. The area shall then be resurveyed by a USFWS and CDFW-approved biologist, and the exclusion fencing reinstalled. • Following installation of the fence, the biological monitor shall train a representative to inspect the fencing. The representative shall inspect the fence daily to ensure that it maintains a minimum of 2 feet in height, has no holes or rips, and that the base is still buried. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of damage. Work shall not continue within 300 feet of the damaged fencing until the fence is repaired and the site is surveyed by an approved biologist to ensure that salt marsh harvest mice have not entered the work area. • The biological monitor shall be available on an on-call basis to come to the site in the event that the trained representative finds a salt marsh harvest mouse in the work area after the vegetation has been cleared and the fenced has been installed.				

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	• Work within fenced salt marsh harvest mouse habitat shall be scheduled to avoid extreme high tides (6.5 feet or above at the Golden Gate Bridge) when there is potential for mice to move into adjacent uplands. • Night lighting shall be minimized and pointed down to the extent possible and still assure the safety of personnel working in the area.				
	MM BIO-15b: Compensation for Temporary and Permanent Loss of Salt Marsh Harvest Mouse Habitat. To compensate for 0.03 acre of permanent impacts and 6.93 acres of temporary impacts on salt marsh harvest mouse habitat (i.e., tidal brackish marsh and adjacent uplands within 100 meters), Tesoro Refining and Marketing Company, LLC (Tesoro) shall purchase mitigation habitat credits at the Cordelia Slough Preserve managed by Wildlands, Inc. in northern Suisun Bay. The Preserve provides high-quality habitat for salt marsh harvest mouse and would be managed in perpetuity for that purpose. The final amount of mitigation habitat shall be calculated based on the actual duration of various phases of the Project.	Tesoro to provide compensatory mitigation for temporary and permanent impacts to salt marsh harvest mouse habitat.	Mitigation habitat credits purchased.	California State Lands Commission, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service	Post-renovation
BIO-16: Cause disturbance to marine mammals. (Potentially significant.)	**MM BIO-16a: Adjust Vessel Speed.** Vessel operators shall attempt to remain at least 150 feet from marine mammals and shall maneuver their vessel slowly, watching for seal heads that may pop up around the vessel, to avoid collisions when marine mammals are observed in the Project area. In the event of a vessel collision with a	Vessel collisions reported to NMFS.	Impacts to marine mammals reduced.	CSLC, NMFS	During renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	marine mammal, Tesoro Refining and Marketing Company, LLC shall immediately report the incident to the National Marine Fisheries Service (NMFS) West Coast Region Stranding Network at 1-866-767-6114.				
	MM BIO-16b: Implementation of a Marine Mammal Contingency Plan. Tesoro Refining and Marketing Company, LLC shall prepare a Marine Mammal Contingency Plan, which shall be implemented in its entirety. This plan shall be consistent with section 109 (h) of the Marine Mammal Protection Act for dealing with nuisance animals and animals that need to be relocated from a location for their own protection and welfare. This plan shall be submitted for review and approval to the National Marine Fisheries Service (NMFS) and California State Lands Commission (CSLC) staff 60 days prior to Project implementation.	Submit a Marine Mammal Contingency Plan to NMFS and CSLC 60 days prior to renovation.	Impacts to marine mammals reduced by implementation of Marine Mammal Contingency Plan.	CSLC, NMFS	Pre-renovation 60 days prior to Project implement-tation
	MM BIO-16c: Prioritize Removal of Potential Haul-out Locations. Parts of the Avon Terminal that have the potential to be used by marine mammals as a resting haul out (pilings and structural support components, boat landing) shall be removed as early in the deconstruction schedule as possible. This shall be done to prevent the continued use of these structures by marine mammals during deconstruction.	Remove haul-out locations first.	Impacts to marine mammals reduced.	California State Lands Commission	During renovation
	MM BIO-18b applies to this impact.	Refer to MM BIO-18b	Refer to MM BIO-18b	Refer to MM BIO-18b	Refer to MM BIO-18b

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
BIO-17: Cause substantial impact to special-status species or sensitive habitat due to degradation of water quality. (Potentially significant.)	**MM BIO-17a: Lead-based Paint Management Plan.** Because lead-based paint is present on the Avon Terminal, Tesoro Refining and Marketing Company, LLC (Tesoro) shall retain a licensed lead-abatement contractor to address lead-based paint prior to the general deconstruction of the Avon Terminal. A lead-based paint management plan shall be prepared and submitted to California State Lands Commission (CSLC) staff for approval 2 weeks prior to deconstruction and included as part of the Project's work plan.	Tesoro to submit a Lead-based Paint Management Plan to CSLC 2 weeks prior to deconstruction.	Impacts to aquatic habitat reduced.	CSLC	2 weeks prior to deconstruction and included as part of the Project's work plan.
	MM BIO-17b: Post-demolition Bathymetric Survey. Tesoro Refining and Marketing Company, LLC (Tesoro) shall conduct a post-demolition bathymetric survey, no later than 2 weeks after demolition activities conclude, to confirm that pile stubs are at minimum 3 feet below the mudline and that no renovation debris remains on or above the seafloor.	Tesoro to conduct post-demolition bathymetric survey.	Pile stubs are minimum 3 feet below mudline, no debris on seafloor.	California State Lands Commission	Post-renovation, no later than 2 weeks after demolition activities conclude.
	MM BIO-17c: Stub/scour Monitoring. Tesoro Refining and Marketing Company, LLC (Tesoro) shall conduct monitoring of broken timber piles 2 years after completion of demolition activities to determine whether or not piles have been exposed by erosion. If piles have not remained buried under at least 2 feet of sediment cover, Tesoro shall monitor, consult, and survey to ensure they are not a navigational hazard. Should exposed piles be determined to be a navigational hazard, Tesoro shall take remedial action to remove the navigational hazard and monitor again in another 2 years.	Tesoro to monitor broken timber piles for 2 years to determine sediment coverage.	Piles remain covered with 2 feet of sediment.	California State Lands Commission	Post-renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	MM BIO-17d: Minimization of Creosote Release. The following measures shall be used to minimize creosote release, sediment disturbance, and total suspended solids generation during pile removal/deconstruction: • install a floating surface boom to capture floating surface debris; • keep all equipment out of the water and grip piles above the waterline; • slowly lift the piles from the sediment and through the water column; and • dispose of all removed piles, floating surface debris, sediment spilled on work surfaces, and all containment supplies at a permitted upload disposal site that accepts creosote-treated wood and materials contaminated with creosote.	Tesoro Refining and Marketing Company, LLC to minimize creosote release from removal of piles.	Reduce impacts from creosote release.	California State Lands Commission	During renovation
	MM WQ-8 applies to this impact.	Refer to MM WQ-8	Refer to MM WQ-8	Refer to MM WQ-8	Refer to MM WQ-8
BIO-18: Cause substantial impact to special-status species or sensitive habitat due to increased sound levels from Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) renovation. (Potentially significant.)	**MM BIO-18a: Sound-attenuation Measures.** Pile driving with an impact hammer shall only occur during the work window specified by the National Marine Fisheries Service (NMFS) for avoidance of potential impacts to fish species in this region of the San Francisco Bay Estuary, from August 1 to November 30. The work window proposed may be adjusted based on the U.S. Fish and Wildlife Service's programmatic consultation on the delta smelt and through consultation with the California Department of Fish and Wildlife (CDFW). Conducting work within the work window would minimize the possibility that work	Tesoro to employ sound reduction measures during pile driving.	Sound levels from pile-driving remain below NMFS thresholds as documented in the Hydroacoustic Monitoring Plan.	CSLC, NMFS, CDFW	During pile-driving

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	activities may impact fish species as listed fish species are less likely to use the action area as a migratory corridor during this period. • A cushion block (e.g., wood, nylon, Micarta, etc.) shall be placed between the pile and impact hammer, if feasible based on pile size and type. • A bubble curtain of a design approved by the NMFS shall be properly placed around all in-water piles during impact hammer pile driving activities to attenuate underwater sound levels to below thresholds established by the NMFS.				
	MM BIO-18b: Hydroacoustic Monitoring Plan. Tesoro Refining and Marketing Company, LLC (Tesoro) shall retain a qualified specialist to develop a hydroacoustic monitoring plan to ensure compliance with the injury and disturbance thresholds. The purpose of the hydroacoustic monitoring plan shall be to establish protocols to ensure compliance with the Project's sound-attenuation measures and any additional requirements imposed during permitting by regulatory agencies. The plan shall contain measures to: • Measure sound pressure levels from impact pile driving and any additional construction activities as imposed during permitting by regulatory agencies to establish zones of influence related to sound thresholds for fish and marine mammals.	Tesoro to implement a Hydroacoustic Monitoring Plan.	Impacts to special-status fish and marine mammals reduced and/or avoided.	California State Lands Commission	During pile-driving

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing

	• Avoid injury to marine mammals through visual monitoring of identified zones of influence and cease pile driving activities if any marine mammals enter the zone in which thresholds are exceeded.
	• Establish locations for stationing of biological monitors and provide for access to and use of a small maneuverable boat in the immediate vicinity of the monitoring for use during field data collection.
	• Conduct field operations to obtain data as follows:
	  • Using sound meters, measure baseline of ambient noise in the vicinity of pile driving locations.
	  • Measure noise from impact pile driving to establish/confirm threshold distances.
	  • Make daily observations and record presence and locations of marine mammals.
	  • Observe, document, and report any indication of fish injury or mortality in the immediate vicinity of the proposed pile driving activities.				

BIO-19: Cause substantial impact to wetlands and other waters of the United States and waters of the State. (Potentially significant.)	**MM BIO-19a: Avoidance and Minimization Measures for Impacts to Wetlands and Waters.** Tesoro Refining and Marketing Company, LLC (Tesoro) shall ensure that the following measures are implemented by the contractor during renovation to minimize impacts on wetlands and aquatic resources, including waters of the United States and	Tesoro to install and maintain silt fencing in wetlands, erosion control measures, and to use protective practices when	Impacts to wetland reduced, erosion controlled.	California State Lands Commission, U. S. Army Corps of Engineers	Prior to and during renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	waters of the State: • Renovation activities shall be avoided in saturated or ponded wetlands and streams. Where wetlands or other water features must be disturbed as authorized by permitting resource agencies, the minimum area of disturbance necessary for renovation shall be identified and the area outside of that necessary area shall be avoided. • Prior to renovation, silt fencing shall be installed along the work limits in areas within 50 feet of designated wetlands and drainages. • To minimize the degradation of designated wetlands in the Project vicinity, protective practices such as use of geotextile cushions or other materials (e.g., timber pads, prefabricated equipment pads, geotextile fabric, or other permeable material) or vehicles with balloon tires shall be employed. • The contractor shall stabilize exposed slopes immediately upon completion of renovation activities. Erosion control measures shall be installed adjacent to suitable aquatic habitat to prevent soil from eroding or falling into these areas. Restoration shall be completed and monitored as described in MM BIO-19b. • Natural/biodegradable erosion control measures (i.e., straw wattles	working within wetlands.			

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	and hay bales) shall be used. Plastic monofilament netting (erosion control matting) shall not be allowed because wildlife can become entangled in this type of erosion control material.				
	MM BIO-19b: Revegetation and Restoration Plan. Tesoro Refining and Marketing Company, LLC (Tesoro) shall retain a qualified restoration specialist or botanist to develop a Revegetation and Restoration Plan that describes how marsh habitats shall be enhanced or recreated and monitored over a minimum period of 5 years. Tesoro shall be responsible for ensuring that the revegetation and restoration plan is implemented under the guidance of the restoration specialist. The plan shall be designed such that it meets the following success criteria, or other equally protective success criteria as approved by the resource agencies through the permitting process: • The restored site is composed of a mix of appropriate native species. • The restored site has at least 75 percent of the absolute cover of native vegetation present in areas immediately adjacent to the renovation area. • Plantings are self-sustaining after a reasonable establishment period without human support (e.g., weed control, rodent control, irrigation). • Functions and values of the restored habitat are comparable to those of adjacent, undisturbed marsh habitat.	Tesoro to revegetate and restore vegetation in work areas. Monitoring to be conducted for a minimum of 5 years.	Success criteria are met for final 2 years of monitoring period.	California State Lands Commission, U. S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife	Post-renovation

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	After revegetation and restoration are completed, monitoring shall be conducted by a restoration specialist or biologist for a minimum of 5 years to ensure that the success criteria, as identified in the revegetation and restoration plan, are met, and to identify any necessary remedial actions during the monitoring period. At a minimum, the success criteria shall be met for the final 2 years of the monitoring period. Remedial action shall be required of Tesoro if the restoration specialist finds that any of the above criteria are not met by the end of the monitoring period. Annual monitoring reports shall be submitted to California State Lands Commission staff.				
BIO-20: Cause substantial impact to Essential Fish Habitat (EFH) due to renovation of new and replacement overwater structures. (Potentially significant.)	MMs BIO-8b, BIO-8c, BIO-9a, BIO-9b, BIO-11b, BIO-17b, BIO-17c, BIO-18a, BIO-18b, and WQ-8 apply to this impact.	Refer to MMs BIO-8b, BIO-8c, BIO-9a, BIO-9b, BIO-11b, BIO-17b, BIO-17c, BIO-18a, BIO-18b, and WQ-8	Refer to MMs BIO-8b, BIO-8c, BIO-9a, BIO-9b, BIO-11b, BIO-17b, BIO-17c, BIO-18a, BIO-18b, and WQ-8	Refer to MMs BIO-8b, BIO-8c, BIO-9a, BIO-9b, BIO-11b, BIO-17b, BIO-17c, BIO-18a, BIO-18b, and WQ-8	Refer to MMs BIO-8b, BIO-8c, BIO-9a, BIO-9b, BIO-11b, BIO-17b, BIO-17c, BIO-18a, BIO-18b, and WQ-8
BIO-21: Isolate wildlife populations and/or disrupt wildlife migratory or movement corridors, or use of native wildlife nursery sites. (Potentially significant.)	MMs BIO-15a, BIO-11a, BIO-10b, BIO-13a, and BIO-19b apply to this impact.	Refer to MMs BIO-15a, BIO-11a, BIO-10b, BIO-13a, and BIO-19b	Refer to MMs BIO-15a, BIO-11a, BIO-10b, BIO-13a, and BIO-19b	Refer to MMs BIO-15a, BIO-11a, BIO-10b, BIO-13a, and BIO-19b	Refer to MMs BIO-15a, BIO-11a, BIO-10b, BIO-13a, and BIO-19b

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
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. (Significant and unavoidable.)	MMs BIO-8a, BIO-8b, and BIO-8c apply to this impact.	Refer to MMs BIO-8a, BIO-8b, and BIO-8c	Refer to MMs BIO-8a, BIO-8b, and BIO-8c	Refer to MMs BIO-8a, BIO-8b, and BIO-8c	Refer to MMs BIO-8a, BIO-8b, and BIO-8c
CUM-BIO-3: Cause cumulative impacts by increasing the risk of introduction of nonindigenous aquatic species from vessel traffic to San Francisco Bay. (Significant and unavoidable.)	MMs BIO-9a and BIO-9b apply to this impact.	Refer to MMs BIO-9a and BIO-9b	Refer to MMs BIO-9a and BIO-9b	Refer to MMs BIO-9a and BIO-9b	Refer to MMs BIO-9a and BIO-9b
CUM-BIO-5: Cause cumulative adverse impacts to special-status species, biotic communities, and habitat through Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) renovation and replacement of Avon Terminal structures. (Potentially significant.)	MMs and BIO-15b and BIO-19b apply to this impact.	Refer to MMs BIO-15b and BIO-19b	Refer to MMs BIO-15b and BIO-19b	Refer to MMs BIO-15b and BIO-19b	Refer to MMs BIO-15b and BIO-19b

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Water Quality					
WQ-3: Degrade water quality by the discharge of segregated ballast water. (Significant and unavoidable.)	**MM WQ-3: Advise Vessels of the Coastal Ecosystems Protection Act and Associated Regulations**. Tesoro Refining and Marketing Company, LLC (Tesoro) shall advise both agents and representatives of shipping companies that have control over vessels that have informed Tesoro of plans to call at the Avon Terminal about the Coastal Ecosystems Protection Act of 2006, National Invasive Species Act of 1996, Marine Invasive Species Act of 2003, and other associated implementing regulations.	Tesoro will advise agents and representatives of shipping companies having control over vessels planning to call at the Avon Terminal of the Coastal Ecosystems Protection Act of 2006 and associated regulations.	Informing vessel operators of regulations and standards will help reduce the potential of nonindigenous aquatic species introduction via ballast water.	California State Lands Commission, U.S. Gulf Coast, U.S. Environmental Protection Agency	Prior to the vessel's entry into San Francisco Bay or in the alternative, at least 24 hours prior to the vessel's arrival at the Avon Terminal.
	MMs WQ-5, BIO-9a, and BIO-9b apply to this impact.	Refer to MMs WQ-5, BIO-9a, and BIO-9b	Refer to MMs WQ-5, BIO-9a, and BIO-9b	Refer to MMs WQ-5, BIO-9a, and BIO-9b	Refer to MMs WQ-5, BIO-9a, and BIO-9b
WQ-5: Degrade water quality as a result of vessel biofouling. (Significant and unavoidable.)	**MM WQ-5: Biofouling Regulations and Standards**. Tesoro Refining and Marketing Company, LLC (Tesoro) shall prepare, and maintain current, a fact sheet and provide it to all vessels calling at the Avon Terminal to ensure that they are informed of applicable regulations and standards associated with the prevention of biofouling. Prior to allowing berthing at the Avon Terminal, Tesoro shall confirm with vessels that they are in compliance with the Marine Invasive Species Act of 2003 (MISA), including completion of MISA-required paperwork. Tesoro shall ensure that all vessels submit required reporting forms, as applicable for each vessel prior to the vessel's entry into the San	Tesoro shall prepare, and maintain current, a fact sheet and provide it to all vessels calling at the Avon Terminal to ensure that they are informed of applicable regulations and standards associated with the prevention of biofouling. Tesoro	Informing vessel operators of regulations and standards will help reduce the risk of the risk of nonindigenous aquatic species introductions through vessel biofouling. Data collected from the MISA reporting forms	California State Lands Commission	Prior to the vessel's entry into San Francisco Bay or in the alternative, at least 24 hours prior to the vessel's arrival at the Avon Terminal.

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	Francisco Bay Estuary or in the alternative, at least 24 hours prior to the vessel's arrival at the Avon Terminal.	would confirm with vessels that they are in compliance with MISA, including completion of MISA-required paperwork.	will aid research in preventing biofouling.		
	MM BIO-9a applies to this impact.	Refer to MM BIO-9a	Refer to MM BIO-9a	Refer to MM BIO-9a	Refer to MM BIO-9a
WQ-6: Degrade water quality due to anti-fouling paints used on vessel hulls. (Potentially significant.)	**MM WQ-6: Tributyltin (TBT) Ban Requirements**. Tesoro Refining and Marketing Company, LLC (Tesoro) shall prepare, and maintain current, a fact sheet and provide it to all vessels calling at the Avon Terminal to ensure that they are informed of the requirements of the 2008 International Maritime Organization prohibition of TBT applications to vessel hulls. Prior to allowing berthing at the Avon Terminal, Tesoro shall confirm with vessels that they are in compliance with the Marine Invasive Species Act (MISA) and implementing regulations, including completion of MISA-required paperwork. Tesoro shall ensure that all vessels submit required reporting forms, as applicable for each vessel prior to the vessel's entry into the San Francisco Bay Estuary or in the alternative, at least 24 hours prior to the vessel's arrival at the Avon Terminal.	Tesoro shall Inform vessels calling at the Avon Terminal of the ban on TBT. Tesoro will advise both agents and representatives of shipping companies about the requirements of the 2008 International Maritime Organization prohibition of TBT applications to vessel hulls.	Informing vessel operators of the ban on TBT will help reduce the impact to water quality from anti-fouling paints used on vessel hulls.	California State Lands Commission	Prior to the vessel's entry into San Francisco Bay or in the alternative, at least 24 hours prior to the vessel's arrival at the Avon Terminal.
WQ-8: Degrade water quality as a result of stormwater runoff from the Avon Terminal. (Potentially significant.)	**MM WQ-8: Update Existing Facility Stormwater Pollution Prevention Plan (SWPPP).** Tesoro Refining and Marketing Company, LLC (Tesoro) shall update the existing SWPPP to include specific best	Tesoro shall append the existing SWPPP to include specific Best	Amended SWPPP will prevent releases of contaminants	California State Lands Commission	Prior to implement-tation of Project activities.

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	management practices (BMPs) to prevent stormwater runoff from the new Berth 1A and approachway. BMPs shall be designed to reduce the input of contaminant to the San Francisco Bay Estuary and prevent leaks and spills during routine activities. Specific stormwater BMPs for Berth 1A and the approachway shall include: • Concrete berms and containment for spills on Berth 1A. • Documented inspections of the Avon Terminal approachway, as well as Berth 1A containment systems, in addition to already included requirements for immediate cleanup of any spills or releases.	Management Practices (BMPs) to prevent stormwater runoff from the wharf area.	from the new Berth 1A and approachway to nearby waterways.		
WQ-9: Degrade water quality as a result of oil leaks and spills during unloading. (Significant and unavoidable.)	MMs OS-1a, OS-1b, and OS-1c apply to this impact.	Refer to MMs OS-1a, OS-1b, and OS-1c	Refer to MMs OS-1a, OS-1b, and OS-1c	Refer to MMs OS-1a, OS-1b, and OS-1c	Refer to MMs OS-1a, OS-1b, and OS-1c
WQ-13: Degrade surface water quality as a result of onshore Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) renovation activities	MMs BIO-19a and BIO-19b.	Refer to MMs BIO-19a and BIO-19b	Refer to MMs BIO-19a and BIO-19b	Refer to MMs BIO-19a and BIO-19b	Refer to MMs BIO-19a and BIO-19b
WQ-10: Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast. (Significant and unavoidable.)	MMs OS-4a and OS-4b apply to this impact.	Refer to MMs OS-4a and OS-4b	Refer to MMs OS-4a and OS-4b	Refer to MMs OS-4a and OS-4b	Refer to MMs OS-4a and OS-4b

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
WQ-15: Degrade surface water quality as a result of offshore Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS) renovation activities. (Potentially significant.)	**MM WQ-15: Utilize Local/Regional Barges and Vessels during Renovation**. During renovation activities, Tesoro Refining and Marketing Company, LLC (Tesoro) shall utilize barges and other vessels originating within the local vicinity or the Pacific Coast Region, to the extent practicable.	Tesoro will use local vessels and barges to the extent practical during renovation activities.	Reduces the potential biofouling from construction vessels.	California State Lands Commission	During implement-ation of renovation activities.
	MMs BIO-17d and WQ-5 apply to this impact.	Refer to MMs BIO-17d and WQ-5	Refer to MMs BIO-17d and WQ-5	Refer to MMs BIO-17d and WQ-5	Refer to MMs BIO-17d and WQ-5
CUM-WQ-1: Cause contaminant impacts on San Francisco Bay Estuary water quality. (Significant and unavoidable).	MMs WQ-3, WQ-5, and BIO-9a apply to this impact.	Refer to MMs WQ-3, WQ-5, and BIO-9a	Refer to MMs WQ-3, WQ-5, and BIO-9a	Refer to MMs WQ-3, WQ-5, and BIO-9a	Refer to MMs WQ-3, WQ-5, and BIO-9a
CUM-WQ-3: Degrade water quality due to releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast. (Significant and unavoidable.)	MMs OS-4a and OS-4b apply to this impact.	Refer to MM OS-4a and OS-4b	Refer to MM OS-4a and OS-4b	Refer to MM OS-4a and OS-4b	Refer to MM OS-4a and OS-4b
Land Use and Recreation					
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.)	MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b apply to this impact.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.

Impact (Class)	Mitigation Measure(s) (MMs)	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
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.)	MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b apply to this impact.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b.
Visual Resources, Light and Glare					
VR-2: Create visual effects from accidental releases of oil at or near the Avon Terminal. (Significant and unavoidable.)	MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b apply to this impact.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.
VR-3: Create visual effects from oil spills from vessels in transit. (Significant and unavoidable.)	MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b apply to this impact.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.	Refer to MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b.

EXHIBIT D – TESORO AVON MARINE OIL TERMINAL LEASE CONSIDERATION PROJECT

STATEMENT OF FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS

1.0 INTRODUCTION

The California State Lands Commission (CSLC), acting as a lead agency under the California Environmental Quality Act (CEQA), makes these findings and this Statement of Overriding Considerations to comply with CEQA as part of its discretionary approval to authorize issuance of a 30-year General Lease-Industrial Use Permit, to Tesoro Refining and Marketing Company, LLC (Tesoro), for use of sovereign lands associated with the Tesoro Avon Marine Oil Terminal Lease Consideration Project (Project). The CSLC is making these Findings in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15091, subd. (a)),[1] which states in part:

> *No public agency shall approve or carry out a project for which an Environmental Impact Report has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale of each finding.*

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

The CSLC is the lead agency under CEQA for the Project because the CSLC has the principal responsibility for taking action on the Project by issuing a lease. The CSLC analyzed the environmental impacts associated with the Project in a Final Environmental Impact Report (EIR) (State Clearinghouse [SCH] No. 2014042013).[2]

The Project involves the issuance of a 30-year lease for continued operation of the Tesoro Avon Marine Oil Terminal (Avon Terminal), located in the lower Suisun Bay, approximately 1.75 miles east of the Benicia-Martinez Bridge and approximately 2 miles east of the Tesoro Amorco Marine Oil Terminal (Amorco Terminal),[3] respectively. The

[1] CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, Title 14, section 15000 et seq.

[2] The Final EIR was published in January 2015 and is available on the CSLC website at: www.slc.ca.gov (under the "Information" tab and "CEQA Updates" link).

[3] The CSLC issued Lease No. PRC 3453.1 for the Amorco Terminal in February 2014 (see Amorco Marine Oil Terminal Lease Consideration Project Final EIR [CSLC 2014, SCH No. 2012052030] and http://archives.slc.ca.gov/Meeting_Summaries/2014_Documents/02-21-14/Items_and_exhibits/C41.pdf).

new 30-year lease will temporarily expand the existing 11.24-acre parcel to a 15.42-acre parcel to allow additional lease area for proposed renovation and demolition activities. Once demolition is completed, the lease area will be reduced to a 13.33-acre parcel. The Avon Terminal and the associated Golden Eagle Refinery (Refinery) have operated at their current locations, offshore and onshore within Contra Costa County, since 1925 and 1913, respectively.

On July 26, 1964, CSLC authorized the issuance of Lease No. PRC 3454.1, a General Lease-Industrial Use, to the Tidewater Oil Company for what is currently known as the Avon Terminal. Several amendments and lease assignments have subsequently been authorized to various operators. The most recent lease agreement, under which Tesoro is currently operating, had an initial term of 15 years, with the right to three additional renewal periods of 10 years each, on "such reasonable terms and conditions the State might impose." In 2002, the CSLC authorized the assignment of this lease to Ultramar, Inc., which shortly thereafter sold the Avon Terminal to Tesoro. In 2003, the CSLC authorized the assignment of the lease to Tesoro. In 2009, the existing lease expired and Tesoro is presently in a "holdover" month-to-month tenancy.[4]

In its lease application, Tesoro has requested a new 30-year lease from the CSLC to allow the Avon Terminal to continue operations, which will enable the associated Refinery to continue to export and import petroleum products from tankers that dock at the Avon Terminal. To bring the Avon Terminal into compliance with the Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS)[5] regulations, the Project includes the renovation of the Avon Terminal vessel berthing area and its associated approachway. The approachway is presently comprised of a trackway/walkway and pipeway, which will be converted to a roadway/walkway and pipeway leading from shore to the vessel loading area.

2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS

These Findings are based on the information contained in the EIR for the Project, as well as information provided by the Applicant and gathered through the public involvement process, all of which is contained in the administrative record. References cited in these Findings can be found in the Final EIR, Section 9.0, References. The administrative record is located in the Sacramento office of the CSLC, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

3.0 FINDINGS

Findings are required by each "public agency" that approves a project for which an EIR has been certified that identifies one or more significant environmental impacts. (Pub. Resources Code, § 21081; State CEQA Guidelines, § 15091.) These Findings, as a result, are intended to comply with the above-described mandate that for each

[4] Holdover status means that the Avon Terminal is continuing to operate under the terms of its existing lease while a decision on a new lease is pending.

[5] 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.).

significant effect identified in the EIR, the CSLC adopt one or more of the following, as appropriate.

(1) Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR.

These Findings are also intended to comply with the requirement that each finding by the CSLC be supported by substantial evidence in the administrative record of proceedings, as well as accompanied by a brief explanation of the rationale for each finding. (State CEQA Guidelines, § 15091, subds. (a), (b).) To that end, these Findings provide the written, specific reasons supporting the CSLC's decision under CEQA to approve the Project.

A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.
- Wherever Finding (3) is made, the CSLC has determined that, even after implementation of all feasible mitigation measures and consideration of feasible alternatives, the identified impact will exceed the significance criteria set forth in the EIR. Furthermore, to the extent that potentially feasible measures have been alleged or proposed, the Findings explain why certain economic, legal, social, technological or other considerations render such possibilities infeasible. The significant and unavoidable impacts requiring Finding (3) are identified in the Final EIR, discussed in the Responses to Comments, and explained below. Having done everything it can to avoid and substantially lessen these effects consistent with its legal authority and CEQA, the CSLC finds in these instances that overriding economic, legal, social, and other benefits of the approved Project outweigh the resulting significant and unavoidable impacts. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.).

All environmental impacts of the Project identified in the EIR are listed below; the significance of each impact is classified as follows.

Definition	Findings Required
Significant and Unavoidable (SU). Significant adverse impact that remains significant after mitigation	Yes
Potentially Significant (PS). Potentially significant adverse impact that can be eliminated or reduced below an issue's significance criteria with mitigation	Yes
Less than Significant (LTS). Adverse impact that does not meet or exceed the identified significance criteria	No
No Impact (NI)	No

A. SUMMARY OF FINDINGS

Based on public scoping, the proposed Project will have No Impact on the following environmental issue areas:

- Aesthetics
- Agricultural Resources
- Cultural Resources
- Mineral Resources
- Population and Housing
- Public Services
- Utilities and Service Systems

The EIR subsequently identified the following impacts as Less Than Significant:

- Air Quality
- Greenhouse Gas Emissions and Climate Change
- Geology, Sediments, and Seismicity
- Land-Based Transportation
- Noise

For the remaining potentially significant effects, the Findings set forth below are:

- Organized by significant impacts within the following EIR issue areas:
    - Operational Safety/Risk of Accidents (OS)
    - Biological Resources (BIO)
    - Water Quality (WQ)
    - Land Use and Recreation (LUR)
    - Visual Resources, Light and Glare (VR)
- Numbered in accordance with the impact and mitigation numbers identified in the Mitigation Monitoring Program (MMP) in the EIR (see Section 8.0 of the EIR) (Findings may not be numbered sequentially, since Findings are not required when impacts are Less than Significant or there is No Impact); and
- Followed by an explanation of the rationale for each Finding.

B. POTENTIALLY SIGNIFICANT IMPACTS

In certifying the EIR and approving the Project, the CSLC imposed various mitigation measures (MMs) for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts will be substantially lessened with implementation of these MMs. Impacts determined to be Less Than Significant with Mitigation are shown in Table 1. However, even with the implementation of all feasible mitigation the CSLC concluded in the EIR that the other identified potentially significant impacts will remain significant. Table 1 identifies those impacts that the CSLC determined will be, after mitigation, Significant and Unavoidable.

Table 1 – Significant Impacts by Issue Area

Environmental Issue Area	Impact Nos.	
	PS	SU
Operational Safety/Risk of Accidents		OS-1, OS-2, OS-3, OS-4, OS-7, CUM-OS-1
Biological Resources	BIO-10, BIO-11, BIO-12, BIO-13, BIO-14, BIO-15, BIO-16, BIO-17, BIO-18, BIO-19, BIO-20, BIO-21, CUM-BIO-5	BIO-8, BIO-9, CUM BIO-2, CUM BIO-3
Water Quality	WQ-6, WQ-8, WQ-13, WQ-15	WQ-3, WQ-5, WQ-9, WQ-10, CUM WQ-1, CUM WQ-3
Land Use and Recreation		LUR-2, LUR-3
Visual Resources, Light and Glare		VR-2 and VR-3

As a result, the CSLC adopts the Statement of Overriding Considerations set forth as part of this Exhibit to support its approval of the Project despite the significant and unavoidable impacts.

C. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION (PS)

The following impacts identified below were determined in the Final EIR to be potentially significant absent mitigation; after application of MMs, however, the impacts were determined to be less than significant.

1. Biological Resources

CEQA FINDING NO. BIO-10

Impact: **Impact BIO-10.** Cause substantial temporary impacts to special-status species due to MOTEMS renovation activity.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

MOTEMS renovation activities will include the removal of decks and pilings, pile-driving, deck and facility repairs, vessel movement and mooring, and vegetation clearing. On land and over water, these activities can injure or harm individuals of special-status species, cause the loss of foraging areas and displacement of prey species, and prompt individuals to avoid the Project area.

Implementation of **MMs BIO-10a, BIO-10b, BIO-10c, BIO-10d, BIO-10e, and BIO-10f** reduces this impact to a less than significant level by determining presence or absence of special-status species and ensuring avoidance of special-status species that are present. Measures, such as fencing and demarcating work areas, will restrict the project to a smaller footprint, and thus, minimize the areal extent of the impact. Measures, such as prohibiting pets and firearms, and removing trash and debris, ensure that inadvertent impacts to species do not occur. Finally, worker environmental awareness training will inform project personnel of their responsibilities and use of a biological monitor will help to ensure compliance with mitigation measures.

MM BIO-10a: Pre-renovation Surveys for Key Special-status Species. Pre-renovation surveys for special-status species and other species of concern shall be conducted by a qualified biologist to verify their presence or absence. Key special-status species, including California clapper rail, California black rail, rare plants, and other species of concern, including nesting birds, shall be avoided during renovation; if avoidance is not feasible, Tesoro Refining and Marketing Company, LLC shall consult with the California Department of Fish and Wildlife and/or the U.S. Fish and Wildlife Service and submit a plan(s) to minimize impacts to California State Lands Commission staff for approval prior to renovation. Plans for minimizing or mitigating impacts to plants and salt marsh harvest mouse are described in mitigation measure (MM) BIO-12c and MM BIO-15b, respectively. The plan(s) for other species shall list the species and anticipated temporary or permanent impacts and describe measures that would be taken to minimize and mitigate impacts, which may include, but not be limited to: translocation to suitable habitat out of work areas, restoration, and compensatory mitigation.

MM BIO-10b: Designated Work Areas. All work areas in sensitive terrestrial and aquatic habitats shall be confined to the smallest feasible size. Terrestrial work in sensitive areas shall be clearly demarcated with exclusion fencing in coordination with the biological monitor. Aquatic work areas shall be clearly identified on renovation drawings. All personnel and their equipment shall be required to stay within the designated work sites to perform job-related tasks, and shall be directed to stay out of surrounding wetlands and waters.

MM BIO-10c: Worker Environmental Awareness Program. All renovation personnel shall receive environmental awareness training provided by a U.S. Fish and Wildlife Service-approved biological monitor (as described below). The training shall provide information about special-status species potentially

occurring in the Project area, measures being implemented to avoid impacts to the species, and procedures to follow should a listed species be encountered during routine activities. Training shall be conducted to assure understanding by both Spanish and English speakers. Training materials shall be submitted to California State Lands Commission staff for approval 2 weeks prior to program initiation.

MM BIO-10d: Safe and Clean Work Area Maintenance. Pets shall not be allowed in or near the renovation work areas. Firearms shall not be allowed in or near the renovation areas. No intentional killing or injury of wildlife shall be permitted. No smoking is allowed on the facility. The renovation sites shall be maintained in a clean condition. All trash (e.g., food scraps, cans, bottles, containers, wrappers, and other discarded items) shall be placed in closed containers and properly disposed of off-site.

MM BIO-10e: Biological Monitoring. A qualified biologist shall be present on-site to conduct biological monitoring during vegetation clearing, mouse exclusion fence installation, and pile driving. The biological monitor shall have the authority to stop work if deemed necessary for any reason to protect special-status species. The biological monitor shall have demonstrated experience in monitoring sensitive resource issues on construction projects. Specifically, the biological monitor shall have at least a bachelor's degree in the biological or allied sciences or the equivalent, at least one field season of prior biological monitoring experience under the supervision of a qualified biological monitor, and knowledge of the natural history of the salt marsh harvest mouse and related sensitive biological resources in the vicinity of the Project area. Resumes of candidate biological monitors shall be submitted to California State Lands Commission staff for their approval at least 2 weeks prior to the biological monitor being deployed in the field.

MM BIO-10f: Post-renovation Cleanup. After renovation is completed, a final clean up shall include removal of all stakes, temporary fencing, flagging, and other refuse generated during renovation. Upon Project completion, all equipment shall be safely demobilized from the area. Any excess debris shall be placed into trucks or barges for proper disposal.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-11

Impact: **Impact BIO-11.** Cause disturbance or loss of special-status fish.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Migrating juvenile and adult steelhead and chinook salmon, longfin smelt, and sturgeon are anticipated to be in the Project area during a portion of the Project's in-water activities. Juvenile, sub-adult, and adult green sturgeon may be present year-round. MOTEMS in-water activities could degrade water quality and create noise that could disturb special-status species. Work activities could also degrade critical habitat for green sturgeon, delta smelt, and salmon.

Implementation of **MMs BIO-11a, BIO-11b, and BIO-11c** reduces this impact to a less than significant level by constraining in-water work to hours and work windows when special-status fish species are less likely to migrate through or utilize the Project area. Minimizing nearshore habitat disturbance and the use of an Anchor Plan will reduce the number of trips and reduce anchor scour along the marine substrate.

MM BIO-11a: In-water Work Restrictions. Tesoro shall implement the following in-water work restrictions:

- To the extent feasible, in-water work shall be performed between 30 minutes after sunrise and 30 minutes before sunset.
- Pile driving with an impact hammer and in-water deconstruction activity shall only occur during the work window specified by the National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) for avoidance of potential impacts to fish species in this region of the San Francisco Bay Estuary, from August 1 to November 30. The work window proposed may be adjusted based on the U.S. Fish and Wildlife Service's (USFWS) programmatic consultation on the delta smelt and coordination with the CDFW, NMFS, and USFWS.

MM BIO-11b: Nearshore Habitat Disturbance Minimization. The number of round trips made by barges during renovation activities shall be limited to the extent feasible. Personnel shall be transported daily to the barge by means of a shallow-draft boat. Barge and support vessels shall transit through the shallows at a no-wake-producing speed to minimize disturbance to bottom sediments. Anchoring shall be minimized to the extent possible.

MM BIO-11c: Anchoring Plan. Tesoro Refining and Marketing Company, LLC shall prepare for inclusion in the Project's renovation Work Plan an Anchoring Plan, which shall require that the use of mooring anchors by deconstruction vessels and barges shall be minimized. The Anchoring Plan shall further specify that if

mooring anchors must be used, then a secondary support workboat shall be used to deploy and retrieve mooring anchors and that mooring anchors shall not be dragged along the sea floor. The Anchoring Plan must be submitted to California State Lands Commission staff for approval 30 days prior to renovation.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-12

Impact: **Impact BIO-12.** Cause disturbance or loss of special-status plant populations.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Special-status plant species have the potential to occur within marshes in the Project area. Project activities, such as vegetation clearing and filling, can damage or remove individuals of these species. Implementation of **MMs BIO-12a, BIO-12b, and BIO-12c** reduces this impact to a less than significant level by determining via surveys conducted during the appropriate blooming period if special-status plant species are present prior to renovation, and then providing protection for any existing special-status species during and after renovation.

MM BIO-12a: Pre-renovation Special-status Plant Surveys. Tesoro Refining and Marketing Company, LLC shall retain a qualified botanist to survey suitable habitat in the Project area for the presence of special-status species. Surveys shall be conducted during April through May and in accordance with standardized protocols as determined by the California Department of Fish and Wildlife (CDFW) and/or U.S. Fish and Wildlife Service, including visiting nearby known reference populations, and shall be timed to coincide with the blooming periods of known populations (CDFG 2009). Based on the blooming periods of special-status plants known to occur in the region, two surveys (one in late spring/early summer, one in late summer/early fall) shall be conducted to capture the floristic diversity at a level necessary to determine if special-status species are present. Within 30 days of the completion of each survey, the results of the survey shall be summarized in a botanical survey letter report and submitted to California State Lands Commission staff and the CDFW.

MM BIO-12b: Special-status Plant Avoidance and Protection. If any special-status plants are found during the pre-renovation survey, protective fencing

shall be installed under the direction of a qualified biological monitor to ensure that plants are avoided during renovation, if feasible.

MM BIO-12c: Salvage and Recovery Plan for Special-status Plants. If avoidance is not possible (e.g., if plants are found in areas requiring vegetation clearing), Tesoro Refining and Marketing Company, LLC (Tesoro) shall consult with the California Department of Fish and Wildlife (CDFW) and/or U.S. Fish and Wildlife Service (USFWS) to develop and implement a salvage and recovery plan for the affected species. The plan shall incorporate the following, at a minimum:

- preparation by a qualified restoration specialist or botanist experienced in the development and implementation of native plant restoration, mitigation, and monitoring plans;
- salvage and/or recovery requirements, including clearly defined goals focusing on plant establishment (stability, succession, reproduction) monitoring, and non-native species control measures;
- locations and procedures for restoration of salvaged materials or seeds;
- specification of a 5-year post-renovation maintenance and monitoring program by a qualified restoration specialist or botanist to ensure that the Project goals and performance standards are met. The monitoring program shall include provision for remedial action as needed to correct deficiencies. Annual reports and a final report, prepared by Tesoro and subject to approval by the CDFW, shall document the success of the salvage and replanting effort. If replanting is not successful, an additional period of correction and monitoring shall be specified; and
- maintenance requirements and the responsibility for implementation.

If salvage and recovery of special-status plants is infeasible, Tesoro shall consult with the CDFW and/or USFWS to implement a compensation plan, which may consist of the following:

- preservation of an off-site area containing individuals of the affected species so that there is no net loss of special-status plants;
- purchase of plant credits from an off-site, agency-approved mitigation bank; or
- other compensatory measures as required by the CDFW and/or USFWS.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-13

Impact: **Impact BIO-13.** Cause disturbance of nesting migratory birds and raptors.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

MOTEMs renovations, including operation of heavy equipment, ground-disturbing activities, and removal of nesting habitat, could disturb nesting birds. An osprey nest is located on Berth 5, and marsh areas support many species of migratory nesting birds.

Implementation of **MMs BIO-13a, BIO-13b, and BIO-19b** reduces this impact to a less than significant level by identifying bird nests prior to work activities and providing for protective buffers, by protecting and replacing the osprey nest that will be removed along with Berth 5, and by replacing vegetation that may be used for nesting following construction.

MM BIO-13a: Pre-renovation Nesting Bird Surveys. To avoid potentially adverse impacts to bird species identified under the Migratory Bird Treaty Act, Tesoro Refining and Marketing Company, LLC shall ensure that prior to any work in Areas A, B, and C (including adjacent staging areas) of the approachway conducted during the nesting season for small birds (March 15 to August 30), a biologist approved by California State Lands Commission staff shall inspect all shrubs, trees, and emergent marsh vegetation in and within 50 feet of the limits of work for nesting birds. The biologist shall also observe all trees and shrubs within 300 feet of the limits of work for evidence of nesting raptors using binoculars and/or spotting scope. The survey shall be conducted no more than seven (7) days prior to the start of work for a given work area, and shall begin within 0.5 hour of sunrise and last a minimum of 2 hours. If the survey indicates the presence of nesting birds, the biologist shall determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged in consultation with the California Department of Fish and Wildlife and/or U.S. Fish and Wildlife Service. The size of the nest buffer shall be determined by the biologist and shall be based on the nesting species and its sensitivity to disturbance.

MM BIO-13b: Osprey Nest Protection. To avoid and minimize impacts to the osprey pair that nest annually on Berth 5, Tesoro Refining and Marketing Company, LLC (Tesoro) shall consult with the California Department of Fish and Wildlife (CDFW) to remove the nest and replace it in a nearby location not subject to Project disturbance. The nest shall be removed when it is inactive (i.e., does not contain egg or juvenile osprey). The replacement nest shall be located as close to the original nest as feasible. The replacement nest structure shall be of comparable or better quality than the nest support structure

removed or destroyed. In addition, prior to any work in Area D of the approachway and at the Avon Terminal (i.e., Berth 1A installation, Berth 5 demolition) conducted during the osprey nesting season (February 15 to August 31), a qualified biologist approved by California State Lands Commission staff shall survey Berth 5 with a spotting scope to determine whether ospreys are nesting. If nesting is observed, the biologist shall watch the nest for a minimum of 2 hours to establish a baseline for the adults' behavioral response to marine traffic and ongoing Avon Terminal operations. In consultation with the CDFW, the resulting information shall be used to determine an appropriately sized buffer around the nest in which no work shall be allowed until the young have successfully fledged.

MM BIO-19b: Revegetation and Restoration Plan. Refer to CEQA Finding No. BIO-19.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-14

Impact: **Impact BIO-14.** Cause disturbance of California clapper rail and California black rail and habitat.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Habitat for California clapper rail and California black rail is present in the Project area. These species may be disturbed by increased human presence, noise, and/or vibrations from heavy equipment causing disruption to breeding, foraging, and shelter, and dispersal. Implementation of **MM BIO-14** reduces this impact to a less than significant level by determining if these species are present and providing protections for them if individuals are located in areas where they could be impacted by the Project.

MM BIO-14: Survey and Avoidance Measures for California Clapper Rail and California Black Rail. Tesoro Refining and Marketing Company, LLC shall retain a U.S. Fish and Wildlife Service (USFWS)-approved permitted biologist to conduct a second year of protocol-level surveys, including rail-call and rail-track surveys at the Project site for California clapper rail and California black rail during the 2015 breeding season, prior to the initiation of renovation. If breeding California clapper rail or California black rail is determined to be present, activities shall not occur within 500 feet of an identified calling center (or a smaller distance if approved by the USFWS and California Department of

Fish and Wildlife). If the intervening distance is across a major slough channel or across a substantial barrier between the rail calling center and any activity area is greater than 200 feet, work may proceed at that location within the breeding season.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-15

Impact: **Impact BIO-15.** Cause disturbance of salt marsh harvest mouse and Suisun shrew and habitat.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

MOTEMS restoration activities could result in impacts to salt marsh harvest mouse and Suisun shrew through direct injury or harm to individuals, and temporary and permanent alteration of suitable habitat. Implementation of **MMs BIO-15a and BIO-15b** reduces this impact to a less than significant level by avoiding impacts to individuals through pre-construction surveys and exclusion of individuals from work areas and by compensating for the loss of suitable habitat due to Project implementation.

MM BIO-15a: Salt Marsh Harvest Mouse and Suisun Shrew Impact Avoidance Measures.

- Any areas dominated by brackish marsh vegetation and adjacent uplands that must be accessed by renovation personnel or equipment shall be cleared of vegetation. All clearing of vegetation shall be done under the direct supervision of a U.S. Fish and Wildlife Service (USFWS)-approved biologist. In renovation and staging areas where habitat is to be disturbed, vegetation shall be cleared to bare ground or stubble no higher than 3 inches, unless otherwise authorized by the USFWS and California Department of Fish and Wildlife (CDFW). Vegetation clearing shall start at the marsh edge closest to the existing approachway and proceed outward toward the marsh interior. Vegetation shall be removed by hand tools.
- If a salt marsh harvest mouse is discovered, the biological monitor shall stop work in the immediate area until the CDFW and USFWS are contacted and the individual has been allowed to leave the work area. If the mouse does not leave the work area, work in the immediate area shall not resume until the CDFW and USFWS are consulted regarding appropriate avoidance measures, and grant permission to commence work. No salt marsh harvest mouse may be handled or captured at any time.

- Exclusion fencing shall be installed around the work areas immediately following vegetation removal. The fence shall be a minimum of 2 feet in height. Openings of at least 10 feet in width shall be established at two to four locations such that habitat connectivity across the marsh is maintained.
- Exclusion fencing shall be extended to the high tide line. Tesoro Refining and Marketing Company, LLC shall monitor tidal heights while the exclusion fencing is installed. If areas within the exclusion fencing are flooded, sections shall be temporarily removed to allow exit of any special-status species from the work area. The area shall then be resurveyed by a USFWS and CDFW-approved biologist, and the exclusion fencing reinstalled.
- Following installation of the fence, the biological monitor shall train a representative to inspect the fencing. The representative shall inspect the fence daily to ensure that it maintains a minimum of 2 feet in height, has no holes or rips, and that the base is still buried. Any necessary repairs to the fencing shall be completed within 24 hours of the initial observance of damage. Work shall not continue within 300 feet of the damaged fencing until the fence is repaired and the site is surveyed by an approved biologist to ensure that salt marsh harvest mice have not entered the work area.
- The biological monitor shall be available on an on-call basis to come to the site in the event that the trained representative finds a salt marsh harvest mouse in the work area after the vegetation has been cleared and the fence has been installed.
- Work within fenced salt marsh harvest mouse habitat shall be scheduled to avoid extreme high tides (6.5 feet or above at the Golden Gate Bridge) when there is potential for mice to move into adjacent uplands.
- Night lighting shall be minimized and pointed down to the extent possible and still assure the safety of personnel working in the area.

MM BIO-15b: Compensation for Temporary and Permanent Loss of Salt Marsh Harvest Mouse Habitat. To compensate for 0.03 acre of permanent impacts and 6.93 acres of temporary impacts on salt marsh harvest mouse habitat (i.e., tidal brackish marsh and adjacent uplands within 100 meters), Tesoro Refining and Marketing Company, LLC shall purchase mitigation habitat credits at the Cordelia Slough Preserve managed by Wildlands, Inc. in northern Suisun Bay. The Preserve provides high-quality habitat for salt marsh harvest mouse and would be managed in perpetuity for that purpose. The final amount of mitigation habitat shall be calculated based on the actual duration of various phases of the Project.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-16

Impact: **Impact BIO-16.** Cause disturbance to marine mammals.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Noise from MOTEMS renovation due to pile driving and Avon Terminal deconstruction can disturb marine mammals in the water and at haul-out sites near the Project area. Project vessels also have potential to collide with marine mammals, causing injury or death to individuals.

Implementation of **MMs BIO-16a, BIO-16b, BIO-16c, and BIO-18b** reduces this impact to a less than significant level by ensuring that vessel operators stay aware of, and away from, marine mammal individuals and that noise levels are monitored and measures are taken to ensure that noise levels remain below levels that significantly impact marine mammals.

MM BIO-16a: Adjust Vessel Speed. Vessel operators shall attempt to remain at least 150 feet from marine mammals and shall maneuver their vessel slowly, watching for seal heads that may pop up around the vessel, to avoid collisions when marine mammals are observed in the Project area. In the event of a vessel collision with a marine mammal, Tesoro Refining and Marketing Company, LLC shall immediately report the incident to the National Marine Fisheries Service West Coast Region Stranding Network at 1-866-767-6114.

MM BIO-16b: Implementation of a Marine Mammal Contingency Plan. Tesoro Refining and Marketing Company, LLC shall prepare a Marine Mammal Contingency Plan, which shall be implemented in its entirety. This plan shall be consistent with section 109 (h) of the Marine Mammal Protection Act for dealing with nuisance animals and animals that need to be relocated from a location for their own protection and welfare. This plan shall be submitted for review and approval to the National Marine Fisheries Service and California State Lands Commission staff 60 days prior to Project implementation.

MM BIO-16c: Prioritize Removal of Potential Haul-out Locations. Parts of the Avon Terminal that have the potential to be used by marine mammals as a resting haul out (pilings and structural support components, boat landing) shall be removed as early in the deconstruction schedule as possible. This shall be done to prevent the continued use of these structures by marine mammals during deconstruction.

MM BIO-18b: Hydroacoustic Monitoring Plan. Refer to CEQA Finding No. BIO-18.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-17

Impact: **Impact BIO-17.** Cause substantial impact to special-status species or sensitive habitat due to degradation of water quality.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

MOTEMS renovations could degrade water quality due to potential release of hazardous materials into the water, and increased suspended sediment load from in-water work activities, such as pile removal, pile driving, and vessel maneuvering over shallow waters. Contaminants, such as lead paint and creosote, when released into marine environments can enter the food chain with impacts to health and reproduction of marine organisms. Increased suspended sediment loads can reduce phytoplankton productivity and dissolved oxygen levels and cause gill injury.

Implementation of **MMs BIO-17a, BIO-17b, BIO-17c, BIO-17d, and WQ-8** reduces this impact to a less than significant level by ensuring that hazardous materials present within the Avon Terminal and piles are removed safely.

MM BIO-17a: Lead-based Paint Management Plan. Because lead-based paint is present on the Avon Terminal, Tesoro Refining and Marketing Company, LLC shall retain a licensed lead-abatement contractor to address lead-based paint prior to the general deconstruction of the Avon Terminal. A lead-based paint management plan shall be prepared and submitted to California State Lands Commission staff for approval 2 weeks prior to deconstruction and included as part of the Project's work plan.

MM BIO-17b: Post-demolition Bathymetric Survey. Tesoro Refining and Marketing Company, LLC shall conduct a post-demolition bathymetric survey, no later than 2 weeks after demolition activities conclude, to confirm that pile stubs are at minimum 3 feet below the mudline and that no renovation debris remains on or above the seafloor.

MM BIO-17c: Stub/scour Monitoring. Tesoro Refining and Marketing Company, LLC (Tesoro) shall conduct monitoring of broken timber piles 2 years after completion of demolition activities to determine whether or not piles have been exposed by erosion. If piles have not remained buried under at least 2 feet of sediment cover, Tesoro shall monitor, consult, and survey to ensure they are not a navigational hazard. Should exposed piles be determined to be a

navigational hazard, Tesoro shall take remedial action to remove the navigational hazard and monitor again in another 2 years.

MM BIO-17d: Minimization of Creosote Release. The following measures shall be used to minimize creosote release, sediment disturbance, and total suspended solids generation during pile removal/deconstruction:

- install a floating surface boom to capture floating surface debris;
- keep all equipment out of the water and grip piles above the waterline;
- slowly lift the piles from the sediment and through the water column; and
- dispose of all removed piles, floating surface debris, sediment spilled on work surfaces, and all containment supplies at a permitted upload disposal site that accepts creosote-treated wood and materials contaminated with creosote.

MM WQ-8: Update Existing Facility Stormwater Pollution Prevention Plan (SWPPP). Refer to CEQA Finding No. WQ-8.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-18

Impact: **Impact BIO-18.** Cause substantial impact to special-status species or sensitive habitat due to increased sound levels from MOTEMS renovation.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Sound from impact pile driving has the potential to affect fish and marine mammals in several ways, ranging from changing behavior to causing physical injury or death. Loud noise may stop fish and pinnipeds from hearing important sounds (masking), or cause hearing loss (temporary or permanent hearing threshold shifts). In the absence of mitigation measures, noise from pile driving will exceed the threshold for behavioral impacts and injury to fish. Implementation of **MMs BIO-18a and BIO-18b** reduces this impact to a less than significant level by ensuring that effective and appropriate sound-attenuation measures are employed, establishing criteria for their success, providing for monitoring of their use and effectiveness, and establishing remedies should they fail to meet success criteria.

MM BIO-18a: Sound-attenuation Measures. Pile driving with an impact hammer shall only occur during the work window specified by the National Marine

Fisheries Service (NMFS) for avoidance of potential impacts to fish species in this region of the San Francisco Bay Estuary, from August 1 to November 30. The work window proposed may be adjusted based on the U.S. Fish and Wildlife Service's programmatic consultation on the delta smelt and through consultation with the California Department of Fish and Wildlife. Conducting work within the work window would minimize the possibility that work activities may impact fish species as listed fish species are less likely to use the action area as a migratory corridor during this period.

- A cushion block (e.g., wood, nylon, Micarta) shall be placed between the pile and impact hammer, if feasible based on pile size and type.
- A confined bubble curtain shall be properly placed around all in-water piles during impact hammer pile driving activities to attenuate underwater sound levels to below thresholds established by the NMFS.

MM BIO-18b: Hydroacoustic Monitoring Plan. Tesoro Refining and Marketing Company, LLC shall retain a qualified specialist to develop a hydroacoustic monitoring plan to ensure compliance with the injury and disturbance thresholds. The purpose of the hydroacoustic monitoring plan shall be to establish protocols to ensure compliance with the Project's sound-attenuation measures and any additional requirements imposed during permitting by regulatory agencies. The plan shall contain measures to:

- Measure sound pressure levels from vibratory and impact pile driving to establish zones of influence related to sound thresholds for fish and marine mammals.
- Avoid injury to marine mammals through visual monitoring of identified zones of influence and cease pile driving activities if any marine mammals enter the zone in which thresholds are exceeded.
- Establish locations for stationing of biological monitors and provide for access to and use of a small maneuverable boat in the immediate vicinity of the monitoring for use during field data collection.
- Conduct field operations to obtain data as follows:
  - Using sound meters, measure baseline of ambient noise in the vicinity of pile driving locations.
  - Measure noise from vibratory and impact pile driving to establish/confirm threshold distances.
  - Make daily observations and record presence and locations of marine mammals.
  - Observe, document, and report any indication of fish injury or mortality in the immediate vicinity of the proposed pile driving activities.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-19

Impact: **Impact BIO-19.** Cause substantial impact to wetlands and other waters of the United States and waters of the State.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The Project will result in temporary and permanent impacts to federally protected seasonal wetlands and other waters, as defined by Section 404 of the Clean Water Act (CWA). Permanent fill of 0.03 acre of tidal brackish marsh will be caused by widening of the vehicle access road from the Golden Eagle Refinery to the new Avon Terminal approachway. Temporary impacts to 4.84 acres of tidal brackish marsh will result from the use of temporary work areas, staging of MOTEMS renovation materials, and areas for crane pads. Implementation of **MMs BIO-19a and BIO-19b** reduces this impact to a less than significant level by ensuring work limits are marked in wetlands, controls are installed to limit erosion and sediment, and wetland vegetation are restored following renovation work.

MM BIO-19a: Avoidance and Minimization Measures for Impacts to Wetlands and Waters. Tesoro Refining and Marketing Company, LLC shall ensure that the following measures are implemented by the contractor during renovation to minimize impacts on wetlands and aquatic resources, including waters of the United States and waters of the State:

- Renovation activities shall be avoided in saturated or ponded wetlands and streams. Where wetlands or other water features must be disturbed as authorized by permitting resource agencies, the minimum area of disturbance necessary for renovation shall be identified and the area outside of that necessary area shall be avoided.
- Prior to renovation, silt fencing shall be installed along the work limits in areas within 50 feet of designated wetlands and drainages.
- To minimize the degradation of designated wetlands in the Project vicinity, protective practices such as use of geotextile cushions or other materials (e.g., timber pads, prefabricated equipment pads, geotextile fabric, or other permeable material) or vehicles with balloon tires shall be employed.
- The contractor shall stabilize exposed slopes immediately upon completion of renovation activities. Erosion control measures shall be installed adjacent to suitable aquatic habitat to prevent soil from eroding or falling into these areas. Restoration shall be completed and monitored as described in MM BIO-19b.
- Natural/biodegradable erosion control measures (i.e., straw wattles and hay bales) shall be used. Plastic monofilament netting (erosion control matting)

shall not be allowed because wildlife can become entangled in this type of erosion control material.

MM BIO-19b: Revegetation and Restoration Plan. Tesoro Refining and Marketing Company, LLC (Tesoro) shall retain a qualified restoration specialist or botanist to develop a Revegetation and Restoration Plan that describes how marsh habitats shall be enhanced or recreated and monitored over a minimum period of 5 years. Tesoro shall be responsible for ensuring that the revegetation and restoration plan is implemented under the guidance of the restoration specialist. The plan shall be designed such that it meets the following success criteria, or other equally protective success criteria as approved by the resource agencies through the permitting process:

- The restored site is composed of a mix of appropriate native species.
- The restored site has at least 75 percent of the absolute cover of native vegetation present in areas immediately adjacent to the renovation area.
- Plantings are self-sustaining after a reasonable establishment period without human support (e.g., weed control, rodent control, irrigation).
- Functions and values of the restored habitat are comparable to those of adjacent, undisturbed marsh habitat.

After revegetation and restoration are completed, monitoring shall be conducted by a restoration specialist or biologist for a minimum of 5 years to ensure that the success criteria, as identified in the revegetation and restoration plan, are met, and to identify any necessary remedial actions during the monitoring period. At a minimum, the success criteria shall be met for the final 2 years of the monitoring period. Remedial action shall be required of Tesoro if the restoration specialist finds that any of the above criteria are not met by the end of the monitoring period. Annual monitoring reports shall be submitted to California State Lands Commission staff.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-20

Impact: **Impact BIO-20.** Cause substantial impact to Essential Fish Habitat (EFH) due to renovation of new and replacement overwater structures.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

New and replacement overwater structure renovation and modification of existing structures may adversely affect EFH and Habitat Areas of Particular Concern (HAPC) for federally managed fish species within the Pacific groundfish, Pacific salmon, and coastal pelagic fishery management plans. Potential adverse effects of new and replacement overwater structure renovation to EFH and HAPC include wave energy regime and substrate effects, water quality degradation, elevated levels of sound pressure waves, support or spread of nonindigenous species, and cumulative effects. Implementation of **MMs BIO-8b, BIO-8c, BIO-9a, BIO-9b, BIO-11b, BIO-17b, BIO-17c, BIO-18a, BIO-18b, and WQ-8** reduces this impact to a less than significant level by providing protection from degradation of water quality and invasive species during renovation activities.

MM BIO-8b: Cleanup of Oil from Biological Area. Refer to CEQA Finding No. BIO-8.

MM BIO-8c: Natural Resource Damage Assessment (NRDA) Team. Refer to CEQA Finding No. BIO-8.

MM BIO-9a: Marine Invasive Species Act Reporting Forms. Refer to CEQA Finding No. BIO-9.

MM BIO-9b: Invasive Species Action Funding. Refer to CEQA Finding No. BIO-9.

MM BIO-11b: Nearshore Habitat Disturbance Minimization. Refer to CEQA Finding No. BIO-11.

MM BIO-17b: Post-demolition Bathymetric Survey. Refer to CEQA Finding No. BIO-17.

MM BIO-17c: Stub/scour Monitoring. Refer to CEQA Finding No. BIO-17.

MM BIO-18a: Sound-attenuation Measures. Refer to CEQA Finding No. BIO-18.

MM BIO-18b: Hydroacoustic Monitoring Plan. Refer to CEQA Finding No. BIO-18.

MM WQ-8: Update Existing Facility Stormwater Pollution Prevention Plan (SWPPP). See CEQA Finding No. WQ-8.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. BIO-21

Impact: **Impact BIO-21.** Isolate wildlife populations and/or disrupt wildlife migratory or movement corridors, or use of native wildlife nursery sites.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Exclusion fencing in marshland will be installed such that movement of species within the marshes is not curtailed. Pile driving can produce noise levels that cause fish to avoid the area, and thus disrupt native fish migratory and movement corridors. The Project area's open waters and marshlands are used as nursery sites by native fish and birds, thus renovation may impact native wildlife nursery sites.

Implementation of **MMs BIO-10b, BIO-11a, BIO-13a, BIO-15a, and BIO-19b** reduces this impact to a less than significant level by minimizing work areas, conducting pre-renovation surveys for nesting birds and providing protective buffers, and ensuring that marsh areas are restored following renovation.

MM BIO-10b: Designated Work Areas. Refer to CEQA Finding No. BIO-10.

MM BIO-11a: In-water Work Restrictions. Refer to CEQA Finding No. BIO-11.

MM BIO-13a: Pre-renovation Nesting Bird Surveys. Refer to CEQA Finding No. BIO-13.

MM BIO-15a: Salt Marsh Harvest Mouse and Suisun Shrew Impact Avoidance Measures. Refer to CEQA Finding No. BIO-15.

MM BIO-19b: Revegetation and Restoration Plan. Refer to CEQA Finding No. BIO-19.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. CUM-BIO-5

Impact: **Impact CUM-BIO-5.** Cause cumulative adverse impacts to special-status species, biotic communities, and habitat through MOTEMS renovation and replacement of Avon Terminal structures.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Impacts from MOTEMS renovation will be temporary and confined to the immediate Project vicinity. Within the impact area, the Project will cause temporary and permanent impacts to habitat for special-status plant and wildlife species. Implementation of **MMs BIO-15b and BIO-19b** reduces this impact to a less than significant level by ensuring that marshlands are restored following renovation and that temporary and permanent impacts to marsh habitat are compensated.

MM BIO-15b: Compensation for Temporary and Permanent Loss of Salt Marsh Harvest Mouse Habitat. Refer to CEQA Finding No. BIO-15.

MM BIO-19b: Revegetation and Restoration Plan. Refer to CEQA Finding No. BIO-19.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

2. Water Quality

CEQA FINDING NO. WQ-6

Impact: **Impact WQ-6.** Degrade water quality due to anti-fouling paints used on vessel hulls.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Marine anti-fouling paints used to reduce nuisance algae and biofouling on ships that call at marine terminals, including the Avon Terminal, have the potential to degrade water quality. These paints include high concentrations of biocides that contain copper, zinc, and other substances that are toxic to marine life that may settle on, or attach to, the wetted surfaces of ships. The International Convention on the Control of Harmful

Anti-fouling Systems on Ships (AFS Convention) went into force in January 2008. It prohibits and restricts application, re-application, installation, or use of harmful anti-fouling paints on ships, especially those containing harmful organotins, such as tributyltin (TBT). Because of the restrictions on the use of TBT that leach into seawater, tankers arriving at the Avon Terminal during the upcoming lease term will not represent a significant ongoing source for TBT. A large portion of the biocide-based coatings on oil tankers entering California's waters are copper-based or zinc-based. Although the continued vessel traffic in the Carquinez Strait and Suisun Bay is unlikely to cause a measurable increase in copper or zinc concentrations above water quality objectives or ambient levels, some leaching will occur. Due to the high toxicity of biocides, the use of these substances on vessels associated with the Avon Terminal is considered to be a potentially significant adverse impact to water quality.

Implementation of **MM WQ-6** reduces this impact to a less than significant level by ensuring that berthing vessels comply with the AFS Convention.

MM WQ-6: Tributyltin (TBT) Ban Requirements. Tesoro Refining and Marketing Company, LLC (Tesoro) shall prepare, and maintain current, a fact sheet and provide it to all vessels calling at the Avon Terminal to ensure that they are informed of the requirements of the 2008 International Maritime Organization prohibition of TBT applications to vessel hulls. Prior to allowing berthing at the Avon Terminal, Tesoro shall confirm with vessels that they are in compliance with the Marine Invasive Species Act (MISA) and implementing regulations, including completion of MISA-required paperwork. Tesoro shall ensure that all vessels submit required reporting forms prior to the vessel's entry into the San Francisco Bay Estuary or in the alternative, at least 24 hours prior to the vessel's arrival at the Avon Terminal.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. WQ-8

Impact: **Impact WQ-8.** Degrade water quality as a result of stormwater runoff from the Avon Terminal.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project that have the potential to result in stormwater runoff from the Avon Terminal may contribute pollutants to the San Francisco Bay Estuary. The Avon Terminal has several existing best management practices (BMPs) in

place, which reduce the risk of incidental spills reaching the San Francisco Bay Estuary. For example, the Avon Terminal has drip collection equipment that includes basins, funnels, manifold drains, and sample sinks that drain by gravity to the berth slop tanks. The slops system is used to transfer residual oily waste (primarily from cargo hose draining) and wastewater (wash water and rainwater runoff) from the Avon Terminal to a shore-side receiving tank, where it is then directed to shore facilities for further processing. The slops system consists of holding tanks, pumps, manifolds, pipelines, and a shore-side slops tank. Stormwater and surface drips are collected and drained into a 1,125-gallon, dock-mounted steel recovery tank that is double-walled, internally coated, and protected from overflowing by level control instrumentation. Recovered drip-pan stormwater and oil collections are typically pumped onshore through a 6-inch-diameter recovered oil pipeline and treated.

A similar liquid collection system will be installed at Berth 1A and integrated into the existing wastewater system. The entire concrete platform surface of Berth 1A will have a curbed perimeter serving as a collection area. Discharge from Berth 1A will be pumped to the onshore Refinery Wastewater Treatment Plant (WWTP) for full treatment. Collected runoff from the Avon Terminal is combined with process waters and pumped to the WWTP for full treatment, and is ultimately discharged to Suisun Bay via permitted outfall E-001.

Activities at the Avon Terminal are subject to National Pollutant Discharge Elimination System (NPDES) Permit CA0004961, Waste Discharge Requirements Order No. R2-2010-0084 issued by the San Francisco Bay Regional Water Quality Control Board. Pursuant to its NPDES permit, Tesoro has prepared a Storm Water Pollution Prevention Plan (SWPPP), which includes the onshore operations at the Refinery. The SWPPP does not specifically address the potential for pollutant input from the Avon Terminal.

Good housekeeping practices that maintain a clean and orderly work area will reduce the potential for stormwater to be contaminated by waste products, accidental spills, and improperly placed materials. Initial training and periodic retraining of employees in housekeeping techniques is currently conducted at ongoing safety meetings. Supervision and inspection of housekeeping activities are routinely conducted.

On non-bermed areas of the Avon Terminal and approachway, contaminants have the potential to accumulate on surfaces from routine vehicle use, maintenance activities, and daily operations. Project activities require the transport and handling of hazardous materials, such as fuels, oils, and waste products to operate and maintain facility equipment, and if such materials accumulated on Avon Terminal surfaces, they could flow into the San Francisco Bay Estuary during storm events. However, the potential for adverse effects is less than significant with the combination of compliance to regulations regarding the management of hazardous materials and the existing secondary containment facilities in place at the Avon Terminal. Implementation of **MM WQ-8** is incorporated into the Project to reduce this impact to a less than significant level.

MM WQ-8: Update Existing Facility Stormwater Pollution Prevention Plan (SWPPP). Tesoro Refining and Marketing Company, LLC (Tesoro) shall

update the existing SWPPP to include specific best management practices (BMPs) to prevent stormwater runoff from the new Berth 1A and approachway. BMPs shall be designed to reduce the input of contaminants to the San Francisco Bay Estuary and prevent leaks and spills during routine activities. Specific stormwater BMPs for Berth 1A and the approachway shall include:

- Concrete berms and containment for spills on Berth 1A.
- Documented inspections of the Avon Terminal approachway, as well as Berth 1A containment systems, in addition to already included requirements for immediate cleanup of any spills or releases.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. WQ-13

Impact: **Impact WQ-13.** Degrade surface water quality as a result of onshore MOTEMS renovation activities.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to degrade surface water quality in local streams by reducing the quality of stormwater runoff. During Project renovation, lubricants, fuels, and other chemicals used for construction machinery could be spilled during normal usage or during refueling. Spills associated with construction equipment, such as oil/fuel drips or gasoline/diesel spills occurring during fueling operations, typically involve small volumes that can be effectively contained within the work area and cleaned up immediately. Fuel, oil, and chemical storage will be performed offsite or sited on an impervious base within an appropriately sized containment area. The use of standard BMPs, such as drip pans, contained refueling areas, regular inspection of equipment and vehicles, and immediate repairs of leaks, will reduce the potential for material from onshore demolition and renovation activities to be transported offsite and enter surface waters or Suisun Bay.

Concrete for the new sections of the approachway will be pre-cast to the extent possible. However, the Project will also involve some cast-in-place concrete. The pre-cast panels will be manufactured offsite, reducing the potential for impacts on water quality. The use of cast-in-place concrete can potentially have adverse effects on the environment. Fresh concrete is very alkaline and corrosive, and cast-in-place concrete can also generate washwater, a slurry that contains fine particles and high pH. The use of wet concrete and cement in or nearby any watercourse will be carefully controlled to minimize the risk of any material entering the water. The Project will minimize the use of

cast-in-place concrete by utilizing pre-cast concrete to the greatest extent possible. The limited use of cast-in-place concrete will decrease the potential impacts of washwater. To further reduce the impacts on water quality, the concrete batching plant will be washed out and cleaned offsite or in contained areas, as far from watercourses as practicable.

The Project may result in a transitory disturbance to surrounding wetland habitats and associated plant and wildlife species due to vegetation clearing and operation of heavy equipment related to onshore renovation and demolition activities. The Project will minimize impacts on wetlands by avoiding designated wetlands and sensitive areas. Tesoro does not anticipate that the Project will require heavy equipment to be moved through wetland areas during renovation. Temporary construction crane access pads will be used to access renovation areas. Cranes will be used to lift the existing railway and timber decking off of the existing timber pile caps in large sections. A marine barge or flatbed trailer will remove trackway materials from the site or move them to the laydown area for processing and off-site disposal. **MM BIO-19a** will ensure on-site staging areas will be located away from designated wetlands. After proposed renovation activities have been completed, implementation of **MM BIO-19b** will ensure that marshlands are restored. Tesoro shall retain a qualified restoration specialist or botanist to develop a revegetation and restoration plan that describes how marsh habitats shall be enhanced or recreated and monitored over at least 5 years.

MM BIO-19a: Avoidance and Minimization Measures for Impacts to Wetlands and Waters. Refer to CEQA Finding No. BIO-19.

MM BIO-19b: Revegetation and Restoration Plan. Refer to CEQA Finding No. BIO-19.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

CEQA FINDING NO. WQ-15

Impact: **Impact WQ-15** Degrade surface water quality as a result of offshore MOTEMS renovation activities.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The proposed MOTEMS renovation activities have the potential to degrade water quality as a result of accidental release of pollutants, sediment disturbance, and introductions of nonindigenous aquatic species. The use and refueling of derrick barges, tug boats, and construction equipment over water during Project renovation activities

could result in the accidental release of renovation-related chemicals. The potential for fuel spills will be minimized because lubricants and solvents will be stored in approved containers, and the refueling will normally take place at approved dockside facilities. With the relatively small volumes involved and spill prevention measures required by regulations, the probability of a substantial release occurring from construction vessels is low. Furthermore, spill response capabilities currently in place and required under existing regulations will be adequate to mitigate reasonably foreseeable spills from construction vessels.

Creosote-treated timber piles removed during the demolition of Berth 5 could potentially cause adverse environmental impacts. Creosote, a mixture of hydrocarbon compounds, was historically used to protect wood products. Creosote can break down and could leach out of the wood and accumulate to harmful levels in the surrounding water column and sediment. To minimize introduction of creosote to the water column, the timber stub will not be "chewed off" with a clam shell dredge or other equipment.

During pile removal, installation, and renovation activities, particulate-bound pollutants could become remobilized and/or dissolved in the water column, and could result in potential water quality degradation. However, the contaminants present in sediment in the surrounding area (metals, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, and pesticides) tend to sorb strongly onto sediment/soil, and are not readily mobilized. The effects of sediment suspension during pile removal and installation are expected to have little effect on water quality due to the low mobility and low concentrations of contaminants.

Construction vessels, such as cranes and barges, could introduce new nonindigenous aquatic species through biofouling, which can have significant adverse impacts to local water quality. Construction vessels are generally considered high-risk vessel types because of their operational profile (slow moving, stationary for long periods). Construction barges are not typically cleaned or coated with anti-fouling paints, since fuel efficiency is not a critical factor, which further increases the risk of biofouling.

Implementation of **MM BIO-17d** will reduce the potential impacts from sediment disturbance and accidental release of pollutants to less than significant levels. Implementation of **MMs WQ-5 and WQ-15** will mitigate the risk of introduction of new nonindigenous aquatic species associated with construction vessels to less than significant. Adherence to biofouling regulations will minimize the risk of new introductions of nonindigenous aquatic species, and using only local construction vessels will prevent new species from being introduced from different areas.

MM BIO-17d: Minimization of Creosote Release. Refer to CEQA Finding No. BIO-8.

MM WQ-5: Biofouling Regulations and Standards. Refer to CEQA Finding No. WQ-5.

MM WQ-15: Utilize Local/Regional Barges and Vessels during Renovation. During renovation activities, Tesoro Refining and Marketing Company, LLC shall utilize barges and other vessels originating with the local vicinity or the Pacific Coast Region, to the extent practicable.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the mitigation described above, this impact is reduced to a less than significant level.

D. SIGNIFICANT AND UNAVOIDABLE IMPACTS (SU)

The following impacts were determined in the Final EIR to be significant and unavoidable. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

1. Operational Safety/Risk of Accidents

CEQA FINDING NO. OS-1

Impact: **Impact OS-1.** Potential for oil spills and response capability for containment of oil spills from the Avon Terminal during continued operations.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The Avon Terminal operates primarily as an export terminal for petroleum products. Both tankers and barges are used. The maximum number of vessels projected to call annually at the Avon Terminal is 120. Spills may originate from the Avon Terminal or from a tank vessel, and may be due to natural factors (e.g., earthquake, tsunami, and/or severe environmental conditions), human error (e.g., berth collision, bad hose connection, and/or ineffective mooring line tending), or equipment failure. Potential sources of a spill from the Avon Terminal include drip pans, hydraulic hoses, loading hoses and fittings, pipelines and fittings, and valves.

Tesoro is required by regulation to maintain a current Oil Spill Prevention and Response Plan and to have the necessary resources on-site to handle spills of 50 barrels (2,100 gallons) or less. Should a spill of more than 50 barrels occur, Tesoro is required to take steps to minimize impacts with its on-site equipment, and contact its contracted Oil Spill

Response Organization, Marine Spill Response Corporation, which has the resources and capability to respond to large spills.

MOTEMS minimum engineering, inspection, and maintenance standards apply to all existing and new marine oil terminals in California, and include criteria for maintenance; inspection; structural and seismic analysis and design; mooring and berthing; geotechnical considerations (including site-specific assessment); and analysis and review of the fire, piping, mechanical, and electrical systems. Tesoro completed its initial MOTEMS audit of the Avon Terminal in March 2008, including comprehensive inspections and evaluations of the existing structural and non-structural facilities. The Avon Terminal was evaluated for compliance with MOTEMS again in March 2011. Based on Tesoro's findings, some seismic structural strengthening, fire system upgrades, and structural and non-structural improvements were completed at the Avon Terminal between 2008 and 2014; however, significant seismic structural upgrades are still required, and one of the primary objectives of the proposed renovation project.

The probability that a release would occur at the Avon Terminal has been derived from CSLC statistics of past spills at marine oil terminals in the San Francisco Bay Area from 2004 through 2013. The annual probability of a spill of any size from the Avon Terminal or a tank vessel at the Avon Terminal was calculated to be 0.34 (or once every 3 years). This drops to a spill every 59 years for a spill greater than 1,000 gallons.

Tesoro reported in its Oil Spill Response Plan that there have been eight reportable spills at the Avon Terminal since 1991, the largest involving 10 gallons of diesel in 2005. These spills also show up in the CSLC spill database.

Tesoro's conformance with its existing Oil Spill Prevention and Response Plan, which requires that the Avon Terminal have the necessary resources to handle spills of 50 barrels (2,100 gallons) or less, together with implementation of **MMs OS-1a through OS-1c**, will reduce these potentially significant impacts to less than significant for a small spill of 50 barrels or less. However, even though the probability of a moderate spill is low, and the probability for a larger spill is even lower, spill modeling results show that such events could pose a threat to human health through interaction with the spilled material, which will be a significant impact, even with the implementation of **MMs OS-1a, OS-1b, and OS-1c**.

Implementation of **MM OS-1a** will minimize this impact by allowing the quick release of mooring lines in the event of an emergency. In the event of a fire, tsunami, explosion, or other emergency, quick release (within 60 seconds) of the mooring lines will allow the vessel to quickly leave the Avon Terminal, which could help prevent damage to the Avon Terminal and vessel, and avoid and/or minimize spills. These measures may also help isolate an emergency situation, such as a fire or explosion, from spreading between the Avon Terminal and vessel, thereby reducing spill potential. By providing mooring release devices capable of being engaged by a locally initiated electric/push button release system and by a remotely operated release mechanism, Tesoro will have several different options to cover emergency situations.

MM OS-1a: Remote Release Systems. Tesoro Refining and Marketing Company, LLC (Tesoro) shall install remote release systems to allow a vessel to leave the Avon Terminal as quickly as possible in the event of an emergency (fire, explosion, accident, or tsunami) that could lead to a spill. Tesoro shall provide and maintain mooring line quick-release devices that shall be able to be activated within 60 seconds. These devices shall be capable of being engaged by an electric/push-button release mechanism and by an integrated remotely operated release system.

- Tesoro shall document procedures and training for systems use and communications between Avon Terminal and the vessel operator(s).
- Routine inspection, testing, and maintenance of all equipment and systems shall be conducted in accordance with manufacturers' recommendations and necessity and shall be required to ensure safety and reliability, to the satisfaction of California State Lands Commission (CSLC) staff.
- Tesoro may install alternate technology that provides an equivalent level of protection, as reviewed by CSLC staff and approved by the Commission at a publicly noticed meeting.

The Avon Terminal is located in a high-velocity current area and currently has only limited devices to monitor mooring line strain and integrated environmental conditions. The upgrade to devices with capabilities, as detailed in **MM OS-1b**, can warn operators of the development of dangerous mooring situations, allowing time to take corrective action and minimize the potential for the parting of mooring lines, which can quickly escalate to the breaking of hose connections, the breakaway of a vessel, and/or other unsafe mooring conditions that could ultimately lead to a petroleum product spill. Backed up by an alarm system, real-time data monitoring and control room information will provide the Terminal Person-In-Charge with immediate knowledge of whether safe operating limits of the moorings are being exceeded. Mooring adjustments can be made to reduce the risk of damage and accidental conditions.

MM OS-1b: Tension Monitoring Systems. Tesoro Refining and Marketing Company, LLC (Tesoro) shall provide and maintain tension monitoring systems to effectively monitor all mooring line and environmental loads, and avoid excessive tension or slack-line conditions that could result in damage to the Avon Terminal structure or equipment, and/or vessel mooring line failures that could result in spills.

- Line tensions and environmental data shall be integrated into systems that record and relay all critical data in real time to the control room, Avon Terminal operator(s), and vessel operator(s).
- This system shall include, but not be limited to, quick-release hooks only (with load cells), site-specific current meter(s), site-specific anemometer(s), and visual and audible alarms that can support effective preset limits and that are able to record and store monitoring data.
- Tesoro shall document procedures and training for systems use and communications between the Avon Terminal and vessel operator(s).

- Routine inspection, testing, and maintenance of all equipment and systems, in accordance with manufacturers' recommendations and necessity, shall be required to ensure safety and reliability, to the satisfaction of California State Lands Commission (CSLC) staff.
- Tesoro may install alternate technology that provides an equivalent level of protection, as reviewed by CSLC staff and approved by the Commission at a publicly noticed meeting.

Implementation of **MM OS-1c** will minimize this impact by monitoring an approaching vessel's speed, approach angle, and distance from the dock to keep the potential impact velocity within the maximum elastic allowable limits of the fender/structural system, and thus help to prevent damage to the Avon Terminal and/or vessel due to vessel impact that could lead to a spill. Monitoring these factors will ensure that all vessels can safely berth at the Avon Terminal and comply with the minimum standards required in the MOTEMS.

Furthermore, monitoring passing vessels and moored vessel movements with Allision Avoidance Systems ensures that all vessels can remain securely moored at the Avon Terminal and comply with the minimum standards required in the MOTEMS. Excessive surge or sway of vessels (motion parallel or perpendicular to the wharf, respectively), and/or passing vessel forces, may result in sudden shifts/redistribution of mooring forces through the mooring lines, which can quickly escalate to the failure of mooring lines, breaking of loading arm connections, the breakaway of a vessel, and/or other unsafe mooring conditions that could ultimately lead to a spill.

MM OS-1c: Allision Avoidance Systems (ASSs). Tesoro Refining and Marketing Company, LLC (Tesoro) shall provide and maintain AASs at the Avon Terminal to prevent damage to the pier/wharf and/or vessel during docking and berthing operations.

- The AASs shall be used and alarmed to monitor vessel drift (both surge and sway) during all mooring operations, and shall be equipped with an AIS receiver to capture passing vessel parameters.
- The AASs shall be integrated with the tension monitoring systems such that all data collected are available in the control room and to Avon Terminal operator(s) at all times and vessel operator(s) during berthing operations. The AASs shall also be able to record and store monitoring data.
- Tesoro shall document procedures and training for systems use and communications between the Avon Terminal and vessel operator(s).
- Routine inspection, testing, and maintenance of all equipment and systems, in accordance with manufacturers' recommendations and necessity, shall be required to ensure safety and reliability, to the satisfaction of California State Lands Commission (CSLC) staff.
- Tesoro may install alternate technology that provides an equivalent level of protection, as reviewed by CSLC staff and approved by the Commission at a publicly noticed meeting.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. OS-2

Impact: **Impact OS-2.** Potential for spills from Avon Terminal pipelines during non-transfer periods during continued operations.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Spills from the Avon Terminal during non-transfer periods would be associated with a pipeline leak. The worst case discharge (WCD) for current operations at the Avon Terminal is 10,443 barrels (438,606 gallons), which is the sum of individual spill volumes from multiple pipelines, transferring at the same time, if simultaneous failures of the piping systems occur. (The WCD is calculated pursuant to 40 Code of Federal Regulations [CFR], Part 112, Appendix D, “Determination of a Worst Case Discharge Planning Volume.”) As part of the MOTEMS renovations, Tesoro will construct Berth 1A, which will become the only operational berth, replace portions of the pipelines, and upgrade the pipeline support system. When Berth 1A becomes operational, MOTEMS will require that only one pipeline can be used to transport product to and from Berth 1A at any given time. Thus the WCD after the MOTEMS renovations are complete will be reduced to the volume of the largest individual pipeline, or 6,207 barrels (260,694 gallons), resulting in a reduction in the WCD by 4,236 barrels (177,912 gallons), or 41 percent.

10,443 barrels – 6,207 barrels = 4,236 barrels
4,236 barrels x 42 gallons/barrel = 177,912 gallons

Tesoro has an extensive pipeline inspection and maintenance program in place to prevent and detect leaks. Nevertheless, leaks or spills are possible and, considering the Avon Terminal maximum pipeline volume of 6,207 barrels following MOTEMS renovations, a substantial spill remains possible. Tesoro will respond to a pipeline leak or spill, as described in the EIR under Impact OS-1, according to the extent of the spill and affected area. Tesoro is also currently required to have spill response capabilities in constant readiness for the WCD from the whole of the Avon Terminal, which exceeds the volume of any leak or spill that could occur from the largest-volume pipeline. Even with response measures in place, depending on the size of the spill and the environmental resources affected, impacts of a spill could be significant because there

is an inherent risk of spills at any facility where petroleum product is routinely transferred in large quantities that can never be fully mitigated to less than significant.

These prevention and response capabilities are a requirement under MOTEMS and are considered to be inclusive of all feasible measures to reduce the risk of oil spills from the Avon Terminal during non-transfer periods. Compliance with MOTEMS is an integral part of the Project. Compliance with applicable regulatory standards such as MOTEMS has been held to be a "common and reasonable mitigation measure, and may be proper where it is reasonable to expect compliance." (*Oakland Heritage Alliance v. City of Oakland* (2011) 195 CA4th 884, 906; 1 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act (Cont.Ed.Bar 2014) § 14.15, pp. 14-20 through 14-21.) For this Project, where a fundamental part of the Project is to achieve MOTEMS-required compliance, no additional mitigation was identified that could fully mitigate the impact from a potential oil spill from the pipelines during non-transfer operations. Although no additional mitigation measures were deemed feasible, the Project renovation in compliance with MOTEMS and other MOTEMS requirements will substantially lessen the risk from leaks or spills during non-transfer periods.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. OS-3

Impact: **Impact OS-3.** Potential for fires and explosions during continued operations, and response capability.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in a fire and/or an explosion that could lead to a major oil spill, which could result in a significant impact, as described in CEQA Finding No. OS-1.

The nearest residential area is almost 2 miles away. The property adjacent to and directly south of the Avon Terminal is part of the Refinery, and public access to this area is prohibited. The Benicia-Martinez Bridge is approximately 1.75 miles away. There are no other public gathering areas, such as parks and marinas, located within 2 miles of the Avon Terminal. These areas are sufficiently far away to not be impacted by heat from a potential fire or flying debris from a potential explosion at the Avon Terminal. Due

to separation distance, the risk to the public from a potential fire or explosion at the Avon Terminal is less than significant. If an oil spill were to occur from the Avon Terminal or from a tank vessel at the Avon Terminal and become ignited, it could drift toward the Benicia/Martinez Bridge and commercial/recreational vessels in the area. This could present a hazard to the public or property. The intervening distance will provide time to respond and evacuate public areas if needed for safety and, combined with the extremely low probability of an oil spill with fire occurring, the risk to the public is less than significant. However, a major fire at the Avon Terminal could result in an oil spill with significant impacts similar to Impact OS-1 (refer to CEQA Finding No. OS-1).

There have been no reported fires or explosions at the Avon Terminal; however, tank vessels have the potential to be a source of fire or explosion. Tank vessels are required to have sophisticated firefighting systems. The tank vessel crews are trained in the use of the firefighting equipment, and the onboard firefighting equipment is sufficient to extinguish most fires. Tank vessels loading or unloading low-flash cargoes are also required to have properly operating inert gas systems (IGS). An IGS generates an inert gas that is injected into the cargo tanks to displace the oxygen to a level that will not support ignition. The Vessel Person-in-Charge is required to verify that the tanks are inerted and that the IGS is working properly before transfer operations can commence. Products with flash points greater than 150 degrees Fahrenheit (ºF) do not generate enough vapors to support ignition, unless the product is heated to a temperature above 150ºF. The Avon Terminal does not transfer any products that would produce gas cloud hazard footprints that would cause a toxic health or safety risk to the public.

Another potential area for a fire or explosion is the Marine Vapor Recovery (MVR) system. The purpose of an MVR system is to provide fire and explosion protection. To prevent fires and explosions in the system, natural gas is injected into the vapor stream to enrich the recovered vapors (vapors coming off the vessel during loading operations). A hydrocarbon analyzer measures and verifies that the proper enrichment values are met. Nitrogen is used to purge the vapor hose at the end of all vapor transfer operations. An insulating unit electrically isolates the vapor hose from the Avon Terminal. Static charges developed in the hose during vapor transfer will flow back to the vessel. An insulating flange is provided at the berth end of the hose to electrically isolate the hose and the vessel from the berth.

A detonation arrester is installed in the vapor pipeline to prevent a flame from passing from the Avon Terminal to the ship. Tesoro submitted information on the existing MVR as originally designed and installed to the U.S. Coast Guard (USCG) in compliance with the requirements of 33 CFR, Part 154. As part of submission, Tesoro performed a Safeguarding Analysis of the MVR. A Letter of Adequacy for the MVR was issued by the USCG prior to its operation. The USCG reviews the MVR test records as part of its annual facility inspection. As part of the renovation, a new skid-mounted MVR will be installed. Information on this system, including a Safeguarding Analysis, will be submitted to the USCG for review and approval, and a Letter of Adequacy for the MVR will have to be issued prior to its operation.

Tesoro also has numerous other measures in place to minimize any ignition sources. For example, hot-work permits are required before any welding is allowed. Smoking is not allowed at the Avon Terminal or anywhere on Refinery grounds. With the low probability of a release and the measures in place to minimize the presence of ignition sources, the potential for a fire involving released product is extremely low.

The probability of a tank vessel explosion at the Avon Terminal is low because of the USCG regulations requiring that tank vessels be equipped with IGS. The CSLC (2014a) calculated the potential hazard areas from a tanker fire and explosion. The radiant-heat hazard footprint would not pose a significant hazard to the public because there are no residences or other public receptor locations within that hazard footprint (300 feet of the Avon Terminal). A cargo tank explosion could send flying debris up to 1,500 feet from the vessel. Except for occasional transient traffic in the waterway, which is required to avoid the main shipping channel and maintain distance from the Avon Terminal, there are no public receptor locations within 1,500 feet of the Avon Terminal. Hence, the public would not be expected to be impacted by flying debris from a vessel explosion. Considering the separation distance, the fire or explosion risk to the public is less than significant. Furthermore, the very low probability (less than one in a million per vessel call [CSLC 2014a]) of a tank vessel explosion makes its occurrence unlikely.

Tesoro's existing fire protection system at the Avon Terminal will be upgraded as part of the renovation to meet MOTEMS requirements. Tesoro also maintains its own fire and emergency response department with full-time trained personnel at the Refinery. These personnel are trained in fighting petroleum fires at the Avon Terminal. Tesoro is also a member of the local Petro-Chemical Mutual Aid Organization, an agreement between large industries in the San Francisco Bay Area to provide aid in the form of spill/hygiene/fire-response equipment and assistance. In addition, the Contra Costa County Fire Protection District will respond to a marine fire and provide support.

Implementation of **MM OS-3**, including the development of procedures, training, and drills consistent with MOTEMS and the management of potential tank vessel fires and explosions for vessels berthed at the Avon Terminal, will help to both reduce the probability of a tank vessel fire and increase response capability to further limit impacts of such a fire.

MM OS-3: Fire Protection Assessment. Tesoro Refining and Marketing Company, LLC (Tesoro) shall develop a Fire Protection Assessment, including a set of procedures, training, and drills consistent with Marine Oil Terminal Engineering Maintenance Standards (Cal. Code Regs., tit. 24, § 3108F2.2). Tesoro shall also develop a set of procedures and conduct training and drills for managing potential tank vessel fires and explosions for vessels berthed at the Avon Terminal. The procedures shall include the steps to follow in the event of a tank vessel fire and describe how Tesoro and the vessel operator will coordinate activities. The procedures shall also identify other capabilities that can be procured, if necessary, in the event of a major incident. The Fire Protection Assessment shall be submitted to California State Lands Commission (CSLC) staff within 90 days of lease renewal. Tesoro shall update the plan and

procedures to cover the new Berth 1A and submit them to CSLC staff for approval prior to any tank vessel docking at Berth 1A. CSLC staff shall have final approval of the plan and procedures.

MM OS-1a: Remote Release Systems. Refer to CEQA Finding No. OS-1.

MM OS-1b: Tension Monitoring Systems. Refer to CEQA Finding No. OS-1.

MM OS-1c: Allision Avoidance Systems. Refer to CEQA Finding No. OS-1.

MM OS-7: Pipeline Purging and Removal Plan. See CEQA Finding No. OS-7.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. OS-4

Impact: **Impact 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.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Spills from marine vessel accidents in the San Francisco Bay or outer coast could result in impacts to vulnerable resources. Impacts could be limited by spill response to a less than significant level for those spills that can be contained during first-response efforts without lasting impacts to sensitive resources; however, impacts from larger spills or spills affecting sensitive resources could be significant and adverse even considering response capabilities.

Regulations prohibit single-hull vessels from operating in U.S. navigable waters, and double-bottom and double-sided vessels cannot operate after the end of 2015. The probability of a spill greater than 100 gallons from tankers and barges calling at terminals in the San Francisco Bay is estimated to be 8.4×10^{-7} and 5.0×10^{-6} per vessel call, respectively. This equates to an estimated probability of a spill greater than 100 barrels of 2.4×10^{-4} per year for the maximum number of vessels expected to call at the Avon Terminal.

A spill of crude oil from a vessel would not normally present a safety hazard to members of the public. A large spill could shut down vessel traffic in portions of the San Francisco Bay while responders attempt to mitigate the spill. Impacts to water quality, biology, aesthetics, and other areas are also possible.

Results from a 20,000-barrel tanker spill scenario near the Carquinez Bridge complex, conducted using the National Oceanic and Atmospheric Administration (NOAA) Trajectory Analysis Planner II (TAPII) software for the Shell Crude Tank Replacement Project Final EIR, were analyzed to evaluate where an oil spill from a vessel could flow and how large an area could be impacted. Modeling results indicate that probabilities of exceeding the levels of concern range from 75 to 100 percent along the shoreline east and west of the Carquinez Bridge in both summer and winter, with higher probabilities of exceedance extending into San Pablo Bay and Suisun Bay for the winter scenario.

As discussed in CEQA Finding No. OS-3, the potential for a tank vessel explosion and subsequent ignition of spilled oil is remote because tankers are required to be equipped with IGS that maintain an inert gas in the vapor space of the cargo tanks, preventing the formation of a flammable gas-oxygen mixture in the explosive range.

Response to a spill from a tanker is the responsibility of the vessel owner/operator. Under the National Contingency Plan and National Incident Management System, a Unified Command would be formed, with the federal and State On-scene Coordinators coordinating priorities, resources, and efforts to protect the public; facilitating commerce; and mitigating the impacts of the spill. As a result of the Oil Pollution Act of 1990, each vessel is required to have an oil plan that identifies the worst-case spill (defined as the entire contents of the vessel) and the assets that will be used to respond to the spill. All tanker companies operating within California waters must demonstrate by signed contract to the USCG and California Department of Fish and Wildlife (CDFW) that they have, either themselves or under contract, the necessary response assets to respond to a worst-case release as defined under federal and State regulations.

Implementation of **MM OS-4a** will minimize this impact by requiring Tesoro's participation in USCG Ports and Waterways Safety Assessment (PAWSA) workshops for the San Francisco Bay Area to improve transit issues and response capabilities in general, and to support overall safety improvements to the existing Vessel Traffic Service (VTS) in the future. The PAWSA process was established to open a dialogue with waterway users and stakeholders to identify needed Vessel Traffic Management improvements and to determine candidate VTS waterways. PAWSA provides a formal structure for identifying risk factors and evaluating potential mitigation measures through expert inputs. The process requires the participation of professional waterway users with local expertise in navigation, waterway conditions, and port safety. In addition, stakeholders are included in the process to ensure that important environmental, public safety, and economic consequences are given appropriate attention as risk interventions are selected.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Tesoro Refining and Marketing Company, LLC shall participate in

U.S. Coast Guard (USCG) PAWSA workshops for the San Francisco Bay Area (Bay Area) to support overall safety improvements to the existing Vessel Traffic Service in the Bay Area or approaches to the bay, if such workshops are conducted by the USCG during the life of the lease.

Implementation of **MM OS-4b** will minimize this impact by requiring Tesoro personnel and its contractors to assist in responding to spills from tankers near the Avon Terminal. While vessel owners/operators are responsible for their own spills, if a spill were to occur near the Avon Terminal, Tesoro and its contractors, which are fully trained to take immediate actions in response to spills, may be in a better position to provide immediate response to a spill using their own equipment and resources, rather than waiting for mobilization and arrival of the vessel's response organization.

Such action could result in a quicker response and more effective control and recovery of spilled product. Tesoro will be required to respond to any spill from a vessel traveling in the San Francisco Bay to or from the Avon Terminal or moored at its wharf, without assuming liability, until such time as the vessel's response organization can take over management of the response actions in a coordinated manner. This requirement will further reduce the risk potential impacts of spills in the bay.

MM OS-4b: Spill Response to Vessel Spills. Tesoro Refining and Marketing Company, LLC shall respond to any spill near the Avon Terminal from a vessel traveling to or from the Avon Terminal or moored at the Avon Terminal as if it were its own, without assuming liability, until such time as the vessel's response organization can take over management of the response actions in a coordinated manner.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. OS-7

Impact: **Impact OS-7.** Potential for spills from Avon Terminal pipelines during non-transfer periods during renovation.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The vast majority of the renovation activities will take place during non-transfer periods. Before upgrade of the pipelines, the existing pipelines will be purged of their contents, and thus, the only time a release from the pipelines could occur would be before or during the purging process. Upon completion of MOTEMS-required renovations, the maximum volume that could be released by an accident during purging of the existing pipelines will be equal to the volume of the largest pipeline, which is 6,207 barrels (as noted in CEQA Finding No. OS-2, construction of a new Berth 1A will result in a 41 percent reduction of the WCD from Avon Terminal operations, reducing it from 10,443 barrels [438,606 gallons] to 6,207 barrels [260,694 gallons]).

Existing Tesoro spill response capabilities exceed requirements for any reasonably foreseeable pipeline spill scenario that could occur during renovation. Tesoro will deploy its response capabilities, described in the EIR under Impact OS-1, as appropriate, in the event that such a spill were to occur. Nevertheless, a spill of up to 6,207 barrels, depending on the size of the spill and the effectiveness of initial response measures, could result in substantial effects on vulnerable resources. Therefore, the potential impact is significant.

A spill from the pipelines at the Avon Terminal will not present a significant safety hazard to members of the public due to the separation distance from public receptor locations, as described in the EIR under Impact OS-3. It is anticipated that separation distance of the Avon Terminal from public areas will provide time to respond with warnings and access controls before the spill could spread to public areas, to limit the potential for unsafe levels of exposure to hazardous constituents in the spilled product. **MM OS-7** will reduce the potential for a spill to occur during pipeline purging, and thereby reduce the risk of significant impact. Even with the implementation of **MM OS-7**, a spill could result in significant, adverse impacts. This is an unavoidable risk of the Project. No additional feasible mitigation measures have been identified that will further reduce the potential for significant impacts.

MM OS-7: Pipeline Purging and Removal Plan. Prior to work on existing pipelines or pipeline support systems, Tesoro Refining and Marketing Company, LLC shall prepare a Pipeline Purging and Removal Plan, identifying practices and procedures to be implemented to minimize the potential for work on the pipelines to result in a spill of oil from the pipelines. The plan shall be signed by a California Professional Engineer with experience in oil spill prevention and submitted to California State Lands Commission staff for review and approval prior to commencing work. The plan shall be implemented for work on the existing pipelines until the pipelines are adequately purged of oil and no longer present threat of a spill.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. CUM-OS-1

Impact: **Impact CUM-OS-1.** Upset Conditions.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

All terminals and tanker/barge operators are required by federal and State regulations to demonstrate that they have, or have under contract, sufficient response assets to respond to worst-case releases. Even so, oil spills can result in significant, adverse impacts to the environment depending on whether first-response efforts can contain and clean up the spill without substantial impacts to vulnerable resources. The renewal of the Avon Terminal lease will contribute incrementally to the significant cumulative risk to the environment from potential oil spills in the San Francisco Bay Area and outer coast.

Between 2004 and 2013, 75 spills occurred from marine oil terminals in the San Francisco Bay. While the potential exists for spills at all marine oil terminals operating within the bay, the probability varies depending on the design and operational procedures in place. The potential impacts of spills vary depending on the location of the terminals and the response equipment and procedures available.

Based on estimated mileage traveled within the San Francisco Bay, vessel traffic associated with the Avon Terminal is approximately 5.3 percent of the total probability of a spill from tanker and tank barge traffic in the bay.

An impact on spill response capability could occur if two or more spills occurred at the same time; however, the probability of this is extremely small. Having many marine oil terminals and extensive vessel traffic in the San Francisco Bay tends to increase the total amount of spill response equipment and services available.

MMs OS-1a, OS-1b, OS-1c, OS-4a, OS-4b, and OS-7 will reduce the potential for significant cumulative impacts to the extent feasible. No further mitigation for potential cumulative impacts is recommended. Even with mitigation measures applied, there is a cumulative risk of oil spills that could result in significant environmental impacts.

MM OS-1a: Remote Release Systems. Refer to CEQA Finding No. OS-1.

MM OS-1b: Tension Monitoring Systems. Refer to CEQA Finding No. OS-1.

MM OS-1c: Allision Avoidance Systems. Refer to CEQA Finding No. OS-1.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Refer to CEQA Finding No. OS-4.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

MM OS-7: Pipeline Purging and Removal Plan. Refer to CEQA Finding No. OS-7.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

2. Biological Resources

CEQA FINDING NO. BIO-8

Impact: **Impact 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.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Major fuel, lubricant, and/or boat-related spills to the San Francisco Bay Estuary could adversely affect aquatic biota. As presented in the Final EIR, Section 4.1, Operational Safety/Risk of Accidents, the trajectory and extent of an oil spill from the Avon Terminal would depend on the amount of the spill and the season. Based on modeling conducted for the nearby Amorco Terminal, during the summer, an oil spill would travel downstream past the Carquinez Bridge and into San Pablo Bay. In winter, spills would primarily travel upstream into Suisun Bay, with increased impact to the northern reaches of Honker, Suisun, and Grizzly Bays, and further propagation downstream through Carquinez Strait and into San Pablo Bay. While impacts from spills would depend on the material, quantity, and time of the spill, a large variety of aquatic organisms and habitats will be affected.

Implementation of **MMs BIO-8a, BIO-8b, BIO-8c, and OS-4b** will minimize this impact by ensuring the bird rescue personnel and rehabilitators can be on-site within hours of an accidental release, that any cleanup plans are protective of aquatic biota and habitats, and that impacts to biological resources from spills are compensated.

MM BIO-8a: Bird Rescue Personnel and Rehabilitators. Tesoro Refining and Marketing Company, LLC shall ensure that procedures are in place to bring bird rescue personnel and rehabilitators to the site following a spill event that is not immediately contained at the Avon Terminal. This requires having contractual arrangements in place as part of the Golden Eagle Refinery Oil Spill Contingency Plan so that bird rescue personnel and equipment can be on site within hours of the onset of an accidental release.

MM BIO-8b: Cleanup of Oil from Biological Area. If a substantial spill occurs that affects biological resources, Tesoro Refining and Marketing Company, LLC shall develop procedures for cleanup of any sensitive biological areas contacted by oil in consultation with biologists from the California Department of Fish and Wildlife, National Marine Fisheries Service, and U.S. Fish and Wildlife Service.

MM BIO-8c: Natural Resource Damage Assessment (NRDA) Team. Tesoro Refining and Marketing Company, LLC (Tesoro) shall coordinate to the maximum extent feasible with the NRDA team to determine the extent of damage and loss of resources, cleanup, restoration, and compensation. Tesoro shall keep California State Lands Commission staff informed of its participation in such efforts by providing copies of memos, meeting agendas, emails, or other appropriate documentation. Tesoro shall be responsible for cleanup, restoration, and compensation of damages to resources if Tesoro is determined to be the responsible party for a spill.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. BIO-9

Impact: **Impact BIO-9.** Introduce invasive nonindigenous aquatic species to the San Francisco Bay Estuary.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Commercial ships can introduce nonindigenous aquatic species through ballast water discharge or vessel biofouling. (Construction vessels used during MOTEMS renovations

could also introduce nonindigenous aquatic species; this issue is discussed in Impact WQ-15.) Ballast water is capable of transporting live aquatic species around the world. Biofouling organisms are transported by vessels into new environments where they may be transferred from the ship into the new environment by spawning, detachment, or mechanical removal. Once established, nonindigenous aquatic species can have severe ecological impacts, which affect a wide variety of aquatic biota and habitats. The rate of species introductions, and thus, the risk of invasion by species with detrimental impacts, has increased significantly during recent decades. In some parts of the San Francisco Bay Estuary, introduced species account for the majority of species diversity, dominate the estuary's food webs, and may result in profound structural changes to habitat.

Implementation of **MM BIO-9a** will minimize this impact by requiring that vessels that plan to call at the Avon Terminal are informed of relevant California laws and regulations addressing nonindigenous aquatic species. This will provide a tracking mechanism to monitor the management of ballast water and hull husbandry practices for vessels travelling in California waters. Strict compliance with the Marine Invasive Species Act (MISA; Pub. Resources Code, §§ 71200-71271) and associated regulations, including California's performance standards for the discharge of ballast waters, by vessels using the Avon Terminal will significantly reduce the potential for the introduction of non-native species to estuary waters. However, the possibility of introduction of non-native species from ballast water discharge still remains even with strict adherence to State regulations and permits.

MM BIO-9a: Marine Invasive Species Act Reporting Forms. Following the adoption of the Mitigation Monitoring Program for the Project, Tesoro Refining and Marketing Company, LLC (Tesoro) shall advise both agents and representatives of shipping companies having control over vessels that have informed Tesoro of plans to call at the Avon Terminal about the California Marine Invasive Species Act and associated implementing regulations. Tesoro shall satisfy itself that all vessels submit required reporting forms, as applicable for each vessel, to the California State Lands Commission Marine Facilities Division, including, but not limited to, the Ballast Water Reporting Form, Hull Husbandry Reporting Form, Ballast Water Treatment Technology Annual Reporting Form, and/or Ballast Water Treatment Supplemental Reporting Form.

Implementation of **MM BIO-9b** will contribute to State efforts to reduce nonindigenous aquatic species impacts to native species.

MM BIO-9b: Invasive Species Action Funding. Tesoro Refining and Marketing Company, LLC (Tesoro) shall participate and assist in funding ongoing and future actions related to nonindigenous aquatic species (NAS) as identified in the October 2005 Delta Smelt Action Plan (State of California 2005). The funding support shall be provided to the Pelagic Organism Decline Account or other account identified by the California Department of Water Resources (DWR) and California Department of Fish and Wildlife (CDFW), the lead Action

Plan agencies. The level of funding shall be determined through a cooperative effort between California State Lands Commission staff, the DWR, CDFW, and Tesoro, and shall be based on criteria that establish Tesoro's commensurate share of the plan's NAS actions costs.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. CUM-BIO-2

Impact: **Impact 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.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in additional cumulative impacts to biological resources from oil spills. Among the facilities with potential to contribute to the accidental release of petroleum products are the Chevron Richmond Refinery Long Wharf Terminal, Tesoro Amorco Marine Terminal, and the Plains All American Martinez Marine Terminal.

Implementation of **MM BIO-8a**, **MM BIO-8b, and MM BIO-8c** collectively aids in the prevention and cleanup of accidental releases of oil spills; however, a major spill could have a residual impact following spill response and cleanup.

MM BIO-8a: Bird Rescue Personnel and Rehabilitators. Refer to CEQA Finding No. BIO-8.

MM BIO-8b: Cleanup of Oil from Biological Area. Refer to CEQA Finding No. BIO-8.

MM BIO-8c: Natural Resource Damage Assessment (NRDA) Team. Refer to CEQA Finding No. BIO-8.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. CUM-BIO-3

Impact: **Impact CUM-BIO-3.** Cause cumulative impacts by increasing the risk of introduction of nonindigenous aquatic species from vessel traffic to San Francisco Bay.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

All commercial vessel traffic to the San Francisco Bay Estuary has the potential to introduce nonindigenous aquatic species. Although vessels that call at the Avon Terminal are required to comply with federal and State provisions, compliance with the current regulations is not enough to ensure full mitigation of this impact.

As discussed under CEQA Finding No. BIO-9, implementation of **MM BIO-9a and MM BIO-9b** will mitigate this impact by enabling tracking of compliance with California laws and regulations, and by implementing special-status recovery plans.

MM BIO-9a: Marine Invasive Species Act Reporting Forms. Refer to CEQA Finding No. BIO-9.

MM BIO-9b: Invasive Species Action Funding. Refer to CEQA Finding No. BIO-9.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

3. Water Quality

CEQA FINDING NO. WQ-3

Impact: **Impact WQ-3.** Degrade water quality by the discharge of segregated ballast water.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to degrade water quality by introducing nonindigenous aquatic species from discharged segregated ballast water. Ships routinely take on ballast water after cargo is unloaded in one port, and later discharge the ballast water when cargo is loaded at another port. This exchange of ballast water from one port to another may result in the transport of numerous organisms from one region to another. Release of ballast water could have a significant adverse impact to water quality if viruses, toxic algae, or other harmful organisms are released. Release of harmful microorganisms will violate the water quality objective for toxicity in the San Francisco Bay Basin Plan. This objective states that waters be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

Ballast water discharges from non-recreational vessels greater than 79 feet or equal in length are further regulated by the U.S. Environmental Protection Agency (USEPA), through the NPDES Vessel General Permit (VGP), which is written to include existing USCG management and ballast water exchange requirements. The latest VGP, which took effect on December 19, 2013, contains new numeric limits for the concentration of living organisms in discharged ballast water for most vessels. As required by the VGP, the USCG (under the National Invasive Species Act of 1996) and CSLC (under the MISA), all owner/operators of vessels equipped with ballast water tanks must maintain a ballast water management plan. The BMPs for ballast water designated in the VGP include restricting discharges to only those essential to the operation of the vessel, removal of sediment from ballast tanks in mid-ocean or at dry-dock, avoiding ballast water uptake in areas of known pathogens, conducting mid-ocean ballast exchanges, and retaining all ballast water on board while in U.S. waters.

To inhibit the introduction and spread of nonindigenous aquatic species in California, the Coastal Ecosystems Protection Act of 2006 established performance standards for the discharge of ballast water, which are administered by the CSLC. The performance standards regulations are being implemented gradually based on a vessel's ballast

water capacity and year of construction. The CSLC determined that there are no shipboard ballast water treatment systems currently available to meet all of California's performance standards for the discharge of ballast water. Mid-ocean exchange of ballast water is considered an interim measure to reduce the introduction of nonindigenous aquatic species until effective treatment technologies are developed. Although ballast water discharges are conducted in accordance with effective management practices and are administered by State and federal regulations, risk of nonindigenous aquatic species introduction to the San Francisco Bay Estuary cannot be completely eliminated. Discharge of ballast water containing harmful organisms could impair the beneficial uses of the Project area and significantly degrade water quality.

Implementation of **MMs WQ-3, WQ-5, BIO-9a, and BIO-9b** will minimize this impact by informing vessel operators of ballast water performance standards and regulations. However, the possibility of introducing nonindigenous aquatic species from ballast water discharge still remains even with strict adherence to State regulations and permits.

MM WQ-3: Advise Vessels of the Coastal Ecosystems Protection Act and Associated Regulations. Tesoro Refining and Marketing Company, LLC (Tesoro) shall advise both agents and representatives of shipping companies that have control over vessels that have informed Tesoro of plans to call at the Avon Terminal about the Coastal Ecosystems Protection Act of 2006, National Invasive Species Act of 1996, Marine Invasive Species Act of 2003, and other associated implementing regulations.

MM WQ-5: Biofouling Regulations and Standards. Refer to CEQA Finding No. WQ-5.

MM BIO-9a: Marine Invasive Species Act Reporting Forms. Refer to CEQA Finding No. BIO-9.

MM BIO-9b: Invasive Species Action Funding. Refer to CEQA Finding No. BIO-9.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. WQ-5

Impact: **Impact WQ-5.** Degrade water quality as a result of vessel biofouling.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to degrade water quality by introducing nonindigenous aquatic species via vessel biofouling. Vessel biofouling occurs when organisms attach to the hull and other wetted surfaces of a vessel. When vessels move from port to port, biofouling communities are transported along with their "host" structure. Biofouling organisms can be introduced into these new areas when they reproduce, drop off, or are knocked off of the vessel. Even vessels that may be well maintained and that have little to no biofouling present on the hull can represent a potential for nonindigenous aquatic species impact through biofouling of certain niches in the vessel. According to Section 502 of the CWA, invasive species meet the definition of "pollutant" because they are "biological materials…discharged into water," and they impair, or threaten to impair, the full range of designated beneficial uses of waterbodies in the San Francisco Bay Estuary.

The CSLC regulates vessel biofouling under the MISA. In 2008, the CSLC initiated the requirement of annual submittal of the Hull Husbandry Reporting Form for vessels operating in State waters. In an effort to reduce introductions of nonindigenous aquatic species via vessel biofouling, data reported in the Husbandry Reporting Forms have been used in conjunction with CSLC-sponsored research to develop biofouling management requirements. The CSLC is developing new regulations that will focus on better recordkeeping and better comprehensive biofouling management.

Implementation of **MM WQ-5** will minimize this impact by ensuring vessel operators are in compliance with regulations and standards. While regulations and provisions have been helpful in reducing the potential of new nonindigenous aquatic species introductions from hull fouling, existing standards and measures are not completely effective. The introduction of additional harmful organisms may impair several of the Project area's beneficial uses. Therefore, the introduction of new nonindigenous aquatic species via vessel biofouling as a result of continued Avon Terminal operation could pose potential significant and unavoidable adverse impacts to water quality.

MM WQ-5: Biofouling Regulations and Standards. Tesoro Refining and Marketing Company, LLC (Tesoro) shall prepare, and maintain current, a fact sheet and provide it to all vessels calling at the Avon Terminal to ensure that they are informed of applicable regulations and standards associated with the prevention of biofouling. Prior to allowing berthing at the Avon Terminal, Tesoro shall confirm with vessels that they are in compliance with the Marine Invasive Species Act of 2003 (MISA), including completion of MISA-required paperwork. Tesoro shall ensure that all vessels submit required reporting forms, as applicable for each vessel prior to the vessel's entry into the San Francisco Bay Estuary or in the alternative, at least 24 hours prior to the vessel's arrival at the Avon Terminal.

MM BIO-9a: Marine Invasive Species Act Reporting Forms. Refer to CEQA Finding No. BIO-9.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. WQ-9

Impact: **Impact WQ-9.** Degrade water quality as a result of oil leaks and spills during unloading.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to degrade water quality as a result of oil leaks and spills during Avon Terminal operations. Accidental releases of petroleum products during loading and unloading operations at the Avon Terminal could contaminate the surrounding surface water with floating product. Petroleum products released into San Francisco Bay Estuary waters would likely exceed the Basin Plan water quality objective for oil and grease, which comprises any visible film or coating on the surface of the water or on objects in the water that cause nuisance or that otherwise adversely affect beneficial uses.

The consequences of a spill for water quality would depend on the size of the spill; the effectiveness of the response effort; and the biological, shoreline, and water resources affected by the spill. A small spill of 1 gallon or less would result in an impact that can be mitigated, while a large spill of 1,000 barrels (42,000 gallons) most likely would result in a significant, adverse impact that would have residual effects after cleanup. The impacts of spills between 1 gallon and 1,000 barrels depend on the effectiveness of response efforts and the resources impacted.

The Avon Terminal is subject to regulations promulgated by the USEPA that require the preparation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan and regulations adopted by both the USEPA and the CDFW's Office of Spill Prevention and Response (OSPR) covering the development and maintenance of oil spill response and contingency plans. Plans have been prepared in accordance with these regulatory requirements for the Avon Terminal. In addition, Tesoro has a Wharf Operations Manual governing Avon Terminal operations, including spill prevention. The OSPR also requires a Certificate of Financial Responsibility to demonstrate that Tesoro has adequate financial resources to pay cleanup and damage costs arising from an oil spill.

Tesoro has contingency planning and response measures for oil releases in place, including an existing facility SPCC Plan, Oil Spill Contingency Response Plan, and SWPPP. Additionally, the CSLC has developed the MOTEMS, which apply to all existing and new marine oil terminals in California. The MOTEMS includes criteria for inspection; structural analysis and design; mooring and berthing; geotechnical considerations; and fire, piping, mechanical, and electrical systems.

Impacts will be minimized to the extent feasible with **MMs OS-1a, OS-1b, and OS-1c.** No additional mitigation measures are available to further reduce this impact. Even with the implementation of contingency planning and response measures for oil spills, a spill could spread over a large area and impact water quality to the San Francisco Bay Estuary. In such a case, impacts to water quality will be significant and unavoidable.

MM OS-1a: Remote Release Systems. Refer to CEQA Finding No. OS-1.

MM OS-1b: Tension Monitoring Systems. Refer to CEQA Finding No. OS-1.

MM OS-1c: Allision Avoidance Systems. Refer to CEQA Finding No. OS-1.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. WQ-10

Impact: **Impact WQ-10.** Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to degrade water quality if releases of oil from vessels in transit to and from the Avon Terminal occur. The water quality impacts of oil spills associated with vessel transit in the San Francisco Bay Estuary or along the outer coastline are similar to the effects described under Impact WQ-9 of the EIR. However, a larger oil spill is more likely from accidents associated with vessels in transit than from a spill during the controlled conditions of loading and unloading at the Avon Terminal. Most tanker spills/accidents that occur in transit are larger spills that cannot be quickly contained, and will result in significant and unavoidable impacts.

The probability of a release in the San Francisco Bay Estuary from a tank vessel transiting to the Avon Terminal is equivalent to one spill every 4,500 years. Modeling results indicate that if a release occurs, probabilities of exceeding the level of concern (approximately 50 gallons present in 1 square nautical mile, as pre-defined in the modeling program) range from 75 to 100 percent along the shoreline east and west of the Carquinez Bridge in both summer and winter, with higher probabilities of exceedance extending into San Pablo Bay and Suisun Bay during winter months. While the modeling is useful and appropriate for demonstrating the extent to which a spill of this magnitude may be capable of spreading, it is based on the specific modeled spill scenario, including location. Vessels enroute to the Avon Terminal could potentially experience an accidental spill at any location along their transit route. Based on the degree of spreading demonstrated by modeling, vulnerable resources in any area of San Francisco Bay Estuary and eastward to the Antioch area could potentially be impacted by a potential spill.

All tanker companies operating within California waters must demonstrate by signed contract to the USCG and CDFW that they have the necessary response assets to respond to a worst-case release, as defined under federal and State regulations. While Tesoro does not have legal responsibility for tankers it does not own, it does have responsibility to participate in improving general response capabilities.

Implementation of **MMs OS-4a and OS-4b** will minimize this impact to the extent feasible and practical. No additional mitigation measures are available to further reduce this impact.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Refer to CEQA Finding No. OS-4.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. CUM-WQ-1

Impact: **Impact CUM-WQ-1.** Cause contaminant impacts on San Francisco Bay Estuary water quality.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to contribute to water contamination. The water quality of the San Francisco Bay Estuary has been degraded by inputs of pollutants from a variety of sources, including point sources, such as municipal wastewater and industrial discharges, and nonpoint sources. The identified stressors or pollutants in Suisun Bay and the Carquinez Strait, according to the CWA 303(d) list include: pesticides, dioxins/furans, mercury, nonindigenous aquatic species, nickel, polychlorinated biphenyls, and selenium. Any contribution of these contaminants from Avon Terminal operations could result in a significant, adverse cumulative impact. Of this list, only nonindigenous aquatic species have been identified as potentially degrading water quality due to Avon Terminal operations through ballast water and vessel biofouling.

Though no contaminants associated with anti-fouling paints are on the 303(d) list for Suisun Bay or the Carquinez Strait, anti-fouling paints are a significant concern for water quality in the San Francisco Bay Estuary. Vessels visiting the Avon Terminal may contribute to water contamination through use of anti-fouling paints, which contain copper and zinc, both of which are highly toxic to aquatic species.

With implementation of **MMs WQ-3** and **BIO-9a**, Tesoro will ensure that vessels calling at the Avon Terminal are informed of applicable regulations and standards associated with the prevention of vessel biofouling.

Implementation of **MM WQ-5** will minimize the impacts associated with anti-fouling paints by confirming all vessels that visit the Avon Terminal comply with the international ban on TBT. The continuing operation of the Avon Terminal will contribute to copper and other biocides. Due to the high toxicity of these biocides, any contribution from the vessels calling at Avon Terminal could be cumulatively potentially significant.

MM BIO-9a: Marine Invasive Species Act Reporting Forms. Refer to CEQA Finding No. BIO-9.

MM WQ-3: Advise Vessels of the Coastal Ecosystems Protection Act and Associated Regulations. Refer to CEQA Finding No. WQ-3.

MM WQ-5: Biofouling Regulations and Standards. Refer to CEQA Finding No. WQ-5.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. CUM-WQ-3

Impact: **Impact CUM-WQ-3.** Degrade water quality due to releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Releases from transiting vessels in transit have the potential to contribute to the degradation of water quality. Impacts will be minimized to the extent feasible with **MMs OS-4a** and **OS-4b** (see CEQA Findings No. OS-4.) A major oil spill from a vessel transiting the San Francisco Bay Estuary or outer coast will have a significant, adverse impact on water quality. The incremental effects of vessels transiting to or from the Avon Terminal will also be cumulatively significant.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Refer to CEQA Finding No. OS-4.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

4. Land Use and Recreation

CEQA FINDING NO. LUR-2

Impact: **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.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

An accidental spill of oil at or near the Avon Terminal could cause residual impacts on sensitive shoreline lands and recreation near the water and the shoreline, 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. Impacts from accidental oil releases could preclude the use of beach areas and associated recreational activities. Shoreline and water-related uses will be disrupted by oil on the beach and in the water.

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.

During MOTEMS 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 will be much less than from a spill during continued operations. To minimize risks, the refueling of derrick barges and tugboats will be conducted at nearby fuel docks to the extent possible. BMPs will be employed to minimize the risk of oil releases during on-site vessel and equipment refueling.

Implementation of **MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b** will reduce this impact by providing improved oil spill containment and avoidance 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 will further reduce the potential for significant impacts.

MM OS-1a: Remote Release Systems. Refer to CEQA Finding No. OS-1.

MM OS-1b: Tension Monitoring Systems. Refer to CEQA Finding No. OS-1.

MM OS-1c: Allision Avoidance Systems. Refer to CEQA Finding No. OS-1.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Refer to CEQA Finding No. OS-4.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. LUR-3

Impact: **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.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

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. 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 will 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 will limit access to these areas due to containment equipment and cleanup activities.

Potential impacts from spills could be significant and unavoidable if first-response efforts do not contain or clean up the spill, resulting in residual impacts that will affect the general public's use of shoreline or water areas. If a spill occurs that is 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.

Implementation of **MMs OS-1a, OS-1b, OS-1c, OS-4a, and OS-4b** will reduce this impact by providing improved oil spill containment and avoidance 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 will further reduce the potential for significant impacts.

MM OS-1a: Remote Release Systems. Refer to CEQA Finding No. OS-1.

MM OS-1b: Tension Monitoring Systems. Refer to CEQA Finding No. OS-1.

MM OS-1c: Allision Avoidance Systems. Refer to CEQA Finding No. OS-1.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Refer to CEQA Finding No. OS-4.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

5. Visual Resources, Light and Glare

CEQA FINDING NO. VR-2

Impact: **Impact VR-2.** Create visual effects from accidental releases of oil at or near the Avon Terminal.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in oil spills at the Avon Terminal during transfer operations. In general, the potential impacts resulting from such an occurrence could degrade the visual quality of the water and shoreline if oiling occurs over a widespread area, and where first-response containment and cleanup efforts are not effective, leaving residual effects of oiling. The degree of impact is influenced by factors not limited to 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 use and refueling of derrick barges, tug boats, and MOTEMS renovation equipment over water during the installation of Berth 1A and the removal of Berth 5 could also create the potential for accidental releases of oil that could have potentially significant visual effects if not contained. BMPs will be implemented to reduce the risk of potential releases, and vessels will be refueled at nearby fuel docks, rather than on site, to the extent possible.

A large spill from the Project could cause visual impacts ranging from oil sheens to heavy oiling, including floating lumps of tar. Heavy crude oil may disappear over the duration of several days, with remaining heavy fractions floating at or near the surface in the form of mousse, tarballs, or mats, and lasting from several weeks to several months.

Therefore, the presence of oil on the water will change the color and, in heavier oiling, textural appearance of the water surface. Oil on shoreline surfaces or nearshore marsh areas will cover these surfaces with a brownish-blackish, gooey substance.

Such oiling will result in a negative impression of the viewshed. The physical effort involved in spill cleanup, including the equipment used, could also contribute to a negative impression of the environment that will be an adverse visual impact as the public, becoming aware of a spill, may react negatively to the event. Sensitivity heightens and awareness of the negative change in the environment increases. Without rapid containment by immediate booming and cleanup, the visual effects of even a small spill of 50 barrels can leave residual visual impacts.

Implementation of **MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b** will reduce this impact by providing improved oil spill containment and avoidance 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 visual impacts. No additional feasible mitigation measures have been identified that will further reduce the potential for significant impacts.

MM OS-1a: Remote Release Systems. Refer to CEQA Finding No. OS-1.

MM OS-1b: Tension Monitoring Systems. Refer to CEQA Finding No. OS-1.

MM OS-1c: Allision Avoidance Systems. Refer to CEQA Finding No. OS-1.

MM OS-2: Potential for spills from Avon Terminal pipelines during non-transfer periods during continued operations. Refer to CEQA Finding No. OS-2.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Refer to CEQA Finding No. OS-4.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

CEQA FINDING NO. VR-3

Impact: **Impact VR-3.** Create visual effects from oil spills from vessels in transit.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in oil spills from vessels transiting the shipping lanes. A moderate-to-large spill has the potential to spread within a large area, with floating oil and oil contacting sensitive shoreline resources given the right wind and current conditions, and the size and origin of the spill. Spills from vessels enroute to the Avon Terminal are the responsibility of the ship's operators/owners, and not Tesoro, as Tesoro does not own any vessels.

Spills along the outer coast could result in significant adverse impacts, where spills would be visible in the nearshore zone or at the shoreline. The level of public sensitivity and expectations of views along the outer coast are more varied than within San Francisco Bay. Along many portions of the outer coast, public usage is low. In such areas, the public perception and expectations of viewers would not change as much as in areas the public frequents. In high-use areas, such as coastal park and beach areas, ecological preserve areas, communities and harbors, and other areas where a higher number of viewers would be present, visual sensitivity would be high where cleanup efforts and residual effects were occurring.

Implementation of **MMs OS-1a, OS-1b, OS-1c, OS-2, OS-4a, and OS-4b** will reduce this impact by providing improved oil spill containment and avoidance 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 visual impacts. No additional feasible mitigation measures have been identified that will further reduce the potential for significant impacts.

MM OS-1a: Remote Release Systems. Refer to CEQA Finding No. OS-1.

MM OS-1b: Tension Monitoring Systems. Refer to CEQA Finding No. OS-1.

MM OS-1c: Allision Avoidance Systems. Refer to CEQA Finding No. OS-1.

MM OS-2: Potential for spills from Avon Terminal pipelines during non-transfer periods during continued operations. Refer to CEQA Finding No. OS-2.

MM OS-4a: USCG Ports and Waterways Safety Assessment (PAWSA) Workshops. Refer to CEQA Finding No. OS-4.

MM OS-4b: Spill Response to Vessel Spills. Refer to CEQA Finding No. OS-4.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

This impact is considered significant and unavoidable.

4.0 STATEMENT OF OVERRIDING CONSIDERATIONS

A. INTRODUCTION

The Final EIR prepared by the CSLC as lead agency under CEQA for the Avon Marine Oil Terminal Lease Consideration Project (SCH No. 2014042013) identifies significant impacts of the proposed Project that cannot feasibly be mitigated to below a level of significance. In conformance with section 15043 of the State CEQA Guidelines, the CSLC may approve a project even though it will cause a significant effect on the environment, if the CSLC makes a fully informed and publicly disclosed decision that there is no feasible way to lessen or avoid the significant effect, and specifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project.

State CEQA Guidelines section 15093 states in part:

(a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

(b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

This Statement of Overriding Considerations presents a list of (1) the specific significant effects on the environment attributable to the approved Project that cannot feasibly be mitigated to below a level of significance, (2) benefits derived from the approved Project, and (3) specific reasons for approving the Project.

Although the CSLC has imposed mitigation measures to reduce impacts, impacts remain that are considered significant after application of all feasible mitigation. Significant impacts of the approved Project fall under five resource areas: operational safety/risk of accidents; biological resources; water quality; land use and recreation; and visual resources, light and glare (see Tables 1 and 2). These impacts are specifically identified and discussed in more detail in the CSLC's Statement of Findings (as set forth in this Exhibit D) and in the Final EIR. The CSLC finds that all mitigation measures identified in the Final EIR (see Section 4.0) have been imposed to avoid or lessen impacts to the maximum extent feasible. A summary of impacts and mitigation measures is provided in the Mitigation Monitoring Program, adopted as part of this Project approval, as set forth in Exhibit C. While the CSLC has required all feasible

mitigation measures, these impacts remain significant for purposes of adopting this Statement of Overriding Considerations.

Table 2 – Summary of Significant and Unavoidable Impacts Identified for the Approved Project

Impact	Impact Description
Operational Safety/Risk of Accidents	
Impact OS-1. Potential for spills and response capability for containment of oil spills from the Avon Terminal during continued operations.	While a small spill can be contained and cleaned up, a large spill can be carried by the winds and currents, and impact a large area of the San Francisco Bay. Such a spill has the potential to impact many resources, such as water quality and biological resouces, and to disrupt other vessel traffic in the San Francisco Bay. A large spill could take an extended time period to clean up.
Impact OS-2. Potential for spills from Avon Terminal pipelines during non-transfer periods during continued operations.	A release of up to 6,207 barrels is possible from a pipeline on the Avon Terminal during non-transfer periods.[6] Such a release has the potential to impact numerous resources, depending on the environmental conditions present at the time and the effectiveness of the response effort.
Impact OS-3. Potential for fires and explosions during continued operations, and response capability.	Because of the location of the Avon Terminal away from populated areas, a fire or explosion will not result in a significant impact to the public. However, a fire and/or an explosion could result in a large oil spill that could have significant impacts.
Impact 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.	A tank vessel release while in the San Francisco Bay or in the outer coast could result in the release of a large amount of oil. Such a release has the potential to impact a large area of the San Francisco Bay and/or the outer coast and impact many resources, such as water quality and biological resouces, and to disrupt other vessel traffic in the San Francisco Bay. A large spill could take an extended time period to clean up.
Impact OS-7. Potential for spills during renovation from Avon Terminal pipelines during non-transfer periods during renovation.	A release of up to 6,207 barrels is possible from a pipeline on the Avon Terminal during renovation and the purging process. Such a release has the potential to impact numerous resources, depending on the environmental conditions present at the time and the effectiveness of the response effort.
Impact CUM-OS-1. Upset Conditions.	Releases are possible from the 15 marine oil terminals operating within the San Francisco Bay Area and from tankers transiting to and from these terminals. Activities associated with the Project have the potential to increase the potential for these types of accidents.

[6] As noted in CEQA Finding No. OS-2, construction of a new Berth 1A would result in a reduction of the WCD at the Avon Terminal operations from 10,443 barrels (438,606 gallons) to 6,207 barrels (260,694 gallons).

Impact	Impact Description
Biological Resources	
Impact 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.	Major fuel, lubricant, and/or boat-related spills to the San Francisco Bay Estuary could adversely affect aquatic biota. As presented in the Final EIR, Section 4.1, Operational Safety/Risk of Accidents, the trajectory and extent of an oil spill from the Avon Terminal would depend on the amount of the spill and the season. Based on modeling conducted for the nearby Tesoro Amorco Marine Oil Terminal, during the summer, an oil spill would travel downstream past the Carquinez Bridge and into San Pablo Bay. In winter, spills would primarily travel upstream into Suisun Bay, with increased impact to the northern reaches of Honker, Suisun, and Grizzly Bays, and further propagation downstream through Carquinez Strait and into San Pablo Bay. While impacts from spills would depend on the material, quanitity, and time of the spill, a large variety of aquatic organisms and habitats will be affected.
Impact BIO-9. Introduce invasive nonindigenous aquatic species to the San Francisco Bay Estuary.	Commercial ships can introduce nonindigenous aquatic species through ballast water discharge or vessel biofouling. Ballast water is capable of transporting live aquatic species around the world. Biofouling organisms are transported by vessels into new environments, where they may be transferred from the ship into the new environment by spawning, detachment, or mechanical removal. Once established, nonindigenous aquatic species can have severe ecological impacts, which affect a wide variety of aquatic biota and habitats. The rate of species introductions, and thus, the risk of invasion by species with detrimental impacts, has increased significantly during recent decades. In some parts of the San Francisco Bay Estuary, introduced species account for the majority of species diversity, dominate the estuary's food webs, and may result in profound structural changes to habitat.
Impact 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.	Activities proposed as part of the Project have the potential to result in additional cumulative impacts to biological resources from oil spills. Among the facilities with potential to contribute to the accidental release of petroleum products are the Chevron Richmond Refinery Long Wharf Terminal, Tesoro Amorco Marine Oil Terminal, and the Plains All American Martinez Marine Terminal.
Impact CUM-BIO-3. Cause cumulative impacts by increasing the risk of introduction of nonindigenous aquatic species from vessel traffic to San Francisco Bay.	All commercial vessel traffic to the San Francisco Bay Estuary has the potential to introduce nonindigenous aquatic species. Although vessels that call at the Avon Terminal are required to comply with federal and State provisions, compliance with the current regulations is not enough to ensure full mitigation of this impact.

Impact	Impact Description
Water Quality	
Impact WQ-3. Degrade water quality by the discharge of segregated ballast water.	Discharge of ballast water that contains nonindigenous aquatic species could impair several of the Project area's beneficial uses, including commercial and sport fishing, estuarine habitat, fish migration, preservation of rare and endangered species, fish spawning, wildlife habitat, and water contact recreation. Therefore, discharge of ballast water is determined to have a significant adverse impact to water quality.
Impact WQ-5. Degrade water quality as a result of vessel biofouling.	The release of nonindigenous aquatic species attached to or associated with the wetted portions of a vessel could impair several of the Project area's beneficial uses resulting in a significant adverse impact to water quality.
Impact WQ-9. Degrade water quality as a result of oil leaks and spills during unloading.	Accidental releases of petroleum products during loading and unloading operations at the Avon Terminal could contaminate the surrounding surface water with floating product. Petroleum products released into San Francisco Bay Estuary waters would likely exceed the Basin Plan water quality objective for oil and grease, which comprises any visible film or coating on the surface of the water or on objects in the water that cause nuisance or that otherwise adversely affect beneficial uses. Even with the implementation of contingency planning and response measures for oil spills, a spill could spread over a large area and impact water quality to the San Francisco Bay Estuary. In such a case, impacts to water quality will be significant and unavoidable.
Impact WQ-10. Degrade water quality due to oil releases from vessels in transit in the San Francisco Bay Estuary or along the outer coast.	A significant impact to water quality could result from leaks or an accidental release of oil from a vessel along tanker routes either in San Francisco Bay Estuary or outer coast waters. Most tanker spills/accidents that occur in transit are larger spills that cannot be quickly contained, and will result in significant and unavoidable impacts.
Impact CUM-WQ-1. Cause contaminant impacts on San Francisco Bay Estuary water quality.	The water quality of the San Francisco Bay Estuary has been degraded by inputs of contaminates from a variety of sources. As such, any contribution of a contaminant already at significantly high levels to the waters of San Francisco Bay Estuary will have a significant adverse impact at the cumulative level. Due to the high toxicity of biocides, any contribution of these substances from the vessels calling at the Avon Terminal will be adverse and cumulatively significant.
Impact 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.	A major oil spill from a vessel enroute or departing the Avon Terminal within the San Francisco Bay Estuary and along the outer coast will have a significant adverse cumulative impact on water quality.

Impact	Impact Description
Land Use and Recreation	
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.	Impacts from accidental oil releases at or near the Avon Terminal could preclude the use of beach areas and associated recreational activities. Shoreline and water-related uses will be disrupted by oil on the beach and in the water. 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.
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.	Impacts from accidental oil releases from vessels in transit could preclude the use of beach areas and associated recreational activities. Shoreline and water-related uses will be disrupted by oil on the beach and in the water. 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.
Visual Resources, Light, and Glare	
Impact VR-2. Create visual effects from accidental releases of oil at or near the Avon Terminal.	A large spill from the Project could cause visual impacts ranging from oil sheens to heavy oiling, including floating lumps of tar. Heavy crude oil may disappear over the duration of several days, with remaining heavy fractions floating at or near the surface in the form of mousse, tarballs, or mats, and lasting from several weeks to several months. Although the potential for spills is low, such oiling will result in a negative impression of the viewshed. The public, becoming aware of a spill, may react negatively to its visual effects. Without rapid containment by immediate booming and cleanup, the visual effects of even a small spill of 50 barrels can leave residual impacts, and they can be significant.
Impact VR-3. Create visual effects from oil spills from vessels in transit.	A large spill from the Project could cause visual impacts ranging from oil sheens to heavy oiling, including floating lumps of tar. Heavy crude oil may disappear over the duration of several days, with remaining heavy fractions floating at or near the surface in the form of mousse, tarballs, or mats, and lasting from several weeks to several months. Although the potential for spills is low, such oiling will result in a negative impression of the viewshed. The public, becoming aware of a spill, may react negatively to its visual effects. Without rapid containment by immediate booming and cleanup, the visual effects of even a small spill of 50 barrels can leave residual impacts, and they can be significant.

B. ALTERNATIVES

As explained in *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal. App. 4th 957, 1000:

> *When it comes time to decide on project approval, the public agency's decision making body evaluates whether the alternatives [analyzed in the EIR] are actually feasible…. At this final stage of project approval, the agency considers whether '[s]pecific economic, legal, social, technological, or other considerations…make infeasible the mitigation measures or alternatives identified in the environmental impact report.' Broader considerations of policy thus come into play when the decisionmaking body is considering actual feasibility than when the EIR preparer is assessing potential feasibility of the alternatives* [citations omitted].

The two alternatives analyzed in the EIR represent a reasonable range of potentially feasible alternatives that could reduce one or more significant impacts of the Project. These alternatives include: (1) No Project; and (2) Restricted Lease Taking Avon Terminal Out of Service for Oil Transport. As presented in the EIR, the alternatives were described and compared with each other and with the proposed Project.

Under State CEQA Guidelines section 15126.6, subdivision (e)(2), if the No Project Alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. However, based on the analysis contained in the Final EIR, the proposed Project is selected as the environmentally superior alternative.

The two CEQA alternatives proposed and evaluated in the EIR were rejected for the following reasons:

1) **No Project Alternative.** While the No Project alternative eliminates operational impacts associated with the Avon Terminal, implementation of this alternative, at least for the short term, does not meet the Project objective of maintaining existing transport levels of petroleum products required to maintain Refinery operational viability. In the long term, similar levels of impact would likely shift to other marine oil terminals to replace the differential for petroleum export and product transport throughout San Francisco Bay. The capacity of other Bay Area terminals may be taxed, potentially increasing vessel congestion, collisions, and costs while vessels wait to berth and offload/load. This alternative could also shift Tesoro's petroleum import/export operations to rail, pipeline, or other land-based means to absorb Avon Terminal operations, resulting in potentially significant land-based impacts to operational safety/risk of accidents, water quality, land use/recreation, and visual resources due to the risk of spills, fire, or explosion. In addition, construction of rail lines and/or pipelines would potentially impact biological resources, cultural resources, land-based transportation, and noise levels.

2) **Restricted Lease Taking Avon Terminal Out of Service for Oil Transport Alternative.** The Restricted Lease Taking Avon Out of Service for Oil Transport Alternative would also potentially shift similar levels of impact to other Bay Area

marine oil terminals, and/or to land-based means of traditional petroleum transportation, such as a pipeline and/or rail, to make up the differential for refined product transport throughout San Francisco Bay. All potential impacts remain the same as for the No Project alternative.

Based upon the objectives identified in the Final EIR and the detailed mitigation measures imposed upon the Project, the CSLC has determined that the Project should be approved, subject to such mitigation measures (Exhibit C, Mitigation Monitoring Program), and that any remaining unmitigated environmental impacts attributable to the Project are outweighed by the following specific economic, fiscal, social, environmental, land use, and other overriding considerations.

C. BENEFICIAL IMPACTS OF THE PROJECT

State CEQA Guidelines section 15093, subdivision (a), requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

The Avon Terminal has operated at its current location, transferring petroleum products from the Golden Eagle Refinery, since 1925. The provision of a lease to Tesoro to continue its existing Avon Terminal operations for another 30 years will benefit both the State of California and the region served by the Avon Terminal.

The California Energy Commission (CEC) forecasted that demand for transportation fuels will continue to increase as the economy recovers from the recent recession. In its *2009 Integrated Energy Policy Report* (Publication No. CEC-100-2009-003-CMF), the CEC stated:

> *California needs sufficient fuel infrastructure to ensure reliable supplies of transportation fuels for its citizens. Reliance on foreign oil imports increasingly puts the state's fuel supply at risk, not only because of security and reliability concerns, but also because the marine ports are not expanding to meet expected growth in demand. Until new vehicle technologies and fuels are commercialized, petroleum will continue to be the primary fuel source for California's vehicles. The state will need to enhance and expand the existing petroleum infrastructure, particularly at in-state marine ports, as well as its alternative fuel infrastructure.*

The CEC's 2009 Integrated Energy Policy Report (IEPR) also made the following recommendation:

> *To maintain energy security, state and local agencies need to ensure that there is adequate infrastructure for the delivery of transportation fuels. The state should modernize and upgrade the existing infrastructure to accommodate alternative and renewable fuels and vehicle technologies as they are developed and to address petroleum infrastructure needs to preserve past investments and to expand throughput capacity in the state.*

Both the statement and recommendation continue to hold true. While the CEC's 2013 IEPR states: "Compared to 2008, gasoline consumption has declined by six percent, due in part to the national economic recession and higher vehicle fuel economy standards." The 2013 IEPR also states that "petroleum accounts for more than 90 percent of California's transportation energy sources."

A key benefit of the Project is to maintain the Refinery's operational viability by continuing current Avon Terminal operations through which the Refinery exports refined petroleum products. Without the Avon Terminal to export its refined product, the Refinery could attempt to operate using rail or pipeline deliveries, or convert the Amorco Terminal to an export facility, or combine these options. However, the throughput would be reduced substantially, particularly in the short term due to lack of infrastructure. If, due to the loss of the Avon Terminal, the Refinery became uneconomical to operate, and no other operator assumed any of the functions of the Avon Terminal, direct and indirect local and regional consequences could result. Without the Avon Terminal, operations at other terminals and refineries in the Bay Area may be taxed, potentially increasing vessel congestion, collisions, as well as the costs associated with down time as vessels wait to berth and load product. Without the petroleum products produced by the Refinery, the region would experience a shortage of locally produced transportation fuels and other necessary petroleum products. Ultimately the reduction in infrastructure and capacity would weaken the economics, health, and security of the region due to shortages of these necessary transportation fuels.

Maintaining existing and operating facilities such as the Avon Terminal and Golden Eagle Refinery, which currently meet State and local environmental requirements, is critical to meeting both existing and future demand. Though California continues to advance towards alternative fuels, petroleum remains the state's primary source of transportation energy. Any future projects to construct petroleum product storage and handling capacity would require extensive environmental assessment and have significant environmental impact that exceed those associated with maintaining an existing infrastructure. In addition, any future new project of this nature may likely have a limited term of usefulness, given the trends that California is experiencing of moving away from petroleum fuels and towards alternative energy sources. Maintaining the existing facilities that are already meeting the current demands for transportation is the most practical approach to meeting California's needs for petroleum based fuels.

D. CSLC ADOPTION OF STATEMENT OF OVERRIDING CONSIDERATIONS

As noted above, under Public Resources Code section 21081, subdivisions (a)(3) and (b) and State CEQA Guidelines section 15093, subdivision (a), the decision-making agency is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or state-wide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve a project.

For purposes of CEQA, if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable significant environmental

effects, the decision-making agency may approve the underlying project. CEQA, in this respect, does not prohibit the CSLC from approving the Project, even if the activities authorized by that approval may cause significant and unavoidable environmental effects. This balancing is particularly difficult given the significant and unavoidable impacts on the resources discussed in the EIR and these Findings. Nevertheless, the CSLC finds, as set forth below, that the benefits anticipated by implementing the Project outweigh and override the expected significant effects.

The CLSC has balanced the benefits of the Project against the significant unavoidable impacts that will remain after selection of the approved Project and with implementation of all feasible mitigation in the EIR that is adopted as enforceable conditions of the CSLC's approval of the Project. Based on all available information, the CSLC finds that the benefits of the approved Project outweigh the significant and unavoidable adverse environmental effects, and considers such effects acceptable. The CSLC adopts and makes this Statement of Overriding Considerations with respect to the impacts identified in the EIR and these Findings that cannot be reduced to a less than significant level. Each benefit set forth above constitutes an overriding consideration warranting approval of the project, independent of the other benefits, despite each and every significant unavoidable impact.

E. CONCLUSION

The CSLC has considered the Final EIR and all of the environmental impacts described therein, including those that cannot be mitigated to a less than significant level and those that may affect Public Trust uses of State sovereign lands. The CSLC has considered the fiscal, economic, legal, social, environmental, and public health and safety benefits of the Project and has balanced them against the Project's unavoidable and unmitigated adverse environmental impacts and, based upon substantial evidence in the record, has determined that the benefits of the Project outweigh the adverse environmental effects. Based on the foregoing and in conformance with Public Resources Code section 21081 and State CEQA Guidelines sections 15096, subdivision (h), and 15093, the CSLC finds that the remaining significant unavoidable impacts of the Project are acceptable in light of the economic, fiscal, social, environmental, and public health and safety benefits of the Project. Such benefits outweigh such significant and unavoidable impacts of the Project and provide the substantive and legal basis for this Statement of Overriding Considerations.

The CSLC finds that to the extent that any impacts identified in the Final EIR remain unmitigated, mitigation measures have been required to the extent feasible, although the impacts could not be reduced to a less than significant level.

Based on the above discussion, the CSLC finds that the benefits of the Project outweigh the significant unavoidable impacts that could remain after mitigation is applied and considers such impacts acceptable.