

EXHIBIT D

5.0 Other Required CEQA/NEPA Sections

1 **6.0 MITIGATION MONITORING PROGRAM**

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3 As the Lead Agency under the CEQA, the CSLC is required to adopt a program for
4 reporting or monitoring regarding the implementation of mitigation measures for this
5 project, if it is approved, to ensure that the adopted mitigation measures are
6 implemented as defined in this EIR. This Lead Agency responsibility originates in
7 Public Resources Code section 21081.6(a) (Findings), and State CEQA Guidelines
8 Sections 15091(d) (Findings) and 15097 (Mitigation Monitoring or Reporting).
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10 **6.1 MONITORING AUTHORITY**

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12 The purpose of a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP)
13 is to ensure that measures adopted to mitigate or avoid significant impacts are
14 implemented. An MMCRP can be a working guide to facilitate not only the
15 implementation of mitigation measures by the project proponent, but also the
16 monitoring, compliance and reporting activities of the CSLC and any monitors it may
17 designate.
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19 The CSLC may delegate duties and responsibilities for monitoring to other
20 environmental monitors or consultants as deemed necessary, and some monitoring
21 responsibilities may be assumed by responsible agencies, such as OSPR. The number
22 of monitors assigned to the project will depend on the number of concurrent mitigation
23 measure requirements. The CSLC or its designee(s), however, will ensure that each
24 person delegated any duties or responsibilities is qualified to monitor compliance.
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26 Any mitigation measure study or plan that requires the approval of the CSLC must allow
27 at least 60 days for adequate review time. Other agencies and jurisdictions may require
28 additional review time. It is the responsibility of the environmental monitor assigned to
29 each spread to ensure that appropriate agency reviews and approvals are obtained.
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31 The CSLC or its designee will also ensure that any deviation from the procedures
32 identified under the monitoring program is approved by the CSLC. Any deviation and its
33 correction shall be reported immediately to the CSLC or its designee by the
34 environmental monitor assigned to the Project.
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36 **6.2 ENFORCEMENT RESPONSIBILITY**

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38 The CSLC is responsible for enforcing the procedures adopted for monitoring through
39 the environmental monitor assigned to the project. Any assigned environmental monitor
40 shall note problems with monitoring, notify appropriate agencies or individuals about
41 any problems, and report the problems to the CSLC or its designee.
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1 **6.3 MITIGATION COMPLIANCE RESPONSIBILITY**

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3 The Applicant is responsible for successfully implementing all the mitigation measures
4 in the MMCRP, and is responsible for assuring that these requirements are met by all of
5 its construction contractors and field personnel. Standards for successful mitigation
6 also are implicit in many mitigation measures that include such requirements as
7 obtaining permits or avoiding a specific impact entirely. Other mitigation measures
8 include detailed success criteria. Additional mitigation success thresholds will be
9 established by applicable agencies with jurisdiction through the permit process and
10 through the review and approval of specific plans for the implementation of mitigation
11 measures.

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13 **6.4 GENERAL MONITORING PROCEDURES**

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15 **6.4.1 Environmental Monitors**

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17 Monitoring procedures will be conducted during continued routine operations as well as
18 accidental spills of the project. The CSLC and the environmental monitor(s) are
19 responsible for integrating the mitigation monitoring procedures in coordination with the
20 Applicant. To oversee the monitoring procedures and to ensure success, the
21 environmental monitor assigned to each mitigation measure must assure that the
22 mitigation monitoring procedures or requirements are adhered to in accordance with
23 time specifications, if given. The environmental monitor is responsible for ensuring that
24 all procedures specified in the monitoring program are followed.

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26 **6.4.2 General Reporting Procedures**

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28 Site visits and specified monitoring procedures performed by other individuals will be
29 reported to the environmental monitor assigned to the project. A monitoring record form
30 will be submitted to the environmental monitor by the individual conducting the visit or
31 procedure so that details of the visit can be recorded and progress tracked by the
32 environmental monitor. A checklist will be developed and maintained by the
33 environmental monitor to track all procedures required for each mitigation measure and
34 to ensure that the timing specified for the procedures is adhered to. The environmental
35 monitor will note any problems that may occur and take appropriate action to rectify the
36 problems.

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38 **6.4.3 Public Access to Records**

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40 The public is allowed access to records and reports used to track the monitoring
41 program. Monitoring records and reports will be made available for public inspection by
42 the CSLC or its designee on request.

1 **6.5 MITIGATION MONITORING TABLE**

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3 The following sections present the mitigation monitoring tables for the project. Each
4 table lists the following information, by column:

- 5
6 ➤ Impact (impact number, title, and impact class);
7
8 ➤ Mitigation Measure (full text is presented);
9
10 ➤ Monitoring/reporting action (the action to be taken by the monitor or Lead Agency);
11
12 ➤ Effectiveness criteria (how the agency can know if the measure is effective);
13
14 ➤ Responsible agency; and
15
16 ➤ Timing (before, during, or after construction; during operation, etc.).

**Table 6-1
Mitigation Monitoring Program – Operational Safety/Risk of Upset**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>OS-3: Chevron's response capability for containment of spills during transfer operations would result in adverse and significant impacts for spills greater than 50 bbls. Consequences would range from spills that can be contained during first response efforts with rapid cleanup (Class II), to those complex spills that result in a significant impact (Class I) with residual effects after mitigation.</p>	<p>OS-3a: Provide quick release devices that would allow a vessel to leave the wharf as quickly as possible in the event of an emergency (fire, accident, or tsunami that could lead to a spill) that could impact the wharf or the vessel.</p>	<p>CSLC monitor to observe devices after installation.</p>	<p>Reduces potential for damages and spills. In the event of an emergency, the Long Wharf will be able to quickly release a vessel to prevent spread of oil.</p>	<p>CSLC</p>	<p>Within 12 months of lease implementation.</p>
	<p>OS-3b: Install tension-monitoring devices at Berth 1 to monitor mooring lines and avoid excessive tension or slack conditions that could result in spills. An alarm system (visual and sound) that incorporates communication to the control-building operator shall also be a part of the system. In addition, if any vessel drifts (surge or sway) more than 7 feet from its normal manifold or loading arm position at any other terminal berth, Chevron shall install, within 6 months after the incident, tension-monitoring devices at such berth.</p>	<p>CSLC monitor to observe devices after installation.</p>	<p>Reduces potential for damages and spills.</p>	<p>CSLC</p>	<p>Within 12 months of lease implementation, <u>unless otherwise specified.</u></p> <p>If any vessel drifts more than 7 feet from its normal position, install within 6 months of occurrence.</p>
	<p>OS-3c: Install Allision Avoidance System (AAS) at the terminal to prevent damage to the pier and/or vessel during docking operations. Prior to implementing this measure, Chevron shall consult with the San Francisco Bar Pilots, the U.S Coast Guard, and the staff of the CSLC and provide information that would allow the CSLC to determine, on the basis of such consultations and information regarding the nature, extent and adequacy of the existing berthing system, the most appropriate application and timing of an AAS at the Chevron Long Wharf.</p>	<p>CSLC monitor to observe devices after installation.</p>	<p>Reduces potential for damages and spills.</p>	<p>CSLC</p>	<p>Within 12 months of lease implementation <u>unless otherwise specified.</u></p>

**Table 6-1 (continued)
Mitigation Monitoring Program – Operational Safety/Risk of Upset**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	OS-3d: Develop a comprehensive preventative maintenance program that includes periodic inspection of all components related to transfer operations.	Chevron shall submit program for review and approval to CSLC.	Reduces potential for damages and spills.	CSLC	Within 12 months of lease implementation.
OS-4: Group V oils have a specific gravity greater than 1 and do not float on the water; instead, they will sink below the surface into the water column or possibly to the bottom. Chevron states in their Spill Preparedness and Emergency Response Plan that no reasonable technology currently exists for a Group V response in the San Francisco Bay. Thus, a release of a Group V oil could result in significant impacts (Class I).	OS-4: Chevron shall confer with the California State Lands Commission (CSLC) regarding Group V oil spill response technology including potential new response equipment and techniques that may be applicable for use at the Long Wharf. Chevron shall work with the CSLC in applying these new technologies, as agreed upon, if recommended for this facility.	Chevron shall submit biannual report on status of new technology and equipment to CSLC.	Provides flexibility in lease to up MM and improve response capability.	CSLC	Submit biannual report for life of lease.
OS-5: Spills from the terminal during non-transfer periods would be associated with pipelines and are considered a significant (Class II) impact if spills are less than 50 bbls, or significant (Class I) impacts for spills greater than 50 bbls.	OS-5: Implement MM OS-3d. MOTEMS has established requirements for preventative maintenance that include periodic inspection of all components related to transfer operations. Chevron is required to comply with those requirements. Mitigation is no longer required.	See MM OS-3d.	See MM OS-3d.	See MM OS-3d.	See MM OS-3d.

Table 6-1 (continued)
Mitigation Monitoring Program – Operational Safety/Risk of Upset

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>OS-6: Public areas are beyond the hazard footprint boundary; thus fires and explosions would not cause a public safety risk. However, the Wharf's Operations Manual does not address fire emergency procedures and a fire and/or explosion could lead to a release of oil. A significant adverse impact has been identified (Class II). <u>Since MOTEMS became effective, February 6, 2006, Chevron is required to be consistent with the requirements of sections 3102F3.8 and 3108F2.2 of 24 CCR, Part 2, California Building Code, Chapter 31F for a MOT Fire Plan.</u></p>	<p>OS-6a: Chevron shall implement MM OS-3a to provide for quick release devices that would allow a vessel to depart the wharf quickly and help in the event of a fire.</p>	<p>See MM OS-3a.</p>	<p>See MM OS-3a.</p>	<p>See MM OS-3a.</p>	<p>See MM OS-3a.</p>
	<p>OS-6b: Chevron shall develop a set of procedures and conduct training and drills for dealing with tank vessel fires and explosions for tankers berthed at the Long Wharf. The procedures should include the steps to follow in the event of a tank vessel fire and describe how Chevron and the vessel will coordinate activities. The procedures shall also identify other capabilities that can be procured if necessary in the event of a major incident. The procedures shall be submitted to the U.S. Coast Guard and California State Lands Commission within 90 days of lease renewal. The plan shall be consistent with the requirements of section 3108F2.2 of 24 CCR, Part 2, California Building Code, Chapter 31F.</p>	<p>Chevron shall prepare and submit procedures to CSLC and US Coast Guard for review and approval.</p>	<p>Provides planning and procedures for emergency response.</p>	<p>CSLC</p>	<p>Submit to CSLC within 90 days of lease implementation.</p>
<p>OS-7: Spills from accidents in the Bay could result in impacts to water quality or biological resources that could be significant adverse (Class II) impacts for those that can be contained during first response efforts; or significant adverse (Class I) impacts that would have residual impacts. While Chevron does not have legal responsibility for tankers it does not own, it does have responsibility to participate in improving general response capabilities.</p>	<p>OS-7a: Chevron shall participate in an analysis to determine the adequacy of the existing VTS in the Bay Area, if such a study is conducted by a Federal, State, or local agency during the life of the lease. Agencies such as the San Francisco Bay Harbor Safety Committee often conduct studies of safety issues within the Bay Area. As vessel traffic increases in and around the Bay Area and as technology improves, it may be necessary and feasible to upgrade and expand the VTS in and around the Bay Area. Chevron shall participate in this analysis and contribute a pro-rata share toward the upgrade and expansion of the system, if required to do so by the CSLC.</p>	<p>This shall be implemented as a lease condition. Chevron shall demonstrate to CSLC their participation in program strategies to protect sensitive resources.</p>	<p>Reduces potential damage to resources.</p>	<p>CSLC</p>	<p>Life of lease.</p>

Table 6-1 (continued)
Mitigation Monitoring Program – Operational Safety/Risk of Upset

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>OS-7b: Chevron shall respond to any spill from a vessel traveling to or from the wharf, moored at its wharf, related in any way to the wharf, or carrying cargo owned by Chevron, 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.</p>	<p>This shall be implemented as a lease condition. CSLC monitor to observe emergency actions.</p>	<p>Reduces potential damage to resources.</p>	<p>CSLC</p>	<p>Life of lease.</p>

**Table 6-2
Mitigation Monitoring Program – Water Quality**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>WQ-2: Discharge of ballast water that contains harmful microorganisms 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, water contact recreation, non-contact water recreation, fish spawning, and wildlife habitat. Therefore discharge of segregated ballast water is determined to have a potentially significant impact to water quality (Class I).</p>	<p>WQ-2: <u>Following the adoption of the Mitigation Monitoring Program for the proposed Project</u>, Chevron will advise <u>both agents and representatives representing vessels that have called at the Long Wharf as of the date of adoption of the cited Mitigation Monitoring Program</u>, and Chevron will advise representatives of shipping companies having control over <u>or representing vessels that have informed Chevron of plans to would be likely to call at the Long Wharf in the future about the California Marine Invasive Species Control Act</u>. Chevron will ensure that a Questionnaire containing the following questions is provided to the Vessel Operator, and inform the Vessel Operator that the Questionnaire should be completed on behalf of the vessel, by its Captain or authorized representative.</p> <p>The Questionnaire shall solicit the following information:</p> <p>Does the vessel intend to discharge ballast water in San Francisco Bay, the Carquinez Strait or any other location(s) in a Bay waterway on its transit to the Chevron Richmond Long Wharf?</p> <p>2. Does the vessel intend to discharge ballast water at the Chevron Richmond Long Wharf?</p>	<p>Chevron shall submit the completed questionnaires to the California State Lands Commission's Marine Facilities Division's Northern California Field and Sacramento Offices, either electronically or by facsimile, 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 Long Wharf.</p>	<p>This measure will provide a tracking mechanism for ballast water management which shall remain in effect until such time that more stringent requirements are developed.</p>	<p>CSLC</p>	<p>Life of lease</p>

**Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>3. Which of the following means specified in the California Marine Invasive Species Act (MISA) or Title 2, Division 3, Chapter 1, Article 4.6. has the vessel operator used or intend to use on the current voyage to manage the vessel's ballast water: a mid-ocean exchange (as defined in Section 71200(g)); a near-coastal exchange (as defined in Section 71201(b)); retain all ballast on board; or discharge the ballast water at the same location (as defined in Section 71204.2(c)(2)) where ballast originated, provided ballast water was not mixed with ballast water taken on in an area other than mid-ocean waters.</p>				
<p>WQ-5: Non-segregated ballast water that is sent to the treatment facility may include nonindigenous organisms. Treatment at the facility does not include any specific procedures to prevent organisms that may be in ballast water from being discharged to Bay waters. Discharge of harmful microorganisms would be a significant adverse impact (Class II).</p>	<p>WQ-5: Chevron shall not discharge any non-segregated ballast water received at the Long Wharf to San Francisco Bay. If Chevron needs to unload non-segregated ballast water, it shall be unloaded into a tanker truck or other suitable waste handling vehicle and disposed of at an appropriate facility.</p>	<p>This shall be implemented as a lease condition.</p>	<p>Reduces potential damage to resources.</p>	<p>CSLC</p>	<p>Life of lease.</p>

**Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>WQ-7: Marine anti-fouling paints are highly toxic containing copper, sodium, zinc, and tributyltin (TBT) and their use on vessels associated with the Long Wharf is considered to be a significant adverse impact to water quality that cannot be mitigated to less than significant (Class I).</p>	<p>WQ-7: <u>Following the adoption of the Mitigation Monitoring Program for the proposed Project</u>, Chevron will advise <u>both agents and</u> representatives of vessels that have <u>informed Chevron of plans to call at the Long Wharf as of the date of adoption of the cited Mitigation Monitoring Program</u>, and vessel representatives that would be likely to call at the Long Wharf in the future about the requirements of the 2008 International Maritime Organization (IMO) prohibition of TBT applications to vessel hulls. Following the effective date of the IMO prohibition, Chevron will ensure that the Master (Captain) or authorized representative of vessels intending to call at the Long Wharf certify that their vessel is in compliance and provide a copy of such certification to the California State Lands Commission's Marine Facilities Division's Northern California Field and Sacramento Offices, either electronically or by facsimile, 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 Long Wharf.</p>	<p>Chevron shall require vessels to document that they have no new TBT applications (per IMO mandate). Documentation shall be kept at Chevron, available for CSLC inspection.</p>	<p>Until all TBT is phased out by 2008, vessels with old applications of TBT on their hulls will visit Chevron. Chevron cannot feasibly require vessels to remove TBT from their hulls (until the IMO mandate is effective). Therefore, until all TBT is gone from vessels using the Chevron marine terminal, impacts of organotins will remain.</p>	<p>CSLC</p>	<p>Life of lease.</p>
<p>WQ-8: Routine vessel maintenance would have the potential to degrade water quality due to chronic spills during transfers of lubricating oils, resulting in adverse significant (Class II) impacts.</p>	<p>WQ-8: MM WQ-9 applies which addresses preparation of Best Management Practices (BMPs) in a SWPPP for the Long Wharf.</p>	<p>See MM WQ-9.</p>	<p>See MM WQ-9.</p>	<p>See MM WQ-9.</p>	<p>See MM WQ-9.</p>

**Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>WQ-9: Stormwater runoff from the Long Wharf may contribute pollutants to the Bay in concentrations that may adversely affect some benthic species within the local area, resulting in a significant adverse impact (Class II) to water quality.</p>	<p>WQ-9: Chevron shall coordinate with the <u>Regional Water Quality Control Board</u> to develop a <u>Stormwater Pollution Prevention Plan</u> that Chevron shall prepare specifically for the <u>Long Wharf</u>. Implement BMPs to reduce the input of chemicals to the Bay from the marine terminal. BMPs for consideration shall include (at a minimum) (1) conducting all vehicle maintenance on land not over water or marshland, (2) berming all areas on the pier where maintenance activities are being conducted and cleaning up all spilled contaminants before berms are removed, (3) <u>when necessary</u>, washing the surface of the pier to the extent practical and directing washwater into sumps, (4) maintenance of sumps, and (5) posting signs to educate all workers to the importance of keeping contaminants from entering the Bay. These <u>and other</u> BMPs shall be detailed in a Stormwater Pollution Prevention Plan that Chevron shall prepare specifically for the Long Wharf.</p>	<p>These BMPs shall be detailed in a SWPPP that Chevron shall prepare specifically for the marine terminal and submit to CSLC for approval.</p>	<p>Aggressive implementation of BMPs to reduce the input of chemicals to the Bay from operations on the Long Wharf would reduce Chevron's input of these chemicals.</p>	<p>CSLC</p>	<p>Prepare SWPPP within 12 months of lease implementation. Maintain SWPPP, update as necessary for life of lease.</p>

<p>WQ-11: Potential impacts on water quality can result from leaks or spills. Small leaks or spills (less than 50 bbl) related to Long Wharf operations could result in significant (Class II) impacts, while large spills (greater than 50 bbl) could result in significant adverse impacts (Class I).</p>	<p>WQ-11: MM OS-3ba and through MM OS-3cd (Operational Safety/Risk of Upset) and MM OS-4 shall be implemented.</p>	<p>See MM OS-3ba, through MM OS-3cd and MM OS-4.</p>	<p>See MM OS-3ba, through MM OS-3cd and MM OS-4.</p>	<p>See MM OS-3a through MM OS-3d and MM OS-4.</p>	<p>See MM OS-3ba through MM OS-3cd and MM OS-4.</p>
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Table 6-2 (continued)
Mitigation Monitoring Program – Water Quality

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
WQ-12: A significant impact to water quality (Class I or II) could result from leaks or an accidental spill of crude oil or oil product from a vessel spill along tanker routes either in San Francisco Bay or outer coast waters.	WQ-12: The Long Wharf shall implement MM OS-7a and OS-7b of Section 4.1, Operational Safety/Risk of Upset Section, addressing potential participation in VTS upgrade evaluations, and Chevron response actions for spills at or near the Long Wharf.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b

**Table 6-3
Mitigation Monitoring Program – Biological Resources**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>BIO-3: Loss of juvenile Dungeness crabs and young Chinook salmon would be a significant, adverse impact because dredging at the time when juveniles are moving through the area could disrupt the migration patterns of these species (Class II). Because of the low volume of material dredged, adverse, but less than significant impacts (Class III) occur to plankton, other benthos, other fishes, and birds.</p>	<p>BIO-3a: The Long Wharf shall schedule dredging to avoid the months of May and June when juvenile Dungeness crabs are most abundant in the Project area.</p> <p>In the event that, due to circumstances beyond lessee's control, dredging must occur in May and June to maintain a depth for safe navigation and operation of the terminal, lessee shall consult with the California Department of Fish and Game (CDFG) regarding the potential effects of such dredging on juvenile Dungeness Crabs and Chinook salmon smolts. Such consultation may occur directly with CDFG personnel in Region 3 or with CDFG personnel during the consideration of lessee's application to the Dredged Material Management Office (DMMO). If the CDFG concurs with dredging as proposed by the lessee, documentation of which shall be provided to Lessor, it shall be conclusively presumed that juvenile Dungeness Crabs and Chinook salmon smolts will not be significantly affected, and dredging may proceed as provided herein.</p>	<p>Chevron shall coordinate with the CSLC and U.S. Army Corps of Engineers (Corps) who are the dredging permit holders on the scheduling of dredging operations.</p>	<p>Reduces potential impacts to juvenile Dungeness crabs.</p>	<p>CSLC</p>	<p>Prior to dredging.</p>
	<p>BIO-3b: To avoid impacts to Pacific herring reproduction, the Long Wharf shall schedule dredging to avoid the herring spawning season of December through February and into March.</p>	<p>Chevron shall coordinate with the CSLC and U.S. Army Corps of Engineers (Corps) who are the dredging permit holders on the scheduling of dredging operations.</p>	<p>Reduces impacts to Pacific herring reproduction.</p>	<p>CSLC</p>	<p>Prior to dredging.</p>

**Table 6-3 (continued)
Mitigation Monitoring Program – Biological Resources**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
	<p>BIO-3c: Although chances of entrainment of salmon is relatively low, to protect the salmon, the Long Wharf shall schedule dredging in June through November when winter and spring run Chinook salmon smolt activity is lowest.</p>	<p>Chevron shall coordinate with the CSLC and U.S. Army Corps of Engineers (Corps) who are the dredging permit holders on the scheduling of dredging operations.</p>	<p>Reduces impacts to Chinook salmon smolt.</p>	<p>CSLC</p>	<p>Prior to dredging.</p>
<p>BIO-4: Invasive organisms/introduction of non-indigenous species in ballast water released in the Bay could have significant (Class I) impacts to plankton, benthos, fishes, and birds.</p>	<p>BIO-4: Implement MM WQ-2, in Water Quality, that requires that Chevron comply with the California Marine Invasive Species Act and related California State Lands Commission requirements and fill out a questionnaire to enable the CSLC to better track the management of ballast water. Implement Mitigation Measure WQ-5 requiring segregated ballast water be unloaded to a suitable wastehandling vehicle and disposed of at an appropriate facility rather than being treated at the Chevron facility shall apply.</p>	<p>See MM WQ-2 and MM WQ-5.</p>	<p>See MM WQ-2 and MM WQ-5.</p>	<p>See MM WQ-2 and MM WQ-5.</p>	<p>See MM WQ-2 and MM WQ-5.</p>

**Table 6-3 (continued)
Mitigation Monitoring Program – Biological Resources**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>BIO-6: The impacts of a spill on the biota at or near the Long Wharf have the potential to spread throughout much of San Francisco Bay. Vulnerable biota are plankton, benthos, eelgrass, fishes, marshes, birds, and mammals. Per Section 4.1, Operational Safety/Risk of Accidents, small spills at the Long Wharf (less than 50 bbls) should be able to be contained (Class II impacts). However, spills larger than 50 bbls may not be able to be contained and the Long Wharf may not have adequate boom to protect all the sensitive areas at the most risk that could be oiled within 3 hours of a spill from the Long Wharf. Impacts from large spills are considered to be significant adverse (Class I) impacts. A significant impact to biological resources (Class I or II impact) could result from spills of crude oil or product from a vessel in transit along tanker routes either in San Francisco Bay or outer coast waters.</p>	<p>BIO-6a: Implement MM OS-3a^b through MM OS-3c^d and MM OS-4 in Operational Safety/Risk of Accidents to either lower the probability of an oil spill or increase response capability.</p>	<p>See MM OS-3a-d and MM OS-4.</p>	<p>See MM OS-3a-d and MM OS-4.</p>	<p>See MM OS-3b-ca-d and MM OS-4.</p>	<p>See MM OS-3b-ca-d and MM OS-4.</p>
	<p>BIO-6b: Chevron shall demonstrate to the satisfaction of the California State Lands Commission (CSLC) that the Long Wharf can successfully implement its Oil Spill Response Plan and can deploy within 3 hours all the boom necessary to simultaneously protect all the sensitive resources at risk of contact with oil within 3 hours from a spill at the Long Wharf. Sensitive resources close to the Long Wharf include Castro Rocks, eelgrass beds, and the double-crested cormorant breeding colony on the Richmond-San Rafael Bridge. Procedures for the protection of Castro Rocks and eelgrass beds are detailed in the Area Contingency Plan (USCG and OSPR 1997). Chevron shall obtain the 15,000 feet (2.8 miles) of boom necessary to protect the Richmond eelgrass beds and Castro Rocks simultaneously from a spill at the Long Wharf. Chevron shall survey for eelgrass annually in the Richmond area and identify the places where substantial amounts of eelgrass currently grow. Chevron shall implement drills specifically designed to deploy and anchor booms simultaneously to protect immediately Castro Rocks and the Richmond eelgrass beds from oil. Because a spill could reach these areas rapidly, Chevron should have immediate access to the equipment and personnel detailed in the Area Contingency Plan.</p>	<p>CSLC monitor to observe that Chevron has the boom deployment capability.</p>	<p>Reduces spread of spill and damages to resources.</p>	<p>CSLC</p>	<p>Within 12 months of lease implementation.</p>

Table 6-3 (continued)
Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
	<p>BIO-6c: Have P-procedures should be in place to flush double-crested cormorants from the waters contaminated by oil with capability. Arrangements should be made to quickly bring expert bird rehabilitators to the site to rescue oiled birds. <u>Provide the CSLC with copies of proof of existing arrangements with specialized wildlife handlers and update every three years.</u></p>	<p>Develop procedures to be in place to flush double-crested cormorants from oil contaminated water.</p>	<p>Reduces potential damages to birds.</p>	<p>CSLC</p>	<p>Within 12 months of lease implementation <u>with updates every three years.</u></p>
	<p>BIO-6d: Chevron shall ensure that adequate equipment and personnel are available to protect the Castro Creek marshes, San Pablo Creek marshes, Pinole Pt. marshes and the southeastern San Pablo Bay mudflats within 8 hours of a spill at the Long Wharf. The strategy to protect each of these sensitive resources shall be tested with a field demonstration of deployment and placement of booms and other equipment in locations designated in the Area Contingency Plan to protect these sensitive habitats.</p>	<p>Chevron shall develop strategy and demonstrate to CSCL that it has resources to deploy and protect marshes within 8 hours of spill.</p>	<p>Reduces potential damage from oil spills.</p>	<p>CSLC</p>	<p>Within 12 months of lease implementation.</p>
	<p>BIO-6e: When a spill occurs, develop procedures for clean up of any sensitive biological areas contacted by oil, in consultation with biologists from California Department of Fish and Game and U.S. Fish and Wildlife Service, to avoid damage from clean up activities.</p>	<p>Chevron shall provide documentation of damage and clean up strategy as soon as possible after a large spill to CSLC, CDFG and USFWS.</p>	<p>This will ensure that the loss of resources is documented as soon as possible after a large spill event.</p>	<p>CSLC, CDFG, and USFWS</p>	<p>Documentation of damage and strategy as soon as possible after a spill.</p>

<p>BIO-6f: Chevron shall work with the <u>Natural Resource Damage Assessment (NRDA) team, as the team may request, to determine the extent of damage and loss of resources, cleanup, restoration and compensation, Chevron shall keep the CSLC informed of their participation in such efforts, by providing copies of memos, meeting agendas, or other appropriate documentation, including e-mails.</u> If damage occurs, the last resort is restoration and compensation. Any loss of resources shall be documented as soon as possible after a large spill. The sampling methods and design should be determined beforehand, and the plan should include provisions for getting resources onsite as soon as possible so that post-spill studies can begin immediately.</p>	<p>Chevron shall provide sampling methods and a design protocol plan to CSLC for review and approval.</p>	<p>This will ensure that the loss of resources is restored and/or compensated in the most appropriate manner.</p>	<p>CSLC, CDFG, and USFWS</p>	<p>Sampling methods and protocol within 12 months of lease implementation and update every 2 years.</p>
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Table 6-3 (continued)
Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
	BIO-6g: Chevron shall implement MM OS-7a and MM OS-7b in Operational Safety/Risk of Accidents addressing potential participation in VTS upgrade evaluations, and Chevron response actions for spills at or near the Long Wharf.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.	See MM OS-7a and MM OS-7b.

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**Table 6-4
Mitigation Monitoring Program – Commercial and Sports Fisheries**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>FSH-1: Space use conflicts between Long Wharf routine operations and commercial herring fishing could occur resulting in interference or displacement of herring fishing activities. Impacts would range from significant (Class II) to adverse, but less than significant (Class III), depending on herring spawning locations, fishing operations and other factors.</p>	<p>FSH-1: Chevron shall participate in the Pacific herring commercial fishery annual public scoping and hearing process, part of CDFG's annual review of herring commercial fishing regulations. Because CDFG has the authority to modify or develop regulations to address space use conflicts between the fishery and Chevron's operations, Chevron shall abide by any future regulations CDFG may develop to reduce space use impacts.</p>	<p>Chevron shall demonstrate to CSLC their activities by providing proof of participation.</p>	<p>Reduces Chevron-bound vessels potential for conflict.</p>	<p>CSLC</p>	<p>Annual reporting for life of lease.</p>
<p>FSH-2: Space use conflicts between transiting vessels serving the Long Wharf and commercial herring operators could occur, resulting in interference or displacement of herring fishing activities. A significant impact could result (Class II).</p>	<p>FSH-2: Long Wharf officials shall notify herring operators during the herring fishing season of vessel transits, through the CDFG Directors Herring Advisory Committee or other means. Chevron shall also participate MM FSH-1.</p>	<p>Chevron shall demonstrate to CSLC their activities by providing copies of notices.</p>	<p>Reduces Chevron-bound vessels potential for conflict.</p>	<p>CSLC</p>	<p>Annual reporting for life of lease.</p>
<p>FSH-6: Fisheries depend on a healthy environment to survive and flourish. Invasive species discharged from ballast water could impair water quality (Impacts WQ-2 and WQ-5) and biological resources (Impact BIO-4). These impacts to fisheries resources would impair commercial and sport fishing activities in the Bay and along the outer coast, resulting in significant adverse (Class I) impacts.</p>	<p>FSH-6a: Long Wharf officials shall: (1) carry out MM WQ-2 and MM WQ-5 for completion of a ballast water reporting form for each vessel, advisories about the California Marine Invasive Species Act and proper disposal of non-segregated ballast water.</p>	<p>See MM WQ-2 and MM WQ-5.</p>	<p>See MM WQ-2 and MM WQ-5.</p>	<p>See MM WQ-2 and MM WQ-5.</p>	<p>See MM WQ-2 and MM WQ-5.</p>

Table 6-4 (continued)
Mitigation Monitoring Program – Commercial and Sports Fisheries

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>FSH-6b: Chevron shall participate and assist in funding ongoing and future actions related to invasive species and 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 and Department of Fish and Game, lead Action Plan agencies. The level of funding shall be determined through a cooperative effort between CSLC, and the Departments of Water Resources and Fish and Game and shall be based on criteria that establishes Chevron's commensurate share of the Plan's invasive species actions costs.</p>	<p>Chevron shall demonstrate to CSLC their participation in relevant programs. Contributions would be determined through cooperative effort.</p>	<p>Will keep Chevron and CSLC up-to-date on causes of species declines and solutions. Will provide funding support to the Pelagic Organism Decline Account or other account identified by DWR or CDFG.</p>	<p>DWR, CDFG</p>	<p>Life of lease.</p>
<p>FSH-8: Continuation of maintenance dredging at the Long Wharf is expected to cause Class III impacts on sport fishing activities and Class II impacts on herring spawning and fishing, Dungeness crab and salmon resources. New dredging to accommodate larger, double-hulled tankers is expected to cause impacts similar to those caused by routine operations at the Long Wharf (Class II and Class III).</p>	<p>FSH-8: Chevron officials shall comply with MM BIO-3 which calls for scheduling dredging during times of the year to avoid juvenile Dungeness crab, spring run Chinook salmon and herring spawning activity. In the event that dredging must occur in May and June (times to avoid for crab and salmon resources), MM BIO-3 requires consultation with CDFG and notification to CSLC.</p>	<p>See MM BIO-3.</p>	<p>See MM BIO-3.</p>	<p>See MM BIO-3.</p>	<p>See MM BIO-3.</p>

**Table 6-4 (continued)
Mitigation Monitoring Program – Commercial and Sports Fisheries**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>FSH-9: Shrimp, herring and sport fisheries in central and north San Francisco Bay, San Pablo Bay, Carquinez Strait and elsewhere in the estuary are at highest risk of spill contamination. Depending on spill location, size and water and weather conditions, areas upstream of the confluence of the Sacramento and San Joaquin rivers may also suffer harm. In addition marinas, launch ramps and fishing access points in the Bays may be threatened, contaminated or closed. Significant adverse impacts (Class I and II) to Bay commercial and sport fisheries would result from oil spill accidents originating at the Long Wharf or from tankers transiting the coast that service the wharf.</p>	<p>FSH-9a: Implement MM OS-3, MM OS-4, MM OS-6 and MM OS-7 in Operational Safety/ Risk of Accidents, and MM BIO-6b and BIO-6d in Biological Resources, to lower the probability of any oil spill and increase response capability.</p>	<p>See MM OS-3, MM OS-4, MM OS-6, MM OS-7, MM BIO-6b and BIO-6d.</p>	<p>See MM OS-3, MM OS-4, MM OS-6, MM OS-7, MM BIO-6b and BIO-6d.</p>	<p>See MM OS-3, MM OS-4, MM OS-6, MM OS-7, MM BIO-6b and BIO-6d.</p>	<p>See MM OS-3, MM OS-4, MM OS-6, MM OS-7, MM BIO-6b and BIO-6d.</p>
	<p>FSH-9b: Notifications shall be posted at spill sites and marinas, launch ramps and fishing access points to warn fishing interests of locations of contaminated sites. Notices shall be written in English, Vietnamese, Cantonese and Spanish, and be posted in areas most likely to be seen by fishing interests.</p>	<p>CSLC monitor to observe notice postings.</p>	<p>Provides notification to local anglers of potential areas of contamination.</p>	<p>CSLC</p>	<p>Life of lease.</p>
	<p>FSH-9c: If damages to fishing operations or related businesses occur, the last resort is to provide financial compensation. Any losses shall be documented as soon as possible after a spill. Methods for determining damages should be determined beforehand and response should include provisions for compensating operators and businesses as soon as possible.</p>	<p>CSLC, OSPR, to be commensurate with Chevron's contribution of impacts.</p>	<p>Helps to fund programs for restoration or compensation.</p>	<p>CSLC, OSPR</p>	<p>After a spill event, as warranted.</p>

**Table 6-4 (continued)
Mitigation Monitoring Program – Commercial and Sports Fisheries**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>FSH-9d: Following a spill, evaluate the effectiveness of oil spill mitigation measures used to respond to a spill caused at the Long Wharf or by tankers calling at the Wharf. Results of the evaluation would be available to public decision-makers to ensure refinement, and if necessary, modification of mitigation measures. Evaluation would be done only after an accident and would include monitoring using scientifically accepted protocols. Costs for the evaluation would be borne by Chevron for spills caused at the Long Wharf or by Chevron-owned tankers. Chevron shall contribute to independent public or private organizations for oil spill research.</p>	<p>Chevron to provide input to assist CSLC in evaluation following a spill. Contributions would be determined in cooperation with the evaluating organizations, agencies, and the CSLC.</p>	<p>Helps to develop more effective mitigation measures.</p>	<p>CSLC</p>	<p>After spills for life of lease.</p>
<p>FSH-10: Significant adverse impacts (Class I and II) to outer coast commercial and sport fisheries could result from oil spill accidents from the expected 900 transiting tankers calling at the Long Wharf. The level of impact would depend on the size of the spill, location, and fisheries occurring in the area of the spill.</p>	<p>FSH-10: Chevron shall implement MM OS-7 for VTS upgrade participation and to provide immediate spill response near/at the terminal. For spills from Chevron owned vessels Chevron officials shall implement FSH-9b through MM FSH-9d to notify fishing interests of possible contamination of fishing areas, to help offset the losses to fishing interests and businesses dependent on fishing activities, and to evaluate effectiveness of mitigation measures.</p>	<p>See MM OS-7, MM FSH-9a through MM FSH-9d.</p>	<p>See MM OS-7, MM FSH-9a through MM FSH-9d.</p>	<p>See MM OS-7, MM FSH-9a through MM FSH-9d.</p>	<p>See MM OS-7, MM FSH-9a through MM FSH-9d.</p>

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**Table 6-5
Mitigation Monitoring Program – Land Use**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>LU-3: A number of recreational facilities (designated parks, wildlife preserves, open space, etc.) and recreational uses (nature viewing, boating, fishing, surfing, etc.) are within the potential area that could be impacted by the spread of oil. Shoreline and water-related uses would be disrupted by oil on the shoreline and in the water and could result in significant adverse (Class I and II) impacts.</p>	<p>LU-3: Mitigation measures for spills at the Long Wharf would be the responsibility of Chevron operations. Specific measures are those presented in Operational Safety/Risk of Upset; Water Quality; Biological Resources; and Commercial and Sport Fisheries.</p>	<p>Chevron shall implement measures presented in Operational Safety/Risk of Upset; Water Quality; Biological Resources; and Commercial and Sport Fisheries.</p>	<p>The measures provide for enhanced response capability and protection. Impacts may remain significant depending on effectiveness of first response.</p>	<p>As per referenced measures.</p>	<p>As per referenced measures.</p>
<p>LU-4: Spills that beach along sensitive land use areas or heavily used areas including recreational areas would limit or preclude such uses and result in significant adverse (Class I or II) impacts, depending on the various characteristics of a spill and its residual effects.</p>	<p>LU-4: Mitigation measures for accidents in the shipping lanes would not be Chevron's responsibility, but would fall to the vessel operator/owner, unless the vessels are owned by Chevron. Chevron shall implement measures OS-7a and OS-7b in Operational Safety/Risk of Upset.</p>	<p>See MM OS-7a and MM OS-7b.</p>	<p>See MM OS-7a and MM OS-7b.</p>	<p>See MM OS-7a and MM OS-7b.</p>	<p>See MM OS-7a and MM OS-7b.</p>

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**Table 6-6
Mitigation Monitoring Program – Noise**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>N-1: Because the Long Wharf already exists, it is considered part of the ambient noise environment. It is located in an industrial area, however sensitive receptors are located along the Pt. Richmond shoreline approximately 1 mile away. Over the lease period, no sensitive receptors are to be constructed proximate to the terminal. Occasional noise complaints from residential receptors result in Class I impacts.</p>	<p>N-1: As a lease condition, Chevron shall either retain an on-call noise consultant or train onsite personnel in the proper use of sound monitoring equipment. When a vessel berths at the Long Wharf that is perceived to have a noise problem, either by Chevron personnel or public notification (resulting from a history of local resident noise complaints), noise measurements shall be obtained to document the noise associated with these ships. If these ships are found to emit noise at a level that exceeds City standards at the residential property line, the vessels' operators shall be notified to determine if the problem can be corrected. If the owner/operator cannot or will not correct the problem, the following shall be implemented:</p> <ul style="list-style-type: none"> • Chevron shall berth these ships during all subsequent visits at the most distant berth from local receptors that can accept the class of ship and cargo; and • During subsequent visits, these "noisy" ships shall not be allowed to hotel at the Long Wharf during the night beyond the time necessary to load/unload. 	<p>This shall be implemented as a lease condition.</p>	<p>Will identify source(s) of noise and work to reduce or avoid noise issues.</p>	<p>CSLC</p>	<p>Life of lease.</p>

**Table 6-7
Mitigation Monitoring Program – Visual Resources/Light and Glare**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>VR-2: The visual impacts of a spill could last for a long period of time, depending on the level of physical impact and cleanup ability, and are considered to be adverse and significant (Class I or II).</p>	<p>VR-2: Mitigation measures for oil spill impacts include those measures for contingency planning and response as presented in Operational Safety/Risk of Upset and Biological Resources.</p>	<p>Chevron shall implement measures presented in Operational Safety/Risk of Upset; Water Quality; Biological Resources; and Commercial and Sport Fisheries.</p>	<p>The measures provide for enhanced response capability and protection. Impacts may remain significant depending on effectiveness of first response.</p>	<p>As per referenced measures.</p>	<p>As per referenced measures.</p>
<p>VR-3: Spills would change the color and texture of water and shoreline conditions. The level of public sensitivity and expectations of viewers would result in a negative impression of the viewshed and result in significant adverse (Class I or II) impacts, depending on the various characteristics of a spill and its residual effects.</p>	<p>VR-3: Mitigation measures for accidents in the shipping lanes would be Chevron's responsibility only for Chevron-owned vessels. Responsibility for accidents for non-Chevron owned vessels would fall to the vessel operator/owner. Chevron shall implement measures OS-7a and OS-7b in Operational Safety/Risk of Upset.</p>	<p>See MM OS-7a and MM OS-7b.</p>	<p>See MM OS-7a and MM OS-7b.</p>	<p>See MM OS-7a and MM OS-7b.</p>	<p>See MM OS-7a and MM OS-7b.</p>

**Table 6-8
Mitigation Monitoring Program – Geological Resources/Structural Integrity**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>GEO-4: Long Wharf operators may not have adequate warning time to allow a vessel to depart from the Long Wharf to avoid damage to the vessel and/or the Long Wharf from a tsunami. Impacts are considered significant adverse (Class II) impacts.</p>	<p>GEO-4: As soon as possible, after notification of a tsunami, Long Wharf operators shall release the vessel from its mooring and the vessel shall move away from the Long Wharf, <u>when the Captain determines that it is safe and feasible to do so.</u></p>	<p>Chevron shall report to CSLC after a tsunami event.</p>	<p>Reduces damage to Long Wharf and vessels from tsunami events.</p>	<p>CSLC</p>	<p>After a tsunami event.</p>
<p>GEO-6: A preliminary analysis indicates that the structural capacity of the breasting dolphins and the main Long Wharf would need to be increased, in order to berth/moor larger vessels at Berth No. 4. Significant, adverse impacts (Class II) could occur without proper design and construction of seismic and mooring improvements addressing this potential for larger vessels at Berth No. 4.</p>	<p>GEO-6: Additional mooring and structural analyses will be required and results implemented prior to the berthing of larger double-hulled vessels at Berth No. 4.</p>	<p>Chevron shall submit evaluations to CSLC for review and approval.</p>	<p>Assures structural adequacy for the mooring of larger vessels.</p>	<p>CSLC</p>	<p>When Berth No. 4 modifications are proposed.</p>

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**Table 6-9
Mitigation Monitoring Program – Socioeconomics**

Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>SOC-1: Impacts from oil releases could degrade the environment and preclude the use of shoreline land and associated recreational activities. Potential socioeconomic implications would include any area, structure, or facility that could experience business interruption and loss of revenue as a result of a spill and resultant cleanup operations. Impacts could be Class I or II, depending on severity of impact.</p>	<p>SOC-1: Mitigation would be in the form of monetary compensation for losses in accordance with the California Oil Spill Prevention and Response Act.</p>	<p>As per OSPR, to be commensurate with Chevron's contribution of impacts.</p>	<p>Helps to recover monetary losses from business interruptions resulting directly or indirectly from oil spill events.</p>	<p>OSPR</p>	<p>After a spill occurs.</p>

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**Table 6-10
Mitigation Monitoring Program – Environmental Justice**

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Impact	Mitigation Measure	Monitoring/ Reporting Action	Effectiveness Criteria`	Responsible Agency	Timing
<p>EJ-1: The Long Wharf area of potential impact does not include an area identified as an MTC-Minority Zone and Area of Poverty, or an area of Meaningfully Greater Minority or Low-Income Population. However, preclusion of affected populations from fishing areas over an extended period of time could be considered disproportionate, particularly if such populations do not have the ability to go to uncontaminated areas nearby and depend on fishing as a food source.</p>	<p>EJ-1: Should an oil spill from the Long Wharf extend beyond 0.5 mile from the Terminal and preclude sport <u>subsistence fishing by members of minority and/or low income communities</u> for more than two days, Chevron U.S.A., Inc. shall contribute either funds or food stuffs to a local food bank in an amount sufficient, as determined in conjunction with the CSLC, to replace food sources that would have been supplied within the effective areas.</p>	<p>CSLC shall determine the amount of food to be contributed in conjunction with Chevron.</p>	<p>Helps to prevent impacts to low-income populations in the case of oil spills.</p>	<p>CSLC</p>	<p>After a spill occurs.</p>

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