

CALENDAR ITEM

65

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06/01/09
PRC 3904.1

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**CONSIDER CERTIFICATION OF AN ENVIRONMENTAL IMPACT REPORT
AND THE RENEWAL OF A GENERAL LEASE - INDUSTRIAL USE**

LESSEE/APPLICANT:

Venoco, Inc.
5464 Carpinteria Avenue
Carpinteria, CA 93013-1423

AREA, LAND TYPE, AND LOCATION:

Sovereign lands in the Pacific Ocean, offshore the city of Goleta,
Santa Barbara County

AUTHORIZED USE:

Operation, use, and maintenance of one existing 10-3/4" diameter submarine
loading petroleum product pipeline 2,530 feet in length and a six-point industrial
mooring system for a petroleum product offloading industrial marine oil terminal..

LEASE TERM:

Ten years, beginning March 1, 2003

CONSIDERATION:

Rent in the amount of \$188,172 from March 1, 2003 to February 28, 2007;
beginning March 1, 2007 annual rent in the amount of \$70,650, referred to as the
"Base Rent". The "Base Rent" will be adjusted annually by the consumer price
index (CPI) for all urban consumers, Los Angeles-Riverside-Orange County, CA
(1982-84 = 100), with the Commission reserving the right to fix a different "Base
Rent" periodically during the lease term, as provided in the lease.

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SPECIFIC LEASE PROVISIONS:

Insurance: Liability insurance with coverage of no less than \$5,000,000

Performance Deposit: \$2,000,000

Other Recommended Lease Provisions:

1. If a pipeline is constructed from the Ellwood Onshore Facility to the All American Pipeline located at Las Flores Canyon for delivery of petroleum products to a location other than the Ellwood Marine Terminal, Venoco will discontinue using the improvements authorized by the lease and prepare and submit a decommissioning and removal plan to the Commission that will be subject to compliance with the California Environmental Quality Act.
2. Venoco will replace or convert the Barge Jovalan with a double-hulled barge by the end of 2010.
3. With respect to all parts and elements of Venoco's marine terminal facility, whether located on or off the lands subject to the Commission's lease, Venoco will comply with any and all applicable regulations and requirements governing marine oil terminal operations, engineering and maintenance.
4. Venoco will comply with the mitigation monitoring program as contained in Exhibit C.
5. Venoco will indemnify the Commission from liability and agrees to reimburse the Commission for all reasonable costs and attorney's fees that the Commission may incur in connection with the defense of any action brought against the Commission challenging the issuance of the lease, any provision of the Lease, the environmental review upon which the issuance of the lease is based, the interpretation or enforcement of the conditions of the lease, or any other matter related to the lease or its issuance, the total obligation will not exceed \$1,000,000.

BACKGROUND INFORMATION:

A lease was first issued by the Department of Finance, Division of State Lands, on May 26, 1930, to Bankline Oil Company and H. J. Barneson, involving a 50-foot wide right-of-way for the installation and maintenance of an existing submarine loading pipeline to ship oil produced from several State leases developed from the upland on the Ellwood Mesa.

The Commission terminated that right-of-way lease on February 29, 1968, and authorized a 15-year lease to Signal Oil Company for the construction, maintenance, and operation of an existing submarine loading pipeline, with

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renewal options consisting of two additional periods of ten years each. Subsequently, Signal Oil and Gas Co. was changed to Burmah Oil and Gas Co., which was then changed to Aminoil USA. The lease was then amended in 1979 to add tanker safety covenants.

On January 27, 1983, the Commission terminated Lease PRC 3904.1, effective February 28, 1983, and issued a new ten-year lease, with the option to renew the lease for two additional periods of ten years each upon such reasonable terms and conditions as the State might impose, to Aminoil, USA, Inc., for the existing improvements.

As the result of several mergers, Aminoil USA was absorbed into Phillips Petroleum Company. Through a series of assignments approved by the Commission, the lease is now held by Venoco, Inc.

CURRENT STATUS:

In February, 2003, Venoco, Inc., submitted an application to exercise the last ten-year renewal option as outlined in the lease for the continued use, maintenance, and monitoring of the existing offloading petroleum products pipeline and offshore mooring system.

The Lease has been in a holdover status since March 1, 1993, due in part to Commission staff's notification to its Lessee at the time, ARCO, that an Environmental Impact Report (EIR) would be required for the lease extension and due to an anticipated oil and gas development proposal involving abandonment of the marine terminal. ARCO did not pursue the oil and gas development proposal, and Venoco was assigned the Lease in 1997. Venoco submitted a separate application to pursue further oil and gas development offshore and abandonment of the marine terminal (see paragraph 2, below).

During staff's review of Venoco's lease renewal application, staff learned that the present mooring configuration did not match the previously authorized lease description. The lease description has been revised to include the mooring system, as currently defined by Venoco. In addition, the proposed new lease contains updated provisions concerning use, operation, and maintenance of the offshore marine terminal and submarine loading pipeline in accordance with the practices of the Commission for uses of this type.

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OTHER PERTINENT INFORMATION:

1. The Ellwood Marine Terminal (EMT) presently provides the transportation, via the barge Jovalan, of crude oil produced from wells on Platform Holly involving offshore oil and gas leases (PRC 3120 and PRC 3242). Venoco, Inc., has submitted an application to recommission PRC 421, an offshore oil and gas lease that would be produced from a shoreline pier that has been shut in since 1994. Crude oil produced from recommissioning PRC 421 would be piped to the EMT in combination with Platform Holly production. Commission staff has prepared an EIR (SCH No. 2005061013/CSLC EIR No. 732) for the PRC 421 Recommissioning Project, and the Final EIR is currently being prepared for this project.
2. Venoco, Inc., has also submitted an application to the Commission to extend the offshore oil and gas lease boundaries extensions of PRC 3120 and PRC 3242 which would extend the production reach of Platform Holly (Full Field Development Project). A component of the proposed Full Field Development Project is the construction of a pipeline to Las Flores Canyon as the mode for transporting oil produced from the Ellwood offshore leases. Decommissioning the Ellwood Marine Terminal is a component of the project if a pipeline is constructed and in service. A Draft EIR was circulated for public review in July-August 2008 and a Final EIR is currently being prepared for the project.
3. The proposed Ellwood Marine Terminal lease includes a provision for early termination of the subject Ellwood Marine Terminal Lease PRC 3904.1 should a pipeline be constructed on the upland from the Ellwood Onshore Facility to the All American Pipeline located at Las Flores Canyon. As currently envisioned, the pipeline approval would be under the jurisdiction of Santa Barbara County. Additionally, upon notice from the Commission, Venoco must stop using the improvements authorized by Lease No. PRC 3904.1 and will prepare and submit a decommissioning and removal plan that will be subject to compliance with the California Environmental Quality Act.
4. Venoco has permission to use the uplands adjoining the lease premises from the University of California, Santa Barbara until January 1, 2016.
5. Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15025), staff has prepared an EIR for the Ellwood Marine Terminal Lease Renewal identified as CSLC EIR No. 743, State Clearinghouse No. 2004071075. Such EIR was prepared and circulated for public review pursuant to the provisions of the CEQA.

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6. Subsequent to the release of the Final EIR that was prepared in 2007, changes in the proposed mitigation for operation of the EMT occurred. Mitigation Measure HM-9a provided that the single-hulled barge Jovalan be replaced in the near term with a double-hulled vessel to mitigate the impact risk of spills due to hull penetration. Venoco provided information indicating that this proposed mitigation measure would be prohibitively expensive as recovery of the replacement barge costs would not be realized due to the remaining short term life of the lease (less than five years). In accordance with its proposed business plan, Venoco intends to transport crude via pipeline prior to the U.S. Coast Guard required double-hulled conversion date of 2015. In addition, construction and permitting a new barge could require more than two years, which would further lessen the mitigation effectiveness period. Public Service Marine, Inc. (PSMI), the owner of the barge Jovalan and the patent-holder of the Vapor Recovery Unit equipped on the barge (the only unit at the time that meets Santa Barbara County Air Pollution Control District emissions control limits), substantiated the prohibitive costs associated with construction of a new double-hulled barge as well as the two-year lag time. Based on this information received at that time, Commission staff determined that Mitigation Measure HM-9a was not feasible and revised the mitigation measure.

As a result of determining the infeasibility of Mitigation Measure HM-9a, the impact of spills due to barge-hull penetration could no longer be considered a significant adverse impact that could be reduced to a level that is less than significant with mitigation (Class II). Instead, this impact had to be considered a Class I impact (A Significant Impact that cannot be mitigated to a level of insignificance). Because of this situation, Commission staff determined that the change constituted significant new information and warranted recirculation of Section 4.2, Hazards and Hazardous Materials, of the Draft EIR.

After the public review process for the Re-circulated Draft EIR (2009), Harley Marine Services, the parent company of PSMI, contacted Commission staff and stated that a double-hulled barge was feasible and that it is Harley Marine Services' plan to replace the barge Jovalan with a double-hulled barge. This subsequent information was confirmed at a meeting on March 11, 2009, among Venoco, Harley Marine Services, and Commission staff, as well as by a letter from Harley Marine Services dated March 24, 2009. After receiving this new information, Commission staff now finds that Mitigation Measure HM-9a is in fact feasible and the current Final EIR reflects this clarification.

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7. Since preparation and circulation of the original Draft EIR occurred, during the summer of 2006, just prior to the enactment of Assembly Bill 32, (the California Global Warming Solutions Act of 2006), and portions of the Draft EIR were being re-circulated as described in Item 9, above, the re-circulated Draft EIR was also updated with a greenhouse gas (GHG) analysis. The California Global Warming Solutions Act of 2006 requires that the State's global warming emissions reach 1990 levels by 2020 and be reduced to 80 percent of 1990 emissions by 2050.

The GHG analysis found that if additional transportation of crude oil to the permitted levels were to occur, the greenhouse gas associated with barge transportation, electrical generation to pump the crude oil from the Ellwood Marine Terminal (EMT) to the barge, and fugitive emissions associated with barge equipment and the tanks at the EMT would increase. The primary gas emitted from the operations would continue to be CO₂.

Total emissions of methane would be about 8.4 tons per year from fugitive emissions at the EMT and an additional 3.7 tons per year of methane from diesel fuel combustion associated with transport of the crude oil to refining terminals. The total methane emissions would be 12.1 tons, which would be an increase in methane emissions over current operations of 9.2 tons per year. The overall total increase of CO₂ equivalent (CO₂e) for the operations would be 18,717 tons of CO₂e or 16,846 metric tonnes of CO₂e. This would be an increase of 12,484 CO₂e metric tonnes over baseline. Mitigation Measure AQ-4a (GHG Emissions Offsets) was added to the EIR, which will offset these additional GHG emissions over baseline from the terminal operations.

8. A Mitigation Monitoring Program has been prepared in conformance with the provisions of the CEQA (Public Resources Code Section 21081.6) and is contained in Exhibit "C", attached hereto. In the Mitigation Monitoring Program, Mitigation Measure HM-5a to reduce any potential spills during vessel loading has been modified to reflect California State Lands Commission Marine Oil Terminal Regulations, Title 2, California Code of Regulations Section 2395 (e) (Spill Containment for Transfer Operations) as the appropriate and operationally effective measure.
9. Findings made in conformance with the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15091) are contained in Exhibit "D", attached hereto.

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10. A Statement of Overriding Considerations made in conformance with the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15093) is contained in Exhibit "E", attached hereto.

11. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code sections 6370, et seq. 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.

APPROVALS OBTAINED:

County of Santa Barbara, California Central Coast Regional Water Quality Control Board, Santa Barbara County Air Pollution Control District, University of California - Santa Barbara, California Coastal Commission, California Department of Fish and Game Office of Spill Prevention and Response, and the California State Fire Marshall

EXHIBITS:

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

RECOMMENDED ACTION:

IT IS RECOMMENDED THAT THE COMMISSION:

CEQA FINDING:

CERTIFY THAT AN EIR, CSLC EIR NO. 743/STATE CLEARINGHOUSE NO. 2004071075, WAS PREPARED FOR THIS PROJECT PURSUANT TO THE PROVISIONS OF THE CEQA, THAT THE COMMISSION HAS REVIEWED AND CONSIDERED THE INFORMATION CONTAINED THEREIN AND THAT THE EIR REFLECTS THE COMMISSION'S INDEPENDENT JUDGMENT AND ANALYSIS.

ADOPT THE MITIGATION MONITORING PROGRAM, AS CONTAINED IN EXHIBIT "C", ATTACHED HERETO.

ADOPT THE FINDINGS, MADE IN CONFORMANCE WITH TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15091, AS CONTAINED IN EXHIBIT "D", ATTACHED HERETO.

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ADOPT THE STATEMENT OF OVERRIDING CONSIDERATIONS MADE IN CONFORMANCE WITH TITLE 14, CALIFORNIA CODE OF REGULATIONS, SECTION 15093, AS CONTAINED IN EXHIBIT "E", 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 COCE SECTIONS 6370, ET SEQ.

AUTHORIZATION:

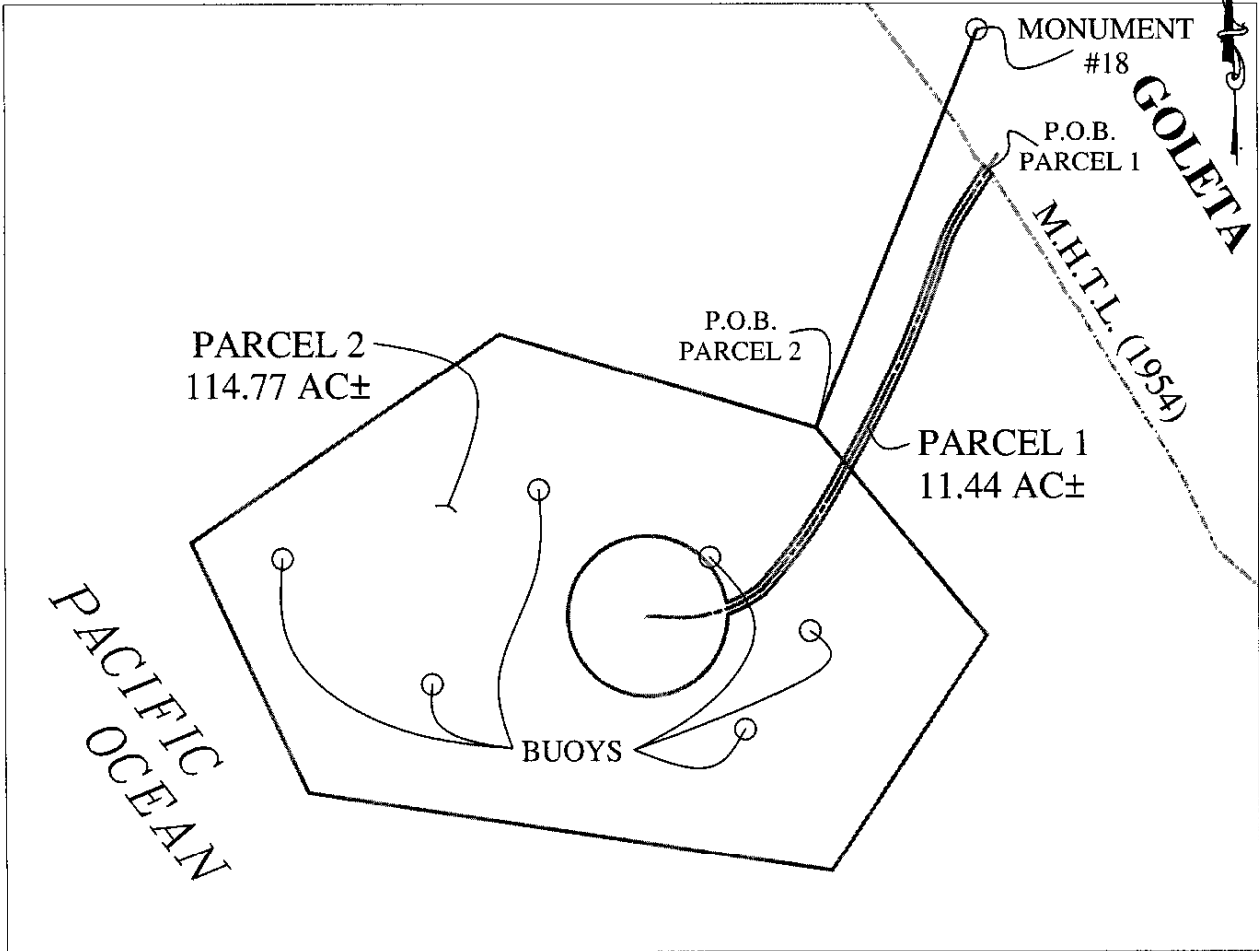
AUTHORIZE RENEWAL OF LEASE NO. PRC 3904.1, SUBSTANTIALLY IN THE FORM OF THE PROPOSED NEW LEASE ON FILE IN THE SACRAMENTO OFFICE OF THE COMMISSION, FOR THE PERIOD FROM MARCH 1, 2003 TO FEBRUARY 28, 2013, FOR THE LANDS AS SHOWN ON EXHIBIT A (FOR REFERENCE PURPOSES ONLY) AND DESCRIBED IN EXHIBIT B ATTACHED AND BY THIS REFERENCE MADE A PART HEREOF; CONSIDERATION BEING PAYMENT OF RENT IN THE AMOUNT OF \$188,172 FROM MARCH 1, 2003 TO FEBRUARY 28, 2007; ANNUAL "BASE RENT" IN THE AMOUNT OF \$70,650 BEGINNING MARCH 1, 2007, THE "BASE RENT" TO BE ADJUSTED ANNUALLY BY THE CONSUMER PRICE INDEX (CPI) FOR ALL URBAN CONSUMERS, LOS ANGELES - RIVERSIDE-ORANGE COUNTY, CA, (1982-84 = 100), WITH THE STATE RESERVING THE RIGHT TO FIX A DIFFERENT "BASE RENT" PERIODICALLY DURING THE LEASE TERM, AS PROVIDED IN THE LEASE; LIABILITY INSURANCE COVERAGE OF NO LESS THAN \$5,000,000; A PERFORMANCE DEPOSIT IN AN AMOUNT NO LESS THAN \$2,000,000; LESSEE AGREES TO COMPLY WITH ALL PROVISIONS OF THE MITIGATION MONITORING PROGRAM AS CONTAINED IN EXHIBIT "C" ATTACHED HERETO, SUCH MITIGATION MONITORING PROGRAM ALSO BEING INCORPORATED INTO AND MADE A PART OF THE LEASE; LESSEE AGREES TO INDEMNIFY THE COMMISSION FROM LIABILITY; AND LESSEE AGREES TO REIMBURSE THE COMMISSION FOR ALL REASONABLE COSTS AND ATTORNEYS FEES THAT THE COMMISSION MAY INCUR IN CONNECTION WITH THE DEFENSE OF ANY ACTION BROUGHT AGAINST THE COMMISSION CHALLENGING THE ISSUANCE OF THIS LEASE, ANY PROVISION OF THIS LEASE, THE ENVIRONMENTAL REVIEW UPON WHICH THE ISSUANCE OF THIS LEASE IS BASED, THE INTERPRETATION OR ENFORCEMENT OF THE CONDITIONS OF THIS LEASE, OR ANY OTHER MATTER RELATED TO THIS LEASE OR

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ITS ISSUANCE, THE TOTAL OBLIGATION OF WHICH SHALL NOT EXCEED \$1,000,000.

NO SCALE

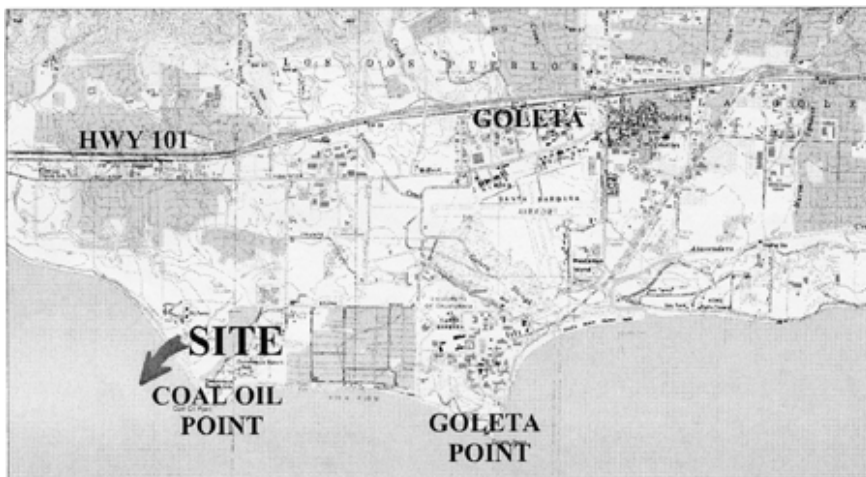
SITE



Pacific Ocean, near Coal Oil Point, Goleta

NO SCALE

LOCATION



MAP SOURCE: USGS QUAD

Exhibit A

PRC 3904.1
 VENOCO, INC.
 GENERAL LEASE
 INDUSTRIAL USE
 SANTA BARBARA COUNTY



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.

6.0 MITIGATION MONITORING PROGRAM

As the Lead Agency under the CEQA, the CSLC is required to adopt a program for reporting or monitoring regarding the implementation of mitigation measures for this Project, if it is approved, to ensure that the adopted mitigation measures are implemented as defined in this EIR. This Lead Agency responsibility originates in Public Resources Code section 21081.6(a) (Findings), and the State CEQA Guidelines sections 15091(d) (Findings) and 15097 (Mitigation Monitoring or Reporting).

6.1 MONITORING AUTHORITY

The purpose of a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. An MMCRP can be a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the CSLC and any monitors it may designate.

The CSLC may delegate duties and responsibilities for monitoring to other environmental monitors, consultants, or local governmental agencies as deemed necessary or appropriate. Some monitoring responsibilities may be assumed by responsible agencies, such as affected local jurisdictions and the California Department of Fish and Game (CDFG). The number of construction monitors assigned to the project will depend on the number of concurrent construction activities and their locations. The CSLC or its designee(s), however, will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CSLC must allow at least 60 days for adequate review time. When a mitigation measure requires that a mitigation program be developed during the design phase of the project, the Applicant must submit the final program to CSLC for review and approval for at least 60 days before construction begins. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor to ensure that appropriate agency reviews and approvals are obtained as necessary.

The CSLC or its designee will also ensure that any deviation from the procedures identified under the monitoring program is approved by the CSLC. Any deviation and its correction

shall be reported immediately to the CSLC or its designee by the environmental monitor assigned to the Project.

6.2 ENFORCEMENT RESPONSIBILITY

The CSLC is responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to each construction spread. Any assigned environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CSLC or its designee.

6.3 MITIGATION COMPLIANCE RESPONSIBILITY

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

6.4 GENERAL MONITORING PROCEDURES

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

General Reporting Procedures. Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the relevant construction spread. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist

will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

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

6.5 MITIGATION MONITORING TABLE

The following sections present the mitigation monitoring tables for each environmental discipline. Each table lists the following information, by column:

- Impact (impact number, title, and impact class);
- Mitigation Measure;
- Location (where the impact occurs and the mitigation measure should be applied);
- Monitoring/reporting action (the action to be taken by the monitor or Lead Agency);
- Effectiveness criteria (how the agency can know if the measure is effective);
- Responsible agency; and
- Timing (before, during, or after lease renewal; during operation, etc.).

6.0 Mitigation Monitoring Program

Table 6-1
Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Land Use, Public Services, Transportation and Circulation, Noise, Visual Resources, Energy and Mineral Resources, Agricultural Resources, and Environmental Justice – These sections contain no mitigation measures for the proposed Project impacts.						
Geological Resources						
GEO-2: Damage to Facilities Due to Beach Scour (Class II)	GEO-2a: Consistent with recommendations by the County Energy Division (Santa Barbara County Energy Division 1999) and the California State Lands Commission (CSLC) Engineering Department, the marine loading line shall be monitored after winter storms for exposure, debris impact, and for unsupported spans. Should the pipe free span approach 30 feet (9 m) in the future, remedial actions, e.g., sandbags beneath the pipe, permanent pipe supports, evacuating the line, etc., shall be implemented to maintain the integrity of the line. In addition, assessment of the strains on the pipeline due to settling should be conducted when the pipeline is exposed and any additional supports should be added at that time.	On the beach near the EMT.	The Applicant employee (monitor) inspects the pipeline at the time determined by the County geologist to be "after winter storms". The monitor shall inspect the pipeline and prepare a photographic report on the pipe condition. The Applicant shall implement the identified remedial actions if the condition is as identified in MM GEO-2a . The County shall review the report and inspect if free span changes are noticed. Inspection by the County after any remediation activities are completed.	Unchanged settling of the pipe would indicate effectiveness of the measure.	CSLC	Every year the pipeline shall be inspected. Inspection by the County after any erosion events occur.
GEO-3: Facilities Damage due to Corrosion (Class II)	GEO-3a: Consistent with recommendations by the County Energy Division (Santa Barbara County Energy Division 2002) and the CSLC Engineering Department, the marine loading line shall be monitored after winter storms. In the event that the line is exposed by winter beach scour, the Applicant shall inspect the line with GUL and confirm thickness of problem areas with ultrasonic testing	On the beach near the EMT.	The Applicant employee (monitor) inspects the pipeline at the time determined by the County geologist to be "after winter storms". The monitor shall inspect the pipeline and prepare a photographic report on the pipe condition. The Applicant shall implement the identified repair actions if the condition is as identified in MM	Maintaining coating on the pipe would indicate effectiveness of the measure.	CSLC	Every year the pipeline shall be inspected. Inspection by the County after any repair activities are completed.

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>technology. The Applicant shall re-coat and re-wrap all segments of the line damaged or missing pipeline coating. In addition, the remaining unexposed portion of pipe in the intertidal area shall similarly be excavated (preferably with hand tools), inspected, tested, re-wrapped, and re-coated. In addition, other structural components of the EMT, including the tanks, connecting pipelines, and valves shall be monitored for corrosion-related damage. This maintenance should be conducted on the pipeline if pipeline exposure does not occur within the next 5 years. The loading pipeline testing and inspection program shall comply with MOTEMS.</p>		<p>GEO-3a. The County shall review the report and inspect if free span changes are noticed. Inspection by the County after any after any erosion events occur.</p>			
GEO-4: Erosion of Drainages (Class II)	<p>GEO-4a: Best Management Practices (BMPs) such as temporary berms and sedimentation traps, including silt fencing, straw bales, and sand bags, shall be installed prior to work involving ground disturbance. The BMPs shall include maintenance and inspection of the berms and sedimentation traps during rainy and non-rain periods, as well as re-vegetation of impacted areas. Re-vegetation shall address plant type as well as monitoring to ensure appropriate covering of exposed areas.</p>	<p>The EMT and vicinity, beach, Devereux Slough.</p>	<p>The monitoring agency or designated monitor shall inspect the site of the ground disturbing activities, if such occur.</p>	<p>If erosion is avoided after the ground disturbing activities, the measure is effective.</p>	<p>CSLC</p>	<p>During and following ground disturbing activities.</p>
GEO-5: Faulting and Seismicity (Class II)	<p>GEO-5a: The Applicant shall cease terminal operations and inspect all EMT pipelines and storage tanks following any seismic event in the region (Santa Barbara County and</p>	<p>At the EMT facilities.</p>	<p>The Applicant shall report applicable seismic events and inspection results. The monitoring agency or designated monitor shall</p>	<p>Demonstration of EMT equipment integrity following an applicable seismic event.</p>	<p>CSLC</p>	<p>Following each applicable seismic event.</p>

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	offshore waters of the Santa Barbara Channel and Channel Islands) that exceeds a ground acceleration of 13 percent of gravity (0.13 g). The Applicant shall report the findings of such inspection to the CSLC and the SSRRC and shall not reinstitute operations of the EMT until authorized to do so by the CSLC.		review and approve the retrofitted facility.			
Hazards and Hazardous Materials						
HM-1: Acute Risks of Crude Spills (Class II)	HM-1a: The Applicant shall institute measures that are consistent with the EOF's current legal operating status to reduce the crude oil hydrogen sulfide content before the crude oil leaves the EOF. These measures could include increased crude oil scrubbing or other measures to reduce the hydrogen sulfide levels in the crude oil. HM-1b: The Applicant shall, within six months from lease renewal, develop and submit to the CSLC and the County of Santa Barbara for review and approval, a tank maintenance program for the EMT crude oil tanks that addresses inspections, inspection frequency (both external and internal), maintenance of tank shell and appurtenances, non-destructive testing, cathodic protection, dike and drain maintenance, and seismic analysis and retrofits to ensure tanks conform to current building codes. API 653 full tank inspections should be conducted by a registered API 653 tank inspector at least every five years.	At the EOF.	Crude H ₂ S sampling and content.	Crude H ₂ S levels maintained below target level.	CSLC	Within 6 months after approval of lease renewal.
HM-3:	HM-3a: The Applicant shall ensure that	At the EMT.	Submission of the program, implementation of the program. API 653 Inspection report every 5 years.	No failures of the tanks are observed, all problems are detected before failures have a chance to occur.	CSLC	Within 6 months after approval of lease renewal.
		At the	Annual CSLC audits of facility.	Vacuum testing.	CSLC	Within 12

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Increased Spill Sizes Due to Loading Pipeline Vacuum/ Evacuation Operation (Class II)	the loading line can be operated in a vacuum and that operation in a vacuum is established as part of the terminal operations manual and as part of the oil spill response. In lieu of vacuum operation, applicant could implement a method for evacuating the loading line in the event of a leak. Evacuation of the line should be possible at all times during loading (even when barge is empty).	EMT and the loading line.		changes in operating procedures.		months after approval of lease renewal.
HM-4: Increased Spill Sizes Due to Loading Pipeline Leak Detection (Class II)	HM-4a: The Applicant shall ensure that both the shipping end and the receiving end of the loading pipeline are equipped with flow meters and that the flow meters utilize a means of conducting automatic and continuous flow balancing to an accuracy of at least two percent. Any deviations shall activate an alarm system at both the shipping and receiving locations. All loading operations shall be observed by an operator who is on duty at all times during loading to ensure rapid detection of leaks or spills.	At the EMT onshore.	Annual CSLC audit, loading records, EMT operations manual.	Testing of leak detection capabilities.	CSLC	Within 12 months after approval of lease renewal.
HM-5: Increased Spill Sizes Due to Failure to Deploy Loading Booms (Class II)	HM-5a: Prior to commencement of each transfer operation at offshore terminals, the terminal operator shall provide sufficient boom appropriate to the conditions at the terminal, trained personnel and equipment, maintained in a stand-by condition at the berth, so that a length of at least 600 feet of boom will be deployed for effective containment within 30 minutes of a spill.	Between the EMT and the mooring.	Annual CSLC audit, loading records, EMT operations manual.	Booming of vessel.	CSLC	Within 6 months after approval of lease renewal.
HM-6: Spills	HM-6a: The Applicant shall investigate	Between	The Applicant shall report on	Acceptable	CSLC	Within 6 months

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
<p>Due to Loading Pipeline Failure from Inadequate Loading Pipeline Integrity Inspections (Class II)</p>	<p>and utilize, if applicable, a non-destructive testing procedure, which will enable inspection of the loading pipeline from the pump-house to the hose connection for both corrosion, internal and external, and for allowable pipe stresses due to settling. The Applicant shall also conduct pressure testing of the pipeline annually at 125 percent MAOP for four hours. A program of GUL, or equivalent, testing of the pipeline as far into the intertidal zone as practical shall be established with testing at a minimum of every three years. Close interval cathodic protection testing shall be conducted every three to five years to ensure that the cathodic protection system is operating correctly the entire length of the pipeline.</p>	<p>the EMT and the mooring.</p>	<p>the results of the inspection to the County every three years. The County shall review and approve the inspection results.</p>	<p>corrosion and stress levels.</p>		<p>after approval of lease renewal.</p>
	<p>HM-6b. Visual inspection of the entire pipeline route for unsupported spans or other pipeline route anomalies shall be conducted at least every three years. The beach section of the pipeline shall be inspected during and after storms to ensure that free-spans do not exceed 30 feet and that beach debris does not impact the pipeline. Written results of each inspection shall be submitted to the County and the CSLC. If the pipeline becomes exposed, all efforts shall be made to conduct GUL (or equivalent) inspections and pipe-wrap repairs as directed by the County in previous correspondence (SBC, 2002). Loading of the barge shall not be conducted when wave action threatens</p>	<p>Between the EMT and the mooring.</p>	<p>Tri-annual monitoring and reporting of pipeline free spans. More frequent monitoring and reporting if storms expose large sections of the pipeline.</p>	<p>Timely inspection and reporting of pipeline unsupported spans.</p>	<p>CSLC</p>	<p>Every three years or more frequent if conditions warrant.</p>

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	the integrity of the marine loading pipeline.					
HM-7: Spills Due to Pump Leaks and Lack of EMT Pump Drains Spill Containment (Class II)	HM-7a: The Applicant shall install drain protection in the form of sealable coverings, valves or other methods to prevent flow of spilled oil through the drains, on the EMT drains located at the far southern end of the EMT, immediately near the pumps and on the far side of the control shack. The drain protection would prevent a spill of crude oil that occurs at the loading pumps and/or at other EMT equipment from entering the drains and affecting the slough. Berms located at this end of the EMT should also be checked to ensure they can contain a worst case discharge from the pumps.	At the EMT pump area.	Annual CSLC audit, EMT operations manual, emergency response plans.	Drill reports.	CSLC	Within 12 months after approval of lease renewal.
HM-8: Increased Spill Size Due to Spill Response Planning and Drills (Class II)	HM-8a: The Applicant shall conduct periodic equipment deployment and on-water drills utilizing the designated response vessel as well as other vessels that would respond to a spill. Drills shall have a post-drill lessons-learned evaluation which is incorporated into the training and EAP documentation. Procedures for conducting drills shall be detailed on the EAP.	Barge and offshore pipeline route.	Annual CSLC audit, EMT operations manual, emergency response plans, drill reports.	Successful drill exercises and reports.	CSLC	Within 6 months after approval of lease renewal.
HM-9: Spills Due to Barge Hull Penetrations (Class II)	HM-9a: The Applicant shall replace the barge <i>Jovalan</i> with a double-hulled barge or convert the <i>Jovalan</i> to a double-hulled vessel or construct a pipeline within 18 months of lease approval.	Barge	Vessel inspections.	Presentation of barge credentials to USCG.	CSLC, USCG, SBC, APCD	Within 18 months after approval of lease renewal.
Air Quality						
AQ-1:	AQ-1a. If the proposed Project requires	Mooring	Monitor number of barge trips.	If total annual	CSLC, APCD	Every 12

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Increase in Emissions from Operations (Class II)	<p>more than 14 barge trips/loadings to the San Francisco Bay area terminals out of the maximum 88 barge trips permitted in any consecutive 12-month period, the Applicant shall implement an emission reduction program that would consist of the following:</p> <p>(1) To be able to complete 88 annual trips with more than 14 trips to San Francisco Bay area terminals, the Applicant shall hire a tug and/or assist vessels that have combined NO_x emissions approximately 20 percent lower than the current tug and assist vessels.</p> <p>(2) Reduce running time of the tug vessel generator engine(s) during the time when the tug vessel is moored at the EMT and is not moving or mooring the barge. The time reduction shall be at least 20 percent.</p> <p>(3) If a 20 percent reduction in NO_x emissions is achieved, the Applicant shall limit trips to the north to 62 in any consecutive 12-month period. There are no available measures to mitigate air quality impacts if all 88 trips are made to the north. If all the trips are made to the north, with the 20 percent reduction in NO_x emissions from the tug and assist boats' main engines, the Applicant shall limit trips to the north to 62 in any consecutive 12-month period.</p>	of the barge Jovalan	<p>If barge trips are above 75 per 12-month period, the applicant shall submit the necessary emission data for the new tug/assist vessels.</p> <p>Review annual emissions for the generators on the vessels.</p>	emissions of NO _x are within the 21.56 ton/yr (15 ton per year increase from baseline); the measure is effective.		months, as the annual emission inventory for the facilities is submitted as required.
AQ-1b.	The operators of the tug and assist vessels shall minimize the use of the main and auxiliary engines during	Mooring of the barge	Monitor the activities of the vessels during loading. Monitor quarterly fuel reports.	If the fuel consumed by the vessels does not change per	APCD	Monitor vessel activities during every

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
AQ-2: Odor Emissions from Operation (Class II)	<p>loading when not moving or mooring the barge (the Jovalan or Olympic Spirit). This measure is applicable to normal operations and does not cover emergency response or operations.</p> <p>AQ-2a. The Applicant shall implement a monitoring program that requires a monitor to check the integrity of the tanks including the floating roof pans, specifically the internal roofs, at least on a weekly basis and daily if odor complaints are registered. If any free product is observed on the roofs, the loading shall proceed to drain the tanks to the maximum extent feasible, if necessary, to allow for the complete repair of the roof leak. The Applicant shall notify the APCD of the free product on the roofs as soon as practically possible. The applicant shall stop any loading of crude into the tank where leaks are discovered until the tank is repaired, inspected and approved for loading by the APCD.</p> <p>If the outlined tank monitoring does not successfully eliminate odor events from the tanks (there is one additional odor event) the Applicant shall install vapor control devices on the vents of the crude oil storage tanks. The vapor control devices shall be capable of an odororous compound removal efficiency of at least 90 percent. The Applicant shall submit an appropriate maintenance schedule based on control efficiency monitoring for the vapor control devices to the APCD for</p>	Jovalan EMT	<p>The vessel fuel consumption should not change drastically per one loading, if no changes have been made to the vessels.</p> <p>A meeting shall be conducted between the Applicant and the APCD to agree on the exact device design, properties, and maintenance schedule. APCD shall inspect upon the installation. The Applicant shall report when the installation is complete.</p>	<p>loading (if there were no changes to the engines), the measure is effective.</p> <p>if confirmed odor complaints number does not increase with the increased barge loadings and EMT operation, the measure is effective.</p>	APCD	<p>scheduled visit to the barge. Monitor fuel consumption every quarter.</p> <p>Inspect after the installation. Monitor proper function every year. Monitor number of odor complaints.</p>

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	its review and approval. AQ-2b. The Applicant shall monitor the pressure in the system at all times during barge loading to prevent lifting of the PSVs due to overpressure. The operating procedures shall require immediate shutdown of the pumps in case of overpressure. Following the required shutdown of the loading pumps, Venoco shall identify the necessary actions to be taken in order to resume loading oil into the barge and avoid overpressure, i.e., such actions as resume loading into a different barge hold or resume loading at a lower rate. These requirements shall be incorporated into the monitoring requirements for the corresponding PTOs.	Barge Jovalan	A meeting shall be conducted between the Applicant and the APCD to agree on the exact device design, properties, and maintenance schedule. APCD shall inspect upon the installation. The Applicant shall report when the installation is complete.	if confirmed odor complaints number does not increase with the increased barge loadings and EMT operation, the measure is effective.	APCD	Inspect after the installation. Monitor proper function every year. Monitor number of odor complaints.
AQ-3. Increase in Health Risk (Class II)	AQ-3a. Verified Level 3 diesel catalysts on all diesel-powered barge equipment. The current list of CARB-Verified Level 3 diesel catalysts is located at http://www.arb.ca.gov/diesel/verdev/vr/cvt.htm . The catalysts shall be capable of achieving an 85% reduction for diesel particulate matter. AQ-3b. The Applicant shall limit the number of barge trips to no more than 50 trips per year.	EMT	APCD shall inspect upon the installation. The Applicant shall report when the installation is complete.	Reductions in diesel particulate emissions and associated health risk.	APCD	Within 18 months after approval of lease renewal to coincide with MM HM-9a.
AQ-4: Increase in	AQ-4a. GHG Emissions Offsets. If additional transportation of crude oil to	EMT	The Applicant shall submit annual fuel use and information on barge visits to the C-SLC and APCD for verification.	Limits on the number of trips will minimize diesel particulate emissions and associated health risk.	C-SLC, APCD	Annually
		EMT and Barge	The Applicant shall submit annual GHG emission	Offset all future GHG emissions	APCD	Annually

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Greenhouse Gas Emissions (Class II)	<p>the permitted levels occurs, the Applicant shall offset any increase in GHG emissions above baseline levels (at time of NOP). Annual GHG emission inventories and any required offsets shall be submitted to the SBCAPCD for verification. GHG emission offsets shall be verified by an independent third-party, such as the California Climate Action Registry, as approved by the SBCAPCD.</p>		<p>inventories and any required offsets to the APCD for verification.</p>	<p>over baseline (at time of NOP).</p>		
Hydrology, Water Resources, and Water Quality						
<p>WQ-2: Potential Facilities Leaks and Impacts to Nearby Onshore Waterways (Class I)</p>	<p>WQ-2a. A site-specific Storm Water Pollution Prevention Plan shall be prepared and submitted to the California Regional Water Quality Control Board (RWQCB), Central Coast Region, before the lease extension is granted, to prevent adverse impacts to nearby waterways associated with oil spills and contaminated storm water releases not covered under the EAP, which only applies to "significant events" and is not discussed in detail by the OSCP. This plan would similarly include, but not be limited to, site-specific diagrams illustrating primary surface drainage features, e.g., the southeast trending gully leading to the dune swale pond, and proposed spill containment, i.e., dike configurations, within those drainages; delineation of drainage features; and a description of Best Management Practices, including spill containment equipment and procedures that are tailored for the</p>	<p>Vanoco offices</p>	<p>The applicant shall submit the updated plan to the RWQCB. The RWQCB shall review and approve the plan.</p>	<p>if the water pollution prevention is attained the measure is effective.</p>	<p>C-SLC, RWQCB, Central Coast Region</p>	<p>Within 6 months after approval of lease renewal.</p>

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	project site. The plan shall also describe the source water, existing uses, and water disposal protocol of the onsite pond, in the southwest portion of the EMT.					
Biological Resources						
BIO-1: Oil Spill Impacts to Marine Biological Resources (Class I)	BIO-1a. Offshore inspections of the loading pipeline shall be conducted on a regular basis, as determined by the CSLC and/or other regulatory agency, throughout the extended life of the Project. Inspections shall use the best available technology. When structural anomalies are identified that compromise the integrity of the pipeline, as determined by the CSLC and/or other regulatory agency, flow through the pipeline shall cease until repairs can be affected. BIO-1b. The Applicant shall update the OSCP to incorporate changes in activities that result from the proposed project. For example, the plan shall incorporate detailed response procedures for marine oil spills resulting from vessel groundings or collisions, as well as for pipeline failure and failures occurring during transfer of the oil to and from the barge. Worst-case discharge scenarios shall be updated accordingly. In addition, lessons learned from the cleanup of the 1997 Platform Irene oil spill shall be incorporated into the Response Plan. These lessons include operator training in recognizing the significance of deviations in pipeline operating	The pipeline between the EMT and mooring location.	The Applicant shall inspect the pipeline and provide the report to the CSLC and County every three years. If any anomalies are detected and repairs being conducted, the County shall inspect the repairs being conducted and approve.	Lack of leaks pipeline leaks.	CSLC	Every three years, and inspection during repairs if any.
		Venoco offices	The applicant shall submit the updated plan to the CSLC and County. The CSLC and County shall review and approve the plan.	Oil spill cleanup is effective.	CSLC	Within 12 months after approval of lease renewal.

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>parameters, inspections required to restart equipment that automatically shuts down in response to a process deviation, and rapidly implementing surveillance activities following process deviations to determine if a spill has occurred.</p> <p>The personnel and training sections of the OSCP shall be updated and will identify training requirements for all personnel that would be utilized to respond to oil spills. At a minimum, new personnel shall be trained immediately upon their hiring in the overall operational aspects of oil spill response, including the proper use of all equipment that would be utilized in oil spill response. Annual training for all personnel, which is a Federal requirement, shall also be included in the OSCP to provide personnel with an understanding of their training responsibilities. The annual training shall include training in the operation of new equipment that may be utilized in oil spill response, retraining in the operation of existing equipment, and review of the oil spill response requirements that are identified in the OSCP.</p>					
<p>BIO-4: Marine Vessel Traffic Impacts on Commercial and Recreational</p>	<p>BIO-4a. Support vessels shall use designated traffic corridors. If support vessels travel outside such corridors and damage fishing gear, disputes over damage to commercial fishing gear resulting from EMT support vessel traffic shall be the responsibility of the</p>	<p>Offshore in the vicinity of the EMT and along the barge routes.</p>	<p>The vessel owners and operators shall be informed of the designated routes. The Applicant shall report to the CSLC about informing the vessel operators about the designated routes.</p>	<p>No damage to fishing gear occurs. If damage occurs, the dispute resolution is handled promptly and to the satisfaction of the</p>	<p>CSLC</p>	<p>Within 6 months after approval of lease renewal.</p>

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
Fishing (Class II)	EMT support vessel to repair or replace.			party that sustained damages.		
BIO-5: Vessel Traffic Impacts on Marine Mammals and Turtles (Class II)	<p>BIO-5a. The Applicant shall ensure that vessel operators develop and implement a contingency plan that focuses on recognition and avoidance procedures when marine mammals are encountered at sea. Minimum components of the plan include:</p> <p>Existing and new vessel operators shall be trained by a marine mammal expert to recognize and avoid marine mammals prior to project-related activities. Training sessions shall focus on the identification of marine mammal species, the specific behavior of species common to the project area and barge routes, and awareness of seasonal concentrations of marine mammal species. The operators shall be re-trained annually.</p> <p>A minimum of two marine mammal observers shall be placed on all support vessels during the spring and fall gray whale migration periods (generally December through May), and during periods/seasons when marine mammals are known to be in the project area and along the barge route in relatively large numbers. Observers can include the vessel operator and/or crew members, as well as any project worker that has received proper training.</p> <p>Vessel operators will make every effort to maintain a distance of 1,000 ft (305 m) from sighted whales and other</p>	On the vessel routes and the oil loading location.	Prepare and submit the plan to the CSLC and California Department of Fish and Game for review and approval.	There is no animal injury or mortality.	CSLC, California Department of Fish and Game	Within 12 months after approval of lease renewal.

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>threatened or endangered marine mammals or marine turtles.</p> <p>Vessel speed shall be limited to 16 mph (14 knots).</p> <p>Support vessels will not cross directly in front of migrating whales or any other threatened or endangered marine mammals or marine turtles.</p> <p>When paralleling whales, supply vessels will operate at a constant speed that is not faster than the whales.</p> <p>Female whales will not be separated from their calves.</p> <p>Vessel operators will not herd or drive whales.</p> <p>If a whale engages in evasive or defensive action, support vessels will drop back until the animal moves out of the area.</p> <p>Any collisions with marine wildlife will be reported promptly to the Federal and State agencies listed below pursuant to each agency's reporting procedures.</p> <p>Stranding Coordinator, Southeast Region (currently, Joe Cordaro) National Marine Fisheries Service Long Beach, CA 90802-4213 (310) 980-4017</p> <p>Enforcement Dispatch Desk California Department of Fish and Game Long Beach, CA 90802 (562) 590-5132 or (562) 590-5133</p> <p>California State Lands Commission Environmental Planning and Management Division</p>					

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	Sacramento, CA 95825-8202 (916) 574-1890					
<p>BIO-7: Oil Spill Impacts to Onshore Biological Resources (Class I)</p>	<p>BIO-7a. The OSCP shall be revised and updated to address protection of sensitive biological resources and revegetation of any areas disturbed during an oil spill or cleanup activities. The revised OSCP shall, at a minimum, include:</p> <ol style="list-style-type: none"> Specific measures to avoid impacts on Federal- and State-listed endangered and threatened species and ESHAs during response and cleanup operations. Where feasible, low-impact, site-specific techniques such as hand-cutting contaminated vegetation and using low-pressure water flushing from vessels shall be specified in the OSHMP to remove spilled material from particularly sensitive wildlife habitats, such as coastal estuaries, i.e., Devereux Slough, because procedures such as shoveling, bulldozing, raking, and drag-lining can cause more damage to a sensitive habitat than the oil spill itself. The OSCP shall also evaluate the non-cleanup option for ecologically vulnerable habitats such as coastal estuaries. Spill response personnel shall be adequately trained for response in terrestrial environments and spill containment and recovery equipment shall be maintained in full readiness. Inspection of equipment and periodic drills shall be conducted at least 	<p>On the vessel routes, the oil loading location, and the shoreline in the vicinity.</p>	<p>Update and submit the plan to the CSLC and California Department of Fish and Game for review and approval.</p>	<p>There is no animal injury or mortality; cleanup activities fully eliminate oil impacts to biological resources.</p>	<p>CSLC, California Department of Fish and Game.</p>	<p>Within 12 months after approval of lease renewal.</p>

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>annually and the results evaluated so that spill response personnel are familiar with the equipment and with the project area including sensitive onshore biological resources.</p> <p>4. When habitat disturbance cannot be avoided, the OSCP shall provide stipulations for development and implementation of site-specific habitat restoration plans and other site-specific and species-specific measures appropriate for mitigating impacts on local populations of sensitive wildlife species and restoring native plant and animal communities to pre-spill conditions. Access and egress points, staging areas, and material stockpile areas that avoid sensitive habitat areas shall be identified. The OSCP shall include species- and site-specific procedures for collection, transportation and treatment of oiled wildlife, particularly for sensitive species.</p> <p>5. Procedures for timely re-establishment of vegetation that replicates the habitats disturbed (or, in the case of disturbed habitats dominated by non-native species, replaces them with suitable native species) including: measures preventing invasion and/or spread of invasive or undesired plant species; restoration of wildlife habitat; restoration of native communities and native plant species propagated from local genetic sources including any sensitive plant species (such as the southern tarplant); and replacement of trees at the</p>					

6.0 Mitigation Monitoring Program

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>appropriate rate.</p> <p>6. Monitoring procedures and minimum success criteria to be satisfied for restoration areas shall be determined. The success criteria shall consider the level of disturbance and condition of the adjacent habitats. Monitoring shall continue for 3 to 5 years, depending on habitat, or until success criteria are met. Appropriate remedial measures, such as replanting, erosion control or control of invasive plant species, shall be identified and implemented if it is determined that success criteria are not being met.</p>					
<p>CR-1: Adverse impacts from oil spills (Class II)</p>	<p>CR-1a. The Oil Spill Contingency Plan (OSCP) shall be revised and updated to specifically address protection of cultural resources that could be disturbed during an oil spill or cleanup activities. The process to revise the OSCP shall, at a minimum, include:</p> <p>(1) A workshop shall be conducted by a qualified archaeologist and by a local Native American representative identified as a most likely descendant of the Barbareño Chumash by the Native American Heritage Commission to ensure that any new discoveries during oil spill cleanup activities are adequately recorded, evaluated, and, if impacted, mitigated. The workshop shall:</p> <p>a. review the types of archaeological resources that may be</p>	<p>Cultural Resources</p> <p>Area of spill and vicinity.</p>	<p>Oil spill response and cleanup documentation.</p>	<p>Successful containment and cleanup of spill materials.</p>	<p>CSLC</p>	<p>Within 12 months after approval of lease renewal.</p>

Impact (Class)	Mitigation Measure	Location	Monitoring / Reporting Action	Effectiveness Criteria	Responsible Agency	Timing
	<p>uncovered;</p> <ul style="list-style-type: none"> b. provide examples of common archaeological artifacts and other cultural material to examine; c. describe what makes an archaeological resource significant to archaeologists and local Native American descendants; d. procedures that would be used to record, evaluate, and mitigate new discoveries; e. describe reporting requirements and the responsibilities of spill response personnel. <p>The revised OSCP shall, at a minimum, provide</p> <ul style="list-style-type: none"> (1) that a qualified archaeologist and Native American representative shall be present during all ground disturbances within recorded CA-SBA-1327 and/or CA-SBA-2341 site boundaries. (2) procedures that would be followed in case of discovery of disturbed as well as intact human burials and burial-associated artifacts. <p>In the event that human remains would be encountered, the consultation with the most likely Native American descendant pursuant to PRC sections 5097.97 and 5097.98 would apply.</p>					

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STATEMENT OF FINDINGS

INTRODUCTION

These Findings on the Venoco Ellwood Marine Terminal (EMT) Lease Renewal Project (Project) proposed by Venoco, Inc. (“the Applicant”) are made by the California State Lands Commission (CSLC), pursuant to the Guidelines for the California Environmental Quality Act (the CEQA) (California Code of Regulations, Title 14, section 15091). All significant adverse impacts of the proposed Project identified in the Final EIR are included herein and organized according to the resource affected.

The CEQA Findings are numbered in accordance with the impact and mitigation numbers identified in the Mitigation Monitoring Program in the Final EIR (see Section 6.0 of the Draft EIR, with revisions in Section 4.0 of the Final EIR). The CEQA Finding numbers are not numbered sequentially because some of the impacts were less than significant before mitigation (Class III) or a beneficial impact (Class IV).

For discussion of impacts, significance is classified according to the following definitions:

- Class I (significant adverse impact that remains significant after mitigation);
- Class II (significant adverse impact that can be eliminated or reduced below an issue’s significance criteria);
- Class III (adverse impact that does not meet or exceed an issue’s significance criteria); or
- Class IV (beneficial impact).

Class III and Class IV impacts require neither mitigation nor findings.

For each significant impact, i.e., Class I or II, a Finding has been made as to one or more of the following, as appropriate:

- a) 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 Final EIR.
- b) 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.

- c) 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 Final EIR.

Following the Finding is a discussion of the facts supporting them.

Whenever Finding (b) occurs, the agencies with jurisdiction have been specified. These agencies, within their respective spheres of influence, have the ultimate responsibility to adopt, implement, and enforce the mitigation discussed within each type of impact that could result from project implementation. However, under the CEQA (Public Resources Code section 21081.6), the CSLC, as the CEQA Lead Agency, has the responsibility to ensure that the required mitigation measures are effectively implemented. Other specified State, local, regional, and Federal public agencies include, but are not necessarily limited to the following:

- California Department of Fish and Game (CDFG);
- California Department of Transportation (Caltrans);
- California Office of the State Fire Marshal (CSFM);
- California Regional Water Quality Control Board (RWQCB);
- National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA NMFS);
- U.S. Army Corps of Engineers (ACOE);
- U.S. Fish and Wildlife Service (FWS);
- Santa Barbara County Air Pollution Control District (SBCAPCD);
- Santa Barbara County Department of Planning and Development;
- City of Goleta; and
- Other local districts or jurisdictions.

Whenever Finding (c) is made, the CSLC has determined that sufficient feasible mitigation is not available to reduce the impact to a less than significant level and, even after implementation of all feasible mitigation measures, there would or could be an unavoidable significant adverse impact due to the Project. The Statement of Overriding Considerations, as required by the CEQA Guidelines sections 15092 and 15093, applies to all such unavoidable impacts.

These Findings are based on the information contained in the Draft and Final EIRs 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 as noted below. The mitigation measures are briefly described in these findings; more detail on each of the mitigation measures is included in the text of the Final EIR.

The location of the administrative record is in the Sacramento office of the California State Lands Commission, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

EIR FINDINGS

CEQA FINDING NO. GEO-2

GEOLOGIC RESOURCES

Impact: **Impact GEO-2: Damage to Facilities Due to Beach Scour**

Class: II

Finding(s): a) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

Successive strong winter storm surf events, such as those in 1978, 1983, 1996, and 1998, have periodically exposed the terminal's pipeline in the intertidal zone, resulting in unsupported free-span sections of pipeline of up to 40 to 55 feet (12 to 16 m) in length, as well as pipeline settlement up to 3 feet (1 m). Calculations done by the Santa Barbara County Building and Safety Division indicate that the marine loading line is vulnerable to damage if the free-span distance exceeds 30 feet (9 m). Pipeline cathodic protection tests, guided ultrasonic surveys (GUL) of the exposed portions of the pipeline, and hydrotests were performed on the loading pipeline, subsequent to pipeline exposure up to 55 feet (16 m) in 1998. These tests determined that the pipeline did not suffer any structural damage, excessive corrosion or leaks as a result of the

unsupported section of pipeline (Santa Barbara County Energy Division 1999). However, in the future, pipeline free-spans in excess of 30 feet (9 m) and scour-induced pipeline settlement could result in structural damage and rupture of the pipeline. Therefore, potential impacts due to beach scour would be potentially significant.

Mitigation Measure GEO-2a (Loading Line Monitoring) requires the marine loading line to be monitored after winter storms for exposure, debris impact, and for unsupported spans. Should the pipe free span approach 30 feet (9 m), remedial actions, e.g., sandbags beneath the pipe, permanent pipe supports, evacuating the line, etc., shall be implemented to maintain the integrity of the line. In addition, assessment of the strains on the pipeline due to settling should be conducted when the pipeline is exposed and any additional supports should be added at that time.

It was determined by the Santa Barbara County Energy Division and the CSLC that the uncovering of the pipeline section located on the beach with heavy machinery would produce significant environmental impacts. Therefore, it was decided that the Applicant would wait till the pipeline is uncovered naturally, e.g., as a result of a storm. Mitigation Measure (MM) GEO-2a would minimize potential stress on the marine loading line resulting from unsupported pipeline sections and pipeline settlement created by wave-induced beach and dune scour. Reducing stress on the pipeline would reduce potential for pipeline failures, and subsequent oil spills.

As described above, prior exposure of the pipeline in the beach areas created unsupported spans. Analysis, conducted by the Applicant and the Santa Barbara County Energy Division, indicated that the lack of support under the spans did not exceed criteria defining good engineering practices. However, some settling of the pipeline could have occurred and this could have introduced strains on the pipeline that could compromise the pipeline integrity. The proposed engineering analysis would determine the impact of pipeline settling on the pipeline integrity. Timely identification of any pipeline stress would allow for repairs or installation of supports to the pipeline and would reduce risk of pipeline failure from the identified stress, and thus reduce probability of an oil spill.

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

CEQA FINDING NO. GEO-3

GEOLOGIC RESOURCES

Impact: **Impact GEO-3: Facilities Damage due to Corrosion**

Class: II

Finding(s): a) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

The marine loading line is located immediately above ground from the pump house to the sand dunes, and is buried from the sand dunes into the surf zone. The loading line is coated for external protection and equipped with cathodic protection. In the surf zone area, portions of the pipe are covered with a mastic covering and wrapped with 10-inch-wide (25-cm), all-weather pipe wrap to the 10-inch (25-cm) flange, and portions are coated with 0.06-inch-thick (0.2 cm) Tru-Coat plastic coating. However, inspections of the pipeline after exposures in 1996 and 1998 showed that the buried section of the pipeline contains areas with missing or damaged coating that have been exposed extensively to salt water. In addition, this section of the pipeline may currently be at an elevation below the water table, as it was in the summer of 2001 (Santa Barbara County Energy Division 2002). Although corrosion of the pipeline is mainly controlled by the cathodic protection, the portion of the loading line that is missing the coating and wrapping is particularly susceptible to corrosion and associated pipeline leaks.

Monthly testing completed by the Applicant for the marine loading line has demonstrated that the pipeline has adequate cathodic protection. In addition, the Applicant completed Guided Ultrasonic (GUL) testing inspections of the marine loading line in June 2001 and April 2002. The GUL inspections indicated that there is no active corrosion in the pipeline; however, the tests were not completed on the buried portion of the pipeline (Santa Barbara County Energy Division 2002), which is most susceptible to corrosion. The GUL testing of the pipeline that detects internal and external corrosion can only be performed, with 100 percent certainty in results, on the exposed portions of pipelines.

In addition, other structural components of the EMT are exposed to weathering and have the potential to leak. For example, the EMT tanks have recently undergone significant repairs due to corrosion-related issues on both tanks.

Mitigation Measure 3a requires the marine loading line be monitored after winter storms. In the event that the line is exposed by winter beach scour, the Applicant shall inspect the line with GUL and confirm thickness of problem areas with ultrasonic testing technology. The Applicant shall re-coat and re-wrap all segments of the line damaged or missing pipeline coating. In addition, the remaining unexposed portion of pipe in the intertidal area shall similarly be excavated (preferably with hand tools), inspected, tested, re-wrapped, and re-coated as necessary. In addition, other structural components of the EMT, including the tanks, connecting pipelines and valves shall be monitored for corrosion-related damage. This maintenance should be conducted on the pipeline if pipeline exposure does not occur within the next five years. The loading pipeline testing and inspection program will comply with the CSLC's Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS).

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

CEQA FINDING NO. GEO-4

GEOLOGIC RESOURCES

Impact: **Impact GEO-4: Erosion of Drainages**

Class: II

Finding(s): a) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

Routine maintenance, pipeline replacement, and/or oil spill remediation activities may result in vegetation removal and excavations, which may cause an increased potential for short-term erosion and sedimentation of a nearby dune swale pond, a surrounding wetland, and Devereux Slough, located approximately 400 to 500 feet (120 to 150 m), at the closest point southeast and topographically down gradient from the onshore EMT and its associated marine loading line. While these activities pose the same risk under current operations, the extension of the life of the facilities due to the proposed Project would extend the potential for these types of disturbances.

Mitigation Measure GEO-4a requires the use of Best Management Practices (BMPs), such as temporary berms and sedimentation traps, including silt fencing, straw bales, and sand bags, be implemented prior to work involving ground disturbance. The BMPs shall include maintenance and inspection of the berms and sedimentation traps during

rainy and non-rain periods, as well as re-vegetation of impacted areas. Re-vegetation shall be consistent with existing plant types as well as incorporate monitoring to ensure appropriate covering of exposed areas.

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

CEQA FINDING NO. GEO-5

GEOLOGIC RESOURCES

Impact: **Impact GEO-5: Faulting and Seismicity**

Class: II

Finding(s): a) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

The South Branch More Ranch Fault traverses the EMT. The exact location of this fault in the vicinity of the Project site is not well defined; however, exposures of this fault to the west and east of the Project site indicate that the fault is potentially active. Only in the past seven years has this fault branch been recognized as traversing the project site. In addition, the North Branch More Ranch Fault is located approximately 0.4 mile (0.6 km) north of the EMT. This fault is considered active, and it would be more likely than the South Branch More Ranch Fault to rupture and create strong seismically induced ground shaking at the Project site.

Strong-to-intense ground shaking due to an earthquake on these or other regional active faults could result in differential settlement, lateral spreading, and localized liquefaction, resulting in potential damage to and/or rupture of EMT facilities. Earthquake-related hazards, such as liquefaction, ground rupture, ground acceleration, and ground shaking cannot be avoided in the Santa Barbara/Goleta region and in particular in the vicinity of the More Ranch Fault.

The EMT was constructed in 1929, and seismic integrity testing and/or seismic retrofitting has not been completed since construction, thus increasing the vulnerability of the facility to seismically induced damage. The Santa Barbara County Energy Division maintains a Systems Safety and Reliability Review Committee (SSRRC) to identify and require correction of possible design and operational hazards for oil and gas projects. The goal of the SSRRC is to substantially reduce the risks of project-

related hazards that may result in loss of life and injury and damage to property and the natural environment. The SSRRC is a delegated authority to review the technical design of facilities, as well as to review and approve the Safety, Inspection, Maintenance and Quality Assurance Program (SIMQAP) and its implementation, e.g., conduct safety audits, review facility changes, etc. (Santa Barbara County Energy Division 2005). A review of SIMQAP files indicates that seismic integrity testing and/or seismic retrofit activities have not been completed at the EMT. The Santa Barbara County Fire Prevention Division indicated that seismic studies had not been completed at the EMT, as part of the California Accidental Release Program (Cal ARP), because there are no combustible gases or highly toxic regulated materials stored at the facility.

Seismic hazards are common to the Santa Barbara region and are not increased by the Project. However, because the Project area is underlain by a newly identified strand of the potentially active South Branch More Ranch Fault, and the active North Branch More Ranch Fault is only 0.4 mile (0.6 km) north of the EMT, there is a greater than average risk of seismic impacts, especially to the crude oil storage tanks.

Mitigation Measure GEO-5a requires the Applicant to cease terminal operations and inspect all EMT pipelines and storage tanks following any seismic event in the region (Santa Barbara County and offshore waters of the Santa Barbara Channel and Channel Islands) that exceeds a ground acceleration of 13 percent of gravity (0.13 g). The Applicant shall report the findings of such inspection to the CSLC and the SSRRC and shall not reinstitute operations of the EMT until authorized to do so by the CSLC. In addition, Mitigation Measure HM-1a (Reduced Crude Oil Hydrogen Sulfide Content) and HM-1b (EMT Tank Maintenance Program) identified in the Hazards and Hazardous Materials Findings, would also apply to this potential impact and are discussed below.

Mitigation Measure GEO-5a would reduce seismically induced impacts caused by a rupture on a nearby or regional fault by identifying failed components prior to resuming terminal operations. Mitigation Measure HM-1a and HM-1b, which are required in anticipation of and in preparation for a seismic event, would reduce the probability of a storage tank failure, and minimize potential impacts to public health in the event the storage tank fails during a seismic event.

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

CEQA FINDING NO. HM-1

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-1: Acute Risks of Crude Oil Spills**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County and city of Goleta 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.

FACTS SUPPORTING THE FINDING(S)

A spill of oil could result in acute impacts to the surrounding areas by exposing persons to crude oil fires and toxic vapors. Potential increases in crude transportation would increase the potential frequency of crude oil spills from EMT loading operations. This would increase the acute risks to recreational areas on the Ellwood Mesa due to potential crude fires and toxic vapors associated with a crude oil spill. Spill sizes from Line 96 would also increase marginally, thereby increasing the size of hazard zones around Line 96.

The EMT storage tanks were installed nearly 80 years ago and, given the recent issues related to the tank integrity, a thorough program of inspection and maintenance should be established. A failure of the tanks could release crude oil into the diked areas and release toxic vapors or, given an ignition source, ignite and produce thermal effects due to a crude tank fire.

A reduction of the hydrogen sulfide (H₂S) content in the crude required by Mitigation Measure HM-1a would directly impact the size of the area that could be impacted by a toxic vapor cloud. A reduction of crude H₂S levels would potentially eliminate the offsite impacts associated with toxic vapor clouds. This could be achieved at the Ellwood Onshore Facility (EOF) by increasing the stripping in the crude oil H₂S stripping vessel or increasing the number of stripping vessels in operation, as long as the modification is consistent with the EOF's current operating status. This measure would reduce the acute risks from an oil spill to a level that would be less than that associated with current operations.

The EMT tanks have recently undergone significant repairs due to corrosion related issues on both tanks. These recent issues call into question the status of the tanks in terms of maintenance. Well maintained tanks leak less often and are more capable of maintaining integrity in the event of an earthquake. The maintenance program required under Mitigation Measure HM-1b would detect corrosion issues, determine valve and piping integrity, ensure dike maintenance and seismic integrity. Poorly maintained equipment has a higher failure rate, which would increase the probability of impacts to the public given a spill. A comprehensive maintenance program for the tanks, including seismic analysis and retrofits, would ensure reliable operation for the lease period.

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

CEQA FINDING NO. HM-2

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-2: Risks of Crude Oil Spills to the Environment**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

A spill of oil could result in impacts to the surrounding areas by impacting environmental resources. Impacts to the environment are discussed in detail in EIR Sections 4.4, Hydrology, Water Resources, and Water Quality, and 4.5, Biological Resources. Increased loading operations would increase the hours per year that the loading pumps are operating and that the barge is located offshore and is loading. This increase in the presence of the barge and increase in time that the loading pipeline and the loading pumps are operating would increase the frequency of potential spills to the environment over that of current operations.

Compliance with the CSLC requirements for marine terminals has been examined by the CSLC audits conducted over the past 10 years. As volumes of spilled crude are not expected to increase, compliance issues with CSLC requirements are not expected to

change. There are a few areas, however, where operations could more directly comply with CSLC requirements.

Mitigation measures (MM) listed in EIR Sections 4.4, Hydrology, Water Resources and Water Quality, 4.5, Biological Resources, and 4.1, Geological Resources, and those mitigation measures listed below for impacts related to oil spill compliance and response would reduce the severity and frequency of oil spills. However, risk of spills to the environment would, under maximum authorized operations, still increase over that of current operations. Therefore, potential impacts associated with crude oil spills to the environment would remain potentially significant (Class I).

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. HM-3

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-3: Increased Spill Sizes Due to Loading Pipeline Vacuum/Evacuation Operation**

Class: II

Finding(s): a) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

A larger spill of oil could occur and result in larger impacts if the loading line is not capable of operating in vacuum mode or being evacuated of its contents. The CSLC Marine Oil Terminal Regulations, Title 2, California Code of Regulations Section 2390, indicates that loading lines for offshore terminals shall be able to operate in a vacuum. This requirement would enable the loading line to draw the oil back into the EMT and to draw seawater into the pipeline, if a leak is discovered. This would reduce the size of a leak over the scenario where no vacuum is available. The regulations also state that, during mooring, a vacuum shall be maintained on the loading line. The EMT is currently not equipped to operate the loading line in a vacuum. Currently, the facility has a waiver for the vacuum operation requirement from the CSLC. Also, in lieu of operating in a vacuum, the ability to pump seawater back through the loading pipeline to clear the loading pipeline of oil in the event of a spill would provide the same level of protection and reduce the size of the spill. The barge is only capable of doing this when it is full, as the intake for the seawater pumps on the barge is above the water line when the

barge is not sitting low in the water (barge is empty). The Emergency Action Plan (EAP) states to displace the loading pipeline with seawater in the event of a loading pipeline spill. However, this would not be possible if the barge is not full.

The implementation of Mitigation Measure HM-3a would withdraw the existing waiver and the resultant ability to draw a vacuum on the loading line or to evacuate the loading line could substantially reduce the size of a release from the pipeline if a leak occurred. This would enable a negative pressure to be placed on the pipeline, drawing ocean water into the pipeline, or to pump out the oil in the loading pipeline and back to the EMT tanks as opposed to oil spilling into the marine environment. This would be accomplished by installing piping capable of running the pumps at the EMT in a mode that moves the oil from the pipeline back to the tanks or modifying the intake on the barge Jovalan to be below the water line when the barge is empty.

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

CEQA FINDING NO. HM-4

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-4: Increased Spill Sizes Due to Loading Pipeline Leak Detection**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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

FACTS SUPPORTING THE FINDING(S)

A spill of oil could result in larger impacts if the leak goes undetected for a long period of time. Section 2569 of the CSLC regulations (Title 2, Division 3, Chapter 1, Article 5.5 of the California Code of Regulations) indicates that a terminal loading line should be equipped with a leak detection system if it is a Class II pipeline (has experienced recent leaks or located in sensitive areas). This requirement can be fulfilled by pressure testing if the loading line is not equipped with a hose. The EMT loading line is equipped with a hose. A leak detection system capable of detecting at least a two percent loss of

flow balance would enable a leak to be detected during periods when the pipeline route is not visible, such as at night or during foggy periods or other periods of low visibility, and might enable a leak to be detected faster during normal operations. Faster detection of a leak would enable quicker operational responses and enhance mobilization of spill clean-up efforts, even during nighttime and foggy periods.

As the loading times for the barge extend into the nighttime, and Coal Oil Point is frequently foggy with reduced visibility, a means of detecting a leak that does not rely on visual inspection, as required by Mitigation Measure HM-4a, could substantially reduce the response time to a leak. This could reduce the size of a pipeline leak and its resulting impacts to coastal resources. A leak detection system would not detect smaller leaks, below the two percent value. Therefore, loading of the barge should also be accompanied by operator attendance at all times.

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

CEQA FINDING NO. HM-5

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-5: Increased Spill Sizes Due to Failure to Deploy Loading Booms**

Class: II

Finding(s): a) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

A spill of oil could result in larger impacts if the leak is not captured by a boom in a short period of time or small spills may go unnoticed if a boom is not in place. Section 2395, CSLC regulations, indicates that a boom is required to be in place during normal loading operations at onshore terminals. This is not a requirement for offshore terminals, such as the EMT or for onshore terminals where there are high velocity currents. While, the placement of a boom around the barge during normal loading operations would have multiple benefits, there are numerous seeps in the area that would contaminate the boom every time it is deployed, even when no oil spill occurs, and the deployed boom would inhibit access to and from the barge in the event of an emergency.

Mitigation Measure HM-5a would require the terminal operator to provide sufficient boom appropriate to the conditions at the terminal prior to commencement of each transfer operation. This measure would also require trained personnel and equipment, maintained in a stand-by condition at the terminal, so that a length of at least 600 feet of boom could be deployed for effective containment within 30 minutes of a spill.

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

CEQA FINDING NO. HM-6

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-6: Spills Due to Loading Pipeline Failure from Inadequate Loading Pipeline Integrity Inspections**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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

FACTS SUPPORTING THE FINDING(S)

A failure to inspect the loading pipeline for corrosion or unsupported spans could result in a release of crude oil and an impact to the environment. As the loading pipeline has been in service for an extended period of time, there is the possibility of corrosion of the pipeline which could lead to a release of crude oil. Tests conducted by the applicant using Long Range Guided Ultrasonic Screening (GUL) were conducted in 2001, 2002, and 2004 and showed acceptable corrosion levels. However, these tests were only conducted on the loading line between the beach and the loading line pumps. Uncertainty remains as to the quality of the pipeline that is both under the sand at the intertidal zone and offshore. The CSLC indicates, through API 570 and CSLC publications related to API 570 (CSLC 2005) that pipe thickness measurements and corrosion rate estimates are to be performed for all sections of piping. Technologies such as retractable/bi-directional pigs could be available that could be inserted into the pipeline at either the hose location or near the pump-house location to inspect the entire pipeline, thereby helping to ensure the pipeline integrity. However, these pigs most likely would not be able to negotiate the turns in the pipeline located at the beach area.

Either the turns would need to be replaced with piggable turns or the pigs would need to be inserted at each end of the pipeline.

In the absence of retractable pigs, pipeline pressure tests could be conducted annually for a period of four hours at 125 percent the maximum operating pressure. It is not clear from the pressure test history as to the time between tests. The frequency of tests should be well established.

Extensive GUL testing was conducted on parts of the pipeline from the beach pipe flange towards the EMT. GUL testing results are comparable to a smartpig and indicate the condition of the pipeline as to internal and external corrosion and anomaly issues. However, a program of periodic GUL testing does not appear to be established for that portion of the pipeline through the beach area and as far as practical into the intertidal zone. An appropriate interval would be at a minimum of every three years (CSFM requirement for pressure testing for Class II pipelines).

Visual inspection of the pipeline ensures that there are no unsupported spans, either on the beach or underwater along the pipeline route between the beach and the loading hose, and that debris is not impacting the pipeline. Unsupported spans can increase the stresses in a pipeline, thereby increasing the frequency of pipeline failure. Remotely operated vehicle (ROV) or diver inspections of the underwater portion of the pipeline should be conducted periodically. ROV inspection of Platform Holly and seep tent pipelines were conducted in 2003.

Although pressure testing of a pipeline gives some assurance of pipeline integrity, a number of pipeline spills have occurred due to anomalies that were not detected by pressure tests. The Platform Irene release of 1997 is a good example, where the failure of the pipe occurred at a flange weld approximately midway between Platform Irene and the shoreline. A crack developed in the weld connecting a flange to the pipe. The metal in this area was determined to be brittle due to the weld construction techniques where the metals were not properly pre-heated, thereby increasing the metal brittleness. Subsequent cracking occurred in this area possibly due to external strains, believed to be caused in part by the 50-foot (15.2-meter) unsupported span of pipeline at the leak location. Smart-pig runs had been conducted in 1995 and 1996 with a lower resolution system than is currently being used.

Pipeline integrity inspections required under Mitigation Measure HM-6a would reduce the probability of a pipeline failure. Pressure testing of the pipeline helps to ensure sufficient pipeline integrity and that pipeline corrosion or other defects do not

compromise the pipeline integrity between tests. A close interval cathodic protection analysis was conducted in 2002. A program to conduct close interval cathodic protection surveys, which are a thorough cathodic protection survey, shall be conducted on a regular (3-5 years) basis to ensure that the cathodic protection system has not been compromised.

Visual inspection of the pipeline corridor will ensure that unsupported spans do not compromise the offshore integrity of the pipeline. As the pipeline has a history of being exposed during heavy storms, the pipeline shall be inspected during and after storms to ensure that unsupported spans do not exceed 30 feet and that debris does not impact the pipeline.

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

CEQA FINDING NO. HM-7

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-7: Spills Due to Pump Leaks and Lack of EMT Pump Drains Spill Containment**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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

FACTS SUPPORTING THE FINDING(S)

A spill of crude oil at the EMT pumps could impact the sensitive slough areas through unprotected drains. A spill of crude oil at the EMT pumps during pumping would drain directly into unprotected drains which empty into the Devereux Slough area. For impacts to the slough area, please see Sections 4.4, Hydrology, Water Resources, and Water Quality, and 4.5, Biological Resources. The EMT pump drain is located in front of the pump building and the end drain is located on the far south-eastern end of the EMT.

Containment of spills is the initial goal of spill response. A spill at the pump area could enter into the slough through the drains or over the small berms. Mitigation Measure

HM-7a will require that the drains be protected with coverings and the berms be evaluated to ensure that they can contain a large spill. This will reduce the potential impacts associated with a spill at the pumps by preventing the oil from reaching sensitive habitats.

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

CEQA FINDING NO. HM-8

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-8: Increased Spill Size Due to Spill Response Planning and Drills**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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

FACTS SUPPORTING THE FINDING(S)

A spill of crude oil at the Barge could impact additional sensitive areas if response is not adequate. Venoco maintains an Oil Spill Contingency Plan (OSCP) for the South Ellwood Field that covers the EOF, EMT, Line 96, Ellwood Pier, Platform Holly, and Beachfront Lease PRC 421. The OSCP (Venoco 2005b) details the inspection and maintenance procedures as well as training and drills for the affected facilities, in addition to describing the spill response capabilities.

Due to the close proximity of the loading area to sensitive habitats, a spill from the barge or loading line would most likely impact sensitive habitats. However, effective response to a spill of crude oil from the barge or loading line could reduce the size of the area impacted by a spill, thereby reducing the impacts on marine and biological resources (see Sections 4.4, Hydrology, Water Resources, and Water Quality, and 4.5, Biological Resources). The USCG requires that equipment deployment exercises and emergency procedure exercises be conducted periodically (CFR Title 33, section 154.1055). The USCG National Preparedness for Response Exercise Program (PREP) also directs companies to conduct regular exercises with the equipment. The Venoco EMT EAP shall include information detailing drills.

Training and conducting on-water drills with response equipment will enable responders to fine-tune response capabilities and ensure adequacy in responding to a real-life spill event. Currently, drills are only conducted for responding to spills from Platform Holly. Mitigation Measure HM-8a requires that the drills shall be expanded to include responding to a spill from the barge or the loading pipeline. Planning and periodic execution of the OSCP, with particular emphasis on spill response, boom deployment, prevention measures, and inspection and maintenance programs, will reduce the frequency and extent of impacts of potential spills.

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

CEQA FINDING NO. HM-9

HAZARDS AND HAZARDOUS MATERIALS

Impact: **Impact HM-9: Spills Due to Barge Hull Penetrations**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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

FACTS SUPPORTING THE FINDING(S)

A spill of crude oil from the barge could result from accidental grounding, collision, allision, or puncturing of the barge bottom, which is single-hulled. Current federal regulations require the replacement/conversion of the barge Jovalan with/to a double hulled barge by 2015. As the barge Jovalan is less than 5,000 gross tons (4,536 metric tons), it must comply by 2015 instead of the 2010 requirement associated with larger vessels. Double-hulled vessels have a lower frequency of spills due to the added protection that the double hull provides given a grounding, collision, allision, or bottom puncture. Requiring that the EMT utilize a double-hulled barge or that the barge Jovalan be converted to a double hulled vessel, sooner than the regulation requires, would reduce the risk of an oil spill due to the above described events.

The U.S. DOT estimates that double hulled vessels have a conditional probability of spills, given a barge incident, of five times less than that of single hulled vessels. Many of the barge release scenarios would be avoided or minimized with use of a double hulled vessel, including collisions with other vessels or with the tug, allisions with mooring buoys, loss of control and subsequent grounding, bottom punctures, etc. Replacement of the barge with a double hulled vessel, as required by Mitigation Measure HM-9a, would reduce the probability of a spill given a barge incident. This measure most likely would take 12-18 months to implement as either an additional barge, such as the Olympic Spirit (a double hulled barge operated by the same company that operates the Jovalan) or a new barge being proposed by Harley Marine Services, the Jovalan owner, would need to be fitted with vapor control equipment. Harley Marine Services has stated their intention to decommission the barge Jovalan on or before March 30, 2010.

Mitigation Measure HM-9a would also allow for the construction and use of a new onshore pipeline that connects to the Plains All American Coastal Pipeline located approximately nine miles west of the EOF as an alternative to providing a double hulled vessel within the 18-month time period. Risks from oil transportation by pipeline are the lowest of any form of transportation. As the pipeline would be a new pipeline with pigging capabilities, it would have a substantially lower failure rate than either the Line 96 pipeline or the existing EMT loading line. All impacts associated with marine vessel oil spill risk would be avoided by using a new onshore pipeline.

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

CEQA FINDING NO. AQ-1

AIR QUALITY

Impact: **Impact AQ-1: Increase in Emissions from Operations**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County Air Pollution Control District 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.

FACTS SUPPORTING THE FINDING(S)

The proposed Project could potentially result in increased operational emissions at the EMT and from the barge Jovalan. The annual number of loadings could potentially increase from the current 23 to 88 and oil throughput could increase to 13,000 barrels per day (BPD) (2,067 m³ per day). This would increase the annual emissions of the proposed Project over the current operations.

The increase in annual nitrogen oxides (NO_x) emissions due to the proposed Project would be above the significance threshold of 25 tons per year, assuming that loading operations at the EMT would continue as currently occur, i.e., the tug and assist vessel engines are shut down most of the time during loading, and 30 out of 88 trips would be made to the San Francisco Bay area (currently approximately 34 percent of trips are made to the San Francisco Bay area). Therefore, the proposed Project's operational air impacts would be potentially significant.

The annual operational emissions would be lower if fewer trips are made to the San Francisco Bay area. Therefore, Mitigation Measure AQ-1a sets a limit on the number of trips that can be made to San Francisco Bay Area refineries. The current percentage of trips made to the San Francisco Bay area is approximately 34 percent, which for the proposed operations translates into 30 trips out of 88. If, with no other mitigation, the trips made to the San Francisco Bay area are limited to 14 out of 88 trips, emissions of NO_x would be reduced to below the annual threshold of 25 tons. If the tug and assist boat main engines emissions are reduced by 20 percent, e.g., by hiring boats with newer engines, then the number of trips made to the Francisco Bay area refineries can be increased to 25 out of 88, and the annual NO_x emissions would still be below the significance level.

If the generators on the tug and assist vessels are shut off when the vessels are not assisting the barge, as currently done and required by Mitigation Measure AQ-1b, the daily emissions from the generators would be kept at the current level. Therefore, this mitigation measure will ensure that the current operations continue, and the boats will shut down the engines during loading.

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

CEQA FINDING NO. AQ-2

AIR QUALITY

Impact: **Impact AQ-2: Odor Emissions from Operation**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County Air Pollution Control District 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.

FACTS SUPPORTING THE FINDING(S)

The proposed Project could result in increased barge loadings and increased potential for an oil spill, and thus could potentially result in increased nuisance odor events. The areas immediately adjacent to the EMT are used for recreational purposes. In addition, there are residential areas and a school within 0.5 mile (0.8 km) of the onshore and offshore portions of the EMT. Thus, releases of odorous compounds such as H₂S or petroleum gases could create nuisance odors, which would be considered a potentially significant impact.

Odors from the EMT and the barge Jovalan could originate from several sources. Barge loading typically does not emit odorous compounds due to the implemented controls, i.e., vacuum on the holds during loading, vapor control using the VRU, and caustic treatment of H₂S. However, if the pressure safety valves (PSVs) on the barge holds open to the atmosphere due to an overpressure event, which is triggered by pressure of 14 inches of water above atmospheric (0.03 atmospheres gauge or 0.51 pounds per square inch, gauge [psig]), odorous compounds would be released to the atmosphere. Any accidental releases, such as crude spills could also result in odor events. For instance, confirmed nuisance odor events occurred when the EMT storage tanks had leaks in the floating roofs and crude oil accumulated on the top of the floating roofs.

The increased barge loadings under the proposed Project could potentially increase releases of odorous compounds to the atmosphere. The proposed Project would also increase the potential for an oil spill. Any increase in odorous compounds releases would be a significant impact as it violates APCD Rule 303.

The monitoring program to ensure integrity of the storage tanks (Mitigation Measure HM-1b) will reduce the possibility of free product leaking through the internal tank roofs. If the monitoring program fails to reduce odorous emissions or is found to be inefficient, other methods of vapor control on the oil storage tanks will eliminate or significantly reduce the amount of vapors that produce nuisance odors, because the vapors will be physically controlled by an approved method as required by Mitigation Measure AQ-1a.

The monitoring of the loading pressure and timely shutdown of the pumps in case of overpressure required under Mitigation Measure AQ-1b will initiate shutdown prior to the lifting of the PSVs and thus reduce the potential release of odorous compounds. Installation of proximity switches would reduce the time needed to shutdown the loading, or correct the situation, to prevent the lifting of the PSVs and thus reduce the potential release of odorous compounds. Implementation of MM HM-1a will reduce the amount of H₂S in the oil and thus vapor phase, thereby reducing H₂S concentration in the air in case of a release. Implementation of the mitigation measures outlined in Hazards and Hazardous Materials will reduce the potential for accidental releases.

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

CEQA FINDING NO. AQ-3

AIR QUALITY

Impact: **Impact AQ-3: Increase in Health Risk**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County Air Pollution Control District 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.

FACTS SUPPORTING THE FINDING(S)

The proposed Project could result in increased barge loadings and increased health risks associated with exposure to diesel exhaust. The areas immediately adjacent to the EMT are used for recreational purposes. In addition, there are residential areas and a school within 0.5 mile (0.8 km) of the onshore and offshore portions of the EMT. Thus,

increased emissions of diesel exhaust would result in a health risk that exceeds acceptable standards, which would be considered a potentially significant impact.

The highest risk would be observed at the barge mooring location, because the highest emissions occur from the barge, tug and assist vessels, and the main contributor to the cancer risk results from emissions of diesel exhaust particulate matter. There is no population that could be continuously exposed to the emissions on the ocean, or on the beach and protected areas of Devereux Slough. Therefore, the most affected receptor that could be continuously exposed are the residences located at Coal Oil Point. At the most affected receptor (the residences located at Coal Oil Point are the closest downwind from the barge Jovalan mooring location), the excess cancer risk would be above the threshold of 10 cases per million, while the acute and chronic hazard indexes (HI) would remain below the HI threshold of one. Cancer risk and chronic HI would increase approximately six times with the proposed Project at maximum utilization rates.

Significant project-related health risks can be minimized through reductions in emissions either by decreased terminal utilization or emission control technologies. Mitigation Measure AQ-3a will require the installation of CARB Level 3 diesel catalysts on the barge that will substantially reduce the emissions of diesel particulate, which is classified as a carcinogen and is responsible for over 90 percent of the health risk associated with EMT operations. The installation of the catalysts on the barge diesel-powered engines will reduce the worst-case health risk to 3.86 in a million, which is well below the SBCAPCD cancer risk threshold of 10 in a million. If the number of barge trips remains at a level of 50 trips per year or less, as required under Mitigation Measure AQ-3b, the risk would not exceed the SBCAPCD excess cancer risk threshold of 10 in a million. At 50 trips per year, the excess cancer risk would be approximately nine (9) in a million. Given current production levels at the South Ellwood Field, and the prohibition of transporting crude oil defined as new production, it is likely that potential health risks will not change from the current baseline.

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

CEQA FINDING NO. AQ-4

AIR QUALITY

Impact: **Impact AQ-4: Increase in Greenhouse Gas Emissions**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County Air Pollution Control District 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.

FACTS SUPPORTING THE FINDING(S)

If additional transportation of crude oil up to the permitted levels were to occur (88 barge trips per year), the greenhouse gases associated with barge transportation, electrical generation to pump the crude oil from the EMT to the barge, and fugitive emissions associated with barge equipment and the tanks at the EMT would increase. The primary gas emitted from the operations would continue to be CO₂ and could amount to approximately 1,311 tons per year from the barge and tugs including electricity production from the grid, using the CALISO average as obtained from the eGRID database (EPA 2007). An additional 17,147 tons per year would be associated with transport of the crude oil to markets, assuming the average time of 48 hours per one way trip (the 2007 average as reported by the CSLC database on port calls) and a tug main engine size of 4500 hp. This would be an increase over current operations of 13,871 equivalent tons per year (or 12,484 equivalent metric tonnes) of CO₂.

Total emissions of methane would be about 8.4 tons per year from fugitive emissions at the EMT and an additional 3.7 tons per year of methane from diesel fuel combustion associated with transport of the crude oil to refining terminals. This would be an increase in methane emissions over current operations of 9.2 tons per year.

Mitigation Measure AQ-4a requires the Applicant to offset any increase in GHG emissions above baseline. Annual GHG emission inventories and any required offsets will be submitted to the SBCAPCD for verification. GHG emission offsets will also be verified by an independent third-party, such as the California Climate Action Registry, as approved by the SBCAPCD.

Methods to reduce or offset GHG emissions if the crude oil transported by barge increases over current operations, would be associated with facility and Project changes, as well as programs that the Applicant could sponsor in the community. Examples would include:

- Use of bio-diesel or bio-diesel blends for diesel equipment, particularly the barge tug main engines;

- Retrofitting the barge tug main engines with more efficient, cleaner engines;
- Sponsoring the retrofit of diesel buses in the community with hybrid engines;
- Sponsoring methane capture technology projects, including methane capture from dairy and/or agricultural operations;
- Capturing methane emissions from area seeps.

With the application of a number of the recommended approaches, the GHG emissions will be reduced to below a threshold value of no net increase in GHG emissions

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

CEQA FINDING NO. WQ-1

4.4 HYDROLOGY, WATER RESOURCES, AND WATER QUALITY

Impact: **Impact WQ-1: Oil Spill Impacts to Marine Water Quality**

Class: I

- Finding(s):
- 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 Final EIR.
 - Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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
 - 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine water quality. The proposed Project would increase the risk of an oil spill beyond current baseline conditions. A large spill would meet all of the threshold criteria for a significant water-quality impact. Namely, it would introduce hydrocarbon contaminants that are persistent, would extend well beyond the project area, would impact the marine ecosystem, and would measurably depart from background

concentrations. Therefore, impacts to marine water quality from a large crude oil spill would be considered potentially significant.

Spilled oil produces several impacts to marine water quality that are explicitly addressed in the California Ocean Plan. Surface slicks limit equilibrium exchange of gases at the ocean-atmosphere interface. This reduces near-surface oxygen concentrations, particularly with the increased biochemical oxygen demand of crude-oil emulsions. As the seawater-oil emulsion mixes into the water column, turbidity would increase and toxic hydrocarbons would be released into the water column and seafloor sediments. Weathering can widely disperse tar balls, which may eventually be ingested by pelagic and benthic biota, with adverse effects. Although a surface slick can disperse within a few hours of a spill in harsh sea states, lingering effects could persist for much longer periods. For example, it took approximately two years for mussel tissue burdens of aromatic hydrocarbons to return to background levels after the Exxon Valdez Oil Spill. Although this spill was several magnitudes larger than that estimated for the proposed Project, monitoring results indicate the potential for long-term effects. Because there is an increased likelihood of a large oil spill as a result of the proposed Project, and because such a spill would result in tangible damage to marine water quality in excess of levels identified in regulatory criteria, accidental discharges of petroleum hydrocarbons into marine waters are considered a significant impact.

An oil spill trajectory analysis for the EMT is discussed in Section 4.2 of the EIR, Hazards and Hazardous Materials. Ocean impact areas were found to be similar for spills from the barge Jovalan and from the oil loading pipeline. Spills from the terminal facilities could impact the coast and beaches, depending on conditions, as far north as Point Purisima and as far south as the Channel Islands and Point Dume. The highest probability of impact from a spill at the terminal is the coastline adjacent to the terminal operations. Depending on the meteorological conditions, the MMS GNOME model estimates that up to 69 percent of spilled oil would end up on the beaches.

Spills could potentially extend substantial distances and impact ocean areas south of the Channel Islands, impacting the Channel Islands National Marine Sanctuary (CINMS). However, uncertainty about the influence of wind drift on spilled oil, limitations in the model, and the prevailing northward surface current flow suggest that oil spilled within the project area could also impact coastlines to the north. Additionally, spills occurring during transit along the barge routes could potentially affect marine water quality and sensitive marine habitats within the CINMS, Monterey Bay National

Marine Sanctuary (MBNMS), and the Gulf of the Farallones National Marine Sanctuary (GFNMS).

Implementation of Mitigation Measures MM-HM-1b through HM-9a will reduce the probability of an oil spill and the subsequent consequences to the marine environment. The identified mitigated measures will eliminate oil in the submarine loading pipeline when the line is not being used for oil transfer; the measures will enhance planning and preparedness to respond to the oil spill, and therefore, these measures will reduce both the potential oil spill size and the potential for oil spills. The measures will also increase the effectiveness of an oil spill cleanup effort.

Marine water quality impacts associated with accidental oil spills are categorized as significant (Class I) because the proposed mitigation measures would not be completely effective in reducing the significant risk of a spill, nor will they adequately eliminate the significant effect of a spill on marine resources. A large spill would violate many of the water quality standards and have a deleterious effect on the marine environment and biota. It would generate visible surface sheens, significantly reduce the penetration of natural light, reduce dissolved oxygen, degrade indigenous biota, and result in hydrocarbon contamination within the water column and marine sediments. The duration and area of the impact would be largely dictated by the size and location of the spill, and the various physical conditions of the sea at the time of the spill. Impacts would last from days to weeks and could extend for tens of kilometers.

Mitigation of water quality impacts from a major marine oil spill is largely a function of the efficacy of the spill response measures. The effectiveness of spill cleanup measures is dependent on the response time, availability and type of equipment, size of the spill, and the weather and sea state during the spill. Only some of these aspects are within the control of the spill response team. In addition, many oil spill response measures, such as dispersants, have impacts of their own.

Under the regulatory-based significance criteria, even small oil spills could be considered potentially significant. Many regulations and guidelines establish limits based on the presence of a visible sheen on the ocean surface. This criterion is reflected in the static sheen test for free oil identified in the NPDES General Permit, USCG regulations, and the aesthetic criterion C.1 in the Ocean Plan Standards. Adverse aesthetic impacts from a visible sheen would occur upon discharge of a very small amount of free-phase hydrocarbons into calm marine waters. Because sheens

are so thin, as little as 0.5 ounce (28 grams) of oil can form a rainbow sheen covering 500 ft² (46 m²) of calm ocean surface area.

Although the technology has improved in recent years, complete containment and cleanup of an oil spill at sea is nearly impossible. The effectiveness of offshore containment and cleanup equipment and procedures is largely dependent on the type of oil, volume, sea state, e.g., swells, wind waves, chop, etc., and proper use of the equipment. Shoreline contamination is probable with any major spill in the area under adverse sea and weather conditions that exceed the capabilities of the containment and cleanup equipment. In the case of the Torch pipeline spill that occurred in 1997, shoreline contamination occurred even under best case weather and sea conditions for offshore containment and cleanup.

With respect to wind-wave conditions, the containment effectiveness of booms begins to lessen at a significant wave height of two feet (0.6 m). Above two feet (0.6 m), booms and skimmers are ineffective; however, it is likely that a slick would be dispersed and mixed into the water column. For long-period swell conditions, booms and skimmers can retain effectiveness in wave heights greater than two feet (0.6 m). High winds can cause some type of booms to lie over, allowing oil to splash and flow over the boom. High winds can also affect the deployment or shape of the deployment and, thus, the containment effectiveness of the boom.

Because there are limitations to thorough containment and cleanup of an offshore oil spill, potentially significant impacts (Class I) to water quality remain.

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. WQ-2

4.4 HYDROLOGY, WATER RESOURCES, AND WATER QUALITY

Impact: **Impact WQ-2: Potential Facilities Leaks and Impacts to Nearby Onshore Waterways**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Regional Water Quality Control Board 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.

- c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

A rupture or leak from the marine loading line, oil storage tanks, or other EMT infrastructure could substantially degrade surface and groundwater quality. Lease renewal would extend the risk of potential failure of the marine loading line, oil storage tanks, and other infrastructure. A spill could substantially degrade groundwater and surface water in a nearby dune swale pond, a surrounding wetland area, and Devereux Slough. Because the potential for spills already exists within the Project area, the possible presence of a spill to onshore water resources associated with the proposed Project is related to the incremental change in the size of the spill event. Small leaks or spills, which are contained and remediated quickly, may have minor or negligible impacts to onshore water resources. In contrast, large spills, or pipeline or tank ruptures, which spread to surface waters and/or groundwater, may substantially degrade water quality, with potential long-term impacts to beneficial uses and biological resources. The proposed Project increases the lifetime probability of leaks or spills. Therefore, the potential impacts associated with the proposed Project are considered significant (Class I).

Any portion of the EMT infrastructure, including the oil storage tanks, pump house, marine loading line, and intermediate pipes and valves, has the potential to rupture or leak. Oil spills could affect surface and groundwater, depending on the location and size of the spill. Under worst-case conditions, maximum estimated spill volumes of oil would be lost from the marine loading line directly into the southeast trending gully, which flows into the nearby dune swale pond, as no secondary containment is present along the pipeline. Although secondary containment is present surrounding the two 65,000-barrel (10,334-m³) oil storage tanks, the worst case scenario would involve rupture of both the oil storage tanks and the adjacent soil containment berms, as a result of severe seismically induced ground shaking. The EMT overlies the potentially active South Branch More Ranch Fault and the North Branch More Ranch Fault is located approximately 0.4 mile (0.6 kilometer) north of the project site (see Section 4.1, Geological Resources). The EMT was constructed in 1929 and seismic upgrades and

retrofitting have not been completed, making the facility more susceptible to earthquake induced damage.

Depending on the location of the containment berm breach, such a spill could flow directly into Devereux Creek, Devereux Slough, and/or the adjacent southeast trending gully that flows into the dune swale pond, located approximately 1,500 feet (450 m), 1,000 feet (300 m), and 400 to 500 feet (120 to 150 m) from the EMT, respectively. Although some of the more toxic components of oil, e.g., volatile organic compounds, would be lost rapidly due to evaporation, spills reaching any of these waterways could have significant, long-term, and widespread impacts to water quality and consequently, sensitive biological resources. Similarly, subsurface or surface spills, could result in significant, long-term contamination of groundwater, as the on-site soils are generally unconsolidated and permeable and groundwater occurs at relatively shallow depths.

Venoco currently maintains an Emergency Action Plan (EAP), which addresses spill response actions to be completed in the event of a “significant event.” The EAP provides an emphasis on marine spills, and an Area Contingency Plan, Site Summary, and Site Strategy Sheet for the Devereux Slough area provided as an attachment to the EAP. The Area Contingency Plan includes brief instructions on spill containment, followed by recommended resources for constructing spill dikes (one piece of heavy equipment, sand bags, and plastic sheeting), as well as logistical details (site access, staging area, and closest boat launch). Implementation of this Emergency Action Plan would reduce potentially significant impacts associated with a larger spill.

Venoco also maintains the South Ellwood Field Oil Spill Contingency Plan (OSCP). This plan addresses inspection and maintenance, training and drills, notification procedures, and provides general oil spill response and cleanup techniques for various terrains, including for creeks and rivers. The OSCP also includes several appendices containing maps and listings of potentially affected sensitive resources such as plant and wildlife habitats, creeks and drainages, beaches, sloughs, marshes, etc., in the surrounding area.

In addition, a number of yearly and as-needed inspections are required of Venoco by the Santa Barbara County Energy Division, including:

- Annual hydrotest of the pipeline, as required by the California State Lands Commission;

- Long range guided ultrasonic screening inspection from the pump house to the sand dune area, but not in the intertidal area;
- Visual inspections of the loading line by Venoco to ensure that an episodic wave scour-induced free span does not exceed 30 feet (9 m); and
- Venoco's commitment to repair the external coating on the loading line when exposed by winter storms or as the situation warrants.

Such actions, in addition to the Mitigation Measure WQ-2a, would contribute to limiting the potential for spills and associated significant impacts.

Mitigation Measure WQ-2a would minimize potential oil spill-induced water quality impacts of a nearby dune swale pond, surrounding wetland area, Devereux Slough, and underlying groundwater resources by providing site-specific information and management practices regarding on-site drainage and protection of nearby water resources.

County Energy Division mandated annual inspections and (partial) pipeline testing, augmentation of Venoco's EAP and OSCP, and Mitigation Measure WQ-2a, implementation of a SWPPP, would reduce the severity of potential spill impacts to water resources. Regardless, because of the severity of impacts to surface water and groundwater resources associated with potential large oil spills from the EMT, impacts would remain significant (Class I) after mitigation.

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. BIO-1

BIOLOGICAL RESOURCES

Impact: **Impact BIO-1: Oil Spill Impacts to Marine Biological Resources**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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

- c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

An accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine biological resources. At the proposed permitted operation capacity of the EMT (13,000 barrels per day [BPD]), barge trips would increase to approximately 88 trips per year. Loading operations at the EMT and loading pipeline transfer rates would increase correspondingly. However, the storage at the EMT and the capacity of the loading line and equipment would remain the same. Therefore, the size of potential spills would be the same for the proposed Project as for the current operations. Finally, the frequency and duration of trips made by offshore support vessels and the barge *Jovalan* would increase substantially under the proposed Project. This increased vessel traffic would increase the risk of a vessel accident and an attendant spill along the two barge routes.

The degree of impacts to marine biota from an oil spill within the Project area and along the barge routes will depend on several factors. Among them are the location, volume, rate, and type of oil that is spilled; amount of weathering, evaporation, and dispersion of oil in the water column and shoreline; and the amount of oil that is contained and cleaned immediately after the spill. Oil effects to marine biota include both mortality or sublethal effects that inhibit growth and reproduction. Oil can also bioaccumulate in certain marine species, causing histological damage, altering physiology and metabolism, and decreasing reproductive capacity.

The severity of oil spill impacts to benthic organisms can vary according to the degree of weathering of the oil. Oil that sinks quickly before it has weathered would contain appreciable amounts of toxic hydrocarbons that may be accumulated by benthic organisms, resulting in mortalities. Weathered oil, although not as toxic, could potentially smother sessile organisms associated with hard substrates. Hence, the potential impacts of spilled oil to benthic communities are considered to be significant.

When spilled oil reaches the shoreline or intertidal zone, it becomes concentrated in a narrow zone. Because of the shallow water depth, hydrocarbon concentrations can reach toxic levels. Thus, intertidal biota are exposed to higher concentrations of oil for a

longer period of time than most other marine organisms. Impacts to the intertidal biota can be caused by physical smothering and hydrocarbon toxicity.

The severity and duration of impacts to the intertidal biota are, to a large part, functions of the biological and geomorphologic characteristic of the shoreline habitat. Habitats with a low energy regime are characterized by high biological populations, high oil residence time, and high sensitivity to oil. Recovery of such areas can take several years. Gravel and mixed sand/gravel beaches have relatively small biological populations, but oil impacting these habitats is resistant to cleaning. For example, despite intensive cleanup and remediation of gravel and cobble beaches oiled by the Exxon Valdez spill in Prince William Sound, oil remained in sediments eight years after the spill. Several stretches of the coast near the EMT display characteristics that would also be resistant to oil spill remediation, such as mixed sand and cobble beaches located immediately east and west of the EMT.

After the 1969 Santa Barbara Channel oil spill, effects to several intertidal species were also recorded. Impacts included smothering of barnacles (*Chthamalus fissus*), mortality of surfgrass (*Phyllospadix torreyi*) and algae (such as *Hesperophycus harveyanus*), and reduced reproduction in the stalked (gooseneck) barnacle (*Pollicipes polymerus*). There may have been impacts on additional intertidal biota, but the lack of pre-spill data, heavy rains, and flooding at the time of the spill hampered a complete impact assessment. Nevertheless, should an oil spill reach shore, intertidal biota could experience significant impacts.

The majority of fish data regarding oil effects have been obtained in the laboratory. Field data generally consist of reports on fish kills and some measurements of sublethal effects. Field data regarding effects other than massive fish kills are extremely difficult to obtain because of the difficulty in quantitatively sampling fish populations. In laboratory studies, typical responses to toxic hydrocarbon concentrations include a brief period of increased activity, followed by reduced activity, twitching, narcosis, and eventual death. Sublethal effects include histological (tissue and cell) damage, altered physiological and metabolic patterns, decreased growth and reproduction, and vulnerability to disease (NRC 1985). Among fishes, benthic species are more sensitive than pelagic species, and intertidal species are the most tolerant. In general, early life stages of fishes, such as embryos and larvae, are more sensitive to petroleum hydrocarbons than later life stages.

Adult fish, due to their mobility, may be able to avoid or minimize exposure to spilled oil. However, there is no conclusive evidence that fish will avoid spilled oil. Egg and larval stages would also not be able to avoid exposure to spilled oil. Because fish species can be economically important and because long-term loss can result from an oil spill, impacts to fish are considered to be significant.

Marine mammals that could be impacted by an oil spill include cetaceans (whales and dolphins), pinnipeds (seals), and fissipeds (sea otters). Animals that are unable to avoid contact with oil could be impacted by fouling, inhalation, or ingestion that could result in sublethal or lethal effects.

It is unlikely that oil spills would substantially threaten cetaceans. However, a massive oil spill could result in fouling of the baleen, toxicity from ingestion, respiratory difficulties, and irritation of membranes that contact oil. Although some observations suggest that cetaceans would avoid surfacing in oil slicks by staying submerged longer, other observations suggest that some cetaceans may not avoid oil-covered waters. Oil does not tend to cling to cetacean skin as it does to the pelage (hair) of other marine mammal species. Should an oil spill occur in the project area, the species that would most likely be impacted, depending on the time of year, are the gray, blue, humpback, and fin whales. Blue, humpback, and fin whales are presently listed as endangered species.

Although seals apparently have the ability to detect and avoid oil slicks, it has been reported that breeding seals swam through oil to reach rookery beaches during the breeding season. Surface contact with oil has a much greater impact on seals than absorption of the petroleum. In controlled experiments, seals that were exposed to floating oil developed reversible eye damage (in the wild, "reversible" eye damage could significantly affect an animal's ability to function). The project area is in a foraging area for pinnipeds, e.g., California sea lions. Oil-spill trajectory analyses indicate that oil released from a spill in the Project area can come ashore, exposing adults and subadults to potentially long term lethal and sublethal effects.

Sea otters, a threatened species, have steadily increased in numbers in the area from Purisima Point to Point Conception and have extended their range eastward. A breeding colony also resides in the Purisima Point region. An oil spill, should one occur, has the potential to impact a high number of sea otters in this region. After sea otters' exposure to oil, death usually results from either an increase in metabolic rate, hypothermia, or inhalation of volatile vapors.

In summary, the marine mammal species that occur in the Project area exhibit varying degrees of vulnerability to oil spills. Impacts can be caused either by oil contact or by ingestion. There is evidence that cetacean species may avoid contact with oil at sea; however, pinniped species and sea otters could potentially suffer lethal and long term sublethal effects resulting in significant impacts. Onshore cleanup activities, depending on location, could disrupt pinniped haul-out and rookery areas and could also result in significant impacts. As a result, impacts to marine mammals are considered to be significant.

Oil spills pose a significant threat to marine birds. Due to the migratory nature of many bird species, the severity of oil spill impacts on marine birds would depend on the time of the year, the species present, and their numbers. Oil on a marine bird clogs and damages the fine structure of the feathers that is responsible for maintaining water repellency and heat insulation. In addition to coating by oil, marine birds are also subject to chronic, long-term effects from oil that remains in the environment. For example, small amounts of oil on a bird's plumage may be transferred to eggs during incubation. This contact has been shown to kill developing embryos.

The endangered brown pelican and California least tern could be severely impacted by an oil spill. The brown pelican, an offshore forager, is highly susceptible to oil ingestion and fouling. Effects of oil contamination on the overall population could be significant, since the species continues to recover from the effects of DDT contamination. The California least tern is a coastal inhabitant but forages offshore. It also is highly susceptible to oil spills because it skims the ocean surface for prey, with occasional diving. Should a spill occur offshore, impacts to these species, are considered to be significant and not mitigable to a level less than the significance criteria.

Oil spills can adversely affect marine turtles by toxic external contact, toxic ingestion or blockage of the digestive tract, disruption of salt gland function, asphyxiation, and displacement from preferred habitats. Although oil spills can adversely affect marine turtles, they are rarely found in the Project area. In the 23-year period from 1982 through 2004, only 20 strandings were reported on Santa Barbara County beaches. However, beginning in March of 2005, the tracks of a single sea turtle were discovered on the western portion of Santa Cruz Island. The tracks were determined to be those of a female olive ridley who returned several times, likely as part of a nesting cycle. Although attempts were made, the exact nesting locations were not discovered, and no eggs are believed to have hatched. The incident is not considered to be indicative of a northern shift in nesting sites for this species, but likely a one time event. Normal

breeding grounds for the olive ridley are located over 500 miles (152 km) south of the Channel Islands, where the sand and waters are substantially warmer.

Along the northern barge route, leatherbacks are the most frequently seen sea turtle, particularly off Monterey Bay and the Farallon Islands. They are found mainly along the continental slope over water 200 to 1,500 meters (656 to 4,921 feet) deep. These turtles originate on Papua New Guinea and other islands in the western Pacific Ocean, but adults cross the ocean to reach rich feeding grounds off central and northern California.

Although marine turtles are rare in the area of the proposed Project and along the barge routes, oil spill impacts to marine turtles are considered to be adverse and significant because of their threatened and endangered status.

Mitigation Measure BIO-1a is aimed at preventing potentially large oil spills from occurring along the loading pipeline. Rigorous pipeline inspection will identify potential pipeline failure points and serve to prevent a large oil spill. Mitigation Measure BIO-1b addresses how the Applicant will be prepared to respond to all potential oil spills, thereby reducing potential adverse impacts. The measures presented in Hazards and Hazardous Materials and Hydrology, Water Resources, and Water Quality provide improved oil spill response capabilities, oil spill containment measures, and protection of resources. With implementation of those measures, the risk to the marine environment may be reduced.

Marine water-quality and biological impacts associated with accidental oil spills are categorized as significant (Class I) because the proposed mitigation measures would not be completely effective in reducing the significant risk of a spill, nor would they adequately eliminate the significant effect of a spill on marine resources. A large spill (greater than 100 bbls [15.9 m³]) would generate visible surface sheens, significantly reduce the penetration of natural light, reduce dissolved oxygen, degrade indigenous biota, and result in hydrocarbon contamination within the water column and marine sediments. The duration and area of the impact would be largely dictated by the size of the spill. Impacts would last from days to weeks and extend for tens of kilometers.

Although the technology has improved in recent years, complete containment and cleanup of an oil spill at sea is nearly impossible. The effectiveness of offshore containment and cleanup equipment and procedures is largely dependent on the type of oil, volume, sea state, e.g., swells, wind waves, chop, etc., and proper use of the equipment. Shoreline contamination is probable with any major spill in the area under

adverse sea and weather conditions that exceed the capabilities of the containment and cleanup equipment.

Because there are limitations to thorough containment and cleanup of an offshore oil spill, potentially significant impacts (Class I) remain for benthic organisms, intertidal communities, marine mammals, marine turtles, and marine birds.

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. BIO-2

BIOLOGICAL RESOURCES

Impact: **Impact BIO-2: Oil Spill Impacts to Commercial and Recreational Fishing**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the Santa Barbara County 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
 - c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

An accidental discharge of petroleum hydrocarbons into marine waters would adversely affect commercial and recreational fishing. A wide variety of fish and shellfish species are commercially harvested in the Project area. Biota residing in the intertidal and shallow subtidal habitat are vulnerable to oil spills. Several species are commercially and recreationally harvested in the intertidal zone. Sea urchins, for example, ranked first in both pounds landed and dollar value over the five-year period from 1995 to 1999. Sea urchins alone accounted for almost half (46.5 percent) of the dollar value of the commercial catch during the five years, and accounted for 41.6 percent of the total catch in biomass. Mass mortalities of invertebrates, such as sea urchins, abalone, and lobsters, were reported following the Tampico spill in Baja California. Although abalone

is not presently harvested in the immediate Project area, both sea urchins and lobsters are high-value species that are harvested commercially and recreationally in the area.

In the event of an oil spill, there could be impacts to abalone. Smothering is the most common cause of mortality and would be limited to direct contact with weathered tar balls from the oil spill. Although not high-value species, other intertidal or shallow subtidal organisms such as sea cucumbers and whelks are also harvested within the Santa Barbara Channel. Results of the oil spill trajectory analyses indicate that key areas for harvesting these species along the northern and western edges of San Miguel and Santa Rosa Islands and the coastline between Point Arguello and Point Conception may be impacted by oil spills at the Project site.

Adult fish, due to their mobility, may be able to avoid or minimize exposure to spilled oil. However, there is no conclusive evidence that fish will avoid spilled oil (NRC 1985). Egg and larval stages would also not be able to avoid exposure to spilled oil. Because losses to commercial and recreational fish resources and losses due to closure of fishing areas for most or all of a fishing season can occur, impacts to commercial and recreational fishing from oil spills are considered to be significant. Fish harvested from contaminated areas may also be reduced in value, and fishing gear can be damaged due to oil fouling, causing additional significant impacts.

Mitigation Measure BIO-1a is directed at preventing potentially large oil spills from occurring along the loading pipeline. Rigorous pipeline inspection would identify potential pipeline failure points and serve to prevent a large oil spill. Mitigation Measure BIO-1b addresses how the applicant will be prepared to respond to all potential oil spills, thereby reducing potential adverse impacts. The measures presented in Hazards and Hazardous Materials and Hydrology, Water Resources, and Water Quality provide improved oil spill response capabilities, oil spill containment measures, and protection of resources. With implementation of those measures, the risk to the marine environment and impacts to commercial and recreational fishing may be reduced.

Because there are limitations to thorough containment and cleanup of an offshore oil spill, significant impacts (Class I) remain for commercial and recreational fisheries in the intertidal and shallow subtidal zones.

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. BIO-4

BIOLOGICAL RESOURCES

Impact: **Impact BIO-4: Marine Vessel Traffic Impacts on Commercial and Recreational Fishing**

Class: II

Finding(s): a) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

Marine vessel traffic to and from the EMT could cause loss or damage to commercial fishing gear in the project area. Support vessels servicing the EMT use Santa Barbara harbor as the shore-based facility. The support vessel traffic from the EMT and along the barge routes crosses nearshore fishing areas, and may cause damage to fishing gear. If support vessels hit fishing gear, the gear can be damaged or lost.

In 1983, the Joint Oil/Fisheries Liaison Office, a private nonprofit service, was formed along with the Joint Oil/Fisheries Committee of South Central California to provide an inter-industry communications link and dispute-resolution/mediation process between the offshore oil and gas industry and the commercial fishing industry in the Santa Barbara Channel and Santa Maria Basin.

To reduce the conflict between support vessel traffic and the commercial fishing industry, a Vessel Traffic Corridor Program was developed by the Joint Oil/Fisheries Committee of South Central California and went into effect in August, 1984. These (voluntary) vessel traffic corridors are approximately 1,500 ft (457 m) wide. In the Santa Barbara Channel, most barges travel in the internationally designated Traffic Separation Scheme (TSS). On voyages up the coast, tank vessels are generally between 12 to 15 nm (22 to 28 km) offshore.

Given that the support vessels servicing the EMT generally use the vessel traffic corridors and the fact that there is a Joint Oil/Fisheries Liaison Office that provides dispute resolution/mediation, this impact is considered potentially significant.

Mitigation Measure BIO-4a requires vessels to follow designated traffic corridors. Potential disputes, should they arise will be minimized and resolved through the use of the existing Joint Oil/Fisheries Committee conflict resolution process.

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

CEQA FINDING NO. BIO-5

BIOLOGICAL RESOURCES

Impact: **Impact BIO-5: Vessel Traffic Impacts on Marine Mammals and Turtles**

Class: II

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the California Department of Fish and Game 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

FACTS SUPPORTING THE FINDING(S)

Increases in vessel traffic may adversely affect marine mammals and turtles. It has been reported that noises from vessels elicit a startle reaction from gray whales and mask their reception capabilities. They also reported that avoidance and approach responses vary according to whale activity. Migrating gray whales have been observed to avoid the approach of vessels to within 656 to 984 ft (200 to 300 m). Noise effects on gray whales from vessels can be expected to be limited to within 656 to 1,804 ft (200 to 550 m) of approaching vessels, to be sublethal, and temporary. However, collisions between vessels and gray whales occur regularly. Twelve collisions, resulting in six deaths of gray whales, occurred off southern California between 1975 and 1980. Young gray whales, especially, are more likely to be hit by moving vessels.

A gray whale calf was severely injured offshore Morro Bay, California, during installation of a trans-Pacific cable. The injury consisted of a severely cut tail stock, and flukes completely severed off the animal. The extent of the injury (severing of the caudal peduncle) was consistent with a propeller strike. Although the carcass of the calf was never recovered, it is unlikely that the injured calf traveled far from the location where it was observed.

The frequency and length of time such vessels remain offshore would increase substantially as a result of the proposed Project. Since collisions between vessels and

gray whales, a federally protected marine mammal species, can result in severe injury or death, collisions are considered to be a potentially significant impact.

Avoidance of marine mammals and turtles can be facilitated through training and education of vessel operators as to recognize, understand, and minimize conflict with marine species. Mitigation Measure BIO-5a establishes a marine mammal observer requirement and proposed speed controls that would substantially reduce the potential for adverse impacts to marine mammals. Therefore, potential impacts, after the implementation of Mitigation Measure BIO-5a, would be considered Class II.

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

CEQA FINDING NO. BIO-7

BIOLOGICAL RESOURCES

Impact: **Impact BIO-7: Oil Spill Impacts to Onshore Biological Resources**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - b) Such changes or alterations are within the responsibility and jurisdiction of the California Department of Fish and Game 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
 - c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

An accidental oil spill and subsequent cleanup efforts would potentially result in the loss or injury of threatened, endangered, or candidate species, the loss or degradation of functional habitat value of sensitive biological habitat, or cause a substantial loss of a population or habitat of native fish, wildlife, or vegetation.

The loss or injury of Federal- or State-listed wildlife species and the loss or degradation of upland, wetland, aquatic habitats, or sensitive biological habitat, including salt, freshwater, or brackish marsh; river mouth; coastal lagoons, estuaries, breeding habitat

designated as critical for the western snowy plover, or the injury to plants and terrestrial and aquatic wildlife through direct toxicity, smothering, and entrapment as well as through resultant cleanup efforts, would result in a potentially significant adverse impact that remains significant after mitigation (Class I).

Because the potential for spills already exists within the Project area, the potential of a spill which would affect onshore biological resources is related to the incremental increase in the oil facility activities, i.e., an increase in the number of barge loadings, associated with the proposed Project. Small leaks or spills that would be contained and remediated quickly would potentially have minor or negligible impacts on onshore biological resources. In contrast, large spills, or pipeline or tank ruptures that have the potential to spread onto larger surface areas would have the potential to substantially increase the potential for long-term impacts on biological resources. The proposed Project extends the lifetime for an incidence of leaks or spills to occur. Therefore, the impacts associated with the proposed Project are considered potentially significant. The chances of a spill occurring are discussed in Hazards and Hazardous Materials.

The pipeline from the EMT storage tanks to the offshore loading facility between the EMT and the foredunes is not buried and is located within a narrow, shallow channel. A small spill would likely spread out in the channel and be contained within the pipeline channel. However, once the channel reaches capacity, spills would likely flow downhill into the large wetland swale that is on average about 500 feet east of the pipeline. Due to the area's topography, most spills from this portion of the pipeline with sufficient volume to have overland flow would affect this dune swale habitat. Spills from the pipeline that would occur closer to the tanks would also likely affect the small wetland swale within the fence around the EMT. In addition, Devereux Slough is generally downslope of the storage tanks, and a worst-case scenario event, i.e., both tanks failing coupled with failure of the containment berms, would potentially affect wetland and aquatic resources in Devereux Slough. Emphasis is placed on wetland and aquatic habitats because of their sensitivity, proximity to the pipeline and storage tanks, and the potential for spilled oil to flow in a downslope direction and to collect in low spots. Cleanup and repair operations following a spill would result in impacts on habitat in the vicinity of the EMT and the onshore pipeline. The extent of disturbance would be determined by the amount and extent of the spill.

The effects of spilled oil on biological resources would depend on such factors as the physical and chemical properties of the oil, specific environmental conditions at the time of the spill, and the species present. Certain types of communities would be more

severely affected by an oil spill than others. Salt or fresh water marshes would be most sensitive because the biological activity is concentrated near the soil or water surface where oil would be stranded. Oil would also be potentially widely dispersed by stream or tidal flow.

An oil spill would impact vegetation both directly and indirectly. Direct effects include smothering of plants, reducing the availability of water, nutrients, and oxygen to the plant root system; this would potentially result in reduced growth or death. Vegetation recovery would potentially be slow in areas of oiled soils because of lingering toxicity or altered soil characteristics. Impacts of cleanup would potentially be more substantial than the effect of the spilled oil. Clearing or grading would potentially be required to provide access to ruptured pipelines and oiled vegetation, and soils would likely need to be removed and disposed of offsite.

Direct impacts on wildlife from oil spills include physical contact with the oil, ingestion of oil, and loss of food and critical nesting and foraging habitats. Aquatic reptiles, amphibians and birds would be the most vulnerable to oil spills. Organisms can be affected physically through smothering, interference with movements, coating of external surfaces with black coloration (leading to increased solar heat gain), and fouling of insulating body coverings (birds and mammals). Toxicity can occur via absorption through the body surface (skin, gills, etc.) or ingestion. Biological oxidation (through metabolism) can produce products more toxic than the original compounds. Acute toxicity would be lowered for fish, especially after some weathering. Sub-lethal effects include reduced reproductive success, narcosis, interference with movement, and disruption of chemosensory functions, e.g., similar to human smell or taste.

Cleanup activities that result in the removal of vegetation or excavation would require restoration of native habitat. The level of impact would depend on the size of the spill, the amount of habitat affected, and the number of individuals and types of species affected. Impacts on resident biota could be short- to long-term depending on the amount of oil spilled, environmental conditions at the time, containment and cleanup measures taken, and length of time for habitat recovery.

Spills from activities near or on the beach, or disturbances resulting from cleanup efforts within the sandy beach and foredune habitats have the potential to affect western snowy plover and California least tern, especially if a spill were to occur during the breeding seasons for these species.

Western snowy plovers occupy Devereux Slough and the adjacent beaches to the west as wintering and nesting sites. Proposed critical habitat for the western snowy plover would include the Devereux Beach. Effects of an oil spill in this area during the breeding season would potentially increase mortality of nesting plovers, chicks and fledglings depending on the time of the spill. A spill would also contaminate or increase mortality of invertebrates that are forage material for the plover, therefore resulting in indirect impacts on individual plovers and/or breeding success.

Western snowy plover populations have been decreasing throughout California. The population at Coal Oil Point Reserve has increased in recent years, however, due to successful management efforts by the Reserve's staff and volunteer docents. An accidental oil spill and cleanup activities would potentially interfere with the restoration efforts to improve the status of the species and degrade proposed critical habitat.

Direct impacts on sensitive wildlife species from oil spills include physical contact with the oil, ingestion of oil, and loss of food and critical nesting and foraging habitats. Cleanup activities that would potentially result in the disturbance of snowy plovers or California least terns, especially during the breeding season, would likely impact breeding or fledgling success. An oil spill and related cleanup activities would impact the foraging activity and habitat for the California brown pelican. Other sensitive species would also be potentially affected if a spill were to impact the beach (globose dune beetle, sandy tiger beetle) or enter Devereux Slough (Belding's savannah sparrow). Significant impacts would also result in the unlikely event that a large spill occurred during high winds or tides that would convey the spilled material towards the shoreline and spread either to the west and enter Bell Canyon (tidewater goby), or to the east and enter Goleta Slough (tidewater goby, foraging raptors).

For any of the sensitive wildlife species, the level of impact would depend on the size and location of the spill, the amount of habitat affected, and the number of individuals and species affected. Impacts on sensitive wildlife species could be short to long term depending on the amount of oil spilled, environmental conditions at the time, containment and cleanup measures taken, and length of time for habitat and sensitive species recovery.

If an oil spill from the EMT or shoreline pipeline and subsequent cleanup efforts would result in death or injury to snowy plovers, brown pelican or California least tern, the degradation of snowy plover critical habitat, or the interruption in these species'

breeding activities, it would be considered a significant adverse impact (Class I) that remains significant after mitigation.

Mitigation Measure BIO-7a would provide greater specificity to the OSCP by identifying which species would require avoidance; how to remove spilled material from particularly sensitive wildlife habitats and affected animals; how to develop and implement habitat restoration plans needed to effectively restore native plant and animal communities to pre-spill conditions; and provide monitoring effectiveness criteria. These would help minimize potential oil spill-induced impacts on biological resources, including sensitive species, sensitive species habitat, the nearby dune swale pond, surrounding wetland area, and Devereux Slough.

An oil spill that would potentially result in impacts on Federal- or State-listed wildlife species, such as the western snowy plover and California least tern, cannot be reduced below significance criteria. Although Mitigation Measure BIO-7a is intended to reduce impacts on plant communities and common wildlife species, and could reduce impacts on Federal- and State-listed species and other sensitive wildlife species and their habitats, it cannot entirely eliminate the risk of spill impacts to these and other biological resources. Revegetating with native species in areas where vegetation is removed or otherwise impacted by a spill or cleanup activities would potentially reduce significant impacts on native vegetation and wildlife habitats to below significance criteria (Class II). However, large spills that result in impacts to designated (or proposed) critical habitat, wetland and aquatic habitats, and biota, including Federal- and State-listed species would remain significant (Class I) even after mitigation.

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. CR-1

CULTURAL RESOURCES

Impact:	Impact CR-1: Adverse Impacts from Oil Spills
Class:	II
Finding(s):	<p>a) 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 Final EIR.</p> <p>b) Such changes or alterations are within the responsibility and jurisdiction of the California Department of Fish and Game and not</p>

the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

FACTS SUPPORTING THE FINDING(S)

An accidental oil spill and subsequent clean-up efforts would potentially result in disturbance to and unauthorized archaeological artifact collection from CA-SBA-1327 and/or CA-SBA-2341 deposits.

No new grading, excavations, or construction would occur in association with the proposed Project. However, lease renewal would extend the use of the marine loading line. This would in turn extend the associated risk of potential failure of the line, oil storage tanks, and/or other infrastructure. Because the potential for spills already exists within the Project area, the size of a potential spill event and its consequence would not necessarily be increased. However, the facility's extended span of activity associated with the lease renewal would increase the probability for a spill to occur that could possibly impact intact cultural resources.

Small leaks or spills, which are contained and remediated quickly, would have minor or negligible impacts to adjacent archaeological resources. In contrast, large spills, or pipeline or tank ruptures that could spread over larger areas, would require more expansive containment and ground disturbances. If intact cultural remains were encountered during clean-up ground disturbances, the potential for destruction of these remains would be a significant impact (Class II) that would be reduced below its significance criteria with implementation of Mitigation Measure CR-1a.

Mitigation Measure CR-1a will provide greater specificity to the OSCP by familiarizing and training spill response personnel to be more sensitive to and identify cultural resources. This will reduce the potential for oil spill-induced impacts on potentially significant cultural resources CA-SBA-1327 and CA-SBA-2341. Qualified archaeological and Native American personnel will be capable of assessing impacts on recorded archaeological sites if ground disturbances were required.

Mitigation Measure CR-1a will reduce potential oil spill-induced impacts on cultural resources by discouraging unauthorized artifact collection. The measure will provide greater specificity to the OSCP that will minimize the potential for increased illicit artifact collection during potential oil spill clean-up activities by educating workers to the importance of preserving the location and integrity of individual archaeological artifacts and by providing monitors on site.

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

CEQA FINDING NO. LU-1

LAND USE AND RECREATION

Impact: **Impact LU-1: Accidental Oil Releases Could Affect Recreational Activities**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

A number of sensitive habitats and high quality recreational resources are located within the area that would be potentially impacted by the spread of oil from an accidental release. Shoreline and water-related uses would be disrupted by oil on the shoreline and in the water and would result in significant impacts.

Impacts from accidental oil releases could degrade the environment and preclude the use of beach areas and associated recreational activities and educational opportunities at the Coal Oil Point Reserve. The degree of impact, however, is influenced by many factors including, but not limited to, spill location, spill size, type of material spilled, prevailing wind and current conditions, the vulnerability and sensitivity of the resource, and response capability.

Spill risk is addressed in the Hazards and Hazardous Materials Section of the EIR. The greatest risk of spills occurs at the EMT, where small spills could occur during normal operations, as well as from leaks at pipe fittings and valves. The capability to immediately respond and deploy appropriate containment booming would also influence the extent of the affected area. Response capability is analyzed in the Hazards and Hazardous Materials section of the EIR.

As discussed above, the Project area provides high quality recreational opportunities for the local populace and visitors. Shoreline and water-related uses would be disrupted by oil on the beach and in the water. While not readily quantifiable, it is clear that a coastal

spill could significantly affect coastal recreation and tourism, resulting in lost commercial recreation and tourism revenues. EIR Sections 4.1, Geological Resources; 4.3, Air Quality; 4.4, Hydrology, Water Resources, and Water Quality; 4.5, Biological Resources; 4.6, Cultural, Historical, and Paleontological Resources; and 4.11, Aesthetics/Visual Resources all discuss in detail the effects of a spill on the local environmental resources.

Because it is impossible to predict with any certainty the potential consequences of spills, impacts are considered to be significant (Class I), because severe spills could have residual impacts that could affect the beach and/or recreational uses.

Implementation of those mitigation measures identified in EIR Sections 4.1, Geological Resources; 4.2, Hazards and Hazardous Materials; 4.4, Hydrology, Water Resources, and Water Quality; and 4.5, Biological Resources, will improve contingency planning and spill response.

However, even with implementation of mitigation measures for oil spill impacts, land- and water-related recreational uses may be impacted from large spills and impacts would remain significant (Class I).

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. LU-2

LAND USE AND RECREATION

Impact: **Impact LU-2: Oil Spills from the Barge Jovalan in Transit**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

Spills that reach shore along sensitive land use areas or heavily used areas, including recreational areas, would limit or preclude such uses and result in significant adverse impacts. Depending on spill size and location, a spill could affect other shipping and

boating in the vicinity of the spill and within its area of spread. Further, depending on wind and current conditions and the size of the spill, shoreline and land- and water-recreation uses could be affected. Oil spill modeling was conducted and is presented in Section 4.2, Hazards and Hazardous Materials and Appendix C. The modeling was based on various scenarios of spill size, wind, tide, and current conditions and shows the potential extent of oil spread. Given the right conditions, most shoreline areas are vulnerable.

Spills that reach the shore would limit or preclude current uses of the area and would result in significant adverse impacts (Class I). EIR Sections 4.1, Geological Resources; 4.3, Air Quality; 4.4, Hydrology, Water Resources, and Water Quality; 4.5, Biological Resources; 4.6, Cultural, Historical, and Paleontological Resources; and 4.11, Aesthetics/Visual Resources all discuss in detail the effects of a spill on coastal environmental resources.

Because it is impossible to predict with any certainty the potential consequences of spills, impacts are considered to be significant since severe spills could have residual impacts that could affect the beach and/or recreational uses (Class I).

Implementation of those mitigation measures identified in EIR Sections 4.1, Geological Resources; 4.2, Hazards and Hazardous Materials; 4.4, Hydrology, Water Resources, and Water Quality; and 4.5, Biological Resources, will improve contingency planning and spill response.

However, even with implementation of mitigation measures for oil spill impacts, land- and water-related recreational uses along the barge routes may be impacted from large spills and impacts would remain significant (Class I).

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. VR-1

AESTHETICS VISUAL RESOURCES

Impact: **Impact VR-1: Visual Effects from the Increased Presence of the Barge Jovalan**

Class: I

Finding(s): c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

The barge Jovalan currently makes approximately two trips to the EMT per month for loading. Under the proposed Project, the barge Jovalan could be present at the EMT approximately seven times per month. The increased visual presence of the barge Jovalan would be considered a significant impact.

The proposed Project would continue ongoing operations at the EMT. The EMT was constructed in 1929 and the barge Jovalan has been transporting crude oil from the terminal since the 1980s. Both the EMT and the barge Jovalan have been part of the visual character of the project area for many years. While operation of the EMT would seem inconsistent with public policies, goals, plans, laws, regulations or other directives concerning visual resources, it operates as a legal, non-conforming use (see Section 4.7, Land Use, Planning, and Recreation).

Implementation of the proposed Project would not cause a noticeable visible change in the onshore operations of the EMT. No new facilities or modifications to facilities are proposed. Night lighting does not affect neighboring land uses and would not change.

Implementation of the lease renewal could allow Venoco to continue barging crude oil from the EMT up to the permitted limits. Over time, this could mean that the number of trips that the barge Jovalan makes to the EMT could increase from approximately two per month to a little more than seven per month (no more than 88 times per year). The barge is currently visible from the beach and bluffs approximately every 15 days. Under the proposed Project, the barge would be visible approximately every four days.

While the EMT operates as a legal, non-conforming use, it is not located in an industrial port area frequented by barges and tankers. The barge Jovalan moored 2,600 ft (792 m) offshore is a visually dominant industrial feature in an area recognized for its aesthetic and recreational value. Under the proposed Project, the more than three-fold increase in the presence of the barge in a highly sensitive coastal viewshed is considered a significant impact.

No mitigation measures have been identified that would reduce the level of this impact.

Summary. This impact, therefore, remains potentially significant (Class I).

CEQA FINDING NO. VR-2

AESTHETICS VISUAL RESOURCES

Impact: **Impact VR-2: Visual Effects from Accidental Oil Spills at or Near the EMT**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

This analysis considers the occurrence of accidental spills at or near the EMT. In general, the potential impacts resulting from such an occurrence would tend to degrade the visual quality of the water and shoreline. The degree of impact is influenced by factors including, but 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.

Spill risk and response capability are addressed in Section 4.2, Hazards and Hazardous Materials. The greatest risk of spills occurs at the EMT, where small spills could occur during normal operations, as well as from leaks at pipe fittings and valves. Generally, small leaks and spills (up to 10 bbls [1.6 m³]) could be contained with contingency measures employed at the EMT. Visually, oiling conditions could range from light oiling, which appears as a surface sheen, to heavy oiling, including floating lumps of tar. Heavy crude oil may disappear over a period 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 would change the color and, in heavier oiling, textural appearance of the water surface. Oil on shoreline surfaces or nearshore marsh areas would cover these surfaces with a brownish-blackish, gooey substance.

Such oiling would result in a negative impression of the highly sensitive viewshed. The public would react negatively to its visual effects. Without rapid containment by immediate booming and cleanup, the visual effects of even a small spill of up to 10 bbls (1.6 m³) can leave residual impacts, and they can be significant (Class I).

The impact of a spill could last for a long period of time, depending on the level of physical impact and cleanup effectiveness. Even in events where light oiling would disperse rapidly, significant impacts are expected. In events where medium to heavy oiling occurs over a widespread area, and where first response cleanup efforts are not effective, leaving residual effects of oiling, significant impacts (Class I) would be expected. The physical effort involved in cleanup, including the equipment used, would contribute to a negative impression of the environment and the visual impact. It is impossible to predict with any certainty the potential consequences of spills; therefore, visual impacts can be considered to be significant (Class I).

Implementation of those measures identified for Hazards and Hazardous Materials; Hydrology, Water Resources, and Water Quality; and Biological Resources, for contingency planning and spill response would be required. The measures presented in these sections provide improved oil spill capabilities, oil spill containment measures, and protection of resources. However, even with implementation of those measures, the potential impacts to the visual environment would remain significant.

Summary. This impact remains potentially significant following application of all feasible mitigation.

CEQA FINDING NO. VR-3

AESTHETICS/VISUAL RESOURCES

Impact: **Impact VR-3: Visual Effects from Accidental Oil Spills from the Barge Jovalan in Transit**

Class: I

- Finding(s):
- a) 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 Final EIR.
 - c) 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 Final EIR.

FACTS SUPPORTING THE FINDING(S)

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 impacts, depending on the various characteristics of a spill and its residual effects.

A moderate to large spill from the barge Jovalan as it transits offshore has the potential to spread over a large area, with floating oil and oil contacting sensitive shoreline resources, given the right wind and current conditions and depending upon the size and origin of the spill.

Spills along the outer coast could result in significant impacts (Class I), where spills would be visible in the nearshore zone or at the shoreline. Spills would change the color and texture of water and shoreline conditions. The level of public sensitivity and expectations of views along the outer coast are more varied than those from the Ellwood-Devereux Coast area. Along some 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 those 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 were occurring and residual effects remain following the conclusion of such efforts.

It is impossible to predict with any certainty the potential consequences of spills; therefore, visual impacts are considered potentially significant (Class I), depending on the location of the spill and its visibility to the public, either offshore or within the coastal environment.

Implementation of those measures identified for Hazards and Hazardous Materials; Hydrology, Water Resources, and Water Quality; and Biological Resources, for contingency planning and spill response would be required. The measures presented in these sections provide improved oil spill capabilities, oil spill containment measures, and protection of resources. However, even with implementation of those measures, the risk to the visual environment would be significant for oil spills (Class I).

Summary. This impact remains potentially significant following application of all feasible mitigation.

EXHIBIT E – VENOCO’S ELLWOOD MARINE OIL TERMINAL STATEMENT OF OVERRIDING CONSIDERATIONS

The California Environmental Quality Act (CEQA) requires a lead agency to balance the benefits of a project against the unavoidable environmental effects of such project in determining whether to approve the project. The Final Environmental Impact Report (EIR) identifies significant impacts of the Ellwood Marine Oil Terminal Project (Project or proposed Project) that cannot feasibly be mitigated to below a level of significance (Class I impacts). Therefore, the California State Lands Commission (CSLC), as the lead agency, must state in writing its specific reasons for approving the Project in a Statement of Overriding Considerations pursuant to sections 15043 and 15093 of the State CEQA Guidelines.

Based on the Final EIR, and other information provided by Venoco (Applicant) and gained through the public involvement process that is documented in the administrative record, this Statement of Overriding Considerations provides the specific reasons supporting the approval of this Project by the CSLC. State CEQA Guidelines section 15093(a) notes that, “If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered ‘acceptable’.”

The CSLC adopts this Statement of Overriding Considerations with respect to the impacts identified in the Final EIR that cannot be reduced, with mitigation stipulated in the EIR, to a less than significant level. This includes the following impacts:

- HM-2: A spill of oil could result in impacts to the surrounding areas by impacting environmental resources.
- WQ-1: Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine water quality.
- WQ-2: A rupture or leak from the marine loading line, oil storage tanks, or other EMT infrastructure could substantially degrade surface and groundwater quality.
- BIO-1: Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine biological resources.
- BIO-2: Accidental discharge of petroleum hydrocarbons into marine waters

would adversely affect commercial and recreational fishing.

- BIO-7: An accidental oil spill and subsequent cleanup efforts would potentially result in the loss or injury of threatened, endangered, or candidate species, the loss or degradation of functional habitat value of sensitive biological habitat, or cause a substantial loss of a population or habitat of native fish, wildlife, or vegetation.
- LU-1: A number of sensitive habitats and high quality recreational resources are located within the potential area that would be impacted by the spread of oil from an accidental release. Shoreline and water-related uses would be disrupted by oil on the shoreline and in the water.
- LU-2: Spills that reach shore along sensitive land use areas or heavily used areas, including recreational areas, would limit or preclude such uses.
- VR-1: The barge *Jovalan* currently makes approximately two trips to the EMT per month for loading. Under the proposed Project, the barge *Jovalan* could be present at the EMT approximately seven times per month.
- VR-2: Potentially long term visual impacts of an oil spill, depending on the level of physical impact and cleanup effectiveness.
- 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, depending on the various characteristics of a spill and its residual effects.

Specifically, the Final EIR finds that accidental spills from the EMT loading line or barge could cause significant adverse environmental effects. Impacts from a terminal loading line rupture or accidental spills were identified in the analyses for safety, biological resources, fisheries, water quality, land use/recreation and visual resources.

A comprehensive set of mitigation measures is presented in the Final EIR, and those measures have been adopted by the CSLC. Many of these measures will reduce the probability, severity or frequency of an accidental oil spill. These measures include developing spill response and notification procedures for protection of biological resources, waterway protection, fisheries protection, groundwater protection, and ensuring proper leak detection.

The safety features, inspection and maintenance, and emergency response practices proposed in the Final EIR would reduce, above and beyond existing levels, impacts related to accidental spills. The proposed features and procedures include enhanced monitoring and inspection; seismic monitoring and inspection; reduction in crude oil hydrogen sulfide levels; enhanced crude oil storage tank maintenance program; changes in loading line operation to accommodate vacuum conditions; flow metering; non-destructive testing of loading pipeline; EMT drain containment; additional soil spill response drill requirements; conversion to a double-hulled barge or construct a pipeline within 18 months of approval; operational limitations to reduce air pollutant emissions; vapor control devices on the crude oil storage tanks; pressure sensors to prevent lifting of the barge pressure relief valves and venting of air pollutants to the atmosphere; barge diesel particulate emission controls; designated marine vessel traffic corridors; vessel speed reduction; and, marine mammal observers.

The CSLC finds that all mitigation measures identified in the Final EIR have been imposed to avoid or lessen impacts to the maximum extent feasible and, furthermore, finds that the No Project Alternative is infeasible. Venoco's right to renew the lease is subject only to the Commission's right to impose reasonable terms and conditions on that renewal. Since March 1993, Venoco has been operating the terminal under the renewal provisions while CSLC staff has been evaluating what terms and conditions to impose. The purpose of the EIR was to determine what those terms and conditions should be.

The CSLC hereby finds that the EMT Lease Renewal Project will provide numerous benefits to the State of California and its residents as described below.

California is a major refining center for West Coast petroleum markets with combined crude oil distillation capacity totaling more than 1.9 million barrels per day, ranking the state third highest in the nation. In 2005, the total receipts to refineries of roughly 674 million barrels came from in-state oil production (39.4%), combined with oil from Alaska (20.1%), and foreign sources (40.4%).

As described in the 2005 Integrated Energy Policy Report prepared by the CEC, within the last 10 years consumer demand outpaced California petroleum refining capacity, which grew by an average of 1.5 percent per year. The CEC 2007 Integrated Energy Policy Report, adopted December 5, 2007, projects California vehicle miles travelled over the next 20 years will grow by an average of two and a half percent per year. In

order to meet this increasing demand, California refiners will rely on more imported petroleum products.

Specific benefits provided by the Project including the following.

- The Project will continue crude oil transportation of South Ellwood Field production to refineries in the Los Angeles and San Francisco Bay area refineries to maintain the existing supply of domestically produced oil and decrease the need to import foreign oil to replace such supply in absence of the proposed Project.
- The Project would maintain the continued, uninterrupted production of petroleum from the South Ellwood Field that provides approximately \$8,000,000 annually in royalty revenue to the State's General Fund.
- The Project will be subject to more stringent operational and environmental controls, which will provide additional benefits to public and environmental safety, than are presently required by the provisions of its previous lease.

The Final EIR thoroughly evaluates the No Project Alternative which includes two oil transportation options that would reasonably be expected to occur if the lease were denied; crude oil transportation via trucking, or transportation via a new 10-mile pipeline to an existing common carrier pipeline. Of the two transportation options evaluated in the Final EIR, the pipeline transportation option is the more environmentally preferred option. However, the Commission does not have the legal authority to require construction of the pipeline in lieu of renewing the lease. Based on the above discussion, the CSLC finds that the benefits of the EMT Lease Renewal Project outweigh the significant unavoidable impacts that could occur after mitigation is applied and considers such impacts acceptable.