Attachment A

Overview of Oil and Gas Development Offshore Santa Barbara County

OVERVIEW OF OIL & GAS DEVELOPMENT OFFSHORE SANTA BARBARA COUNTY

Prepared by the Planning and Development Department
Energy Division

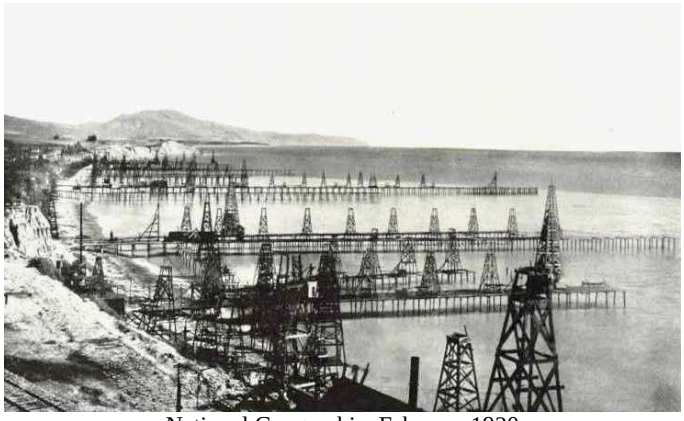
August 2009

1. Historic Overview

Oil development in the United States began in the early 1850s, and first arrived in Santa Barbara County in 1886 upon discovery of the Summerland oil field. Summerland oil operations expanded considerably during the 1890s, and moved offshore into coastal waters in 1896 via piers as depicted in Figure 1. These wells are the first known to have been drilled to extract offshore oil and gas reserves.

The El Capitan, Elwood, Goleta, and Mesa oil and gas fields were discovered offshore the south coast of Santa Barbara County in the late 1920s. Development of these fields entailed a combination of slant drilling from onshore wells and offshore drilling from piers. Between 1929 and 1968, the State of California leased 34 parcels offshore Santa Barbara County's south coast.[1]

Figure 1 -- Summerland Field



National Geographic, February 1920

Nearly 100 different operators produced the Summerland field from 14 piers. Most wells were located close to the shoreline or in relatively shallow waters. By 1902, the operators had drilled 412 wells. Each well's output would dwindle quickly. By 1903, 114 wells were idle and 100 had been deserted. Only a few wells remained active in the 1920s.

In 1947, Kerr-McGee successfully completed the first offshore well from a stand-alone platform 10.5 miles from shore in the Gulf of Mexico. This event enabled and stimulated a major expansion of offshore oil and gas development beyond near-shore fields.

Platform Hazel, the first drilling platform off Santa Barbara County, was installed in 1958 offshore Carpinteria. Seven other platforms were installed in State tidelands off Santa Barbara County between 1956 and 1966 to produce the Conception, Summerland, Carpinteria, and South Elwood fields. Meanwhile, other State Tideland fields were produced from subsea wells, after being drilled from ships (e.g., Molino gas field), or additional slant drilling from onshore sites (Cojo oil and gas field). Tidelands production offshore Santa Barbara County peaked at approximately 8.9 million barrels in 1964 and has since declined through 2009. All platforms in State Tidelands offshore Santa Barbara County have been decommissioned, except for Venoco's Platform Holly offshore the City of Goleta.

Kerr-McGee's 1947 platform quickly precipitated a legal battle between the federal government and coastal states over ownership of offshore waters, submerged lands, and mineral rights. This battle mostly concluded in 1953 with enactment of two federal laws: the Submerged Lands Act

[1] This number rose to 35 in 1996 with approval of splitting an existing lease into two for partial reassignment.

and the Outer Continental Shelf Lands Act. The former set ownership boundaries between state and federal lands and minerals rights under the ocean. In California, state waters, submerged lands, and mineral rights extended three miles seaward of the mean-high tide. The waters beyond three miles, dubbed the Outer Continental Shelf (OCS), were placed under federal ownership. However, Santa Barbara County sought an interpretation of the newly established Submerged Lands Act that would treat the Santa Barbara Channel as an inland waterway. In 1965, the United States Supreme Court ruled on California's claim that the water between Santa Barbara County's mainland and the Channel Islands should be considered "inland" water under the jurisdiction of the State. The Court upheld the federal government's jurisdiction over all waters seaward of the State's three-mile jurisdictional limit in the water of the Santa Barbara Channel.

Following this ruling, the federal government began preparing to lease submerged tracts of land in the Santa Barbara Channel. The U.S. Department of the Interior conducted 10 OCS lease sales offshore California between 1966 and 1984, resulting in 369 new leases, about 200 of which were situated offshore the tri-county region of San Luis Obispo, Santa Barbara, and Ventura counties. Phillips Petroleum, Continental, and Cities Service acquired the first federal Outer Continental Shelf (OCS) lease in the Santa Barbara Channel south of Carpinteria in 1966. Platform Hogan was installed in 1967 to produce the lease. Local governments had petitioned for a form of environmental review for these projects, but such petitions were not addressed until 1970 with the adoption of the National Environmental Policy Act (NEPA). Four additional platforms were installed in the same area in 1968 and 1969 (Platforms A, B, Houchin, and Hillhouse).

On January 28, 1969, Union Oil's Platform A experienced an uncontrolled blowout in the Dos Cuadras field that lasted for approximately eight days. The spill of approximately 80,000 to 100,000 barrels of crude oil affected over forty miles of coastline. Several environmental laws were passed at the federal and state levels following the blowout, including the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Future OCS and state tideland leasing would require a formalized environmental review process.

High crude oil price in the 1970s incentivized operators to continue production from the county's maturing onshore fields, often with enhanced oil recovery methods; however onshore production would continue its decline through 2001. In 1986, the market price of crude oil fell from $22 per barrel to $6 per barrel. Many onshore wells were closed in the following years as onshore oil development declined to levels not seen since the 1930s.

As onshore production declined, offshore production increased substantially. By the late 1970s, OCS production offshore Santa Barbara County had surpassed the combined output from onshore and tidelands leases. By the mid-1980s, twelve platforms produced oil and gas on OCS leases offshore Santa Barbara County. Total oil production in Santa Barbara County, including offshore production landed in the County, reached an all-time high of 68,798,091 barrels in 1995, while natural gas production had reached an all-time high of 99,425,269 thousand cubic feet in 1967 (see Figures 2 and 3, below).

Figure 2

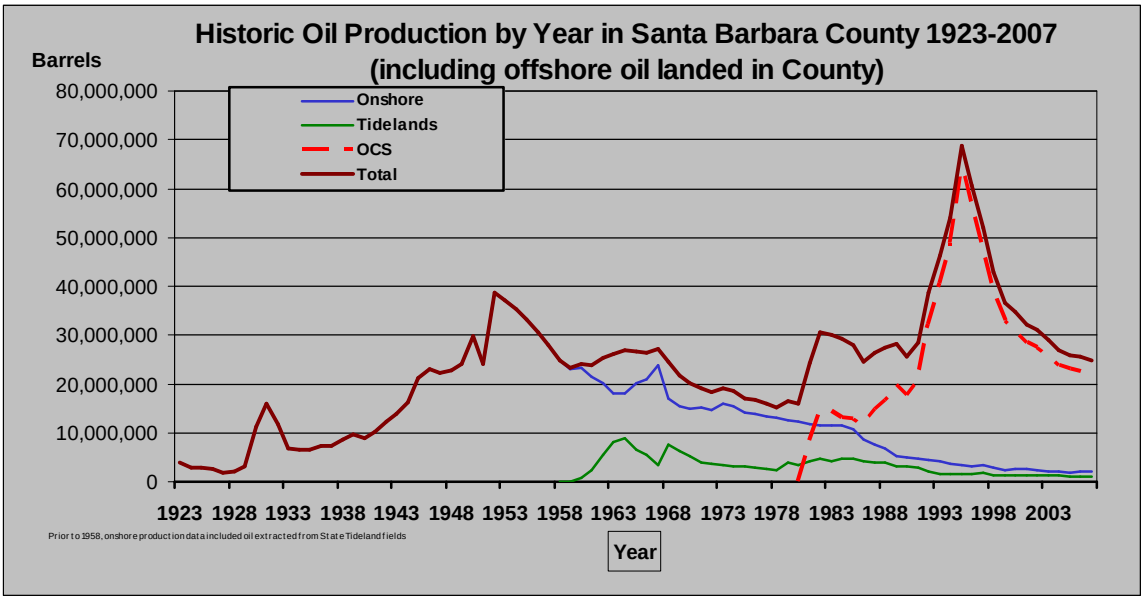
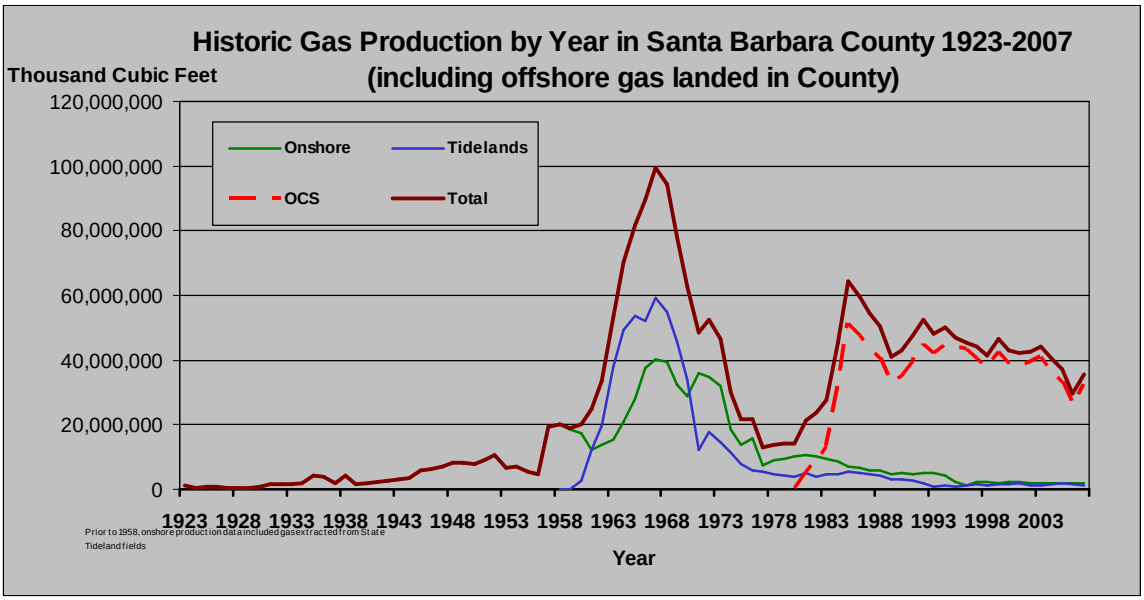


Figure 3



2. Overview of Current Offshore Leases, Facilities, Pending Development Applications, and Pending Leasing

2.1 State Submerged and Tidelands

Current Leases and Facilities

California State Submerged and Tidelands start at the mean-high tide and extend three miles seaward. Eight leases remain in State waters offshore Santa Barbara County (down from 35). Figure 4 (on the next page) shows that three of these leases are situated offshore the City of Goleta, and five leases are situated offshore Summerland, the City of Carpinteria, and Rincon Point. Table 1, below, indicates that only two of these leases are being produced currently from Venoco's Platform Holly, offshore the City of Goleta.

Pending Leasing & Development Applications

- **The California Coastal Sanctuary Act of 1994**

Current State law, enacted in 1994, formally extended sanctuary status to all state waters subject to tidal influence, except for waters subject to an oil and gas lease in effect on January 1, 1995. The Sanctuary is protected from any new leasing for purposes of extracting oil and gas. Existing oil and gas leases revert to sanctuary status upon quitclaim; 15 such quitclaims have occurred offshore Santa Barbara County since 1994.

Three limited exceptions apply to the general prohibition on new leasing in the California Sanctuary. First, the California State Lands Commission (CSLC) may consider issuing a lease where it determines the State's oil/gas resources are being drained from producing wells on adjacent federal lands and it is in the best interests of the State to produce those areas through new leases. The proposed Tranquillon Ridge project has been proposed under this exception.

Second, the CSLC may expand the boundaries of an existing oil/gas lease to encompass the entirety of a field that is partially contained within an existing lease. In these situations, the CSLC must find that the boundary extension would (a) allow more efficient utilization of State resources, (b) not result in an increase in the number and size of existing offshore platforms (except for necessary modifications), (c) not require construction or major modification of a California oil refinery, (d) results in the environmentally least damaging feasible alternative for production of the resources, and (e) be developed from existing offshore facilities or new upland drilling sites. Venoco has proposed to expand the boundaries of its two leases offshore Ellwood under this exception, as summarized below.

Third, the CSLC may issue oil/gas leases within the Sanctuary if the nation's president opens the Strategic Petroleum Reserve to address a severe interruption to the nation's energy supply, and the Governor determines that oil/gas production from the sanctuary would contribute significantly to alleviating the interruption of supplies. This exception has not been invoked to date.

Figure 4

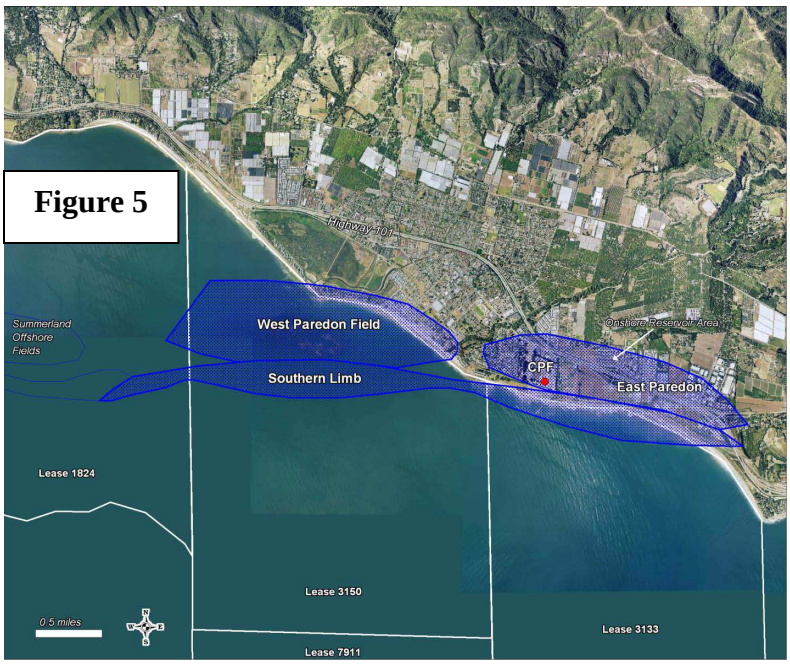

Santa Barbara County
Energy Division Map
Arroyo Grande
Conoco Phillips Santa Maria Refinery
Conoco Phillips Summit
Greka/Santa Maria Asphalt Refinery
Guadalupe
Santa Maria
Conoco Phillips Santa Maria
Conoco Phillips Orcutt
Orcutt
Casmalia
Vandenberg
Air Force Base
Lompoc
Los Alamos
Buellton
Solvang
Los Olivos
Ballard
Santa Ynez
Garey
Sisquoc
Twitchell Reservoir
Unocal Battles
Conoco Phillips Sisquoc Pipeline
All American Pipeline
E&B Natural Resources
New Cuyama
Cuyama
PXP/Lompoc Oil & Gas Plant
Lompoc Wind Energy Project
PXP/Gaviota
ExxonMobil/Popco Las Flores Canyon
CalResources/ AERA
Shell/Gaviota Terminal
AAPL Gaviota
AAPL Las Flores
Venoco/ Ellwood
Goleta
Santa Barbara
Montecito
Carpinteria
Venoco/ Carpinteria
Venoco Paredon
La Conchita
Dos Cuadras/ Rincon
Ellwood Marine Terminal
Mr. Clean I
Mr. Clean III
Irene
Point Pedernales Unit PXP
Tranquillon Ridge Unit
PXP Tranq. Ridge
Hidalgo
Harvest
Hermosa
Point Arguello Unit - PXP
Sword Unit - Samedan
Hondo
Harmony
Heritage
Holly
Santa Ynez Unit - ExxonMobil
Gato Canyon Unit - Samedan
Venoco Full Field
Federal Ecological Preserve
Buffer Zone
C BA
Hillhouse
Habitat
Hogan
Houchin
Henry
Pitas Point Unit
Ventura
Dos Cuadras Mandalay
Oxnard
Grace
Gilda
Gail
Gina
Santa Clara Unit
Point Hueneme Unit
Santa Barbara Channel
Pacific Ocean
SAN LUIS OBISPO COUNTY
KERN COUNTY
VENTURA COUNTY
Facilities and Support*
Pipelines
Platform
Marine terminal
Oil-spill containment vessel
Refinery
Gas processing plant
Oil separation and treatment plant
Oil and gas separation, treatment and gas processing plant
Pump stations
Storage tanks <500,000 bbl
Storage tanks 500,000 to 1,000,000 bbl
Onshore drill site
Helisupport
Crew and light support supply base
Soil remediation
Proposed Directional Drilling
Offshore Oil and Gas Leases
State Leases
Developed
Undeveloped
Proposed
Federal Leases
Developed
Undeveloped
Lease Unit Boundary
Ecological Preserve & Buffer Zone
Federal/State Water Boundary
Channel Islands Nat'l Marine Sanctuary Bndy
8g Line
Coastal Zone Boundary
Alternative Energy
Wind Energy
Proposed Ethanol Plant
Proposed facilities shown in red.
Facilities under abandonment shown in yellow.
New production from existing facilities shown in purple.
Map produced by Santa Barbara County Planning & Development - June 5, 2009
Miles
0 1 2 3 4 5 10 15
N

Table 1

Lease	Lessee	Issued	Last Produced	Field	Offshore Facilities	Onshore Facilities	2008 Production
3120	*Venoco*	1964	2009	South Elwood	Platform Holly, pipelines to shore	Ellwood Onshore Processing Facility, Line 96, Ellwood Marine Terminal	• 956,000 barrels of oil • 1,071 million cubic feet of gas • 37,000 barrels of LPG • 25,785 barrels of NGL
3242	*Venoco*	1965	2009	South Elwood	Platform Holly, pipelines to shore	Ellwood Onshore Processing Facility, Line 96, Ellwood Marine Terminal	
421	*Venoco*	1949		Elwood	Two piers connected to mainland	Ellwood Marine Terminal, connecting pipelines	none
1824	*Chevron*	1957	1992	Summerland	Platforms Hilda & Hazel (removed in 1996)	Carpinteria Oil and Gas Processing Facility	none
3150	*Venoco*	1964	1992	Carpinteria	Platforms Hope & Heidi (removed in 1996)	Carpinteria Oil and Gas Processing Facility	none
3133	*ExxonMobil*	1964	1992	Carpinteria			none
4000	*Carone Petroleum*	1968	n/a	Carpinteria			none
7911	*Carone Petroleum*	1964[2]	n/a	Carpinteria			none

[2] Was originally part of lease PRC 3150.

- **Venoco Paredon Project In and Offshore Carpinteria**



Venoco has proposed to develop oil and gas reserves from the state tidelands (existing leases PRC 3150 and 3133) by drilling up to 35 wells through extended-reach drilling from its existing onshore oil and gas processing site, situated in the City of Carpinteria (Figures 5-6). Venoco estimates economically recoverable reserves at 23.5 million barrels of oil and 43 billion cubic feet of gas. The onshore portion of this project is subject to approval by the City of Carpinteria; it lies outside County land-use jurisdiction. The City circulated a draft Environmental Impact Report (EIR) in 2007. A final EIR has not yet been released, nor have decision-maker hearings been scheduled to consider the project.

More recently, Venoco requested that the City schedule the project for a special election, making the project's approval subject to a vote of the City's electorate, rather than the City Council. The City objected on legal grounds and sought judicial relief. The Superior Court recently ordered the City to proceed with the special election, with some changes to the ballot language. The City is currently considering whether or not to appeal that ruling.

The project, if approved, would be subject to the royalty-sharing provision of Section 6817(b) of the California Public Resources Code, as enacted in 1996 (Senate Bill 1187). This provision directs 20 percent of the state's royalty to the city or county within whose boundaries the lease is located. In this case, a portion of the leases are situated within the City of Carpinteria and a portion is within the County. Accordingly, the 20% share of royalties would be distributed between the County and the City via a formula to be determined by the state.

Figure 6

This viewpoint is from the public trail immediately in front of the proposed project location between the CPF and the pier parking area. This is as close as the public could get to the proposed project location. The drilling rig has a dominating presence and extends well above the horizon line. This is a view of a 175-foot tall drilling rig. An alternative 140-foot tall rig would be shorter, the impacts would be similar.

- **Carone Platform Hogan Project Offshore Carpinteria**

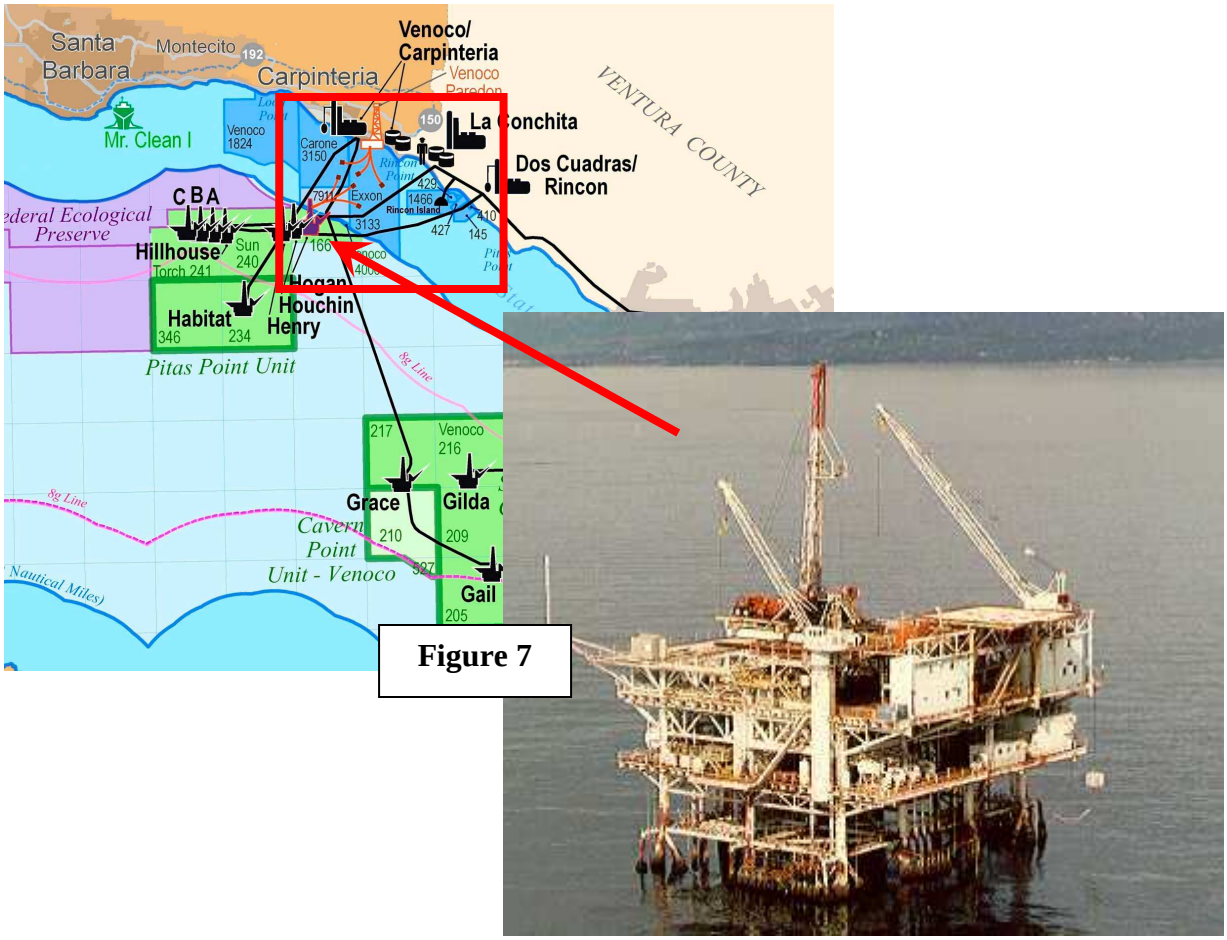


Figure 7

Corone Petroleum Corporation has proposed to develop remaining oil and gas resources in the state tidelands (leases PRC 4000, and 7911) from existing Platform Hogan in adjacent federal waters (Figure 7). This proposal has been delayed considerably for several reasons, including a still incomplete analysis of the structural integrity of Platform Hogan – installed in 1967. Hogan currently produces oil and gas from OCS lease P- 0166 and sends that production to La Conchita Oil & Gas Processing Facility in Ventura County. The proposal would require completion of an EIR (and perhaps an EIS) in order to move forward to decision-makers.

Recently, the California State Lands Commission has set milestones to measure the applicant's progress with its application, in order to enforce due diligence requirements of the state leases. More recently, the California State Lands Commission again issued a warning to Carone to proceed with the project diligently or the Commission would find the lessee in default and take necessary actions to quitclaim the two state tideland leases.

- **Ellwood Pipeline Inc.'s Onshore Pipeline Project**

Ellwood Pipeline, Inc., a subsidiary of Venoco, recently applied to the City of Goleta and County of Santa Barbara for permits to install and operate an approximately 8 ½-mile onshore pipeline. The pipeline would render continued operation of the Ellwood Marine Terminal operations (depicted below), along with connecting pipelines, obsolete and result in the decommissioning of the terminal's onshore and offshore components. The marine terminal loads the single-hulled Barge Jovalan about 25 times per year; each loading operation takes 13-to-17 hours to complete.

Figure 8: Upper left: view of Platform Holly and Barge Jovalan from shore. Upper right: two 65,000-barrel crude oil storage tanks and 10,000-barrel firewater tank. Lower center: single-hulled Barge Jovalan.

The proposed pipeline would extend from a location in or near Venoco's Ellwood Onshore Processing Facility, run north underneath U.S. 101 and then run west to the Plains All American Pipeline. It would carry oil produced from Platform Holly and processed at the Ellwood processing facility to the primary crude oil transmission pipeline for transportation to refineries.

Venoco originally proposed the pipeline as part of its South Elwood Full Field project proposal (see next page). The Draft Environmental Impact Report for that project found an offshore route to be the environmentally superior alternative. Venoco recently decided to de-couple the pipeline from the larger full field proposal in order to move it towards approval. Ellwood Pipeline submitted its application in May of 2009 to both the County's Energy Division and City of Goleta's Planning and Environmental Services Department.

- **Venoco South Elwood Full Field Project**

Venoco has proposed to extend the boundaries of two leases offshore Ellwood (PRC 3120 and 3242) to encompass the entirety of the South Elwood offshore oil and gas field. This extension would allow Venoco to directionally drill into the currently unleased portion of the field and produce the oil and gas contained therein. Venoco also proposed to process the oil and gas from this extended lease at its Ellwood Onshore Facility, located in the City of Goleta, and to transport the processed crude oil to refineries via overland pipeline rather than shipping it via marine barge as it does so currently. This latter portion of the proposed project would require installation of a new proposed pipeline to connect with Plains' All American Pipeline near Exxon-Mobil's processing facility at Las Flores Canyon. As noted above, Venoco recently decoupled the proposed pipeline from this project in order to seek permits separately.

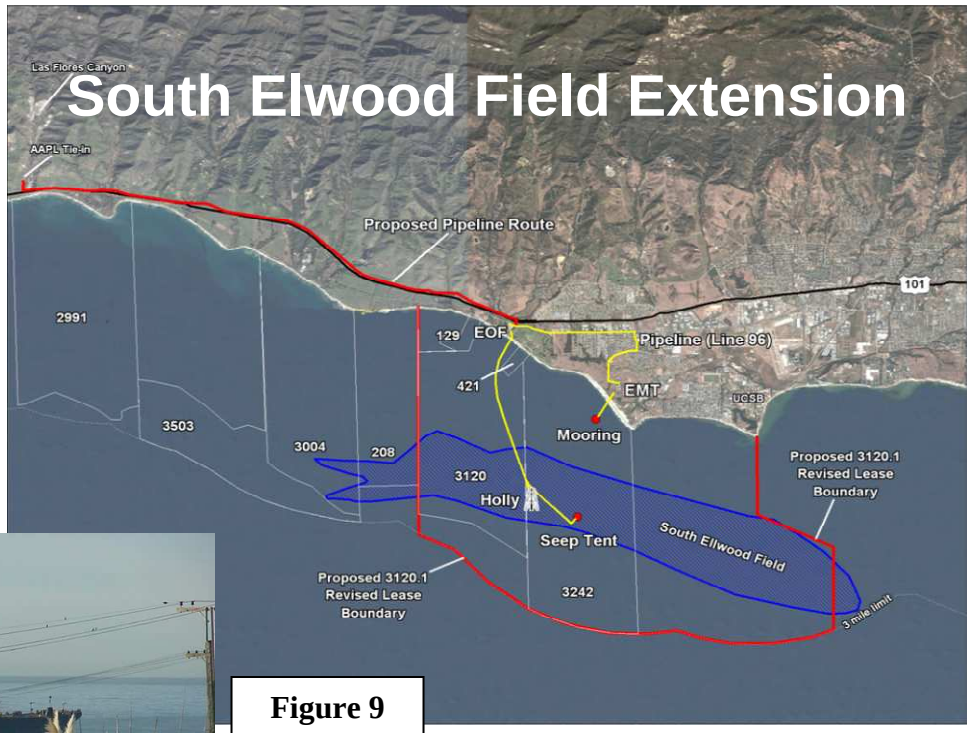


Figure 9

The California State Lands Commission is CEQA Lead Agency for the proposed extension of lease boundaries. It released a public draft in mid-2008. The Ellwood Onshore Facility is a legal non-conforming use and the City has advised Venoco that it would need to seek a General Plan amendment and rezone in order to secure approval to process extended field production in the City. The draft EIR found an offshore route to transport oil and gas directly to Las Flores Canyon for processing at ExxonMobil's oil and gas processing facilities to be environmentally superior. A final EIR has not been completed yet.

- **Venoco PRC-421 Recommissioning**

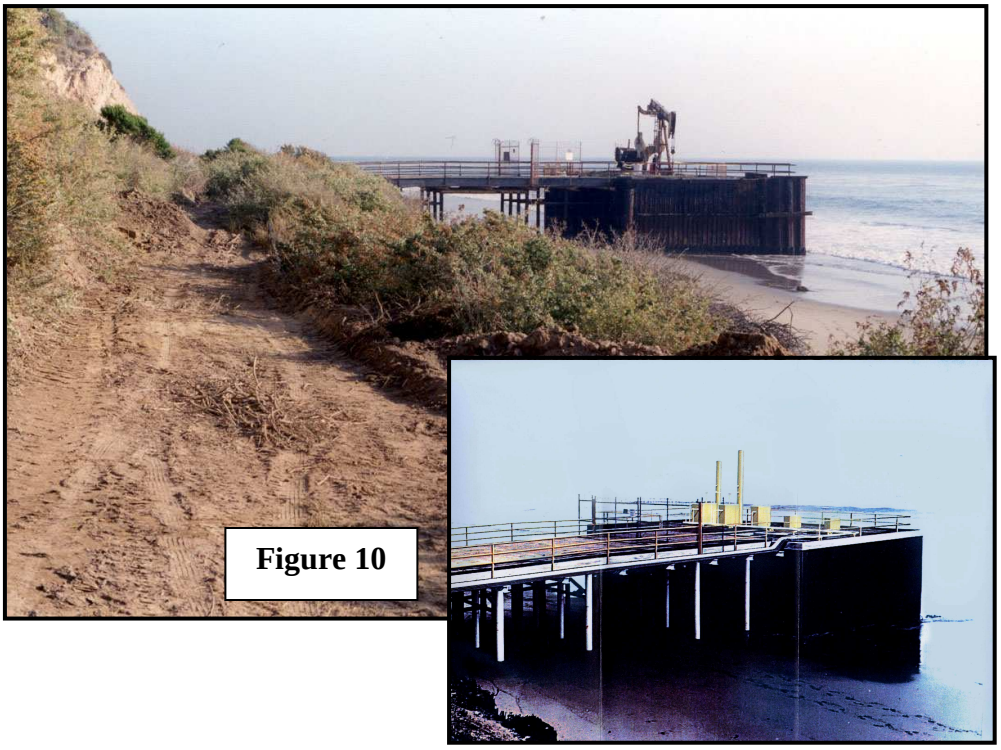


Figure 10

Venoco has proposed to re-commission operations at its offshore Pier to produce oil from the Elwood offshore field for a period of approximately 12 years. The California State Lands Commission is CEQA Lead Agency and the City of Goleta is a Responsible Agency. The project falls outside County land-use authority unless required mitigation affects improvements to the Ellwood Marine Terminal.

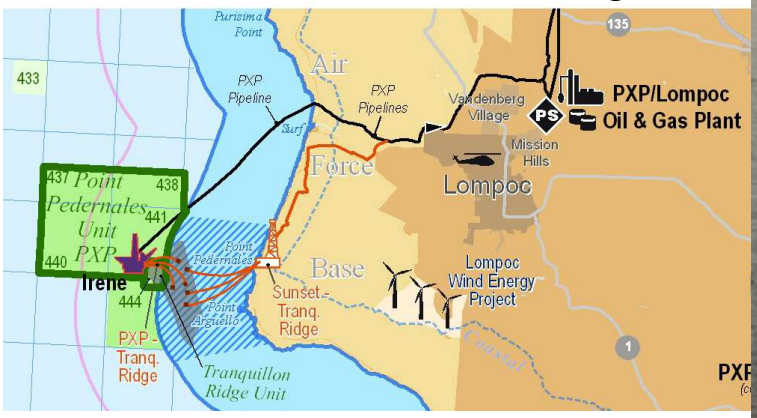
The state has circulated a draft EIR, and has recently expressed plans to recirculate a revised draft to incorporate new information and revised project alternatives. The project schedule remains unclear at this time, and may follow consideration of the onshore pipeline proposal.

- **Tranquillon Ridge Project / Vahevala Project**

Plains Exploration & Production, Inc. (PXP) received County approval last year to bring new oil and gas production from the Tranquillon Ridge field, situated in unleased state tidelands between Platform Irene and Vandenberg Air Force Base (VAFB) to its Lompoc Oil & Gas Plant. PXP has proposed to produce the field from Platform Irene, situated in adjacent federal waters, and use existing infrastructure to directionally drill into the state tideland field. The County was CEQA lead agency and certified the EIR. The project had broad endorsement from local environmental groups. PXP has reached an agreement with Get Oil Out and the Citizens Planning Association to terminate production from Platform Irene at the end of 2022, and contribute 3,700 acres of land to the Trust for Public Land for public use. This acreage, among other things, contains the Lompoc Oil & Gas Plant and the Lompoc oil field.

Subsequently, the California State Lands Commission denied PXP's proposal, finding that the project was not in the best interests of the state. Later attempts have been made by entities in the state government to reconsider approval of the leases through legislative action.

Figure 11



The California State Lands Commission and County of Santa Barbara also received lease and permit applications from Sunset Exploration, Inc. and ExxonMobil to development the same offshore field from an onshore production site, situated on VAFB. That proposal would require new infrastructure to drill and produce oil and gas, process oil, and transport oil and gas via pipeline to the Lompoc Oil & Gas Plant. Subsequently, the U.S. Department of Defense informed the applicants that the proposed production site unduly interfered with the base's mission; thereby stopping any action by the state and county to process applications (the County found the Sunset application to be incomplete, pending landowner approval to proceed).

Recently, Sunset has worked with other entities at the state level to draft legislation that would promote its onshore proposal. A current version would prohibit the California State Lands Commission from considering any new or modified lease that would be developed from any location other than an upland site.

2.2 Federal Outer Continental Shelf

Historic Lease Status

The federal government leased 369 tracts offshore California between 1963 and 1984; about 200 were situated offshore the tri-county region of San Luis Obispo, Santa Barbara, and Ventura (Figure 4, above). Subsequent planned lease sales offshore the County were stopped in 1989 by President H.W. Bush (Executive Order), in response to a study by the National Academy of Sciences. That study concluded that information necessary to inform lease-sale decisions about the impacts of oil and gas development was insufficient for certain offshore areas, including California.

Many of the leases offshore California were subsequently terminated, including 36 leases that were terminated this year upon conclusion of litigation brought by the lessees (*Amber Resources Company, et. al. v. U.S. Department of the Interior*). These 36 leases, listed in Table 2 and shown in Figure 4, above, in light green, have been, or will soon be, repurchased by the federal government. The litigation was based on a breach of contract claim, which was upheld by the U.S. Court of Federal Claims and the U.S. Court of Appeals for the Federal Circuit.

The remaining 39 leases, illustrated on Figure 4, above, in darker green, are either actively producing (28) or situated within actively producing units (11).[3] Nineteen platforms currently serve the producing leases, as identified in Table 3, below.

Table 2 - 36 Undeveloped Leases

Lease	*Year Leased*	*Bonus Payment (unadjusted dollars)*
210	1968	202,291.20
527	1984	70,680.00
460	1982	10,967,500.00
464	1982	9,737,500.00
319	1979	204,000.00
320	1979	1,208,000.00
322	1979	3,215,700.00
323	1979	5,025,000.00
452	1981	91,986,800.00
453	1981	41,296,000.00
443	1981	10,736,200.00
445	1981	13,278,800.00
446	1981	31,181,600.00
449	1981	9,420,000.00
499	1982	153,205.00
500	1982	227,019.00
396	1981	163,251,600.00
397	1981	42,101,660.00
402	1981	133,511,600.00
403	1981	32,510,600.00
408	1981	51,565,000.00
409	1981	42,125,000.00
414	1981	300,100.00
415	1981	45,320,000.00
416	1981	5,047,000.00
421	1981	8,806,500.00
422	1981	18,540,000.00
425	1981	104,040,000.00
426	1981	32,116,800.00
427	1981	13,956,500.00
430	1981	104,040,000.00
431	1981	33,660,000.00
432	1981	12,679,300.00
433	1981	4,326,000.00
434	1981	12,240,000.00
435	1981	16,503,552.00
Total		1,105,551,507.20

[3] A unit combines two or more leases under a single operator. Unitization, as stated in the Outer Continental Shelf Lands Act, is to conserve natural resources, prevent waste, and/or protect correlative rights. All leases within a single unit are considered to be producing for purposes of lease term so long as one lease is actually producing. There are six active units offshore Santa Barbara and Ventura Counties.

Figure 12 – Circa 1985

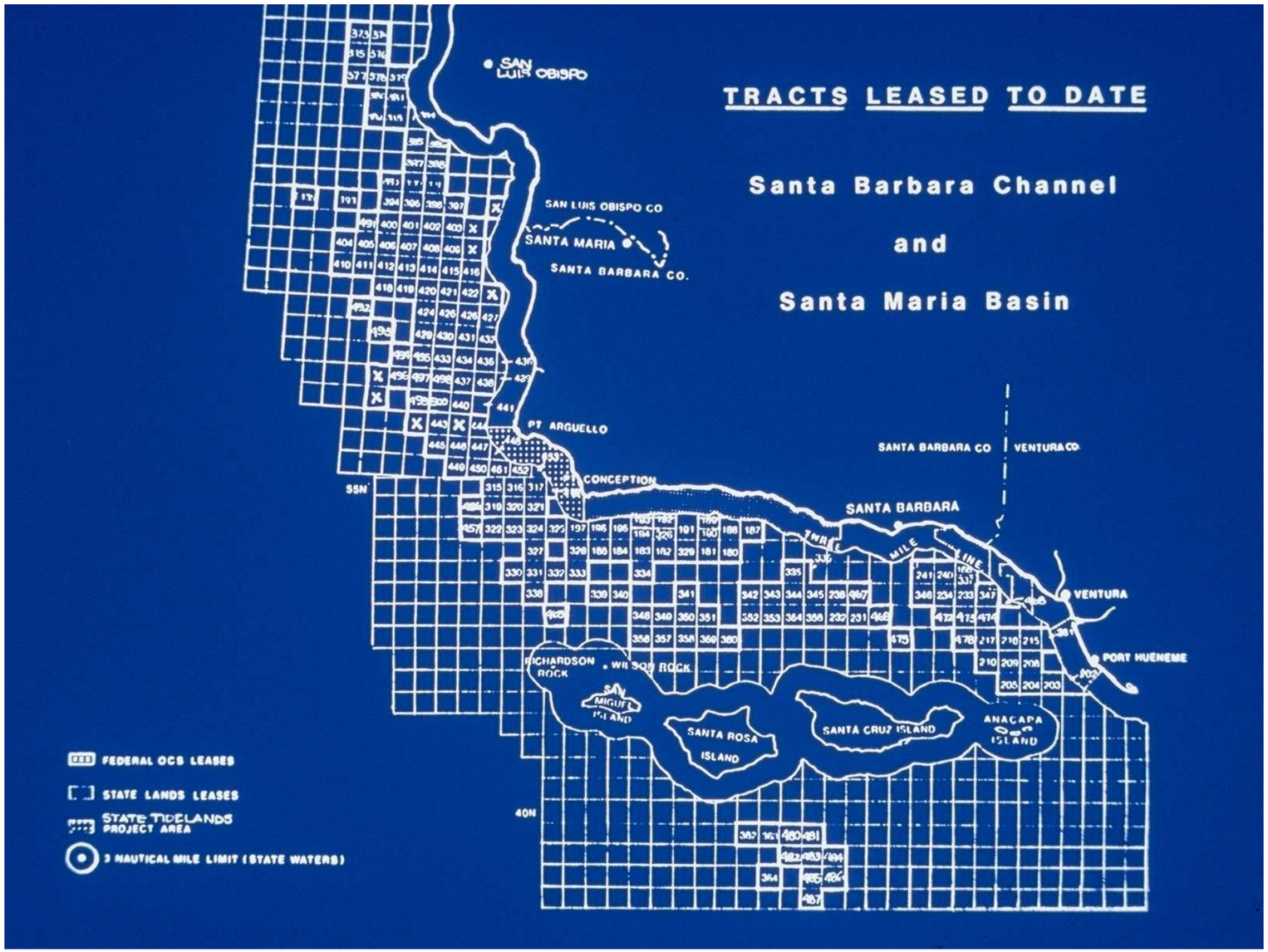


Table 3

Unit	Operator	Field	Offshore Platform (date installed)	Onshore Facilities
Point Pedernales	*Plains Exploration & Production (PXP)*	Point Pedernales, Tranquillon Ridge	Platform Irene (1985)	Lompoc Oil & Gas Plant
Point Arguello	*PXP*	Point Arguello, Rocky Point	Platforms Hermosa (1985), Harvest (1985) & Hidalgo (1986)	Gaviota Pipeline Terminal
Santa Ynez	*ExxonMobil*	Hondo, Pescado, Sacate	Platforms Hondo (1976), Harmony (1989) & Heritage (1989)	Las Flores Canyon Oil & Gas Processing Facility, POPCO Gas Processing Facility
Non-unitized	*Dos Cuadras Offshore Resources, (DCOR)*	Dos Cuadras	Platforms A (1968), B (1968), C (1977), & Hillhouse (1969)	Dos Cuadras/Rincon Oil and Gas Processing Facility, Ventura County
Pitas Point	*DCOR*	Pitas Point	Platform Habitat (1981)	Carpinteria Processing Facility
Non-unitized	*DCOR*	Carpinteria	Platform Henry (1979)	Dos Cuadras/Rincon Oil and Gas Processing Facility, Ventura County
Non-unitized	*Pacific Operators Offshore, Inc.*	Carpinteria	Platforms Hogan (1967) & Houchin (1968)	La Conchita Oil and Gas Processing Facility, Ventura County
Santa Clara	*Venoco*	Santa Clara, Sockeye	Platform Grace (1979) & Platform Gail (1987), pipelines to shore	Carpinteria Oil & Gas Processing Facility
Santa Clara	*DCOR*	Santa Clara	Platform Gilda (1981)	Mandalay Oil & Gas Processing Facility
Point Hueneme	*DCOR*	Huneme	Platform Gina (1980)	Mandalay Oil & Gas Processing Facility

3.0 Onshore Facilities that Support Offshore Oil/Gas Operations

Once extracted from underground reserves, oil and gas is either processed on the platform or sent onshore for processing. Processing of oil generally entails removal of gas, gas liquids, produced water, and other sediments from the oil emulsion, resulting in sales-quality crude oil that is ready to be refined into several final products. Processing of natural gas generally entails removal of gas liquids, sulfur, and water, resulting in natural gas, liquefied petroleum gas, heavier natural gas liquids, and sulfur.

The unincorporated portion of the County hosts two onshore oil and gas processing sites that serve offshore producers. The Lompoc Oil and Gas Plant receives production from Platform Irene, which is operated by Plains Exploration and Production, Inc. (PXP). The Las Flores Canyon Oil and Gas Processing site receives production from Platforms Hondo, Harmony, and Heritage, all operated by ExxonMobil. Two other oil/gas processing sites are located in incorporated areas of the County. The Ellwood Onshore Facility is a legal non-conforming land use located in the City of Goleta and operated by Venoco. It receives oil and gas from Platform Holly. The Carpinteria Oil and Gas Processing Facility is located in the City of Carpinteria and is also operated by Venoco. It receives production from Platform Gail currently (Platform Grace is no longer producing).

Platforms Hermosa, Harvest, and Hidalgo once processed production at Gaviota; however, processing shifted offshore to Platform Hermosa in the 1990s as production declined. The Gaviota site, located on the mountainside of U.S. 101 now serves as a pipeline terminal. Meanwhile, the former marine and pipeline terminal on the ocean-side of U.S. 101 at Gaviota is currently undergoing decommissioning, as shown below. All other platforms in the Santa Barbara Channel send production to facilities in Ventura County.

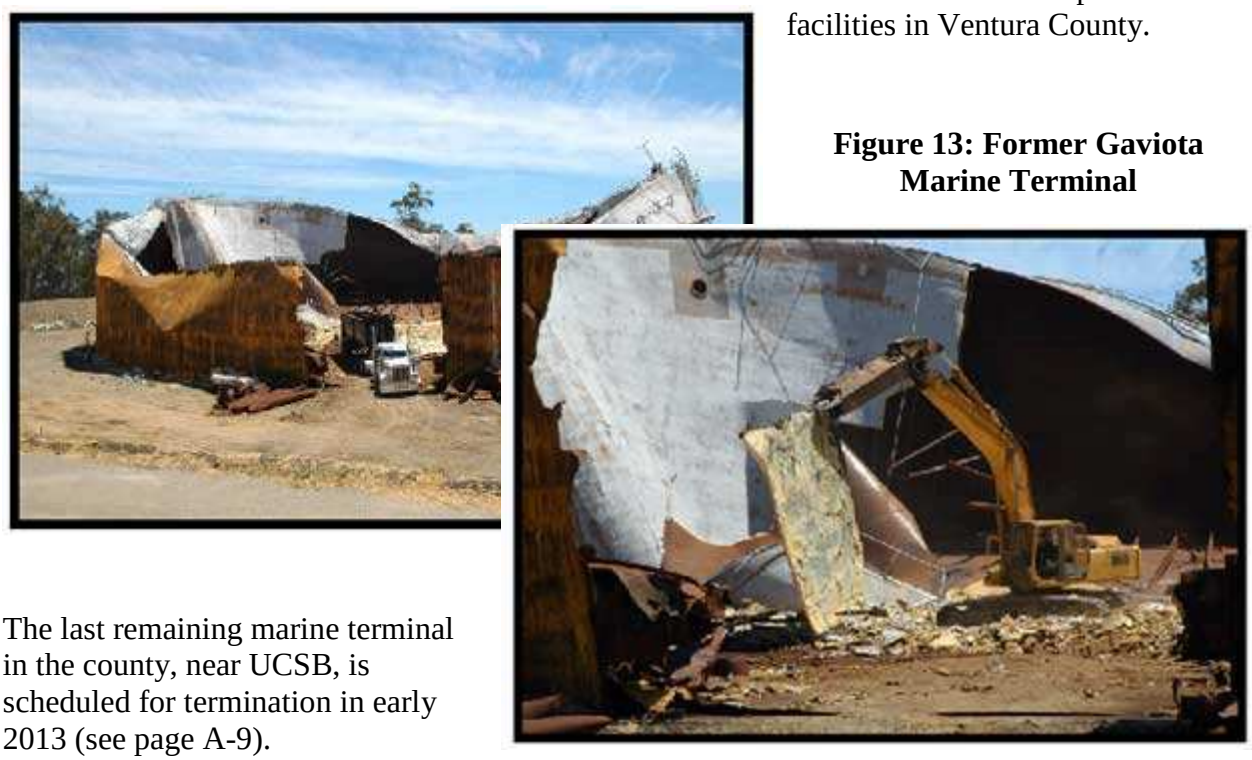


Figure 13: Former Gaviota Marine Terminal

The last remaining marine terminal in the county, near UCSB, is scheduled for termination in early 2013 (see page A-9).

4.0 Forthcoming Policy Considerations

4.1 Five-Year OCS Leasing Program

The Outer Continental Shelf Lands Act (OCSLA) requires the U.S. Department of the Interior to prepare a leasing program every five years. The program identifies the size, location and timing of oil and gas leasing over the next five years. The current program addresses leasing for the years mid-2007 through mid-2012. Last fall, Interior issued a draft program ahead of schedule to identify new leasing prospects from 2010 through 2015. That program includes potential leasing in four areas offshore California where know reserves are located: (1) Point Arena Basin offshore Fort Bragg, (2) offshore Santa Maria Basin, (3) Santa Barbara Channel, and (4) Oceanside/Capistrano Basins. The Program also provides an informational overview of the emerging Alternative Energy Program for the outer continental shelf, which is required by the Energy Policy Act of 2005.

The Board of Supervisors adopted Resolution 09-092 on April 7th of this year, asking the Secretary of the Interior not to issue any new oil and gas leases off the coast of California as part of the current draft leasing program. The resolution also asks the President of the United States to reinstate the federal offshore oil and gas leasing moratoria as soon as possible. Staff has drafted a letter to reflect this policy action by the Board. The draft also comments on the scope of the Environmental Impact Statement that will be prepared for the draft leasing program, in case Interior proceeds with consideration of oil and gas leasing offshore Santa Barbara County. Future opportunities to comment on the five-year program include: (1) release of a revised draft program and draft EIS; (2) release of a proposed final program and EIS.

The five-year lease program may shed more light on opportunities and constraints with regard to OCS alternative energy potential. There are significant wind-energy resources south of the Channel Islands and offshore VAFB. However, onshore electrical transmission capacity may need to be increased substantially to render development of offshore wind energy economically feasible. Other opportunities may lie with wave or hydro-kinetic energy offshore VAFB.

4.2 Platform Decommissioning

Disposition of offshore platforms upon cessation of oil and gas development remains an unresolved policy question for the State of California.[4] On the one hand, several stakeholders have advocated in favor of leaving a portion of the platforms in-place to serve as reefs (long dubbed “rigs-to-reefs”). These stakeholders include the petroleum industry, the sports-fishing industry and sport-fishing enthusiasts, and SCUBA-diving enthusiasts, among others. There has also been some discussion of converting the platforms to alternative uses; although many potential options would likely be economically infeasible. Options that remain under consideration include the proposed alteration of Platform Grace into an offshore Liquefied Natural Gas terminal, and potential use of Platform Irene as a base station for developing wave or hydro-kinetic energy.

[4] The Federal regulation requires that platforms must be entirely removed, unless the adjacent coastal state adopts an artificial reef program that allows platforms to stay in place (partially or wholly).

On the other hand, several other stakeholders have long opposed the prospect of "reefing" platforms and believe the platform operators ought to remove the platforms entirely. This school of thought is swayed by the potentially limited biological benefit that may be realized, as well as the shifting of liability from lessees to the state.

Six fixed platforms have been entirely removed from state tidelands to date; four were situated offshore Carpinteria, and two were situated offshore just east of Point Conception. All these platforms were situated in relatively shallow waters. A few current platforms are situated in much deeper waters and would pose technical challenges in order to remove them entirely. Platform Harmony is situated in the deepest water, at 1,198 feet, and weighs 69,920 tons. For comparison, 14 of the 20 platforms offshore Santa Barbara and Ventura Counties are situated in water depths that range from 95 to 430 feet, four are situated in water depths that range from 603 to 842 feet, and two, including Harmony are situated in waters deeper than 1,000 feet.

Several studies are available that provide information on many aspects of decommissioning offshore platforms, and several conferences have been held, addressing decommissioning costs, potential biological value (or lack thereof) of platforms as artificial reefs, technological capabilities of removing deep-water platforms and recycling platform components, and so forth. Recently, the California Ocean Science Trust commissioned a study that, among other things, will synthesize much of this available information for the purpose of informing policy discussions. The California Ocean Science Trust (OST) is a nonprofit 501(c)(3) public benefit corporation established pursuant to the California Ocean Resources Stewardship Act of 2000 to encourage coordinated, multi-agency, multi-institution approaches to translating ocean science to management and policy applications. The Trust initiated the study at the request of the California Resources Agency. The Trust has appointed a 15-member Expert Advisory Committee to assist with guidance of the study; this committee includes individuals representing a broad range of disciplines from academia, the private sector, and government, including staff representation from the County's Energy Division.

4.3 Accessing State Tidelands: Offshore vs. Onshore Drill-Site

The California State Lands Commission (CSLC) held an informational hearing on August 11, 2009 at the request of the Chairman, Lieutenant Governor Garamendi. Chairman Garamendi defined the purpose of the hearing as an opportunity to establish a foundation for dealing with future requests by the petroleum industry to develop remaining oil and gas resources in the state tidelands, focusing on options for developing oil and gas resources in state tidelands from upland drill-sites, rather than offshore platforms. The commission heard several perspectives from a panel that included estimation of offshore oil and gas by field, technical capabilities of extended-reach drilling (either from offshore platforms or upland drill-sites), legal constraints of leasing state tidelands for oil and gas development under current law, identification of safety, environmental and land-use constraints and considerations. Participants in the hearing, including CSLC staff and County staff noted that many case-specific factors ultimately affect any determination about the preferability of onshore versus offshore drilling, as the recent Tranquillon Ridge project exemplifies.

Recently drafted legislation to amend the Coastal Sanctuary Act in the 2010 session would prohibit the CSLC from issuing a new oil and gas lease, or modifying an existing lease, unless the oil and gas would be developed from an upland location. To-date, there are no sponsors.

4.4 Oil Transportation

The mode by which crude oil produced offshore Santa Barbara County is transported to refineries has been one of the longest standing, unresolved issues associated with development of offshore reserves. The physical setting of this issue has changed considerably since the mid-1980s, when the County adopted its Oil Transportation Policies. Those policies require new offshore production, once landed onshore, to be transported to refineries via overland pipeline, rather than marine vessel, rail or highway, where feasible. Since then, considerable new pipeline infrastructure has been installed, substantially increasing capacity to move offshore crude oil to refineries; capacity now exceeds demand. All marine terminals in the tri-county region have been decommissioned except for one – the Ellwood Marine Terminal – and that terminal is required to terminate operations by February, 2013. As noted above, Venoco has filed permit applications with the County and the City of Goleta to install and operate an overland pipeline alternative that would end its current marine barging operations.

The policy setting of this issue, however, remains largely unchanged. Western States Petroleum Association (WSPA) opposed adoption of Assembly Bill 16, which amended the Public Resources Code in 2003 to prohibit transportation of crude oil offshore California (new production only) via marine vessel. WSPA continues to oppose inclusion of this amendment into California's Coastal Management Program, which provides the basis for consistency reviews by the Coastal Commission under the Coastal Zone Management Act. WSPA has also opposed the update of the County's Oil Transportation Policies that would prohibit development of marine terminals, and prohibit transportation of crude oil produced offshore and landed in the County via marine vessel, except where a vested right exists.

WSPA's position, in part, reads:

> *AB 16 will adversely impact OCS oil development by eliminating transportation options for moving the crude to refineries. Currently, the majority of crude produced offshore California is transported to refineries by pipeline. However, other modes of transportation are also used, and there is a growing need for transportation flexibility in order to assure that offshore crude can be delivered to the refining locations at which it is most needed. This need for flexibility has increased over the last several decades as the available refining capacity in California has come under increasing strain. Refining capacity in California has become increasingly constrained as regulation of refining emissions have continued to tighten, the manufacture of ever cleaner fuels has required major equipment modifications to California refineries, and the substantial costs of these changes have become too great for some companies to bear, resulting in the shutdown of more financially marginal refineries. At the same time, the inability to obtain permits needed to construct new refineries or expand existing ones, due to land use restrictions and insurmountable regulatory hurdles, has required the remaining refining facilities to operate at ever higher levels of capacity in order to satisfy growing consumer demand. The resulting strains on refining equipment and the absence of significant spare refining capacity are likely to necessitate that offshore crude*

production be readily transferable to other refineries in order to minimize the potential adverse market impacts of even small or short duration outages.

In contrast, pipeline transportation has limited flexibility. If a producer does not have supply contracts with a refinery that is easily accessible by pipeline, the crude would have to be move via other modes of transportation. There also may be times when a pipeline is out of operation, for example, due to third party damage, and/or the pipelines do not have sufficient capacity to supply refinery demand. Transportation planning also might be disrupted due to unexpected refinery shutdowns that require producers to find alternative outlets for their crude.

As noted above, crude oil produced offshore Santa Barbara County currently can be transported to California refiners via overland pipeline once landed onshore. Some, but not all, California refiners have become increasingly more dependent on imports of foreign crude oil, most of which is high quality. What remains uncertain is the extent to which refiners like Chevron – who is the leading importer of foreign crude oil among California refiners – would willingly substitute offshore domestic production for foreign crude oil. This uncertainty, in part, underlies WSPA's concern about a producer not having supply contracts with California refiners, as does the uncertainty of sufficient overland pipeline capacity should new offshore leasing and development increase substantially, or occur in areas offshore California not currently served by overland transmission pipelines. This concern appears more likely applicable to potential new offshore leasing than it does to the current physical setting.