EXECUTIVE SUMMARY

PROJECT OBJECTIVES, PURPOSE, AND NEED

Venoco, Inc. (Venoco) is an oil and gas company that has filed an application with the California State Lands Commission (CSLC) to expand oil development on PRC 3120 and 3242 from Platform Holly off the coast of Santa Barbara County and install a new pipeline from the Ellwood Onshore Facility (EOF) connecting to the existing All American Pipeline at Las Flores Canyon (LFC). Figure ES-1 provides an overview of Venoco's Ellwood operation oil and gas facilities and lease locations as they presently exist and provides an aerial view of the facilities and some of the proposed changes.

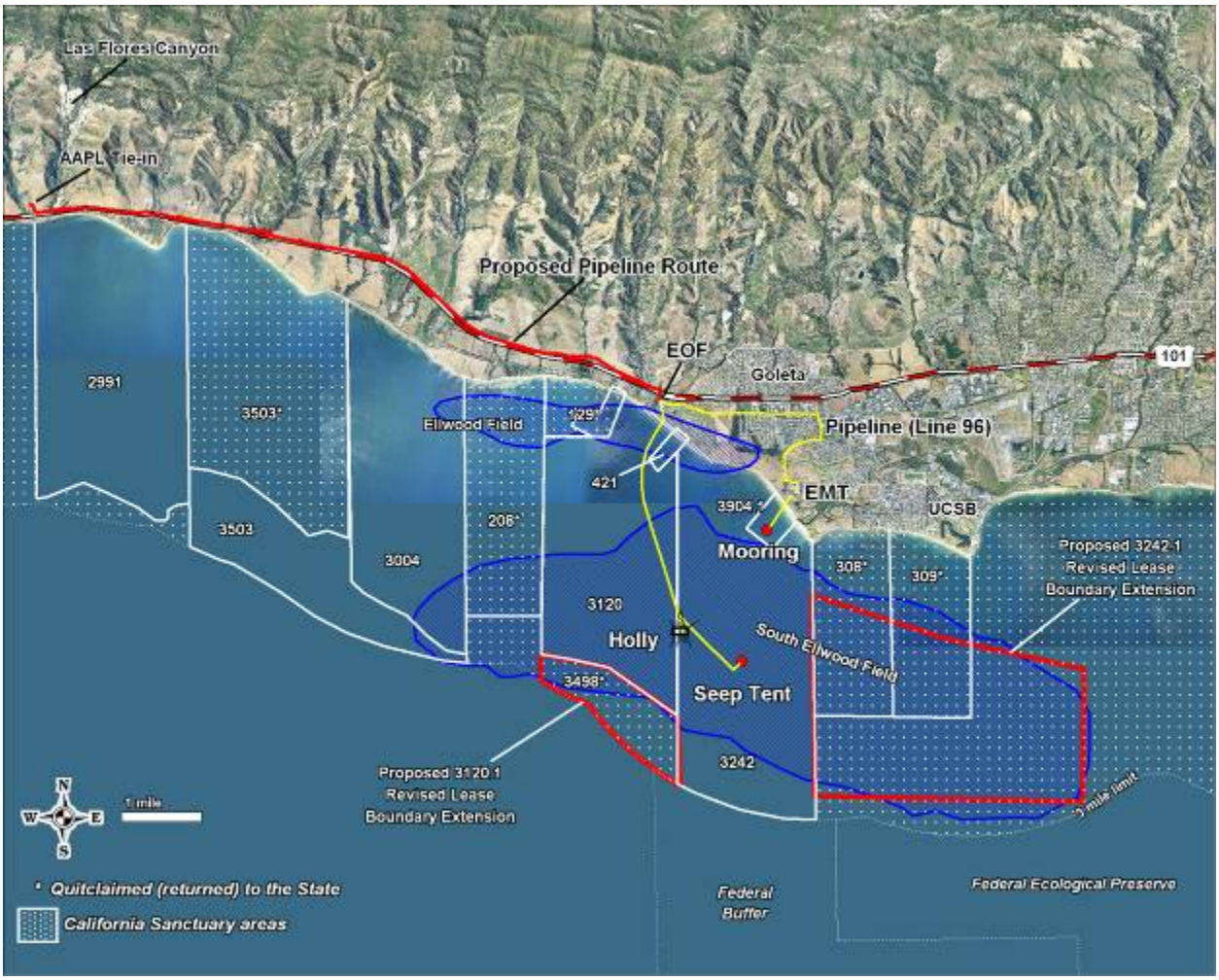
For the proposed Venoco Ellwood Oil Development and Pipeline (Full Field Development) Project (the Project), the Applicant presents three objectives, listed below, in order to explain the necessity of the Project and guide the development and evaluation of feasible Project alternatives. The State CEQA Guidelines section 15126.6(a) requires that a range of reasonable alternatives to the proposed Project must be described, analyzed and feasibly attain most of the basic objectives of the Project. Therefore, in order to explain the need for the proposed Project, and to guide in development and evaluation of alternatives, the following basic objectives of the proposed Project have been identified by the Applicant:

- Extend the oil and gas lease boundaries of PRC 3120 and 3242 to encompass more of the South Ellwood field, and drill up to 40 new wells from Platform Holly;
- Provide for improvements and upgrades at the existing Ellwood Onshore Facility (EOF); and,
- Eliminate all operations at the Ellwood Marine Terminal (EMT), including the associated barge operations, by the installation of a new pipeline system.

DESCRIPTION OF PROPOSED PROJECT

Existing Venoco leases, properties, and associated facilities for the Ellwood operation include the following: State leases PRC 3120, PRC 3242, PRC 3904, and PRC 421, fee title land at the EOF, Platform Holly on PRC 3242.1, EMT offshore lease (PRC 3904.1) and onshore lease (UCSB), Interconnecting Pipelines, Ellwood Pier, and Access Road Easement to PRC 421 (See Figure ES-1). In addition to these Ellwood

Figure ES-1
Proposed Project Location



facilities, there is an existing 24-inch All American common carrier pipeline located near the entrance to the LFC located approximately eight miles west of the EOF that is an integral part of the proposed Project.

The South Ellwood Field currently produces about 3,100 barrels (bbls) per day (BPD) (477 m^3/day) of oil and 5.2 MMscfd of gas. Venoco is permitted by the Santa Barbara County Air Pollution Control District (Santa Barbara County APCD) to produce from the EOF up to 13,000 BPD (2,067 m^3/day) of crude oil and 20 MMscfd (566 Mm^3 per day) gas. The Marine Terminal loading limit permitted is for 5.5 million bbls per year (or about 100 barge trips per year).

Venoco recently requested a lease extension from the CSLC to continue operation of the EMT through February 28, 2013. Potential impacts of the existing Venoco operations are analyzed in the context of the environmental conditions existing at the

time the NOP was released for the proposed Project on June 28, 2006. The EMT currently handles all of the oil production from the South Ellwood Field and would be replaced by an onshore pipeline under the proposed Project. Oil is transported from Platform Holly in State waters through a subsea pipeline to the EOF for processing. Once processed, Venoco sends the oil to the EMT through a common carrier pipeline (referred to as Line 96). At the EMT, the oil is first stored in two onshore tanks and is then pumped into a pipeline for loading into the dedicated barge, Jovalan. A graphical representation of the relationship between Platform Holly, the EOF, and the EMT is provided in Figure ES-1. Venoco typically loads a barge two to three times a month with 55,000 bbls (8,744 m^3) of crude oil per load. The oil is then transported to refineries in the Port of Los Angeles, Port of Long Beach, or the San Francisco Bay area.

A total of up to 40 wells would be drilled; however, the maximum number of well slots (30) would remain the same. Areas where the Applicant would attempt well bottom-hole locations include the following:

- Three infill wells on the existing PRC3120 and 3242 leases;
- Seven wells on the proposed lease extensions;
- Five wells in the “North Flank” fault block (located to the north of Platform Holly in existing lease PRC 3120);
- Two wells in the “Eagle Canyon” fault block (located to the north-west of Platform Holly in existing lease PRC 3120);
- Three wells to the Lower Sespe on PRC3120 (located to the west of Platform Holly in existing lease PRC 3120); and
- Twenty mechanical replacement wells to replace existing wells.

The North Flank, Eagle Canyon and Sespe formations were identified over the last eight years using advanced 3D analysis of the area under a Department of Energy (DOE) grant (World Oil 2003). These studies indicate potentially substantial reserves located to the north and west of Platform Holly. The proposed wells would be drilled using the existing electric drill rig located on the platform.

Drilling activity would commence concurrently with the facility upgrades at Ellwood. This would most likely occur between 2008 and 2010. The first wells to be drilled would

be wells in the North flank and infill wells. The lease extension and Eagle Canyon wells would most likely be drilled starting in 2012. The mechanical replacement wells would commence in 2015 and would likely include one or two replacement wells per year until 2030.

Platform Holly was designed to withstand a 500-year seismic event. Recent analysis conducted by Venoco and Mobil found Platform Holly to still meet these required standards. If the CSLC requires the platform to be structurally upgraded for the lease boundary extension, Venoco would work with the CSLC to satisfy this requirement. The proposed structural up-rating calculations would take into account the new loads associated with drilling of wells in the lease extension.

At this time, it is not known what structural upgrades, if any, would be required to support the lease boundary extension. However, potential worst-case upgrade activities will be evaluated in the EIR. In conjunction with the preparation of this Draft EIR, a complete assessment of the platform structure, as required by Section 17 of API RP2A (Planning, Designing, and Constructing Fixed Offshore Platforms, 21st Ed.), to meet the 1,000 year seismic event criteria is being performed with the CSLC oversight. After CSLC acceptance of findings, retro-fit upgrade of the platform structure, if required, would be designed and submitted to CSLC for approval.

Based upon anticipated drilling schedule, it is expected that the Platform Holly oil output rate would peak at roughly 12,600 BOPD (2,004 m^3/day) around five years after start of the Project, and then decline slowly after that. The rate of water disposal at the platform is expected to increase up to a maximum of about 11,300 BWPD (1,797 m^3/day) towards the end of the life of the Project. Total emulsion to shore would continue to be at or below 20,000 BPD (2,068 m^3/day). Platform gas production would peak at about 13 MMSCFD (0.37 million m^3/day) at about five years and then start to decline.

Production rates are governed by depletion of the reservoir. Ultimate life of the reservoir is subject to uncertainty, due in part to unknown variables, which include size, ultimate yield of the reservoir, oil and gas prices, future drilling costs, lifting costs, future abandonment costs, and other market conditions. The Applicant estimates that production from Platform Holly can continue up to the year 2040.

The proposed Project would provide upgrades to six existing systems at the EOF: (1) Sulfur Separation, (2) CO_2 removal, (3) LTS (Low Temperature Separation), (4) Gas Compression, (5) Controls and Monitoring, and (6) LPG (Liquefied Petroleum Gas) and NGL (Natural Gas Liquids) storage. In addition, the proposed Project would install a

new power generation system incorporating waste heat recovery and retro-fit installation of low NOx burners on the existing burner. Modifications to the EOF may be performed concurrently with installation of the new onshore oil pipeline and work would be confined to the existing facility with no expansion beyond the current site footprint.

As part of the proposed Project, the oil produced from Platform Holly, once processed at the EOF, would be transported for sale to refineries through a pipeline. The installation and use of a new onshore pipeline to connect to the All American Pipeline Limited Partnership's (AAPLP) Coastal Pipeline (All American Coastal Pipeline, AACP) at Las Flores Canyon would allow for the abandonment of the existing EMT. This would also allow for the discontinuation of barging. Figure ES-1 shows the proposed routing of the new pipeline.

The proposed Ellwood Las Flores Pipeline System would include approximately 8.5 miles of six-inch diameter pipe manufactured in accordance with API specification 5L. The pipeline would be coated with fusion bond epoxy and covered with polyethylene outer wrap tape, and shrink sleeves, or equivalent, would be applied to all pipe field joints. The pipeline would be cathodically protected and would have motor operated/remotely monitored block valves and associated check valves.

The pipeline would be routed within existing road rights-of-way and adjacent to existing water, gas, and electric utility services for an approximate 90 percent of its length. There is an existing Gas Company pipeline corridor along much of the proposed pipeline route, and where appropriate, it is proposed to locate the new pipeline as close to The Gas Company pipelines as allowed, by existing right-of-way agreements and Federal and State regulations. The pipeline would be installed with a minimum of a three foot cover (1 m), but would have a deeper installation at creek crossings and other areas susceptible to scour and pipeline exposure.

ALTERNATIVES TO PROPOSED PROJECT

No Project Alternative

Under the No Project Alternative, production from Platform Holly and the EOF would continue under current operations; the lease boundary extensions beyond the existing oil and gas lease boundaries would not occur; an onshore pipeline would not be constructed; the modifications to the EOF and to Platform Holly would not be performed; and, decommissioning of the EMT would not occur in the near term. As the EMT offshore lease with CSLC expires in 2013 and the onshore lease with UCSB expires in 2016, it is assumed that the EMT would be decommissioned as described in Section 2.0

as a result of these lease terms. As a consequence, the EOF and Platform Holly would not have a mode to transport crude oil to markets beyond 2013 (offshore) and ultimately 2016 (onshore).

If oil and gas production would continue beyond the terms of the EMT leases without any approved time extensions, an alternative means of crude oil transportation would either need to be in place prior to decommissioning of the EMT or production at Platform Holly would be stranded, at least temporarily. An analysis of alternative transportation options to the EMT is provided in the EMT Lease Renewal EIR (CSLC, 2006), which considered truck transportation or a pipeline similar to the onshore pipeline route as the proposed Project described in Section 2.0, Project Description. Note that the City of Goleta General Plan Policy LU 10.5c designates the City's support for oil transportation by pipeline.

No EOF Modifications

If the proposed upgrades to the EOF do not meet the requirements for a Limited Exception Determination (LED) with the city of Goleta, then no modifications would be allowed at the EOF without a re-zoning of the property. LEDs are made by the Planning Commission and are based on the procedures and findings contained in Section 35-161.7 of the city's Coastal Zone Ordinance. Section 35-161.7 states that an exception to the prohibition of modifications to industrial facilities in non-conformance to the zoning requirements can be made if the Project demonstrates and verifies "*the improvement's public health and safety benefit or environmental benefit*". Findings specific to a limited exception determination would include the following:

1. The improvement has a demonstrable public health and safety, or environmental benefit (e.g., would reduce the risk of a hazardous material spill or reduce air emissions);

2. The improvement does not result in any new un-mitigated significant environmental impacts;

3. The improvement does not result in an increase in the overall intensity of use beyond the existing permitted use (e.g., output/throughput per day) or, for facilities where no permits exist, would not increase the overall intensity of use beyond the current operating limits;

4. The improvement does not extend or expand the existing developed industrial site boundary within a parcel;

5. The improvement does not result in an expansion or extension of life of the nonconforming use due to increased capacity of the structure dedicated to the nonconforming use, or from increased access to a resource, or from an opportunity to increase recovery of an existing resource. Any extension in the life of the nonconforming use affected by the improvement results solely from improved operational efficiency and is incidental to the primary purpose of improving public health and safety or providing an environmental benefit;

6. The improvement does not allow for processing of "new production" as defined Section 35-154; and

7. If prior LED have been made for the same nonconforming use under this section, the successive LED cumulatively provide a public health and safety or environmental benefit.

The installation of a PSA system, backup compressor and associated modifications to the gas liquids systems and the LPG/NGL bullets, and sulfur separation repairs and controls/monitoring upgrades would not take place under this alternative. In addition, power generation would not be installed. This alternative assumes that these modifications would not be performed.

Offshore improvements and drilling would continue as described in Section 2.0, Project Description. EOF modifications to allow for the tie-in of the new power cable and modifications to the 2” pipeline would also be included.

Processing on Platform Holly

Processing of gas and crude oil is currently done on both Platform Holly and at the EOF. Platform Holly crude oil processing is limited to primary water and crude oil emulsion separation with the resulting water being injected into water injection wells. The resulting crude oil emulsion is pumped to the EOF. Platform Holly gas processing is currently limited to gas/emulsion separation, compression and dehydration using a glycol system with some gas being injected into injection wells or used for gas lift and the remaining gas sent to the EOF for processing and sale. The two compression trains include the Ingersol Rand compressors, which compress all of the produced gas to about 220 psig (1.5 Mpa) for dehydration and treating at the EOF, and the White-Superior compressors, which compress some of the gas to 1,300 psig (9.0 Mpa) for gas lift and re-injection.

This alternative would involve moving the gas and crude oil processing from the EOF to Platform Holly. It would entail the following components:

- Installation of crude dehydration and stabilization equipment on Platform Holly;
- Installation of H_2S (hydrogen sulfide) removal amine system on Platform Holly;
- Installation of a gas liquids removal system (LTS) on Platform Holly;
- Installation of utilities, such as process heating, water treatment, and propane refrigeration systems on Platform Holly;
- Installation of power generation equipment on Platform Holly; and
- Removal of associated equipment at the EOF.

Some processes would remain at the EOF, including crude oil storage and pumping, the electrical substation and sales gas compression. The proposed Project also includes power generation at the EOF which, under this alternative, could either be not installed, or installed at the EOF, or installed at Platform Holly.

In February and December, 2001, Venoco submitted an application to the CSLC and the county of Santa Barbara to fully develop the South Ellwood Field by expanding the lease boundary, transporting crude oil/emulsion to Ventura through an offshore pipeline and conducting all gas processing at Platform Holly. The EOF would have been decommissioned except for the electrical substation, the control room and the sales gas compression. The 2001 application included extensive engineering analysis on the equipment and modifications that would be required at Platform Holly, including spacing, deck and jacket modifications, and approximate costing. Much of the 2001 analysis has been used in the following alternative discussion.

This alternative is also similar to the relocation option identified in the 2001 County of Santa Barbara amortization analysis, which included gas processing on Platform Holly and crude treatment on Platform Holly with crude transportation via pipeline to the AACP. Based on the economics in 2001, when crude and gas had substantially lower prices than currently, this was determined in the amortization study to be the only economically feasible relocation option for the EOF and the EMT.

The various offshore components are summarized in Table ES-1 below.

Table ES-1
Platform Holly Processing Alternative Components

Option	Platform Holly Processing	EOF Modifications
Crude: Offshore crude oil processing, pipeline to EOF and AACP	Crude water dehydration and stabilization. Deck space: 300-400 ft² (28-37 m²)	Remove crude stripping, water separation/heating. Crude storage, pig processing and pumping would remain at the EOF.
Gas: sulfur and CO_2 removal offshore	Amine unit: deck space: 700-800 ft² (65-74 m²) Additional injection wells drilled.	Remove sulfur and CO_2 removal systems.
Gas: gas liquids removal	LTS system: 400-500 ft² (37-46 m²), gas liquids added to crude oil, stabilizer gas used in process heater/power generation	Remove gas liquids recovery system including tanks. Remove propane storage for refrigeration.
Utilities	Therminol: 200 ft² (19 m²) Water treatment: 400-500 ft² (37-46 m²) Propane refrigeration: 200-300 ft² (19-28 m²)	Removal of Therminol, heaters, water treatment facilities. Control building and electrical substation would remain.
Compression	Production, acid gas, vapor recovery, stabilizer gas: utilize existing compression. 500 ft² (47 m²) net increase	Removal of all compression systems except final sales gas compression.
Power generation	Up to 10 MW of power generation, with turbines or generator sets, and cogeneration	No changes.

As in the proposed Project, Section 2.0, Project Description, the crude pipeline from the EOF to the AACP, the EMT and Line 96 decommissioning and the offshore improvements would still take place. A complete discussion of improvements are discussed in Section 3.3.3 of the EIR

Las Flores Canyon Processing: Offshore Gas and Onshore Oil Pipeline

This alternative includes decommissioning the EMT and the EOF. This alternative would ship oil emulsion through a new onshore oil pipeline (as in the proposed Project and described in Section 2.0, Project Description) into the existing LFC facilities. There are two facilities in LFC; the Pacific Offshore Pipeline Company (POPCO) gas processing plant and the Santa Ynez Unit (SYU) gas and oil processing plant. Both are owned and operated by ExxonMobil.

Oil would be processed at SYU and then transported by the existing AACP. The SYU crude processing system has a capacity of 140,000 BPD (22,000 m^3) of crude oil emulsion and 100,000 BPD of processed oil. It has recently been operating at about 38,000 BPD (6,045 m^3) of oil, so it is anticipated to have substantial crude processing capacity to handle the South Ellwood crude oil production.

Modifications would need to be made to the produced water handling at the SYU, as it is currently operating close to capacity. However, ExxonMobil is currently proposing modifications to their water handling system titled the Hondo Field Water Injection Project. ExxonMobil proposes to inject untreated produced water into the Hondo Field reservoir via the Harmony Platform instead of cleaning it up and discharging it into the ocean. This would allow an increase in produced water handling from 75 to 90 thousand barrels per day. Additional modifications would be most likely required to the produced water handling systems in the future as the amount of produced water from the SYU facilities would be expected to increase over time. However, given the possible limitations on water injection at the SYU platforms (the SYU reservoirs can only handle a certain level of water injection), a pipeline might need to be routed from the LFC back to Platform Holly for injection of produced water at Platform Holly.

Gas processing at the LFC facilities would involve removing H_2S, CO_2 and gas liquids to produce pipeline quality natural gas. Modifications that would need to be made to the SYU and POPCO gas processing facilities to accommodate the Platform Holly production would include the following:

- Possible piping interconnects between the SYU gas processing plant and the POPCO processing plant to allow the SYU facilities to produce sales gas;
- Increased capacity of one or both plants, including replacement/expansion of amine equipment and/or replacement/expansion of LTS equipment; and
- Modifications to permits to allow the processing of additional gas.

The exact extent of modifications would become available with further, more detailed discussion with ExxonMobil operations.

Based on information about the current operating levels at both plants, and the anticipated gas production levels from Platform Holly under the proposed Project, the commingled gas stream from the SYU Platforms (about 80 MMSCFD (2.3 million m^3) and 3,600 ppm H_2S), and Platform Holly (a maximum of 20 MMSCFD (0.6 million m^3)

and 12,500 ppm H_2S) would have a gas throughput of about 100 MMSCFD (2.8 million m^3) and an H_2S level of about 5,500 ppm.

A new, 10.6 mile (17 km) offshore gas pipeline would be constructed from Platform Holly to LFC. The new six-inch (15-cm) gas pipeline would leave Platform Holly heading westerly in State Waters within Venoco's State Lease PRC 3120. The route would continue westerly through State Tidelands to a point offshore of LFC where it would landfall through a 3,500-foot (1,067 m) directional drill. The directional drill would be made from the LFC parking area north of Highway 101 to an ocean outfall located approximately 2,500 feet (762 m) from shore in water depths ranging between 35 to 50 feet (11 to 15 m) below mean sea level.

The proposed six-inch (15 cm) pipeline would enter a pig receiver at the LFC and then would enter the gas processing equipment at the POPCO facilities where it would be processed at either the POPCO gas plant or the SYU gas plant.

Installed alongside the gas pipeline would be a power cable which would transmit power to Platform Holly from the LFC location.

All equipment would be removed from the EOF except for an underground valve box at the landfall location of the Platform Holly to EOF crude oil pipeline.

Any production from lease 421 would enter the proposed new pipeline near the EOF most likely located within an underground valve box. The seep gas would need to be re-routed to Platform Holly also. Produced water separated from the emulsion at Platform Holly would be injected at Platform Holly.

Las Flores Canyon Processing: Offshore Gas and Offshore Oil Pipeline

This alternative would be identical to the above listed alternative, except that the crude oil pipeline would be installed offshore, in parallel to and at the same time as, the offshore sour gas pipeline and power cable. Modifications to Platform Holly would be the same as above, except that the new emulsion pipeline would be tied in to the existing pig launchers on the Platform. The EOF would be completely abandoned. Modifications to the LFC would be the same as above. The offshore pipelines would be installed as a bundle along with a new power cable. Construction requirements would be similar as above, except that additional pipe would need to be transported and the number of welding stations would increase by approximately two.

Any production from lease 421 would need to be transported from the beach area to Platform Holly utilizing the existing emulsion pipeline. This would likely require the installation of emulsion storage, pigging operations and pumping at the EOF location.

The seep gas would need to be re-routed to Platform Holly also. Produced water separated from the emulsion at Platform Holly would be injected at Platform Holly.

ENVIRONMENTAL IMPACTS AND MITIGATION

This EIR identifies and analyzes the potentially significant environmental impacts associated with the proposed Project. The impact analysis is based on information provided by Venoco in the initial application and subsequent data requests, as well as supplementary investigations and research conducted by the EIR preparers.

The analysis indicates that the proposed Project would result in a number of potentially significant impacts to the environment, primarily associated with the possibility of an accidental release of crude oil. Even with identified mitigation measures, not all of the potentially significant impacts can be reduced to less than significant levels.

Table ES-2 presents a summary of environmental impacts and mitigation measures for the proposed Project. This table is presented by issue area. Within each issue area, each impact is described and classified, recommended mitigation is listed, and the level of impact with mitigation is stated. All significant adverse impacts that remain significant after mitigation (identified as Class I in this document) are presented first, followed by Class II significant adverse impacts that can be eliminated or reduced below an issue's significance criteria. Lastly, adverse impacts that do not meet or exceed an issue area's significance criteria (Class III) are listed, followed by beneficial impacts (Class IV).

COMPARISON OF PROPOSED PROJECT AND ALTERNATIVES

The State CEQA Guidelines (section 15126.6(d)) requires that an EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. Table ES-3 provides a comparison of the proposed Project with the various Alternatives.

Table ES-2
Summary of Environmental Impacts for the Proposed Project

Impact Class
I = Significant adverse impact that remains significant after mitigation.
II = Significant adverse impact that can be eliminated or reduced below an issue area's significance criteria.
III = Adverse impact that does not meet or exceed an issue area's significance criteria.
IV = Beneficial impact.

Impact No.	Impact	Impact Class	Recommended Mitigation Measures
Section 4.1 Geological Resources			
GEO-1	Ground-disturbing pipeline construction, pipeline replacement activities, EMT abandonment activities, and/or oil spill remediation may cause localized sloughing of unconsolidated alluvial sands and artificial fill.	III	None required.
GEO-2	Beach scour could substantially damage structural components of the EOF.	II	See MM **HM-3b.**
GEO-3	Ground-disturbing pipeline construction, pipeline replacement activities, EMT demolition, and/or oil spill remediation could result in increased erosion and sedimentation of local drainages.	II	**GEO-3a**. 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.
GEO-4	Expansive soils along the proposed pipeline alignment could potentially affect the structural integrity of the pipeline.	II	**GEO-4a**. Prior to pipeline construction, a geotechnical investigation shall be completed along the proposed pipeline alignment to determine the expansion potential of soils, to the depth of proposed excavations. The geotechnical investigation and associated recommendations shall be prepared by a licensed geotechnical engineer, subject to review and approval by the CSLC, to verify that soil expansion remedial measures comply with the existing geologic setting and current California Building Code (CBC) construction standards. Based on the results of the investigation, standard engineering construction-related soil expansion measures, such as pipeline trench backfilling with sandy, non-expansive soils, or a mixture of expansive material with non-expansive material, shall be implemented in the Project design as needed to minimize impacts associated with potentially expansive soils.

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Impact No.	Impact	Impact Class	Recommended Mitigation Measures
GEO-5	Seismic activity along the More Ranch Fault Zone or other regional faults could produce fault rupture, seismic ground shaking, liquefaction, or other seismically induced ground failure that would expose people and structures to greater than normal risk.	II	**GEO-5a**. The Applicant shall complete a site-specific geotechnical and seismic-hazard studies for the proposed pipelines routes including faulting, ground shaking, liquefaction hazards, landslides and slope stability issues. The applicant shall submit certified copies of these reports to CSLC and the SSRRC for review and approval. **GEO-5b**. The Applicant shall perform proper seismic evaluation and design of the proposed pipelines and employ current industry seismic design guidelines including but not limited to: (a) "Guidelines for the Design of Buried Steel Pipe," 2001, by American Lifeline Alliance and (b) "Guidelines for the Seismic Design and "Assessment of Natural Gas and Liquid Hydrocarbon Pipelines," 2004, by Pipeline PRCI for seismic resistant design of the pipeline. In addition, all engineered structures, including pipeline alignment and profile drawings, buildings, other structures, other appurtenances and associated facilities, shall be designed, signed, and stamped by California registered professionals certified to perform such activities in their jurisdiction such as Civil, Structural, Geotechnical, Electrical and Mechanical Engineering. **GEO-5c**. The operator shall cease Platform Holly, EOF and associated pipeline operations and inspect all project-related 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) based on a seismic accelerometer located at the EOF. The operator shall report the findings of such inspection to the CSLC, the City of Goleta, and the County of Santa Barbara. The operator shall not reinstate operations of Platform Holly and associated pipelines within the

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Impact No.	Impact	Impact Class	Recommended Mitigation Measures
			state tidelands until authorized by the CSLC. The operator shall not reinstate operations of the EOF and associated pipelines within the City of Goleta until authorized by the City of Goleta. The operator shall not reinstate operations of the pipelines and associated operations within the unincorporated areas of the County of Santa Barbara until authorized by the County of Santa Barbara.
GEO-6	Increased natural oil and gas seepage as a result of waste water reinjection.	II	**GEO-6a.** Implementation of Reservoir Management Practices to Reduce Seepage. The Applicant shall implement reservoir management practices that minimize the injection of gas and fluids into seep forming formations. In particular, a net outflow of fluids shall be ensured from the Monterey formation to ensure seepage is not increased with additional production and injection practices.
Section 4.2 Hazards and Hazardous Materials			
HM-1	The use of a pipeline to transport crude oil to the AAPL system and the reduced use of natural gas liquids storage at the EOF would produce lower risks to public health than current operations.	IV	None required.
HM-2	The increased transportation of LPG along area highways would increase the risks to public health over current operations.	I	**HM-2a**. As per county requirements on other facilities, the Applicant shall implement a transportation management program that ensures (1) Comprehensive audits of carriers to assess satisfactory safety records of carriers, driver hiring and training practices, safety incentive programs, programs to control drug and alcohol abuses, satisfactory vehicle inspection, maintenance procedures, and emergency notification procedures, (2) Truck loading procedures and inspections, (3) Vehicle Monitoring Systems and Speed Control, and (4) maximum blending of gas liquids (including both NGL and LPG) with crude oil, and (5) maximum use of propane in generators as fuel (instead of Gas Company fuel gas) to reduce truck trips.

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Impact No.	Impact	Impact Class	Recommended Mitigation Measures
HM-3	The increase in drilling at Platform Holly and the increased spill sizes of emulsion/crude given a release would constitute a significant impact.	I	**HM-3a**. The Applicant shall utilize downhole ESPs on all new wells drilled into the lease extension area. **HM-3b**. The Applicant shall replace the beach portions of the emulsion pipeline with pipeline installed through horizontal directionally drilled installation techniques extending to a location beyond the tidal areas that could be affected by wave action **HM-3c**. The Applicant shall implement a pipeline monitoring and inspection program for the Platform Holly to EOF pipeline in order to ensure maximum feasible reduction of spill risks to the environment for future operations. **HM-3d**. The Applicant shall install a state-of-the-art leak detection system on both the emulsion and sour gas pipelines to ensure early detection of a leak.
HM-4	The elimination of barge loading operations would reduce the frequency and volume of spills to the environment for the transportation portion of the project.	IV	**HM-4a**. The Applicant shall ensure that all block valves on the pipeline are remotely actuated from a central location and that remotely actuated valves and check valves are located around Eagle Canyon, DP Canyon, Lagas Canyon and Corral Canyon.
Section 4.3 Air Quality			
AQ-1	Proposed Project construction activities would result in emissions at the EOF, EMT, and along the new pipeline corridor.	II	**AQ-1a**. Measures to reduce dust emissions from construction. Best Available Control Measures (BACMs) shall be implemented to control PM10 generation during construction of the Project, including the following: • During construction, water trucks or sprinkler systems should be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency shall be required whenever

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Impact No.	Impact	Impact Class	Recommended Mitigation Measures
			the wind speed exceeds 15 mph. Reclaimed water shall be used whenever possible. • Minimize the amount of disturbed area and reduce onsite vehicle speeds to 15 mph per hour or less; • Gravel pads shall be installed at all access points to prevent tracking of mud on to public roads; • If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the Project site shall be covered with a tarp from the point of origin; • After clearing, grading, earthmoving, or excavation is completed, the disturbed area shall be treated by watering, revegetating, or spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur; • The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off site. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SBCAPCD prior to land use clearance for any grading activities for the Project; and • Prior to any land clearance, the applicant shall include, as a note on a separate informational sheet to be recorded using a map, these dust control requirements. All requirements shall be shown on grading and building plans. **AQ-1b**. Measures to reduce NOx emissions from construction. The

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			following measures shall be implemented to reduce diesel emissions: • All diesel-powered equipment shall use ultra low sulfur diesel fuel; • Diesel catalytic converters, diesel oxidation catalysts, and diesel particulate filters, as certified and/or verified by the EPA or the State of California, shall be installed, if available; • Diesel-powered equipment shall be replaced by natural gas or electric equipment whenever feasible; • Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes; auxiliary power units shall be used whenever possible. Construction worker's trips shall be minimized by requirements for carpooling and by providing for lunch on site; • Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated "clean" diesel engines) shall be utilized wherever feasible; • The engine size of construction equipment operating simultaneously, shall be the minimum practical size; • The number of construction equipment operating simultaneously shall be minimized through efficient construction management practices to ensure that the smallest practical number is operating at any one time; • Construction equipment shall be maintained per the manufacturers' specifications; • Engines meeting the Tier 2 or 3 Federal emissions standards for non-road applications shall be used; • Construction equipment operating on site, shall be equipped with two or four degree engine timing retard or pre-combustion chamber engines; and

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			• Catalytic converters shall be installed on gasoline-powered equipment, if feasible. **AQ-1c**. Measures to further reduce NOx emissions from construction. Engines meeting the Tier 3 Federal emissions standards for non-road applications shall be used for the pipeline construction, so that the emissions for all Project construction activities would be under the 25 tons in any 12-month period.
AQ-2	Proposed Project could potentially result in increased operational emissions at the EOF and Platform Holly.	III	**AQ-2a. Measures to Reduce NO_x Emissions From Operations.** The following measures shall be implemented to reduce NOx emissions: • Install diesel oxidation catalysts as certified and/or verified by CARB and the EPA on supply boat engines under the guidance of the SBCAPCD; • Utilize Tier 2 or Tier 3 engines for selected equipment to reduce emissions of NOx; and • Purchase offsets available in the SBCAPCD jurisdiction.
AQ-3	Proposed Project could result in increased potential for an upset event with a subsequent gas release or an oil spill, and thus could potentially result in increased nuisance odor events.	II	**AQ-3a. Ensured Destruction Efficiency of LOCAT Gas.** The Applicant shall continuously route the LOCAT gas stream to the H-205 consistent with the requirements of the Santa Barbara APCD Permit to Operate 7904 unless it can be clearly demonstrated to the satisfaction of the APCD that the Jenbacher engines can produce the required level of LOCAT gas destruction and avoid odor impacts.
AQ-4	The proposed Project could potentially result in increased HAP emissions from the EOF and thus increase health risk.	II	**AQ-4a**. The Applicant shall install a diesel oxidation catalyst (DOC) on diesel-combusting equipment that contributes to health risk. The DOC shall achieve 90% reduction of PM and ROC emissions. Applicable equipment shall be determined by the SBCAPCD.
AQ-5	The proposed Project would produce higher	I	**AQ-5a. GHG Emission reduction program.** The Applicant shall implement a program to reduce GHG emissions from project components

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	greenhouse gas emissions.		and/or community sources to achieve a net zero increase in GHG emissions from the project. Possible GHG emissions reduction could be achieved through the following programs: • Reduce energy consumption from facility sources to the maximum extent feasible, including reduced generator use and gas production, high efficiency motors and pumps and installing high efficiency lighting; • Reduce facility water consumption, waste generation and raw materials usage, and utilize recycling, to the maximum extent feasible; • Use of bio-diesel or bio-diesel blends for diesel equipment; • Sponsor the retrofit of diesel buses with hybrid engines; • Sponsor methane capture technology projects, including methane capture from dairy and/or agricultural operations; • Capture of methane emissions from area seeps; and • Planting of trees to offset carbon emissions.
Section 4.4 Hydrology, Water Resources, and Water Quality			
WQ-1	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine water quality.	I	Implement MM HM-3a, HM-3b, and HM-3c identified in Section 4.2, Hazards and Hazardous Materials. Implement MM WQ-3a where pipelines crossing the surfzone and beach are installed by horizontal directional drilling.
WQ-2	Reduction in the frequency, volume, and spatial extent of offshore oil spills by the elimination of barge loading and transportation would benefit marine water quality.	IV	None required.
WQ-3	Sand jetting the utility and power lines into	II	**WQ-3a**. The Applicant shall employ horizontal directional drilling to install

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	nearshore seafloor sediments will temporarily increase turbidity and deleteriously impact water quality within sensitive kelp habitats located nearby. Sidecasting of beach sands excavated during loading line removal into the surfzone will unnecessarily increase turbidity within Coal Oil Point kelp beds.		cables and pipelines that cross the sensitive littoral and supratidal zones along the beach. **WQ-3b**. If sand jetting within the littoral zone is required, such as during loading-line removal, and ocean conditions are favorable, the Applicant shall install a floating sediment curtain downstream of the jetting location to protect nearby kelp beds and rocky reef habitat. **WQ-3c**. Place sand excavated during loading-line removal next to the excavation trench. Upon removal of the loading line, replace the excavated sand into the trench and recontour the beach to its original configuration.
WQ-4	Disturbance of hydrocarbon-contaminated sediments near Shane Seep, or other seeps, during decommissioning of the offshore EMT could result in an acute increase in hydrocarbon concentrations within the water column, thereby adversely affecting marine water quality. Hydrocarbons could also be accidentally released from the loading line during decommissioning. Removal of the six mooring anchors will temporarily increase water-column turbidity	II	**WQ-4a**. If workboat anchoring is necessary during EMT decommissioning, an anchoring plan shall be prepared that specifies exclusion zones surrounding known seeps and hard-substrate areas. **WQ-4b**. Workboats and other vessels involved in the removal of seafloor components of the EMT shall employ differential GPS (DGPS) navigation. **WQ-4c**. The size and design of any anchors required for removal of EMT seafloor components shall be designed and emplaced to minimize anchor dragging across the seafloor and to avoid unnecessary sediment resuspension. Seafloor components of the EMT shall be removed by direct vertical lifts rather than lateral pulls to avoid dragging objects on the seafloor. **WQ-4d**. Prior to decommissioning of the offshore EMT, the Seep Research Group at the University of California at Santa Barbara shall be consulted as to the location of long-term sampling and monitoring equipment near Shane Seep. **WQ-4e**. Loading-line decommissioning shall be conducted during quiescent oceanographic conditions to ensure the effective operation of

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			the seep tents. Hydrocarbon volumes collected in the tents shall be regularly monitored to avoid overfilling or the capacity of the tents shall be large enough to contain all of the hydrocarbons that could be potentially released from the loading line.
WQ-5	Pipeline construction and EMT abandonment could degrade surface and groundwater quality.	II	**WQ-5a**. A Project-specific Storm Water Pollution Prevention Plan shall be prepared and submitted to the California Regional Water Quality Control Board, Central Coast Region, to prevent adverse impacts to nearby waterways associated with construction-related incidental spills not covered under the existing Oil Spill Contingency Plan or National Pollutant Discharge Elimination System permit. This plan shall include, but not be limited to, a description of Best Management Practices, including spill prevention measures, spill containment equipment, and monitoring requirements.
WQ-6	Potential horizontal directional drilling related frac-outs during pipeline construction could degrade surface and groundwater quality.	II	**WQ-6a**. A preliminary, site-specific, geotechnical investigation shall be completed in areas proposed for horizontal directional drilling. Preliminary geotechnical borings shall be drilled to verify that the proposed depth of horizontal directional drilling is appropriate to avoid frac-outs (i.e., the depth of finest grained sediments and least fractures) and to determine appropriate horizontal directional drilling methods (i.e., appropriate drilling mud mixtures for specific types of sediments). **WQ-6b**. A frac-out contingency plan shall be completed and include measures for prevention, containment, clean up, and disposal of released drilling muds. Preventative measures would include incorporation of the recommendations of the geotechnical investigation to determine the most appropriate HDD depth and drilling mud mixture. In addition, drilling pressures shall be closely monitored so that they do not exceed those needed to penetrate the formation. Containment shall be accomplished through construction of temporary berms/dikes and use of silt fences,

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			straw bales, absorbent pads, straw wattles, and plastic sheeting. Clean up shall be accomplished with plastic pails, shovels, portable pumps, and vacuum trucks.
WQ-7	A rupture or leak from the EOF, the existing onshore portion of the oil pipeline from Platform Holly to the EOF, or the proposed oil pipeline could substantially degrade surface and groundwater quality	I	**WQ-7a**. A Project-specific, operations-related Storm Water Pollution Prevention Plan shall be prepared and submitted to the California Regional Water Quality Control Board, Central Coast Region, before extended lease boundary wells are produced, to prevent adverse impacts to nearby waterways associated with oil spills. The plan would include the onshore portion of the existing pipelines from Platform Holly to the Ellwood Onshore Facility, the Ellwood Onshore Facility, and the proposed pipeline to Corral/Las Flores Canyon. The plan would include preventative and spill contingency measures not covered under the Emergency Action Plan, which only applies to "significant events" and is not discussed in detail by the Oil Spill Contingency Plan. This plan would include, but not be limited to delineation of drainage features and a description of Best Management Practices, including spill containment equipment and procedures that are tailored for the Project site. **WQ-7b**. The Storm Water Pollution Prevention Plan described in MM WQ-7a shall include non-point source runoff water quality goals, established in accordance with the water quality objectives contained in the Water Quality Control Plan for the Central Coast, as well as the water quality criteria in the Proposed California Toxics Rule. Sampling and analysis of non-point source runoff shall be completed downslope of oil spills, subsequent to significant rain events, to demonstrate the completeness of spill containment and remediation. The sampling protocol and analytical results shall be reviewed and approved by the California Regional Water Quality Control Board, Central Coast Region.
Section 4.5 Biological Resources			

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BIO-1	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine biological resources.	I	**BIO-1a.** 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 well blowouts and pipeline failures. 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 parameters, inspections required to restarting 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. The personnel and training sections of the OSCP shall be updated and 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.
BIO-2	Reduction in the frequency, volume, and spatial extent of offshore oil spills by the elimination of barge loading and transportation would benefit marine biological resources.	IV	None required.

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BIO-3	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect commercial and recreational fishing.	I	In addition to MM BIO-1 described above, implementation of those measures identified in Sections 4.2, Hazards and Hazardous Materials and 4.4, Hydrology, Water Resources, and Water Quality for contingency planning, prevention, and spill response would be necessary to help reduce the impacts of a spill on fisheries.
BIO-4	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect kelp and commercial kelp harvesting.	III	None required.
BIO-5	Sand jetting utility and power lines into nearshore seafloor sediments will temporarily increase turbidity within sensitive kelp habitats. Sidecasting of beach sands excavated during loading line removal will increase turbidity within Coal Oil Point kelp beds.	III	Implement **MM WQ-3a, WQ-3b,** and **WQ-3c.**
BIO-6	Sediment disturbance during decommissioning of the EMT moorings and the loading line could result in increased turbidity and hydrocarbon concentrations within the water column, thereby adversely affecting marine biological resources. Removal of the six mooring anchors will temporarily disturb benthic communities and increase turbidity near kelp beds.	III	Implementation of **MM WQ-4a,b,c,d**, and **e** will ensure that disturbances to sensitive habitat areas and seafloor substrate are minimized..
BIO-7	Vessel Traffic Impacts on Marine Mammals and Turtles	II	**BIO-7a**. **BIO-7a Marine Mammal Contingency Plan.** 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: 1. Existing and new vessel operators shall be trained by a marine

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			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 behaviors 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. 2. 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 other marine mammals, such as migrating blue whales (generally June through November), 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. 3. Vessel operators will make every effort to maintain a distance of 1,000 ft (305 m) from sighted whales and other threatened or endangered marine mammals or marine turtles. 4. Per NOAA recommendations, vessel speeds shall not exceed 11.5 mph (10 knots). 5. Support vessels will not cross directly in front of migrating whales, other threatened or endangered marine mammals, or marine turtles. 6. When paralleling whales, supply vessels will operate at a constant speed that is not faster than the whales'. 7. Female whales will not be separated from their calves. 8. Vessel operators will not herd or drive whales. 9. If a whale engages in evasive or defensive action, support vessels will drop back until the animal moves out of the area.

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			10. Collisions with marine wildlife will be reported promptly to the Federal and State agencies listed below pursuant to each agency's reporting procedures. Stranding Coordinator, Southeast Region (currently, Joe Cordaro) National Marine Fisheries Service Long Beach, CA 90802-4213 (310) 980-4017 Enforcement Dispatch Desk California Department of Fish and Game Long Beach, CA 90802 (562) 590-5132 or (562) 590-5133 California State Lands Commission Environmental Planning and Management Division Sacramento, CA 95825-8202 (916) 574-1890
BIO-8	Marine Mammal Entanglements resulting from Power Cable Installation and Utility Line repair	II	**BIO-8a**. **Burial of the power cable and utility pipeline** to a depth of 3.28 ft (1 m) except where precluded by seafloor substrates. A 3.28 ft (1 m) burial depth would sufficiently protect gray whales foraging in bottom sediments on their northbound migration. It is understood that this burial depth may not be achieved in areas where there is localized, higher sediment resistance, or substantial variations in bottom slope or cable ship speed; however, such locations should be documented and monitored during regular inspection surveys . **BIO-8b Inspection of the power cable and utility pipeline route** for adequate burial depth every 18 to 24 months for the life of the Project. Regular inspection of the cable and pipeline route should be made to ensure proper maintenance of proper burial depth. If, during inspection,

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			sections of the cable and pipeline are found to be exposed contrary to the original as-built burial configurations, remedial actions will be taken within 60 days to re-bury the lines.
BIO-9	Marine Construction and Vessel Traffic Impacts on Commercial and Recreational Fishing.	II	**BIO-9a. Use of Designated Marine Traffic Corridors.** Support vessels shall use designated traffic corridors where possible. If support vessels travel outside such corridors and damage fishing gear, disputes over damage to commercial fishing gear resulting from support vessel traffic at Platform Holly shall be submitted to the Joint Oil/Fisheries Committee for resolution.
BIO-10	Noise and Lighting Impacts on Marine Mammals and Birds	III	None required.
BIO-11	Construction activities have the potential to result in permanent alteration or destruction of habitat that precludes re-establishment of native biological populations and/or prolonged disturbance to functional habitat of important biological resources.	II	**BIO-11a** Prior to construction, prepare and implement a county and city-approved Native Habitat and Special Status Species Protection Plan to avoid or reduce impacts to sensitive biological resources, including drainages, during pipeline construction. Habitat protection measures shall include, at a minimum: 1. Construction shall be scheduled to avoid breeding season of special status species, as feasible. For example, schedule pipeline construction (or at a minimum, crossing of drainages that support special status species) to avoid the breeding season for tidewater goby and California red-legged frog (November 1 through May 30); and time construction activities at the EMT facility (specifically the removal of structures, pipeline, testing, and any remediation within the beach or foredunes) to avoid the breeding season of California least tern and western snowy plover (March 1 through September 1). 2. Work shall be scheduled to avoid the high flow seasons (typically September through April) if trenching is used to cross seasonal or intermittent drainages to avoid potential impacts to downstream

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			resources, including breeding habitat for tidewater goby and California red-legged frog. 3. The Applicant shall contract with a county and city-approved biologist (Project biologist) that would be required to be present during construction in habitats that support special status species. 4. The Project biologist and the Project engineer shall clearly designate "sensitive resource zones" on the Project maps and construction plans consistent with the results of pre-construction surveys conducted for the presence of sensitive species. Sensitive resource zones are defined as areas where construction would be limited to a 15- to 30-foot corridor, depending on the particular construction requirements, to avoid impacts to special status biological resources. 5. Prior to construction, the Applicant shall contract with a county and city-approved biologist to conduct California red-legged frog surveys in all suitable habitat crossed by the pipeline ROW to determine the potential presence of this species within the immediate construction area. 6. The Applicant shall contract with a county and city-approved biologist (who may or may not be the Project biologist) that will be present during construction (including during borings under drainages) in locations known to support California red-legged frogs to monitor for this species. The biologist will be authorized to stop work if threats to this species are identified during monitoring. 7. All machinery shall be stored and fuelled in designated locations at least 100 ft (30.5 m) way from any sensitive habitats. Heavy equipment and construction activities shall be restricted to the defined construction ROW. Vehicles and personnel shall use existing access roads to the maximum degree feasible.

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			8. Disposal or temporary placement of excess fill shall be prohibited within 50 ft (15.2 m).from the top of the banks for all drainages and other areas known to support special status species (such as the beach in the vicinity of the EMT). All equipment used in or near drainages shall be clean and free of leaks and/or grease. Emergency provisions shall be in place prior to the onset of construction to deal with accidental spills from construction activities or equipment. **BIO-11b** Prepare and implement a county and city-approved Native Habitat Restoration Plan that shall include, at a minimum: 1. 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, including habitat that supports special status species; and restoration of native communities and native plant species propagated from local genetic sources. 2. A plant palate consisting entirely of native species. 3. Details concerning the salvaging and replanting of native vegetation as feasible. 4. Monitoring procedures and minimum success criteria for restoration efforts. The success criteria shall consider the level of disturbance and condition of the adjacent habitats. Monitoring shall continue for three to five 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

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			met. 5. Provisions for a Project biologist specializing in native plant restoration, who shall direct all revegetation efforts, including any salvaging of native plants and monitoring.
BIO-12	Construction Impacts on Onshore Biological Resources and Native Habitat.	II	**MM BIO 11a and 11b.** **BIO-12a**. The following measures shall be incorporated into the **Native Habitat and Special Status Species Protection Plan** (see MM Bio-10a) to avoid or reduce impacts to non-listed sensitive wildlife and plants species or sensitive species habitat: The Applicant shall contract with a county and city-approved biologist who shall conduct pre-construction bird surveys in areas that would require the direct removal of vegetation. The results of the surveys shall include recommended buffer areas between construction activities and potential nesting habitat if the work were scheduled to occur during bird nesting seasons (typically March through August). The Applicant shall contract with a county and city-approved botanist who shall conduct pre-construction surveys for sensitive plant species in areas that would require the direct removal of vegetation. The results of the surveys shall include recommended buffer areas between construction activities and sensitive plant habitat, if feasible. If removal of sensitive plant species cannot be avoided, then measures to salvage (plants, cuttings or seed) and replace sensitive plants shall be incorporated into the Native Habitat Restoration Plan. **BIO-12b Limit beach habitat disturbance** associated with loading-line removal 1. Prior to the use of heavy equipment on the beach, establish a well-defined access corridor and operating zone, and delineate the zone with temporary barrier fencing.

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			2. Move any beach wrack found within the construction zone to an area at the same tidal elevation outside the zone.
BIO-13	Oil Spill Impacts on Onshore Biological Resources	I	**BIO-13a Update the OSCP to Protect Sensitive Resources.** The OSCP shall be revised and updated to address protection of sensitive biological resources and revegetation of any areas disturbed during an oil spill from the proposed pipeline or cleanup activities. The revised OSCP shall, at a minimum, include: 1. 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 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. 2. Specific measures requiring spill response personnel to be adequately trained for response in terrestrial environments and spill containment and recovery equipment to be maintained in full readiness. Inspection of equipment and periodic drills shall be conducted at least 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. 3. When habitat disturbance cannot be avoided, 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

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			wildlife species and to restore 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. 4. Similar to **MM BIO-11b**, 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 appropriate rate. 5. Monitoring procedures and minimum success criteria to be satisfied for restoration areas. The success criteria shall consider the level of disturbance and condition of the adjacent habitats. Monitoring shall continue for three to five 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.
B IO-14	Decommissioning and Restoration of EMT Site	Not Classified	Construction impacts addressed in **BIO-11a** and **b** and **BIO-12a**; no additional mitigation measures required.
Section 4.6 Cultural, Historical, and Paleontological Resources			
CR-1	Grading and excavation associated with	II	**CR-1a. Archeological Monitoring**: All ground disturbances associated

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	construction of the proposed Project at the EOF involves ground disturbing activities and could potentially result in disturbance to unknown archaeological sites buried below the EOF.		with construction of the proposed Project at the EOF that extend into soils shall be monitored by a qualified archaeologist and a local Native American representative as per the Goleta General Plan OS 8.6 and OS 8.7. **CR-1b.** A pre-construction workshop shall be conducted by a qualified archaeologist and a local Native American representative. All construction personnel who would work, during any phase of ground disturbance, shall be required to attend the workshop. The workshop shall: 1. review the types of archaeological artifacts that may be uncovered; 2. provide examples of common archaeological artifacts to examine; 3. review what makes an archaeological resource significant to archaeologists and local Native Americans; 4. review procedures that shall be used to record, evaluate, and mitigate new discoveries; and 5. describe reporting requirements and responsibilities of construction personnel..
CR-2	Grading and excavation associated with construction of the proposed project would potentially result in disturbance to unknown CA-SBA-139 deposits.	II	**CR-2a.** To the extent feasible, the new onshore pipeline shall be redesigned or relocated to avoid disturbances to CA-SBA-139. Directional drilling shall be considered as a method to avoid the site. **CR-2b.** If avoidance of CA-SBA-139 is not feasible, a Phase 2 significance assessment investigation shall be conducted. If found to be significant, a Phase 3 data recovery mitigation program shall be conducted. **CR-2c.** All ground disturbances associated with construction of the new onshore pipeline within the documented CA-SBA-139 site boundary shall

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			be monitored by a qualified archaeologist and a Native American representative from the affected Native American Nation. **CR-2d. Avoidance and Unanticipated Discoveries Plan**: Prepare an Avoidance and Unanticipated Discoveries Plan, as per CCC requirements, including provisions for an archeological monitor, data recovery program, Native American monitor, and guidelines addressing immediate actions to be taken should a discovery be made.
CR-3	Grading and excavation associated with construction of the proposed project would potentially result in a short-term increase in access to archaeological artifacts associated with CA-SBA-139 and the potential for unauthorized collection.	II	Implement Mitigation Measures **CR-1b** and **CR-2c** to reduce potential impacts on cultural resources resulting from unauthorized artifact collection
CR-4	Grading and excavation associated with construction of the proposed project would potentially result in a short-term increase in access to and the potential for unauthorized collection of archaeological artifacts associated with CA-SBA-83, CA-SBA-1676, and CA-SBA-1733.	II	**CR-4a.** All ground disturbances associated with construction of the new onshore pipeline within the documented CA-SBA-83, CA-SBA-1676, and CA-SBA-1733 site boundaries shall be monitored by a qualified archaeologist and a local Native American representative.
CR-5	Potential oil spills from the operational pipeline have the potential to affect cultural resources from subsequent cleanup and remediation activities.	II	Implement Mitigation Measure **CR-1b** to reduce potential impacts on cultural resources resulting from unauthorized artifact collection.
CR-6	Activities associated with the decommissioning of the EMT would potentially results in disturbance to unknown CA-SBA-1327 and CA-SBA-2341 deposits.	Not Classified	**CR-6a.** All ground disturbances associated with decommissioning of the EMT within the documented CA-SBA-1327 and CA-SBA-2341 site boundaries shall be monitored by a qualified archaeologist and a local Native American representative.

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CR-7	Activities could damage, disrupt, or adversely diminish the quality of an important prehistoric or historic archaeological resource or a historical resource such that its integrity would be diminished.	III	None required.
CR-8	Activities could damage or disturb paleontological resources including Chumash midden sites due to proposed drilling on Platform Holly and offshore modifications to existing facilities.	III	None required.
Section 4.7 Land Use, Planning, and Recreation			
LU-1	The Proposed Project would be consistent with the adopted goals, objectives, and/or policies of approved land use plans, including the Santa Barbara County LCP and UCSB LDRP Amendment.	Not Classified	None required.
LU-2	The Proposed Project would be inconsistent with the energy-related on- and off-shore use policies associated with the Applicant's facilities in the City of Goleta's General Plan.	I	Rezone of the EOF, Development Agreement, limitation of the life of the Project.
LU-3	The Proposed Project would be inconsistent with the Open Space and habitat conservation policies Joint Proposal for the Ellwood-Devereux Coast Open Space and Habitat Management Plan, and the City of Goleta Safety Element policies.	I	Implementation of mitigation measures in Section 4.2, Hazards and Hazardous Materials is required.
LU-4	Accidental Oil Releases Could Affect Recreational Activities.	I	Implementation of those measures identified in Sections 4.1, Geological Resources; 4.2, Hazards and Hazardous Materials; 4.4, Hydrology, Water Resources, and Water Quality; and 4.5, Biological Resources, for

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			contingency planning and spill response. The city may also want to consider inclusion of providing a walkway, parking lot, and or other means of public access to enhance the recreational opportunities in the area, and attempt to mitigate the Class I Recreational impacts.
Section 4.8 Public Services			
PS-1	Proposed Project could potentially result in increased demands for fire protection and emergency response due to the proposed drilling, higher oil and gas throughput, and more equipment at the EOF.	I	**PS-1a. Impact Development Fee.** The Applicant shall provide an impact development fee payment to the Santa Barbara County Fire Department that would be directed toward the eventual construction of a new fire station. Appropriate fees shall be determined by the city of Goleta and the Santa Barbara County Fire Department based on fair share fee analysis in conjunction with other city projects that will contribute to the acquisition of property for, and the construction of, the future fire station.
PS-2	Proposed Project could result in increased demands for water due to construction, drilling and higher oil and gas throughput.	III	None required.
PS-3	Proposed Project could result in increased discharge into the public sewer due to drilling and higher oil and gas throughput.	III	None required.
PS-4	Proposed Project could result in increased demands for waste handling capacities due to drilling and higher oil and gas throughput.	III	None required.
PS-5	Proposed Project could result in increased demands for waste handling capacities due to demolition and removal of equipment from the Project facilities.	Not Classified	**PS-5a.** The Applicant shall apply to Santa Barbara county for a Demolition and Reclamation Permit. All materials to be removed from the Project facilities due to the proposed equipment changes at the Ellwood Onshore Facility and Ellwood Marine Terminal decommissioning, shall be inspected for the purpose of recycling or reusing. All materials deemed

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			to be recyclable, shall be recycled or reused to the maximum extent feasible and consistent with a Recycling Plan as approved by Santa Barbara County.
Section 4.9 Transportation and Circulation			
T-1	The use of certain intersections or roadways to deliver/remove materials to/from the EOF, pipeline route, EMT, or Platform Holly could cause significant impacts to area roadways that are currently, or could in the future, have unacceptable levels of service.	II	**T-1a.** For the EOF, pipeline and Platform Holly construction, the applicant shall limit truck deliveries and commuters/personnel to the west Hollister-Highway 101 on and off ramps and shall not utilize the Storke Road and Hollister Avenue intersection or the Storke Road Highway 101 on/off ramps during peak hours. **T-1b.** Truck trips associated with the EMT decommissioning shall be limited to non-peak hours. **T-1c.** The Applicant shall prepare, provide funding for, and implement a Construction Traffic Control Plan, which shall be approved by the county and city of Goleta (depending on the segment of the pipeline and the location of work), and would include, but not be limited to the following: (1) Provide traffic controls when lanes are closed due to pipeline construction, e.g., flaggers, detour signs, orange safety cones; (2) Provide traffic controls at the EMT access road and Storke Road to allow for left hand turning in a safe manner, e.g., flaggers; (3) Close the pipeline trench for the non-work hours with approved plating, and surround the trench with safety barriers if necessary; (4) Provide detours for emergency vehicles; (5) Provide alternative routes for bicycles and pedestrians if feasible; (6) Notify the residents or owners of any properties adjacent to the pipeline ROW of the construction schedule at least one week before construction in their vicinity; (7) Provide access to the affected properties during the construction; if access to businesses is not possible during the work hours, provide lost-sales compensation; and (8) Monitor for road damage from construction-related activities and

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			compare the affected roads at the end of the construction to the pre-construction conditions; repair any visible construction-caused damage to restore the road to its pre-construction condition or better.
Section 4.10 Noise			
N-1	The proposed Project would increase the noise from operations at the EOF.	II	**N-1a.** The Applicant shall install noise mitigation on the generator sets, including exhaust mufflers and noise enclosures, to reduce the impacts to nearby receptors.
N-2	Pipeline construction machinery would produce short-term noise in the vicinity of the pipeline right-of-way.	II	**N-2a.** The Applicant shall prepare a noise reduction plan which shall be approved by Santa Barbara county and the city of Goleta. The plan would include, but not be limited to, the following measures: • Post notifications to the residents and landowners about the planned pipeline construction near their residence/land at least one week before construction at that location; • Ensure that construction activities do not occur between 4:00 p.m. and 7:00 a.m. on weekdays in non-residential areas, and 5:00 p.m. and 8:00 a.m. on weekdays in or near residential areas , and not at all on Saturdays and Sundays or holidays, unless specifically required by permits or at the direction of the county/city staffs; • Ensure that all internal combustion engines are properly maintained and that mufflers, silencers, or other appropriate noise-control measures function properly; and • The Applicant shall institute a "quiet-mode" of construction between the hours of 7 pm and 7 am. Quiet mode operation would involve the following requirements: (1) use of signalers for all backup operation instead of backup alarms. Backup alarms would be turned off; (2) use of radios instead of voice communication; (3) minimal use of the crane and pipe handling operations (minimize pipe and other

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			offloading from trucks to the maximum extent feasible) (4) to the extent feasible, deliveries of materials and supplies to the Project site should not occur between the hours of 7 p.m and 7 a.m. **N-2b.** If boring under Highway 101 or any other noise-producing activity during the pipeline construction is required to be conducted during the evening or night hours (from 5 p.m. to 8 a.m.), the Applicant shall install appropriate mufflers and/or temporary noise barriers to minimize noise at the residences and the Bacara Resort.
N-3	EOF construction could produce short-term noise to the Golf Course.	III	None required.
N-4	EMT Decommissioning construction could produce short-term noise to the mesa and Coal Point beach area.	III	None required.
Section 4.11 Aesthetics/Visual Resources			
VR-1	The removal of industrial features, such as the EMT tanks, from the visually sensitive areas would improve aesthetic views in the area	IV	None required.
VR-2	The proposed new structures would not be taller than the existing structures at the EOF, and thus would not decrease quality of views from the visually sensitive areas.	III	None required.
VR-3	Construction activities and machinery would create visually negative impact.	III	None required.
VR-4	Installation of the pipeline would result in the removal of existing vegetation along the pipeline right-of-way, altering the visual character of the	II	**VR-4a.** The Applicant shall revegetate the cleared portion of the pipeline right-of-way with species that are biologically and visually compatible with the surroundings and continue with the appropriate watering schedule, if

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	area.		necessary, for establishing the permanent vegetative cover.
VR-5	Installation of the station would result in a presence of an industrial feature amidst rural viewshed, altering the visual character of the area.	III	None required.
VR-6	An oil spill from Platform Holly, pipelines or the EOF could cause potential long-term adverse visual impacts from the oil spill and cleanup efforts.	I	Implementation of those measures identified in Sections 4.2, Hazards and Hazardous Materials; 4.4, Hydrology, Water Resources, and Water Quality; and 4.5, Biological Resources, for contingency planning and spill response would be required.
Section 4.12 Energy and Mineral Resources			
ER-1	Impacts from increased electricity consumption at the Project facilities due to higher operation loads of the existing electrical equipment and consumption by the proposed equipment.	III	None required.
ER-2	Impacts from diesel and natural gas consumption and production by the Project facilities.	IV	None required.
Section 4.13 Agricultural Resources			
AG-1	Loss of Agricultural Resources Due to Pipeline Construction and Soil Disturbance.	II	**AG-1a**. **Soil Replacement and Replanting.** All soils within agricultural lands disturbed by pipeline construction activities shall be replaced and if necessary enriched to support their former crops (or cattle grazing areas). All disturbed areas shall be replanted at a 1:1 ratio.
AG-2	Potential Loss of Agricultural Resources Due to Pipeline Leak or Spill.	II	**AG-2a.** All areas contaminated as a result of an oil leak or spill shall be restored to their prior state with equivalent soils and orchard trees.
AG-3	Loss of Prime Agricultural Land.	III	**AG-3a. Dust Suppression and Fungus Control.** Water trucks shall be used for dust suppression along the pipeline right of way to reduce the potential impact resulting from construction related dust spreading to

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			adjacent agriculture areas during growing season. In addition, the Applicant and its contractors shall coordinate construction activities with the Santa Barbara County Agricultural Commissioner prior to excavation in order to develop an acceptable plan to reduce the potential for spread of the fungus to avocado orchards. This plan will include careful handling of trench spoil and the use of water trucks to reduce dust generation during construction.
Section 4.14 Environmental Justice			
EJ-1	The proposed Project could disproportionately impact minority and/or low-income populations.	III	None required.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The discussion below compares impacts associated with the proposed Project with those associated with the No Project Alternative and the other alternatives. These impacts are identified as a result of the analysis provided in Section 4.0, Environmental Analysis. An Alternative would be considered superior to the proposed Project if there is a reduction in impact classification. In cases where the impact from an Alternative is in the same class as for the proposed Project, differences in severity of the impact are analyzed.

In evaluating the proposed Project and the various alternatives, there are several key issue areas that that need to be considered. First and foremost, potential impacts associated with accidental oil spills are a key concern. The relative impact to public safety and health is also a critical component in the evaluation of alternatives. Finally, quality of life issues, such as visual resources and recreational impacts need to be considered.

The Proposed Project versus the No Project Alternative

In evaluating the No Project Alternative versus the proposed Project, one key issue stands out. The proposed Project will result in a cessation of crude oil barge transportation, thereby reducing the potential for offshore oil spill impacts, and resulting in the abandonment and removal of the EMT. Clearly, crude oil transportation via pipeline is environmentally preferred over marine barge transportation, since both the frequency of an oil spill impacting the sensitive marine environment and the size of the worst case oil spill would be greatly reduced by the use of a pipeline. In addition, the abandonment of the EMT would result in numerous beneficial impacts related to public safety, marine water quality, marine biological resources, visual resources, land use and recreation. There is some controversy associated with the relative abandonment of the EMT as part of the proposed Project, since it is highly likely that the EMT will need to be decommissioned and abandoned between 2013 and 2016, when the onshore lease expires. The EMT onshore facilities are owned by the University of California Santa Barbara (UCSB), which is on record as stating that the lease will not be renewed under any circumstance. The offshore lease renewal from the CSLC is also currently undergoing environmental review, with a proposed termination date of 2013. Therefore, it is reasonable to make a case that many of the environmental benefits associated with the proposed Project would occur under the No Project Alternative, but only a few years later.

Another complicating factor associated with the evaluation of the No Project Alternative is the relative duration of crude oil production at Platform Holly under this alternative versus the proposed Project. Currently, wells drilled from Platform Holly, and located along the eastern edge of lease 3242, are draining petroleum from the proposed extension area. Under the No Project Alternative, the Applicant would continue to produce these reserves from these wells and from the proposed extension area, but at a lower rate than under the proposed Project, and would not be likely to extract 100 percent of the recoverable reserves from the lease extension area (the far eastern end of the South Ellwood Field). Under the proposed Project, the Applicant would drill new wells into the extended portion of lease PRC 3242, and produce at a higher rate and with higher efficiency. It is uncertain if this more efficient recovery of petroleum reserves would shorten the life of the existing facilities and accelerate the eventual decommissioning of the entire South Ellwood Field facilities; i.e., Platform Holly and the EOF. The Applicant in the application has stated that the proposed life of the existing Project is the same as that of the proposed Project. However, under the No Project Alternative, it is highly likely that a portion of the South Ellwood Field would never be recovered.

The Proposed Project versus No EOF Modifications

Another alternative that was evaluated in this EIR was where no modifications would be made to the EOF as part of the development project. If the upgrades to the EOF included in the proposed Project do not meet the requirements for a Limited Exception Determination (LED) with the city of Goleta, then no modifications would be allowed at the EOF without a re-zoning of the property and a vote of the people of the city of Goleta. This alternative would avoid a potentially significant, unavoidable Class I land use impact for the proposed Project, but other Class I land use impacts would potentially remain related to production from new leases and added production at the EOF. From an environmental, health and safety perspective, this alternative could be found to be inferior to the proposed Project because some of the proposed modifications may be found to have environmental benefits with regards to air emissions and without the changes those benefits would not take place.

If the proposed modifications did not meet the LED findings, the city of Goleta could consider a Development Agreement, in accordance with Article 2.5 of the California Government Code, that would allow the Project to proceed, while placing limitations on the overall life of the facility and other requirements that quicken the termination of the non-conforming use and facilitate transition of the site to a recreational use. Such an agreement would require further examination by the city with opportunity for public

input. The California Coastal Commission also would need to approve this agreement if the city does not have a certified LCP. In that case, environmental impacts and mitigation measures would remain as analyzed in this document for the proposed Project, with the potential reduction on the impacts related to an imposed limit on the Project life. The limitation of the Project life could reduce the probability of an oil spill over the Project life and other impacts making this alternative preferable to the proposed Project or preferable to a potential rezone to an industrial zone district. A rezone to an industrial zone district could open up the area for other industrial uses beyond the life of the proposed Project, with the additional environmental impacts that those potential added industrial uses would entail.

The Proposed Project versus Processing at Platform Holly

The alternative of moving all oil and gas processing operations to Platform Holly offers numerous benefits over the proposed Project, but would not avoid the most significant impacts associated with an accidental oil spill. In this case, processing on Platform Holly would increase the risks of an offshore oil spill. Conversely, offshore processing would allow the partial abandonment of the EOF, with all processing equipment removed; and limited equipment remaining for crude oil storage, crude oil pumping, electricity generation, and sales gas compression. Environmental benefits would include air quality, public safety, visual resources, land use and recreation.

The Proposed Project versus Las Flores Canyon Processing: Offshore Gas and Onshore Oil Pipeline

The EIR also evaluated two alternatives, which involve moving all oil and gas processing to the ExxonMobil LFC consolidated facility. The first of these alternatives evaluated the installation of a new produced gas pipeline, power cable, utility line and produced water return line offshore between Platform Holly and the LFC, while the crude oil pipeline would be installed as proposed by the Project. This alternative would allow for the cessation of all oil and gas processing at the EOF and abandonment of the EOF, with the exception of a valve box. Environmental benefits would include reduction in air quality, public safety, visual resources, land use and recreation impacts. Oil spill risk would be the same as the mitigated proposed Project, which would produce the lowest risk of oil spills to the offshore/marine environment (utilizing mitigation measures HM-3a, HM-3b, HM-3c, HM-3d and HM-4a requiring that the Holly to shore pipeline be monitored for corrosion and integrity and be directionally drilled through the beach area).

Production from the proposed restart of the PRC lease 421, if permitted, could tie in directly into the pipeline at the EOF valve box and be sent to LFC for processing.

The Proposed Project versus Las Flores Canyon Processing: Offshore Gas and Offshore Oil Pipeline

The second of the LFC alternatives would involve constructing all new pipelines (oil, gas, utility and produced water return) and a power cable offshore between Platform Holly and the LFC facility. This alternative would result in the complete abandonment of the EOF, since all processing and power supply would be accommodated by LFC facilities. Environmental benefits would include air quality, public safety, visual resources, land use, and recreation. Overall oil spill risk (onshore and offshore) would be the lowest of any of the alternatives or the proposed Project, due to the shortest pipeline route to the LFC/AACP location. While this alternative, with a longer offshore crude oil pipeline, would create a greater risk of offshore crude oil spills with resulting impacts to marine water quality and biological resources, than the mitigated proposed Project, it would avoid almost all impacts associated with onshore pipeline construction and operation between the EOF and LFC.

In the event that production is resumed at lease PRC 421, crude oil and gas from the 421 Project would need to be routed to the LFC via the existing pipelines between the EOF and Platform Holly, where it would be commingled with Platform Holly production and shipped to the LFC via the new offshore pipelines. This alternative would require some crude storage, pigging and pumping equipment at the EOF if lease 421 production is developed. The use of the existing Holly to EOF pipelines for lease PRC 421 production would increase the spill risk above the other alternatives or the mitigated proposed Project.

Environmentally Superior Alternative

Given the relative impacts and merits of the proposed Project and each alternative that was considered in this EIR, and based on the discussion presented above, the LFC Processing: Offshore Gas and Offshore Oil Pipeline Alternative is considered to be the environmentally superior alternative. This alternative has advantages over the proposed Project in reducing impacts in a number of issue areas as a result of the elimination of the EOF. Specifically, a reduction in air quality impacts by consolidating processing of oil and gas at LFC; public safety by eliminating the risks associated with oil and gas processing at the EOF and consolidation at the LFC facility, which is remotely located from sensitive receptors; visual resources as a result of the elimination of the EOF, and land use and recreation for the same reason. These benefits would

also be applicable to a comparison between this alternative and the No EOF modifications alternative.

This alternative would also be superior to the No Project Alternative because under the No Project Alternative crude oil transportation via barge would continue at least until 2013 and potentially until 2016, which has an increased risk of an oil spill when compared to pipeline transportation. In addition, the EMT would not be abandoned and the EOF would continue as it currently operates.

The LFC Processing: Offshore Gas and Offshore Oil Pipeline Alternative is also considered to be environmentally superior to Processing at Platform Holly because impacts associated with an oil spill from processing oil offshore would be eliminated with this alternative.

Finally, the LFC Processing: Offshore Gas and Offshore Oil Pipeline Alternative is considered superior to the LFC Processing: Offshore Gas and Onshore Oil Pipeline Alternative for a number of reasons, including:

- The risk associated with the existing crude oil pipeline between Platform Holly and the EOF would be reduced through the construction of a new offshore pipeline;
- Since the new offshore pipelines and power cable would be installed as a bundle, all construction air quality impacts associated with the onshore pipeline would be avoided;
- This alternative would only require a single HDD shoreline crossing at the LFC, and avoid a second crossing at the EOF site; and
- The use of offshore pipelines would avoid all creek crossings, with the associated potential for HDD frac-out and crude oil spill impacts to onshore biological and water resources that are associated with the onshore pipeline, thus avoiding a wide variety of potentially significant impacts.

PRC 421 Implications

With the identification of LFC processing and offshore oil and gas pipelines alternative as the environmentally superior alternative, production from PRC 421 would not have direct access to a crude oil pipeline to transport the oil to market. Should both the LFC processing and offshore oil and gas pipelines alternative and the resumption of production at PRC 421 Recommissioning Project be approved by the CSLC, crude oil produced from PRC 421 would need to be transported to Platform Holly via one of the

existing emulsion, gas or utility pipelines between Platform Holly and the EOF, or truck transportation would be required to deliver the crude oil to market. Production from PRC 421 would otherwise be stranded. Currently, there is no infrastructure to accommodate either crude oil transportation mode.

Since the PRC 421 Recommissioning Project Draft EIR identifies pipeline transportation as the environmentally preferable option over trucking, production from PRC 421 would need to be piped to Platform Holly. It is technically feasible to transport crude oil from PRC 421 to platform Holly using one of the existing pipelines between Platform Holly and the EOF. Additional infrastructure at PRC 421 would be required, including adequate pumping capacity to reach Platform Holly with adequate pressure, a crude oil surge tank (approximately 500 barrels) and a pig launcher for pipeline cleaning and inspection. This equipment could be accommodated at the PRC 421 site or at the EOF property. However, additional environmental review would be required since this alternative was not evaluated in the PRC 421 Recommissoning EIR that was prepared for PRC 421.

KNOWN AREAS OF CONTROVERSY OR UNRESOLVED ISSUES

All proposals related to the development and transportation of oil and gas reserves in the Santa Barbara Channel generate controversy and receive a high level of public scrutiny. This is due to the sensitive nature of the marine resources and the potential for safety impacts to the local population. In addition, the 1969 Santa Barbara Channel oil spill is considered by many to be a seminal event in the environmental movement and is often cited as an example of what can go wrong with offshore development.

The proposed Project would maintain the use of the EOF and Platform Holly. These facilities were constructed in the 1960s and are now considered legal, non-conforming uses. The project area, which had once been heavily industrial, has changed over the decades to be one of the last large expanses of coastal open space in the Goleta Valley and Santa Barbara area. The jurisdictions of the city of Goleta, Santa Barbara County, and UCSB have recently developed the Ellwood Devereux Coast Open Space and Habitat Management Plan to protect the open space and natural resources of the area. Many people in the local communities would like to see the EOF and EMT shut down and removed. As such, the proposed Project achieves one of these goals through the abandonment and removal of the EMT, while also extending the offshore lease boundaries around Platform Holly with an associated increase in petroleum production. The expansion of offshore petroleum production has generated a high level of public interest and controversy (see Appendix B, Notice of Preparation and Comments).

Table ES-3
Summary of Environmental Impacts for the Proposed Project and Alternatives

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NI = No Impact; NA = Not Applicable; NC = Not Classified

Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
Section 4.1 Geological Resources							
The No Project Alternative would have fewer impacts than the proposed Project because there would be no pipeline installation and no associated potential impacts related to erosion, sedimentation, etc. The No EOF Modifications Alternative would have slightly fewer impacts than the proposed Project as there would be less potential for sedimentation and erosion related to the EOF modifications. The Holly Alternative would have the similar impacts for pipeline installation as the proposed Project. The Holly and LFC alternatives would have slightly increased impacts due to the EOF decommissioning.							
GEO-1	Localized sloughing of unconsolidated alluvial sands and artificial fill.	III	NI	III	III	III	III
GEO-2	Beach scour could substantially damage structural components of the EOF.	II	I	II	II	II	III
GEO-3	Increased erosion and sedimentation of local drainages.	II	NI	II	II	II	III
GEO-4	Expansive soils along the proposed pipeline alignment could potentially affect the structural integrity of the pipeline.	II	NI	II	II	II	NI
GEO-5	Seismically induced ground failure that would expose people and structures to greater than normal risk.	II	II	II	III	III	III
GEO-6	Increased natural oil and gas seepage as a result of waste waster reinjection.	II	II	II	II	II	II
Section 4.2 Hazards and Hazardous Materials							

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
The No Project Alternative would continue barging and transportation of NGL by truck, thereby producing greater transportation impacts to public health and transportation spill risk impacts than the proposed Project. The No Project Alternative would have a lower facility spill impacts than the proposed Project because no additional drilling would take place on Holly and pipeline throughputs would remain at historical levels. The No EOF Modifications Alternative would have similar impacts as the proposed Project. The Holly Alternative would have lower facility related public health risks than the proposed Project due to the reduced operations at the EOF and the transportation public health risks would be less than the proposed Project or other alternatives due to the elimination of LPG transportation. Spill risks associated with the Holly Alternative would be greater than the proposed Project due to the increased crude processing on Holly. The LFC alternatives would have the lowest facility public health risks as the EOF operations would be moved to LFC, away from public receptors. The LFC with offshore pipeline would have the lowest overall spill risk; however, the LFC with onshore pipeline would have the lowest risk of spills to the marine environment. The LFC alternatives would have the same transportation public health risks as the proposed Project related to LPG transportation.							
HM-1	Reduced use of natural gas liquids storage at the EOF would produce lower risks to public health than current operations.	IV	NA	NA	IV	IV	IV
HM-2	Increased transportation of LPG along area highways would increase the risks to public health over current operations.	I	NI	I	IV	I	I
HM-3	Increase in drilling at Platform Holly and the increased spill sizes of emulsion/crude.	I	NI	I	I	I	I
HM-4	Elimination of barge loading operations would reduce the frequency and volume of spills to the environment for transportation.	IV	NA	IV	IV	IV	IV
Section 4.3 Air Quality							

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
The No Project Alternative would have fewer impacts than the proposed Project for NOx emissions because the additional drilling and supply boats would not be operating, which produce more NOx than is saved by the removal of the EMT, and increased throughput at the EOF would not occur. However, ROC emissions would increase with the No Project Alternative because of the continued use of the EMT. Construction impacts would also not occur under the No Project Alternative. The No EOF Modifications Alternative would increase emissions over the proposed Project because of the increased use of the heaters and thermal oxidizers at the EOF and the increased use of the Holly drilling generators and the lack of equal NOx control on this equipment. Processing on Holly would have similar operational emissions as the proposed Project, but would have higher construction emissions due to increased construction on Holly and the abandonment of equipment at the EOF. The LFC alternatives would have similar operational emissions as the proposed Project but would have higher construction emissions due to the abandonment at the EOF and the construction of offshore pipelines.							
AQ-1	Construction activities would result in emissions at the EOF, EMT, and along the new pipeline corridor.	II	NI	II	II	II	II
AQ-2	Increased operational emissions at the EOF and Platform Holly	III	NI	III	III	III	III
AQ-3	Increased potential for an upset event with a subsequent gas release or an oil spill, and thus could potentially result in increased nuisance odor events	III	NI	III	III	III	III
AQ-4	Increased HAP emissions from the EOF and thus increase health risk	III	NI	III	III	III	III
AQ-5	Project would produce higher greenhouse gas emissions	I	NI	I	I	I	I
Section 4.4 Hydrology, Water Resources, and Water Quality							

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
The No Project Alternative would have fewer construction impacts than the proposed Project because construction impacts would not occur. However, benefits associated with elimination of barging operations would not occur. The No EOF Modifications would have similar impacts as the proposed Project. The Holly Alternative would have slightly increased impacts over the proposed Project due to the increased crude oil processing on Holly and the increased potential for spills at Holly. The LFC Onshore Alternative would have similar offshore impacts as the proposed Project, but slightly greater onshore due to the decommissioning of the EOF. The LFC Offshore Pipeline Alternative would have fewer impacts to onshore water resources (due to construction and spills) but would have increased impacts to offshore water resources due to spills over the proposed Project.							
WQ-1	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine water quality.	I	I	I	I	I	I
WQ-2	Reduction in the frequency, volume, and spatial extent of offshore oil spills by the elimination of barge loading and transportation would benefit marine water quality.	IV	I	IV	IV	IV	IV
WQ-3	Sand jetting the utility and power lines into nearshore seafloor sediments will temporarily increase turbidity and deleteriously impact water quality within sensitive kelp habitats located nearby.	II	NI	II	II	II	II
WQ-4	Disturbance of hydrocarbon-contaminated sediments near Shane Seep, or other seeps, during decommissioning of the offshore EMT could result in an acute increase in hydrocarbon concentrations within the water column.	II	NI	II	II	II	II

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
WQ-5	Pipeline construction and EMT abandonment could degrade surface and groundwater quality (note: classification reflects impact associated with pipeline construction; potential impacts associated with EMT abandonment are unclassified pending a complete abandonment and reclamation plan).	II	NI	II	II	II	III
WQ-6	Potential horizontal directional drilling related frac-outs during pipeline construction could degrade surface and groundwater quality.	II	NI	II	II	II	II
WQ-7	A rupture or leak from the EOF, the existing onshore portion of the oil pipeline from Platform Holly to the EOF, or the proposed oil pipeline could substantially degrade surface and groundwater quality	I	NI	I	I	I	III
Section 4.5 Biological Resources							
The No Project Alternative would have fewer construction impacts than the proposed Project because construction impacts would not occur. However, benefits associated with elimination of barging operations would not occur. The No EOF Modifications would have similar impacts as the proposed Project. The Holly Alternative would have slightly increased impacts over the proposed Project due to the increased crude oil processing on Holly and the increased potential for spills at Holly. The LFC Onshore Alternative would have similar offshore impacts as the proposed Project, but slightly greater onshore due to the decommissioning related construction at the EOF. The LFC Offshore Pipeline Alternative would have fewer impacts to onshore biological resources (due to pipeline construction and spills) but would have increased impacts to offshore biological resources due to spills over the proposed Project.						
BIO-1	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect marine biological resources.	I	I	I	I	I	I

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
BIO-2	Reduction in the frequency, volume, and spatial extent of offshore oil spills by the elimination of barge loading and transportation would benefit marine biological resources.	IV	NA	IV	IV	IV	IV
BIO-3	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect commercial and recreational fishing.	I	I	I	I	I	I
BIO-4	Accidental discharge of petroleum hydrocarbons into marine waters would adversely affect kelp and commercial kelp harvesting.	III	III	III	III	III	III
BIO-5	Sand jetting utility and power lines into nearshore seafloor sediments will temporarily increase turbidity within sensitive kelp habitats.	III	NI	III	III	III	NI
BIO-6	Sediment disturbance during decommissioning of the EMT moorings and the loading line could result in increased turbidity and hydrocarbon concentrations within the water column.	III	NA	III	III	III	III
BIO-7	Marine vessel traffic to and from Platform Holly could cause loss or damage to commercial fishing gear in the project area. Fishing preclusion zones during offshore construction and decommissioning could limit fishing activities.	II	III	II	II	II	II

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
BIO-8	Increases in vessel traffic may adversely affect marine mammals and turtles.	II	III	II	II	II	II
BIO-9	Marine Construction and Vessel Traffic Impacts on Commercial and Recreational Fishing.	II	NI	II	II	II	II
BIO-10	Noise and lighting from vessel support and transit activities may potentially disturb marine mammals and birds in the project area.	III	III	III	III	III	III
BIO-11	Construction activities have the potential to affect populations of threatened, endangered or candidate species or their habitat, and could result in a "take" of a special status species.	II	NI	II	II	II	II
BIO-12	Construction activities have the potential to result in permanent alteration or destruction of habitat that precludes re-establishment of native biological populations and/or prolonged disturbance to functional habitat of important biological resources.	II	NI	II	II	II	II
BIO-13	An accidental oil spill and subsequent cleanup efforts would result in an increased potential for a loss or injury ("take") of a threatened, endangered, or candidate species	I	I	I	I	I	I
BIO-14	Decommissioning of the EMT and restoration of area could result in a beneficial impact on Onshore Biological Resources.	NC	NC	NC	NC	NC	NC
Section 4.6 Cultural, Historical, and Paleontological Resources							

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
The No Project Alternative would have fewer impacts due to the lack of construction of pipelines, modifications to the EOF and decommissioning of the EMT, which might disturb cultural resources. The No EOF Modifications and Holly alternatives would have the same impacts as the proposed Project. The LFC Onshore Alternative would have impacts to both onshore and offshore areas, which would be greater than the proposed Project. The LFC Offshore Pipeline Alternative would have impacts to cultural resources from construction of the offshore pipeline only.							
CR-1	If grading and excavation associated with construction of the proposed project at the EOF extends below a depth of 10 feet, ground disturbing activities would potentially result in disturbance to unknown archaeological sites buried below the EOF.	II	NI	II	II	II	II
CR-2	Grading and excavation associated with construction of the proposed project would potentially result in disturbance to unknown CA-SBA-139 deposits.	II	NI	II	II	II	NI
CR-3	Grading and excavation associated with construction of the proposed project would potentially result in a short-term increase in access to archaeological artifacts associated with CA-SBA-139 and the potential for unauthorized collection.	II	NI	II	II	II	NI
CR-4	Grading and excavation associated with construction of the proposed project would potentially result in a short-term increase in access to and the potential for unauthorized collection of archaeological artifacts associated with CA-SBA-83, CA-SBA-1676, and CA-SBA-1733.	II	NI	II	II	II	NI

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
CR-5	Potential oil spills from the operational pipeline have the potential to affect cultural resources from subsequent cleanup and remediation activities.	II	NI	II	II	II	NI
CR-6	Activities associated with the decommissioning of the EMT would potentially results in disturbance to unknown CA-SBA-1327 and CA-SBA-2341 deposits.	NC	NI	NC	NC	NC	NC
CR-7	Activities could damage, disrupt, or adversely diminish the quality of an important prehistoric or historic archaeological resource or a historical resource such that its integrity would be diminished.	III	NI	III	III	III	III
CR-8	Activities could damage or disturb paleontological resources including Chumash midden sites due to proposed drilling on Platform Holly and offshore modifications to existing facilities.	III	NI	III	III	II	II
CR-9	Activities could damage, disrupt, or adversely diminish the quality of an important prehistoric or historic archaeological resource or a historical resource such that its integrity would be diminished.	III	NI	III	III	II	II
Section 4.7 Land Use, Planning, and Recreation							

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
The proposed Project and the alternatives would have the beneficial impact of the abandonment of the EMT, which would not be the case with the No Project Alternative. The LFC processing alternatives would have fewer impacts and are potentially more consistent with City policies that the proposed Project and the other alternatives because they would consolidate all processing at the LFC Facility and eliminate the EOF. The proposed Project and alternatives (except for the No Project Alternative) would all be inconsistent with the Goleta Safety Element policies, since they all would increase oil production and its risks. Accidental oil releases that could affect sensitive resources can potentially occur under the proposed Project and all of the alternatives.							
LU-1	The Proposed Project would be consistent with the adopted goals, objectives, and/or policies of approved land use plans, including the Santa Barbara County LCP and UCSB LDRP Amendment.	NC	NC	NC	NC	NC	NC
LU-2	The Proposed Project would be inconsistent with the energy-related on- and off-shore use policies associated with the Applicant's facilities in the City of Goleta's General Plan.	I	III	I	I	III	III
LU-3	The Proposed Project would be inconsistent with the Open Space and habitat conservation policies Joint Proposal for the Ellwood-Devereux Coast Open Space and Habitat Management Plan, and the City of Goleta Safety Element policies.	I	III	I	I	I	I
LU-4	Accidental Oil Releases Could Affect Recreational Activities.	I	I	I	I	I	I
Section 4.8 Public Services							
The proposed Project and alternatives would exacerbate the demand on fire protection services. No noticeable advantage to any of the alternatives is noted in this issue area.							

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
PS-1	Project could potentially result in increased demands for fire protection and emergency response due to the proposed drilling, higher oil and gas throughput, and more equipment at the EOF.	I	NI	I	III	NI	NI
PS-2	Project could result in increased demands for water due to construction, drilling and higher oil and gas throughput.	III	NI	III	III	III	III
PS-3	Project could result in increased discharge into the public sewer due to drilling and higher oil and gas throughput.	III	NI	III	III	III	III
PS-4	Project could result in increased demands for waste handling capacities due to drilling and higher oil and gas throughput.	III	NI	III	III	III	III
PS-5	Project could result in increased demands for waste handling capacities due to demolition and removal of equipment from the Project facilities.	NC	NI	NC	NC	NC	NC
Section 4.9 Transportation and Circulation							
The No Project Alternative would have no impacts as no construction or increased operations would produce additional traffic on area roadways. The No EOF Modification would have similar impacts as the proposed Project. The Holly Alternative would have greater construction impacts than the proposed Project as additional trips would be required to transport equipment to Holly. However, operations would be less than the proposed Project as truck trips to transport LPG and sulfur would no longer be required. The LFC alternatives would produce greater construction impacts than the proposed Project as there would be more decommissioning related traffic due to the decommissioning of the EOF. The LFC Offshore Alternative would have greater traffic impacts than the proposed project along the access road, but no impacts along the onshore pipeline route.						

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
T-1	The use of certain intersections or roadways to deliver/remove materials to/from the EOF, pipeline route, EMT, or Platform Holly could cause significant impacts to area roadways that are currently, or could in the future, have unacceptable levels of service.	II	NI	II	II	II	II
Section 4.10 Noise							
The No Project Alternative would have no impacts as no construction or increased operations would produce noise at the EOF or the pier area above current operations. The No EOF Modifications Alternative would have fewer impacts than the proposed Project due to the lack of construction at the EOF and the lack of new operations at the EOF. Processing on Platform Holly and the LFC alternatives would have fewer impacts than the proposed Project due to the abandonment of the EOF and the remote location of the LFC. Construction noise impacts would exist for the Holly and LFC alternatives due to the decommissioning of the EOF, but these would be short term in nature.							
N-1	The proposed Project would increase the noise from operations at the EOF.	II	NI	NI	IV	IV	IV
N-2	Pipeline construction machinery would produce short-term noise in the vicinity of the pipeline right-of-way.	II	NI	II	II	II	IV
N-3	EOF construction could produce short-term noise to the Golf Course.	III	NI	NI	IV	IV	IV
N-4	EMT Decommissioning construction could produce short-term noise to the mesa and Coal Point beach area.	III	NI	III	III	III	III
Section 4.11 Aesthetics/Visual Resources							

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
The No Project Alternative would not have the beneficial impacts associated with the removal of the EMT, but would avoid impacts related to installation of the pipeline and construction related, short term, impacts. The No EOF Modifications Alternative would not realize the beneficial impacts associated with the equipment removal at the EOF or the impacts associated with equipment additions at the EOF. Processing on Holly would have beneficial impacts over the proposed Project due to the removal of some of the EOF equipment. The LFC alternatives would have even greater benefits over the proposed Project as the EOF would almost be completely removed.							
VR-1	The removal of industrial features, such as the EMT tanks, from the visually sensitive areas would improve aesthetic views in the area	IV	NI	IV	IV	IV	IV
VR-2	The proposed new structures would not be taller than the existing structures at the EOF, and thus would not decrease quality of views from the visually sensitive areas.	III	NA	III	III	NI	NI
VR-3	Construction activities and machinery would create visually negative impact.	III	NI	III	III	III	III
VR-4	Installation of the pipeline would result in the removal of existing vegetation along the pipeline right-of-way, altering the visual character of the area.	II	NI	II	II	II	III
VR-5	Installation of the station would result in a presence of an industrial feature amidst rural viewshed, altering the visual character of the area.	III	NI	III	III	NI	NI
VR-6	An oil spill from Platform Holly, pipelines or the EOF could cause potential long-term adverse visual impacts from the oil spill and cleanup efforts	I	I	I	I	I	I

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
VR-7	The removal of EOF equipment would enhance the visual character of the area	NI	NI	NI	IV	IV	IV
Section 4.12 Energy and Mineral Resources							
The No Project Alternative would not have the beneficial impacts associated with the production of crude oil and the end product production of gasoline and diesel fuel. In addition, the No Project Alternative would not produce a net benefit to the electrical grid through the production of electricity by the Project (for all periods except peak periods). The No EOF Modifications Alternative would also not have a benefit to the electrical grid as the generators would not be installed. The Holly Alternative and the LFC alternatives would have impacts similar to the proposed Project impacts.							
ER-1	Impacts from increased electricity consumption at the Project facilities due to higher operation loads of the existing electrical equipment and consumption by the proposed equipment.	III	NI	III	III	III	III
ER-2	Impacts from diesel and natural gas consumption and crude oil production by the Project facilities.	IV	NI	IV	IV	IV	IV
Section 4.13 Agricultural Resources							
The No Project Alternative would have fewer impacts than the proposed project because construction of the pipeline would not take place. The No EOF Modifications, the Holly and the LFC with onshore pipeline alternatives would have the same impacts as the proposed Project. The LFC with offshore pipeline would have fewer impacts than the proposed Project as a pipeline would not be construction through agricultural lands.							
AG-1	A spill of oil could result in impacts to the surrounding areas by impacting environmental resources.	II	NI	II	II	II	NI

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Impact No.	Impact Description	Proposed Project	No Project	No EOF Modifi-cations	Process on Holly	LFC Process Onshore Crude Pipeline	LFC Process Offshore Crude Pipeline
AG-2	A spill of oil could result in impacts to the surrounding areas by impacting agricultural resources and local water supplies.	II	NI	II	II	II	NI
AG-3	Project-related activities could result in the temporary loss of prime agricultural resources and crop production.	III	NI	III	III	III	NI
Section 4.14 Environmental Justice							
The No Project Alternative have fewer impacts than the proposed Project as no project development would occur. Impacts from the No EOF Modifications and the LFC modifications would have similar impacts as the proposed Project. The Holly Alternative would have fewer impacts than the proposed project as no LPG trucking would occur.							
EJ-1	The proposed Project could disproportionately impact minority and/or low-income populations.	III	III	III	III	III	III

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