CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000 SAN FRANCISCO, CA 94105-2219 OICE AND TDD (415) 904-5200 AX (415) 904-5400





Tu9a

Date Filed:

02/13/03

49th Day:

Waived

180th Day:

08/12/03

Staff:

AD/DC-SF

Staff Report:

04/16/03

Hearing Date:

05/06/03

Commission Action:

STAFF REPORT REGULAR CALENDAR

Coastal Development

Permit No.:

E-01-030

Applicant:

Venoco, Inc.

Project Location:

State Lease 421, adjacent to the Sandpiper Golf Course,

City of Goleta, Santa Barbara County.

Project Description:

The project includes: (a) repairing an existing pier 421-1 and pier 421-2 dirt access road by adding rock and gravel; (b) removing 904 feet of pipeline; (c) placing 645 tons of rock riprap in seawall gaps; (d) installing 82 feet of soldier pile wall; (e) driving 50 new steel pier pilings; (f) replacing pier planks, joists, fences and handrails; and (g) securing and repairing two idle leaking wells (one on each pier) pursuant to State Lands Commission and Division of Oil, Gas, and Geothermal Resource agency regulations.

Substantive File Documents:

See Appendix A.

Synopsis

Venoco, Inc. ("Venoco") owns two idle wells on State Lease 421 – a water injection well on pier 421-1 and an oil production well on pier 421-2. The piers, constructed in 1929, are located immediately east of the Sandpiper Golf Course and extend offshore in the City of Goleta, Santa Barbara County (Exhibit 1). Both wells have been idle since 1994.

In November 2000, Venoco discovered a small methane leak from the water injection well and a leak from the oil well. Venoco collected 15 gallons of oil within a 55-gallon drum at pier 421-2. No oil leaked into the ocean. Venoco stopped the leak by repairing a well assembly and installing temporary two-inch piping from the oil well to Venoco's Ellwood Onshore Facility in order to depressurize the well.

In December 2000, the California State Lands Commission ("SLC") determined that the condition of both wells constituted an emergency and directed Venoco to undertake additional actions to "kill" both wells (i.e., install down-hole packers and surface-controlled subsurface safety valves). To secure both wells required repairing an existing dirt access road and fortifying the piers in order accommodate an 80,000-pound well rig.

In January 2001, the Executive Director of the Coastal Commission issued to Venoco an emergency permit (E-01-007-G) to begin repair work. The emergency permit was amended four times. The last emergency permit, E-01-027-G, issued in September 2001, superceded and wholly replaced the emergency permits previously issued by the Executive Director for Venoco's well stabilization work (Exhibit 2). Venoco completed all work by December 2001.

This coastal development permit application is Venoco's follow-up to the emergency permit requesting that the emergency repair work be permanent. No new development is proposed in this application.¹

The Lease 421 repair work involved: (1) repairing the existing dirt access road to piers 421-1 and 421-2 by adding rock and gravel; (2) removing 904 feet of pipeline; (3) placing 645 tons of rock riprap in existing seawall gaps (the seawall protects the road); (4) driving 50 new steel pier pilings; (5) replacing pier planks, joists, fences and handrails; and (6) securing and repairing two idle leaking oil wells (one per pier) pursuant to SLC and Division of Oil, Gas, and Geothermal Resource agency regulations.

The project's primary impact was the loss of 1,582 square feet of wetlands located on the access road. Repairing the road to make it safe for well rig passage resulted in the filling of three small wetland areas, two of which were highly degraded. The County of Santa Barbara has required Venoco to mitigate for the loss the wetland area by restoring a degraded area of riparian habitat along a lower portion of Bell Creek. Bell Creek is located adjacent to the Lease 421 site. Restoration activities include (a) removing non-natives and revegetating with native plant

¹ The oil well on pier 421-2 is currently non-producing. Venoco has expressed to Commission staff its intent to reinitiate oil production. It plans to submit soon to the California State Lands Commission, Coastal Commission, and City of Goleta its arguments as to why Venoco has a vested right to reinitiate oil production from Lease 421.

species 7,000 square feet of riparian habitat so as to enhance the site's riparian functions, and (b) removing weeds from an adjacent 34,000 square foot area. The plan, to be implemented over five years, includes detailed performance criteria developed in consultation with the Commission's staff biologist. Staff is recommending the addition of one new special condition that would require (1) full implementation of Venoco's wetland mitigation plan, (b) submittal of annual monitoring reports to the Executive Director, and (c) submittal, after five years, of a revised wetland mitigation plan if the original plan's restoration performance criteria are not met. The Executive Director will then decide if the revised plan needs to be considered by the Coastal Commission as a permit amendment.

The Commission staff recommends <u>approval</u> of coastal development permit application E-01-030, as conditioned.

1.0 STAFF RECOMMENDATION

1.1 Approval with Conditions

The staff recommends conditional approval of Coastal Development Permit Application No. E-01-030.

Motion:

I move that the Commission approve Coastal Development Permit Application No. E-01-030 subject to the conditions specified below.

The staff recommends a YES vote. To pass the motion, a majority of the Commissioners present is required. Approval of the motion will result in the adoption of the following resolution and findings.

Resolution

The Coastal Commission hereby **grants** permit No. E-01-030, subject to the conditions below, for the proposed development on the grounds that (1) as conditioned, the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and (2) there are no feasible alternatives or feasible mitigation measures, other than those specified in this permit, which would substantially lessen any significant adverse impact which the activity may have on the environment.

2.0 STANDARD CONDITIONS

- Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- 2. Expiration. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- 3. **Interpretation**. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
- 4. **Assignment**. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
- 5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

3.0 SPECIAL CONDITIONS

This permit is granted subject to the following special condition:

1. Wetland Mitigation. The applicant shall implement fully its State Lease 421 Wetland Mitigation Plan (dated January 2003) and submit each December 15 to the Executive Director of the Coastal Commission an annual monitoring report. The annual monitoring report shall include (a) activities undertaken during the past year; (b) progress in meeting performance criteria; (c) a description of any remedial actions taken; and (d) restoration site photos. If, after five years, the Executive Director of the Coastal Commission determines that the State Lease 421 Wetland Mitigation Plan's performance criteria were not met, Venoco shall submit within 90 days of the Executive Director's determination a revised mitigation plan for review and approval. The Executive Director shall determine if implementation of the revised mitigation plan requires an amendment to this permit.

4.0 FINDINGS AND DECLARATIONS

4.1 Project Background

Venoco, Inc. (hereinafter "Venoco" or "the applicant") owns two idle wells on State Lease 421 – a water injection well on pier 421-1 and an oil production well on pier 421-2. The piers, constructed in 1929, are located immediately east of the Sandpiper Golf Course and extend offshore (Exhibit 1). An existing dirt road provides access to the piers.

Both wells have been idle since 1994 when a pipeline extending from the piers to the Ellwood Oil and Gas Facility (located immediately adjacent to the golf course) leaked 170 barrels of oil onto the golf course. Mobil Exploration and Producing, Inc. owned the facilities at the time and never resumed production of State Lease 421. In August 1997, Venoco purchased the 421 lease and Ellwood facilities.

On November 22, 2000, a Santa Barbara County Air Pollution Control District inspector discovered a small methane gas leak in the water injection well, which was the result of a faulty valve assembly. To locate the source of the leak, Venoco pumped the water from the well into an existing storage tank located on pier 421-1.

On November 28, 2000, Venoco, during a routine fluid check, detected a leak from the idle oil well. Venoco collected 15 gallons of oil within a 55-gallon drum. No oil leaked into the ocean or on the beach. Venoco stopped the leak by welding the valve assembly to the well casing and install 2-inch piping between the oil well and the Ellwood Onshore Facility (along an existing access road) in order to depressurize the well. Well pressure and corroded steel piping caused the oil leak. On November 28, 2000, the County of Santa Barbara issued Emergency Permit 00-EMP-006 to authorize these remedial activities².

² This emergency project was carried out before the City of Goleta's incorporation.

By letter dated December 1, 2000, the California State Lands Commission ("SLC") directed Venoco to "kill" both wells (i.e., install down-hole packers and surface controlled subsurface safety valves) within 90 days of issuance of the letter. On January 8, 2001, SLC staff issued a subsequent letter stating the urgency of the SL 421 situation, adding that the condition of the wells is out of compliance with SLC regulations. The SLC staff determined that immediate action was necessary to prevent a release of oil into marine waters.

On January 12, 2001, the Executive Director of the Coastal Commission (hereafter "Executive Director") issued to Venoco Emergency Permit E-01-001-G authorizing the first phase of emergency response activities – the repair of a section of the existing access road that leads to both piers.

On February 13, 2001, SLC staff conditionally approved Venoco's work plan to repair the piers and caissons so that Venoco could safely access the wells located on the old piers. In a February 14, 2001, letter to the Coastal Commission and County of Santa Barbara, SLC staff further explained the poor condition of the wells and piers, and emphasized that immediate corrective action is necessary to prevent a release of oil into marine waters.

On March 15, 2001, the Executive Director issued to Venoco Emergency Permit E-01-007-G authorizing the second phase of emergency response activities – repair the remaining segment of the access road and repairs to the piers, caissons, and wells. This emergency permit included all the first phase work and wholly replaced and superceded E-01-001-G.

After issuance of Emergency Permit E-01-007-G, Venoco proposed changes to its project description, including (1) use of soldier piles instead of sheetpile to strengthen an existing seawall, and (2) removal of old oil pipelines located along the access road and on the piers. Accordingly, on May 18, 2001, the Executive Director issued to Venoco new Emergency Permit E-01-016-G, which superceded and wholly replaced E-01-007-G.

On September 12, 2001, Venoco again requested modifications to its emergency permit, including (1) allowing nighttime well repair work, if necessary, and (2) extending the expiration date of the emergency permit. On October 12, 2001, the Executive Director issued to Venoco Emergency Permit E-01-027-G, which superceded and wholly replaced E-01-016-G (Exhibit 2). Venoco completed all 421 well stabilization related work between December 2000 and December 2001.

This coastal development permit application is Venoco's follow-up application to the emergency permit requesting that the emergency repair work be permanent.

4.2 Project Description

In December 2000, the SLC staff determined that the corroded condition of the two wells at Venoco piers 421-1 and 421-2 could cause a petroleum-hydrocarbon release into marine waters and directed Venoco to follow a specific course of action to "kill" or secure each well. In order to secure each well and support the weight of heavy equipment needed for the well work, Venoco performed, under the authority of Emergency Permit E-01-027-G, the following activities:

- Repaired an existing degraded access road to piers 421-1 and 421-2. The access road was severely eroded and in need of major repairs in order to provide a safe, passable route for an 80,000 pound well servicing rig and other large cranes and heavy work trucks. Road repairs included: (a) grading the road, (b) adding 520 tons of float rock (2" to 8" rock) as a base layer, (c) adding 662 tons of gravel as road base, and (d) placing 645 tons of rock rip rap within the gaps of the existing beachside rock revetment at the base of the road. The replacement of the rock riprap did not extend the existing riprap seawall seaward. The maximum road width is 12 feet. The adjacent bluff face or toe of the bluff was not altered.
- French drain inside the perimeter of the access road. Wooden planks were placed into a trench approximately 100' in length and 8" in width at a depth of 4" below the original road base. The French drain (20' sections of 4" PVC pipe with 3/8" round perforations covered with filter fabric) was placed at the bottom of the trench, outside of the wooden dam, and backfilled with 3/4" gravel. The drain slopes towards the beach to ensure drainage. Diversion of water through the French drain and onto the beach relieved hydraulic pressure on the new road and produced a dry, stable load-bearing surface.
- Removed 119 feet of abandoned pipelines buried under the access road and 785 feet of pipeline located on or connecting the piers.
- Venoco fortified the access road approaches with soldier piles in order to strengthen the existing timber seawalls to support the heavy loads of equipment. To install the piles, Venoco excavated to a depth of 12 feet the road in front of seawalls, sloping back roughly five feet. Venoco removed and transported to an off-site disposal facility 80-100 tons of soil and gravel. Venoco then backfilled the excavation areas with 120-160 tons of rock and road base material and installed seven soldier piles at pier 421-1 (a 44.5 foot long soldier pile wall) and six piles at pier 421-2 (a 37.5 foot long soldier pile wall). The piles were driven to a depth of 15 feet. Venoco then attached the existing seawall to the new soldier pile wall and placed about 10 tons of crushed rock between the voids. No work occurred on the beach.
- Fortified each pier in order to support the weight of the well repair rigs. Venoco drove 25 12" new piles at each pier to a depth of 25 feet below the surface. All rotten or damaged deck planks and wooden joists were removed and replaced with new steel joist sections, wooden joists, and deck planks. Venoco also replaced all pier fences and handrails.
- Secured each well pursuant to SLC and Division of Oil, Gas, and Geothermal Resource ("DOGGR") agency regulations. Venoco conducted the well work in two phases: "kill" or stabilize the well and then repair the well. Stabilizing a well was accomplished by installing packers to close the annulus between the tubing and casing, and installing surface-controlled subsurface safety valves pursuant to California Code of Regulations, Title 2, Article 3.3, Section 2132 (a)(6) and (8). Repair work on wells 421-1 and 421-2 involved replacing the wellhead and installing valves and connections for monitoring

well pressures and conditions. In addition, Venoco removed and disposed of the well 421-2 pumping unit.

In this application, Venoco seeks authorization to make permanent the above-described emergency activities. No additional work is requested as part of this application.

4.3 Other Agency Approvals

4.3.1 County of Santa Barbara

On November 28, 2000, the County of Santa Barbara issued an emergency permit (00-EMP-006) for the emergency well stabilization work, which was subsequently revised on March 20, April 11, and May 17, 2001. On December 2001, the County approved a coastal development permit (01CDP-0000-00149) to validate the emergency work carried out within the County's permit jurisdiction. The County also prepared a Mitigated Negative Declaration under the requirements of the California Environmental Quality Act.

4.3.2 California State Lands Commission ("SLC")

By letter dated December 1, 2000, the SLC directed Venoco to take actions within 90 days to ensure the integrity of the 421 wells and prevent a release of oil into the marine environment. The SLC staff directed Venoco to "kill" both wells, replace the casing and wellhead components, install down-hole casing-tubing annulus packers in the casing of each well, and monitor the casing pressure on a monthly basis. On January 8, 2001, the SLC staff notified Venoco that the wells and pier infrastructure are out of compliance with SLC regulations and again directed Venoco to take immediate action to alleviate the pollution risk posed by the condition of the wells.

On February 13, 2001, the SLC staff conditionally approved Venoco's January 11, 2001, work plan to repair the pier. In a February 14, 2001, letter to the Coastal Commission and County of Santa Barbara, the SLC staff explained the poor condition of the wells and piers and emphasized that corrective action is needed immediately to prevent a release of oil into marine waters.

4.3.3 U.S. Army Corps of Engineers ("ACOE")

By letter dated March 22, 2001, the ACOE determined that the emergency well stabilization project complies with the terms and conditions of Regional General Permit 63. The ACOE required Venoco to submit within 45 days of completing the project a wetland mitigation plan for "the loss of aquatic resources associated with the permanent filling of 0.02 acres of wetlands."

4.4 Coastal Act Issues

4.4.1 Fill in Coastal Waters

Coastal Act section 30233(a) states:

- (a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:
- (l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.
- (2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
- (3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.
- (4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.
- (5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.
- (6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.
- (7) Restoration purposes.
- (8) Nature study, aquaculture, or similar resource dependent activities.

Coastal Act Section 30108.2 defines "fill" as "earth or any other substance or material ... placed in a submerged area." Venoco filled three wetland areas located on the access road totaling 1,582 square feet and installed 25 12-inch diameter steel piles at each pier into open coastal waters, also constituting "fill" as that term is defined in the Coastal Act.

In January 2001, Venoco conducted a wetland delineation survey at the project site after consulting with the Coastal Commission's staff biologist. The survey confirmed that all three wetland areas satisfy all wetland delineation criteria pursuant to the 1987 U.S. Army Corps of Engineers wetland delineation manual: hydrophytic vegetation, hydric soils, and wetland hydrology. All three wetland areas are dominated by coastal salt marsh vegetation including saltgrass, rabbitsfoot grass, saltbush, African brassbuttons, and saltmarsh sandspurry.

Two of the three wetlands (wetlands #1 and #2 totaling 475 square feet) were located directly in the roadway (preceding pier 421-1). The third wetland (wetland #3), approximately 5850 square feet in size, is located at the eastern end of the access road near pier 421-2. About 1,107 square feet of this wetland was filled by road repair activities. Partial filling of this wetland was necessary to provide for heavy equipment access to pier 421-2 and to increase the load-bearing capacity of the road.

The project also included fortifying the old piers with 50 new 12-inch diameter steel pilings (25 on each pier) to make the piers structurally sound.

The Commission may authorize a project that includes filling of wetlands and open coastal waters if the project meets the three tests of Coastal Act section 30233. The first test requires that the proposed activity fit within one of eight categories of uses described in Coastal Act section 30233(a)(1)-(8). The second test requires that there be no feasible less environmentally damaging alternative. The third and final test mandates that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

4.4.1.1 Allowable Use

The overall purpose of the project was to secure leaking idle oil and water injection wells to prevent a release of petroleum hydrocarbons (oil or gas) into marine waters and onto the beach. Although the project for which the fill was placed is an "energy" project, it is neither a "new" or "expanded" energy project as required by Coastal Act section 30233(a)(1). Further, it does not meet the standards of section 30233(a)(2)-(8). The Commission thus finds that the project does not meet the first test of Coastal Act section 30233(a). Nevertheless, the project can be found consistent with the Coastal Act under the "policy conflict resolution" section of the Coastal Act for the reasons discussed in section 4.4.8 of this report.

4.4.1.2 Least Environmentally Damaging Feasible Alternatives

The Commission must further find that there is no feasible less environmentally damaging alternative to filling wetlands and open coastal waters. Coastal Act § 30108 defines "feasible" as "...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." Venoco considered the following alternatives to wetland fill associated with road repair activities and the filling of open coastal waters by pile driving activities.

Wetland Bridging

Venoco investigated potential bridging structures that would allow vehicles and equipment to cross over the wetland areas and thus avoid filling them. With respect to the two smaller wetlands located in the access road, Venoco considered a wooden beam structure with bar grating to bridge the wetlands. However, because the soil in and around the wetlands was saturated, the beams would yield and deform easily under load. Without further reinforcement, the structure would be unstable and would present a safety risk to heavy vehicles or equipment. Another bridging concept would require large concrete support piers and long span steel I-beams over the wetland areas. Venoco rejected this alternative because of the associated safety hazards of elevating large, heavy equipment adjacent to the steep bluff north of the road, the narrow width of the existing road, and the lack of a sufficient shoulder on the south side of the road. Additionally, the potential impacts of this bridging method would cause impacts to the wetlands comparable to filling them.

The larger wetland at pier 421-2 presented similar challenges. Again, saturated soil conditions near or at the wetland presented unacceptable risks to heavy vehicles or equipment with the use of a wooden beam structure. Increasing the load bearing capacity of the soil would require excavation and re-compaction. The associated impacts of these activities would be similar to the impacts of filling in the wetland. Venoco also considered constructing a more substantial steel bridging structure identical to the one discussed above. To support the bridge (approximately four feet above the wetland and pier), three nine-inch tall concrete foundations would need to be constructed. However, considering the spatial limitations of the wetland area--the wetland lies 20-40 feet east of the pier--two of the three foundations would have to be constructed in the wetland itself. The impacts associated with this work, including equipment driving over the wetland, would be comparable to or greater than filling it in. Additionally, due to the height of the bridge, ramps would be necessary at either end. Given its proximity to the pier, one end of the ramp would have to extend onto the pier. However, the pier had not yet been repaired, and, according to Venoco, its load bearing capacity would not support the weight of heavy equipment on a ramp. In order to repair the pier, the road must be upgraded to allow heavy vehicles to pass, and it is precisely these road repairs that would affect the wetland. Thus, the above sequencing of repair events, which cannot be interchanged for safety reasons, rendered the bridging alternative infeasible.

Accessing and Repairing Piers from Beach

Repairing the piers and securing the wells from the beach just below the piers would have avoided all wetland impacts. This alternative is infeasible because the equipment necessary to secure the wells (a work-over rig) was unable to access the wells from the beach. Both wells are surrounded by caissons, which are elevated 15 feet above ground. In order to carry out the work necessary to secure the wells, the work-over rig has to be situated directly over them. From the beach, the rig would be unable to drive on top of the caissons because of their elevated height. Moreover, even if this would be possible, daily tidal swings would only allow a limited amount of time during the day to repair the piers or secure the wells.

Alternatives to Pile Driving

There are no feasible alternatives to the use of piles to secure the piers. Venoco considered installing fewer than 25 piles at each pier but decided against doing so in order to provide a conservative margin of safety.

Conclusion

The Commission thus finds that the proposed project is the least environmentally damaging feasible alternative and therefore the second test of Coastal Act section 30233(a) is satisfied.

4.4.1.3 Project Impacts Mitigated to the Maximum Extent Feasible

The final requirement of Coastal Act § 30233(a) is that filling of wetlands and coastal waters may be permitted if feasible mitigation measures have been provided to minimize any adverse environmental impacts.

The County of Santa Barbara required Venoco to mitigate for the filling of 1,582 square feet of wetland area. Venoco prepared a *State Lease 421 Wetland Mitigation Plan* based on a 3:1 mitigation ratio for impacts to wetland areas #1 and #2 and a 5:1 mitigation ratio for wetland #3. The County developed the 5:1 ratio consistent with a similar wetland mitigation project under its review. The County applied the 3:1 ratio to wetland #1 and #2 due to their degraded condition. The Commission's staff biologist consulted with County staff and Venoco in developing a wetland mitigation project. Table 1 contains a summary of wetland impacts, the associated mitigation ratios, and areas.

Table 1. Wetland Impact Areas and Mitigation Ratios

Wetland Impacts	Mitigation Ratio	Mitigation Requirement
Wetland #1: 335 sq. ft.	3:1	1,005 sq. ft.
Wetland #2: 140 sq. ft.	3:1	420 sq. ft.
Wetland #3: 1,107 sq. ft.	5:1	5,535 sq. ft.
Total: 1,582 sq. ft.		6,960 sq. ft.

Venoco proposes to retain the filled wetland areas along the access road because ongoing maintenance and monitoring requirements, and any future authority to produce the wells again, or permanently abandon the wells³, necessitate continued use of the road to access the wells and piers. The potential to restore or expand wetland #3, of which 81% of its original area is undisturbed, is limited due to the spatial constraints of the site. The wetland area, roughly triangular, occurs at the base of a steep and eroded drainage. A vertical sea wall and pier 421-2 form a barrier to the south of the wetland. To the east, a steep bluff confines the wetland and historic road (a continuation of the access road), parts of which have eroded into the ocean.

³ Venoco intends to present to the California State Lands Commission, the City of Goleta, and the Coastal Commission its arguments as to why it has a vested right to reinitiate production of the two 421 wells. If Venoco does not prevail in its vested right claim, it will seek to abandon the wells and remove the piers.

Accordingly, Venoco, with the assistance of County staff, attempted to identify other nearby coastal salt marsh wetland areas to restore or existing coastal salt marsh restoration projects in Santa Barbara County to augment. Venoco contacted entities such as the County Water Agency, County Food Control, the Southern California Wetland Recovery Project, the California Department of Fish and Game, the University of California, the Land Trust of Santa Barbara County, and the Goleta Slough Ecosystem Management Committee. However, none of these entities had knowledge of a site with the hydrogeomorphic characteristics necessary to restore coastal salt marsh wetlands or an existing wetlands restoration project in Santa Barbara County.

Bell Creek Restoration Area

Instead, Venoco and the County of Santa Barbara agreed that Venoco is to restore a riparian habitat site along the lower portion of Bell Creek to mitigate for the loss of 1,582 acres of wetland habitat. The site is located directly across from the Venoco Ellwood Gas Processing Plant and near the 421 piers.

Venoco selected the Bell Creek site based on five factors: (1) close proximity to filled wetlands; (2) co-occurrence of some wetland plant species; (3) access and availability; (4) its adjacent to another mitigation site; and (5) opportunity to improve riparian wetland functions (i.e., hydrologic, biogeochemical, plant habitat, and animal habitat). Moreover, the Bell Creek watershed supports higher ecological values, including habitat for the federally endangered tidewater goby (Eucycloglobius newberryi) and federally threatened California red-legged frog (Rana aurora draytonii), than the lost wetland areas, which did not support these species.

The restoration site is highly degraded and infested with non-native weed species such as fennel, castor bean, and German ivy. The Bell Creek area has long suffered from human disturbance beginning with the construction of a railroad, Highway 101, oil and gas exploration in the 1920s and 30s, construction of the Venoco Ellwood Gas Processing Plant in 1964, and development of the Sandpiper Golf Course in 1972.

Enhancing the site's riparian functions provides a means to mitigate the proposed loss of wetland functions (e.g., hydrologic, animal habitat, and plant habitat), which are similar and in some cases identical to riparian functions. According to the Plan, Bell Creek's hydrologic functions at the selected site are severely degraded owing to the lack of ground cover vegetation, low organic content of the soil, and presence of road gravel, which reduces the area's ability to provide long-term surface water storage, energy dissipation, and moderation of groundwater flow or discharge. Existing site conditions are also only able to provide a low level of nutrient cycling and export of organic carbon due to limited vegetation cover and lack of dense woody vegetation. Revegetation efforts will increase these functions and others such as retention of particulates and removal of imported elements and compounds. The site's non-native weedy vegetation hampers its ability to support characteristic native plant communities and provide detrital biomass. The existence of weedy vegetation also impairs animal habitat functions such as maintenance of spatial habitat structure, interspersion, and connectivity, and the distribution of invertebrates and vertebrates.

Successful restoration of the Bell Creek site will provide higher quality habitat for the tidewater goby, California red-legged frog, and other species, and enhance the above hydrogeomorphic

functions. Moreover, restoration efforts will complement ongoing restoration activities just north of the proposed mitigation site undertaken by the Bacara Resort. Combined, these projects aim to restore a continuous riparian zone between the Highway 101 frontage road and the Bell Creek estuary.

Mitigation Plan Elements

The objectives of the wetland mitigation plan are to: (1) remove non-native vegetation; (2) improve soil conditions and prevent the re-establishment of weeds with the addition of organic mulch; (3) permanently establish self-sustaining native riparian vegetation; and (4) improve hydrologic, biogeochemical, plant habitat, and animal habitat functions. Venoco will accomplish these objectives by re-vegetating approximately 7,000 square feet of riparian habitat and removing weeds in an adjacent 34,800 square-foot area along the lower portion of Bell Creek. The Commission's staff biologist worked with Venoco and the County of Santa Barbara in developing the mitigation plan, including the application of specific performance standards to evaluate the restoration plan's success.

Weed Abatement Area

The intent of removing weeds is to allow native vegetation an opportunity to re-establish itself without competition. Just north of the revegetation area, Venoco will remove weeds in a 34,800 square foot area within the riparian corridor. Before weeds are removed, a County-approved biologist will flag native plants to avoid, particularly oak seedlings and blackberry. The most common non-native weed species appear to be German Ivy, periwinkle, and nasturtium. Since German ivy spreads easily, it will be removed consistent with published guidelines—hand removal, removing roots and steams using a pointed or three-pronged rake to loosen soil, and treatment of re-sprouts with herbicides. Periwinkle and nasturtium will be removed (weed-whip) and treated with herbicides. Particular care will be used when applying herbicides to avoid contamination of surface water. In late spring or early fall after weed removal, Venoco will hand broadcast in the weed abatement area seeds collected from goldenbush, saltbush, and cliff aster plants found in the 421 lease area.

Supplemental weed eradication will be performed quarterly during the first year after initial weed removal efforts and twice a year in the spring and fall of the second year. No further weeding or maintenance is proposed.

Revegetation Area

The 7,000 square-foot areas will be cleared first of non-native weed species by hand, cutting, and mowing, and application of the chemical herbicides RoundUp and Rodeo. The latter herbicide will be used within 50 feet of the creek edge and the former applied outside of this zone. Castor bean, fennel, and German ivy will be specifically targeted for removal, as they are the most abundant and aggressive weed species on the site. Revegetation efforts will include the planting of species such as saltbush (Atriplex lentiformis) and cliff aster (Malacothrix saxatillis) found at the wetland areas proposed for fill. Other native species to be planted include arroyo willow (Salix lasiolepis) and sycamore (Platanus racemosa), and groundcover species including blackberry (Rubus ursinus), mugwort (Artemesia douglasiana), and wild rose (Rosa californica).

Planting of the above species is expected to take place during the winter months to take advantage of rainfall. However, as needed, supplemental watering will occur once a week until the plants are established or for 3-4 months. Periodic weed removal will be performed once a month for the first 3-4 months after planting occurs and every other month thereafter until the end of the first year. After the first year, weed eradication will occur twice a year in the spring and fall.

After revegetation is complete, the County will independently monitor the mitigation area twice a year in the spring (March-April) and fall (November). Both qualitative (e.g., visual) and quantitative (e.g., percent cover) monitoring methods will be employed, as indicated in the Plan. After the end of the second year, monitoring will occur annually in the spring until specified performance goals have been met. Examples of performance standards include:

- > Trees shall have an 85% survival rate after the first year;
- If survival is less than 85%, additional plantings will occur during the second year;
- Tree planting will be considered a success if after five years 80% of the original number of tree planted survive and have attained a minimum height of eight feet;
- > Shrubs will be evaluated based on their presence or absence and a visual estimate of percent cover;
- Total percent shrub cover should increase by 10% each year until absolute cover reaches at least 50% after five years.
- Should shrub percent cover fall below 10% at any time after the second year, additional plantings will be performed.

The Commission is requiring in **Special Condition 1** that Venoco fully implement its *State Lease 421 Wetland Mitigation Plan*. In addition, the Commission is requiring Venoco to submit each December 15 to the Executive Director an annual monitoring report. If, after five years, the Executive Director, in consultation with the County of Santa Barbara, determines that the *State Lease 421 Wetland Mitigation Plan's* performance criteria were not met, Venoco shall submit within 90 days of the Executive Director's determination a revised mitigation plan for review and approval. The Executive Director shall determine if implementation of the revised mitigation plan requires an amendment to this permit.

The Commission thus finds that with implementation of the wetland mitigation plan, in combination with Special Condition 1, the impacts of the wetland and open coastal water fill will be mitigated to the maximum extent feasible.

Mitigation of Pile Driving Impacts

Because of the old age and poor structural condition of both piers, Venoco installed 25 new 12-inch diameter steel pilings on each pier. The noise produced from piling driving activities had the potential to impact nearby marine mammals, which rely on sound as a primary means of exploration and communication. For impulsive sounds like pile driving, the National Marine Fisheries Service has set 160 dB (received level) as a criterion at which disturbance or harassment of marine mammals has been shown to occur (Fahey, 2001).

Using this level as a threshold and based on conservative assumptions in a study of pile driving sounds in a marine environment by Wursig et al. (1999), Dr. Charles Greene of Greeneridge Sciences, Inc., representing Venoco, calculated that the 160 dB level would occur at a distance of 374 feet from the pile driving activity. However, since Venoco proposed to use a smaller pile driving hammer than the one used in the Wursig study at shallower water depths (1-3 feet vs. 30 feet), the estimated sound levels for the proposed project are higher than would actually be expected at those distances from the pile driving activity. Assuming a 500-foot radial buffer zone around the proposed pile driving—where no pile driving could occur if a mammal was sighted within the zone—Dr. Greene concluded that no marine mammals would likely be injured at distances greater than 500 feet.

A National Marine Fisheries Service ("MNFS")-approved marine mammal monitor was present on site during all 13 days of pile driving. NMFS established a 500-foot safety zone; work was to be suspended if a marine mammal was observed within a 500 feet radius of the pile driving activity. Pile driving could resume once the mammal(s) was outside of this safety zone. Also, an initial ramp-up period occurred at the commencement of pile driving activities to avoid potential impacts to marine mammals that may be undetected within the safety zone. Venoco scheduled pile-driving activities during periods of low tides to minimize potential noise impacts to marine mammals.

With these measures in place, the Commission finds that the impacts of installing new pilings are mitigated to the maximum extent feasible.

Conclusion

With the measures described above, and the imposition of Special Condition 1, the Commission finds that the project meets the third and final test of Coastal Act section 30233(a).

4.4.2 Environmentally Sensitive Habitat Area ("ESHA")

Coastal Act section 30240(a) states:

Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

Coastal Act section 30107.5 defines "environmentally sensitive area" to mean:

... any area in which plant or animal life of their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed by human activities and development.

As discussed above in section 4.4.1 of this report, the project involved the unavoidable loss of 1,582 square feet of wetland area, wetlands that qualify as ESHA under the County's certified local coastal program ("LCP") and Coastal Act section 30107.5. Any development project that affects or is within an ESHA needs to be consistent with the general policies of Coastal Act section 30240(a), which only allow for development uses that do not cause any significant

disruption of the habitat values of the ESHA and which are dependent upon the ESHA resources. In this case, it is clear that filling these wetland areas to provide adequate road access to secure leaking oil wells is not a use "dependent on those [ESHA] resources" and therefore is not consistent with the standard contained in section 30240(a). Nevertheless, the project can be found consistent with the Coastal Act under the "policy conflict resolution" section of the Coastal Act for the reasons discussed in section 4.4.8 of this report.

4.4.3 Marine Resources/Water Quality

Coastal Act section 30230 states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act section 30231 states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas, that protect riparian habitats, and minimizing alteration of natural streams.

The project involved driving steel pilings into areas of the beach and surf zone. The pilings do not prevent movement of any resident or migratory fish or wildlife species. The noise created by pile driving, however, could adversely affect marine mammals. Pile driving, which took take place intermittently over a 13-day period, produced a sound of 100dB at 23 feet. To prevent damaging effects to marine mammals, NMFS established a 500-foot radius safety zone. A NMFS-approved on-site monitor observed all marine mammal activity within 500 feet of the piers during all pile driving activities. Although the monitor had authority to suspend pile driving if a mammal passed within the safety zone, no mammals were observed during pile-driving phase of work. Venoco also implemented during pile-driving an initial ramp-up period as another measure to limit any potential adverse effects to marine mammals.

Venoco also implemented a number of best management practices ("BMP's") for construction activities contained in the *California Storm Water Best Management Practices Handbook* (March 1993) to minimize erosion and limit sedimentation of receiving waters. These measures included installing silt fencing along the length of the access road and placing waterproof barriers on the ground under containment boxes during drilling of the soldier pile walls. Venoco disposed of all slurry mix and drill cuttings offsite. There was no discharge of materials into

marine waters during construction, and there are no ongoing adverse impacts to marine water quality due to the road, seawall, pier, and well repairs.

The Commission thus finds that the project "sustained the biological productivity and quality of coastal waters" and protected all species of marine organisms as required by Coastal Act Sections 30230 and 30231. The project is therefore consistent with Coastal Act Sections 30230 and 30231.

4.4.4 Oil Spills

Coastal Act section 30232 states:

Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

The express purpose of the well stabilization project is to take measures to prevent an oil spill from occurring. Nevertheless, the critical operations proposed for each well has the potential to result in a release of hydrocarbons into marine waters and onto the beach. The most critical operation is when a well is open and prior to injecting brine or mud to "kill" the well. The only other source of oil or petroleum hydrocarbon spill would be leakage or spillage of fuel or lubricants from the work vessels or equipment. Venoco estimated the reasonable worst-case spill to be 168 barrels of crude oil (i.e., a two-hour uncontrolled release of 84 barrels per hour).

Oil Spill Prevention

The first test of Coastal Act section 30232 requires Venoco to provide "protection against the spillage of crude oil, gas, petroleum products, or hazardous substances".... Venoco prepared a project-specific oil spill contingency plan that included oil spill preventive measures. These measures included: (a) flushing and draining any fluids contained in piping or vessels, (b) use of catch basins and other liquid containers in the event of fluid leaks, and (c) placement of visqueen or comparable materials around the piers to prevent splatter from entering the ocean. Venoco also inspected daily all equipment for fuel or fluid leaks and installed protective barriers under heavy equipment to catch leaks. With these measures in place, the Commission finds the project consistent with the first test of Coastal Act section 30232.

Oil Spill Response

The second test of Coastal Act section 30232 requires Venoco to provide effective containment and clean up equipment for accidental spills that do occur. Venoco maintained two spill response trailers on site during pier and well repair operations. One trailer was staged at pier 421-1 and the other at the Ellwood Onshore Facility. Venoco also scheduled all critical well operations during morning hours when there was less wind and smaller swells. During the well repair operations, Venoco maintained a vacuum truck on site.

During critical operations, Venoco also had a boat standing by, able to respond within five minutes to deploy boom. The oil spill cooperative, Clean Seas, was available for secondary response. Clean Seas could deploy equipment at the Ellwood area within one hour of a spill. In addition to Clean Seas, Venoco maintains a Master Service contract with Advance Clean Up Technologies, Inc ("ACTI") in the event of a terrestrial spill. ACTI could be on site within two hours of a spill.

For this project, Venoco provided state-of-the-art oil spill containment and cleanup equipment and services. However, if a spill were to have occurred, the equipment would not have been effective at keeping oil off the coastline and therefore would have been inconsistent with the second test of Coastal Act section 30232. Even a small spill would have fouled Ellwood Beach notwithstanding the extensive equipment provided by Venoco or Clean Seas. In this case, however, no spill occurred. The Commission thus finds the project consistent with Coastal Act section 30232.

4.4.5 Hazards

Coastal Act section 30253(2) states:

New development shall:

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

This project involved repairing an existing access road that parallels the toe of a bluff along a section of Ellwood Beach. Condition 6 of the emergency permit limited the width of the improved access road to 12 feet only (the minimum necessary for the rig). In so doing, the bluff face and toe of the bluff were not altered.

An old riprap wall protects the existing access road. Although the project included placement of additional rock riprap, the emergency permit limited the placement of additional rock to specific locations where the seaward side of the road embankment had failed and the existing revetment had deteriorated. The addition of soldier pile wall at the transition area between the road and two piers was to replace a deteriorated area of existing revetment so that there was enough structural support for the work rig. The existing footprint of the revetment was not enlarged. The emergency permit prohibited extending the base of the revetment towards the beach. Venoco compacted the soil used to backfill spaces or gaps between the supplemental and existing riprap. A Santa Barbara County monitor was on site during all work activities to ensure that the work was carried out consistent with the emergency permits issued by the County of Santa Barbara and Executive Director of the Coastal Commission.

With these measures in place, the Commission finds that the project does not "contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area" and is therefore consistent with Coastal Act section 30253.

4.4.6 Public Access and Recreation

Coastal Act section 30210 states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act section 30211 states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act section 30220 states:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Coastal Act section 30240(b) states:

Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

People commonly jog and walk along the section of Ellwood Beach adjacent to State Lease 421. The Bacara Resort lies directly west of the lease and its clientele frequent the beach. Any impacts to beach access occurred during the pier reconstruction phase of the project (which lasted about four months). During that time, Venoco attached scaffolding to the underside of the piers so that workers did not access the piers from the beach. Venoco constructed the scaffolding such that a walking corridor was provided at the mid-span of each pier. Venoco placed a guard at the site to monitor beach pedestrian traffic. The public had to wait briefly to cross under the piers when a crane transferred construction materials to the pier. Construction activities likely deterred people from using this area of the beach due to the presence of project equipment and increased noise.

The project's primary effects were to golfers at the Sandpiper Golf Course. Venoco holds an easement that runs through the golf course past the 12th tee and provides the only access route to the piers. Typically, Venoco traverses the easement on a bimonthly basis to perform lease maintenance activities. The completion of the well stabilization project required about 418 truck trips across the easement that runs through the golf course in order to transport road, pier, and well repair materials out to the lease. The location of the easement near the 12th tee falls within the County of Santa Barbara's coastal development permit jurisdiction. The County's coastal permit required Venoco to (1) develop a Traffic Minimization Plan to ensure controlled traffic across the easement, (2) consult with the golf course on the terms of the project and any

necessary adjustments to minimize impacts on the golf course's operations, and (3) provide the golf course with weekly construction plans. Venoco also agreed to restrict its use of the golf course easement to nighttime hours during the road repair phase of the project.

The Coastal Commission finds that although the project interfered with the quality of the recreational experience along this section of Ellwood Beach, its impacts were be temporary and minimized by implementation of the above-described measures. The Commission thus finds the project consistent with Coastal Act sections 30210, 30211, 30220, and 30240(b).

4.4.7 Air Quality

Coastal Act section 30253(3) states in part:

New development shall:

...(3) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

Venoco's 421 piers are located within the South Central Coast Air Basin in the South Coast portion of Santa Barbara County and within the County of Santa Barbara's Air Pollution Control District ("APCD"). Emissions from construction projects are typically short-term. Neither the County nor the APCD has thresholds established for short-term construction emissions. This project was considered a construction project, and therefore no significance thresholds applied. The construction equipment, including the drilling rig, produced less than the APCD threshold of 25 tons of emissions per year, and therefore no offsets were required.

The APCD determined that the repair work did not result in a violation of any ambient air quality standard or contribute to an existing or projected air quality violation. Any adverse air quality effects were temporary. The APCD estimated that the project generated 3,117.5 pounds ("lbs") (about 1.3 tons) of carbon monoxide ("CO"), 2,838 lbs (1.41 tons) of reactive organic gases ("ROGs"), 1,236.1 lbs (.56 tons) of nitrous oxides ("NO_x"), 163 lbs (.07 tons) of sulfur dioxide (SO₂) and 82.7 lbs (.38 tons) of particulate matter ("PM₁₀").

The County's emergency permit required Venoco to minimize the amount of dust generated by grading, clearing, excavation, and transportation of cut and fill materials by spraying water as necessary.

The Commission thus finds the project consistent with the rules and requirements of the APCD and is therefore consistent with Coastal Act section 30253(3).

4.4.8 Conflict Resolution Policy

Coastal Act section 30007.5 states in relevant part:

The Legislature further finds and recognizes that conflicts may occur between one and more policies of this division. The Legislature further declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most

protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment center may be more protective, overall, than specific wildlife habitat and other similar resource policies.

Venoco's well stabilization project results in conflicts between Coastal Act policies. The Commission found in section 4.4.1 of this report that the fill of wetlands and placement of 50 new piles in open coastal waters for the purpose of securing leaking wells are not allowable uses pursuant to Coastal Act section 30233(a). The Commission further found the wetland fill to be inconsistent with the Coastal Act's section 30240(a) ESHA policy. However, the express purpose of this project is to prevent an oil spill from occurring as required by Coastal Act section 30232.

During review of this project, the staffs of the applicable federal, state, and local government resource agencies, such as the Coastal Commission, California State Lands Commission, and County of Santa Barbara, met at the 421 site to discuss project design and the feasibility of avoiding impacts to wetlands and other resources. The agencies determined that improvements to the road, which would cause unavoidable loss of wetlands, was necessary to provide an access road suitable for the heavy rig that is necessary to secure the wells. New pier pilings were also essential to handle the weight of the rig. To not allow the road and pier improvements meant that the rig could not access the wells and the release of petroleum-hydrocarbons into marine waters was imminent. Such an uncontrolled release of oil into the marine environment could have catastrophic long-term water quality, marine resource, recreation and public access impacts.

For these reasons, the Commission finds pursuant to Coastal Act section 30007.5 that, on balance, it is more protective of coastal resources to resolve these conflicts by approving the proposed project.

5.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act ("CEQA"). Section 21080.5(d)(2)(A) of the CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment. The project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act, and there are no less environmentally damaging feasible alternatives. Therefore, the Commission finds that the proposed project is consistent with the CEQA.

APPENDIX A

Substantive File Documents

Coastal Development Permit Application E-01-030.

Emergency Permit E-01-027-G, issued by the Executive Director of the California Coastal Commission on October 12, 2001.

Fahy, Christina. Electronic correspondence to Dan Chia, California Coastal Commission. June 11, 2001.

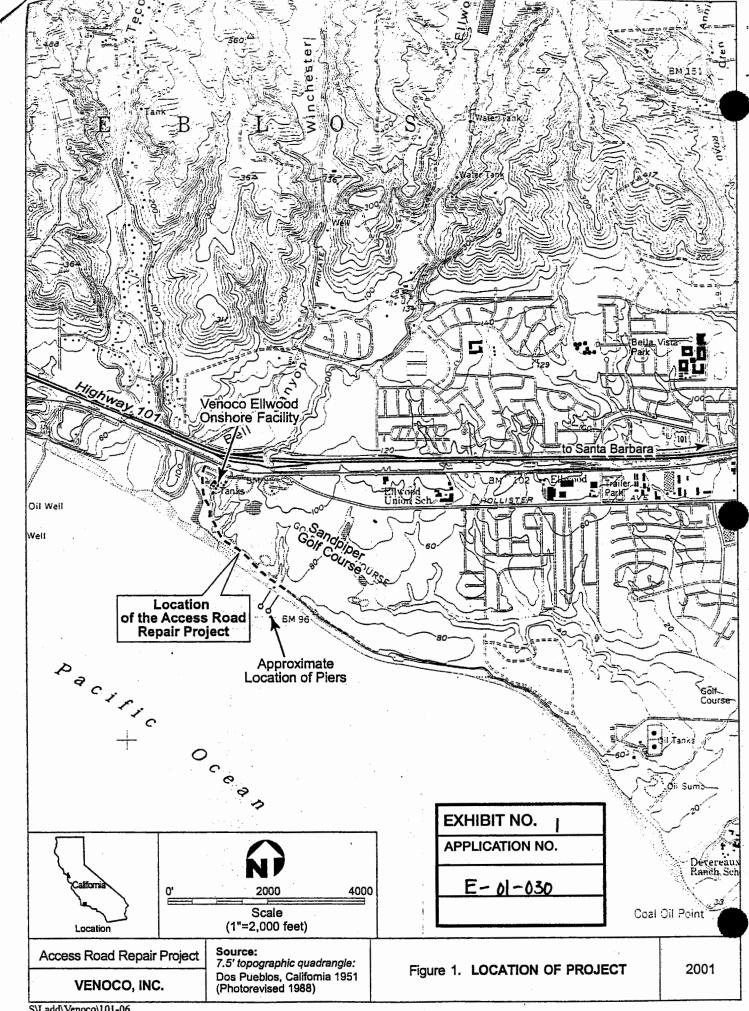
Greene, C.R., Wursig, B., Jefferson, T.A., 2000. Development of an Air Bubble Curtain to Reduce Underwater Noise of Percussive Piling. Marine Environmental Research, 49:79-93.

Lease 421 Oil Spill Contingency and Emergency Response Plan Appendix. March 2001.

Mitigated Negative Declaration for the Venoco State Lease 421 Well Stabilization Project, 01-ND-34, prepared by the County of Santa Barbara Planning and Development Department Energy Division, 2001.

State Lease 421 Mitigation Plan (dated January 2003), prepared by Watershed Environmental for Venoco, Inc.

Vegetation Characterization Study and Wetland Delineation – Venoco Lease PRC 421 Access Road Repair Project, prepared by URS Corporation for Venoco, Inc., January 2001.



CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000 SAN FRANCISCO, CA 94105-2219 OICE AND TDD (415) 904-5200 FAX (415) 904-5400



EMERGENCY PERMIT

APPLICATION NO.

E-01-030

October 12, 2001

(Supercedes Emergency Permit E-01-016-G issued on May 18, 2001)

Applicant: Venoco, Inc.

Emergency Permit No. E-01-027-G

Location of Emergency Work: Santa Barbara County, State Lease 421, Piers 421-1 and 421-2; near the Elmwood Onshore Facility ("EOF") and adjacent to the Sandpiper Golf Course.

Background: The applicant owns two idle wells at State Lease 421, a water injection well on pier 421-1 and an oil production well on pier 421-2. Both wells have been out of service since 1994, when a pipeline extending from pier 421-2 leaked, causing a 170-barrel oil spill onto the Sandpiper Golf Course.

On November 22, 2000, an Air Pollution Control District inspector discovered a small gas leak in the water injection well. In order to locate the source of the leak, Venoco pumped the water from the well into an existing storage tank located on pier 421-1. Subsequently, Venoco pumped the water through a 2-inch steel pipe to the EOF. On November 28, 2000, Venoco, during a routine fluid check, detected a leak from the idle oil production well. After temporary containment measures were implemented, Venoco stopped the leak by welding the valve assembly to the well casing. Venoco collected approximately 15 gallons of oil within a 55-gallon drum. No oil leaked into the marine environment. Venoco installed 2-inch piping to connect the production well to the EOF along an access road in order to depressurize the well. Well pressure and the corroded condition of the steel piping caused the oil leak.

On November 28, 2000, Santa Barbara County issued an emergency permit (00-EMP-006) authorizing the above remedial actions.

By letter dated December 1, 2000, the State Lands Commission ("SLC") staff directed Venoco to take additional actions within 90 days to insure the integrity of the wells and prevent a release of oil into the marine environment. Venoco is to "kill" both wells, replace the casing and wellhead components, install downhole casing-tubing annulus packers in the casing of each well, and monitor the casing pressure on a monthly basis, among other requirements. Moreover, on January 8, 2001, the SLC notified Venoco that the wells and pier infrastructure are out of compliance with SLC regulations and directed Venoco to take immediate action to alleviate the pollution risk posed by the wells.

On January 12, 2001, the Executive Director of the Coastal Commission (hereinafter "Executive Director") issued emergency permit E-01-001-G authorizing the first phase of the emergency

response activities -- the repair of a section of an access road leading to both piers. Before authorizing repairs to the remaining section of road, piers and wells, Commission staff requested Venoco to conduct a biological survey and wetland delineation and propose methods that would minimize impacts to a wetland located on the landward side of pier 421-2.

On February 13, 2001, SLC staff conditionally approved Venoco's proposed work plan (dated January 11, 2001) to repair the piers and caissons. In a February 14, 2001 letter to the Coastal Commission and Santa Barbara County, SLC staff further explained the poor condition of the wells and piers and emphasized that immediate corrective action is necessary to prevent a release of petroleum hydrocarbons into marine waters.

On March 15, 2001, the Executive Director issued emergency permit E-01-007-G authorizing the second phase of the emergency response activities, including repair of the remaining section of the access road, and repairs to the piers, caissons, and wells.

After issuance this permit, Venoco proposed changes to its project description, including: 1) the use of a soldier piles to strengthen the existing seawall in front of the piers instead of using sheetpile; 2) removal of pipelines of varying lengths and sizes located in washout areas of the access road and that connected the two piers and other pier infrastructure; and 3) maintenance of two existing culverts or installation of a French drain. Accordingly, on May 18, 2001, the Executive Director issued emergency permit E-01-016-G which superceded and wholly replaced E-01-007-G.

On September 12, 2001, Venoco requested (as modified on October 11, 2001) to amend emergency permit E-01-016-G to: 1) modify the caisson and well (421-1 and 421-2) work plans as a result of actual conditions encountered in the field, 2) conduct well repair work during nighttime only if there is an unnecessary risk to operations if well work is shut down for the day, and 3) extend the expiration date of the permit to November 16, 2001. The SLC staff has reviewed and approved the proposed modifications as documented in letters to Venoco dated September 12 and 24, 2001, and in personal communication with Commission staff on October 11, 2001.

This emergency permit incorporates Venoco's September 12, 2001 request, as amended on October 11, 2001, and wholly replaces and supercedes emergency permit E-00-016-G.

Work Proposed: To secure each well and prevent a release of petroleum hydrocarbons into marine waters, Venoco proposes to (a) repair an existing access road to piers 421-1 and 421-2; (b) repair each pier (i.e., add new pilings and replace deck planks to support the weight of a rig); and (c) "kill" and secure each well pursuant to SLC and Division of Oil, Gas, and Geothermal Resource ("DOGGR") agency regulations.

In order to support the weight of heavy equipment needed for pier and well work, enhance road stability, and afford protection from wave erosion Venoco proposes to repair the existing access road by: (a) grading the road; (b) adding 520 tons of float rock (2" to 8" rock) as a base layer (if existing base layer is inadequate); (c) adding 662 tons of gravel as road base and; (d) placing

approximately 645 tons of rip rap within the gaps of the existing beachside rock revetment at the base of the road. The following equipment will be used during road repair operations: motor grader, front end loader, backhoe, track backhoe, 10 wheeler trucks, and a 2000 gallon water truck. At least three inches of road base will be added to the existing dirt road. Areas of the road that have washed out will require the replacement of rip rap, which will be set in place using a track backhoe with a lift and clamp from the existing road. The replacement of rip rap will not extend the existing rip rap seaward. Approximately 60 cubic yards of material will be removed between the two piers in order to widen the road to a maximum width of 12 feet. The adjacent bluff face or toe of the bluff slope will not be altered in any way.

As a part of the road repair work, Venoco proposes to fortify the access road approaches at both piers with soldier piles in order to strengthen the existing timber seawalls to support the heavy loads of heavy equipment. To install the soldier piles and stronger load bearing road material, the road in front of the seawalls will be excavated to a depth of approximately 12 feet, sloping back roughly 5 feet. Approximately 80-100 tons of soil and gravel will be removed and transported to an off-site disposal facility; roughly 120-160 tons of rock and road base material will be used to backfill the excavation at both piers. The pier 421-1 soldier pile wall will be 44.5 feet long with 7 piles; the wall at pier 421-2 will be 37.5 feet long with 6 piles. The piles will be driven to a depth of approximately 15 feet. The existing seawall will ultimately be attached to the soldier pile wall at both piers and the void between them will be backfilled with approximately 10 tons of crushed rock. No work will be done on the beach.

Venoco also proposes to maintain two existing culverts (8 inch and 10 inch pipes) at the end of the access road to ensure proper drainage of runoff and to allow the road to support heavy equipment. The 8 inch culvert extends from the based of a ravine above a wetland and terminates at the seawall. The 10 inch culvert is located under pier 421-2 and terminates at the seawall. The location of its inlet is not known but is believed to be approximately 83 feet north of the pier. Working from the beach opening or inlet of the culverts, fresh water under high-pressure (60 gpm at 1000 psi) will be used to clear the inside of the culverts of accumulated debris. If the 10 inch culvert inlet is not found or cleared, the top of the pipe may be exposed and cut into in order to clear the pipe. If the pipe has collapsed or is severely corroded, a replacement section may be welded in. To clear the inlet of both culverts, vegetation and soil will be removed by hand with shovels.

The existing drainage into the 10 inch culvert will need to be redirected, as runoff currently flows around the inlet. Berms will be constructed using approximately 100 burlap sacks/sandbags filled with dry concrete/mortar mix to redirect water flow into the existing culvert inlet. The culvert's inlet apron will also be reconstructed with approximately 100 burlap sacks.

If the above culvert maintenance proposal is deemed infeasible, the applicant proposes to install a French drain near pier 421-2. This proposal includes the installation of a 2" x 12" wooden dam and French drain inside of the perimeter of the access road. Wooden planks would be placed into a trench approximately 100' in length and 8" in width at a depth 4" below the original road base. The French drain (20' sections of 4" PVC pipe with 3/8" round perforations covered with

filter fabric) would be placed at the bottom of the trench, outside of the wooden dam, and backfilled with 3/4" gravel.

Approximately 119 linear feet of abandoned pipelines buried in the access road right-of-way and installed on the piers will also have to be removed to accommodate road repair work and pier/well work. They are found in four areas of the access road where voids have developed between the road and the seawall and need to be removed in order to backfill the voids. In addition, Venoco proposes to remove approximately 785 feet of pipeline located on the piers or connecting the piers.

Catch basins (connected to a closed-top 55 gallon barrel) will be installed under each pipeline segment to provide 100% containment during removal. The pipelines will also be cold-tapped at the low point to determine their contents. Cut segments of the lines to be removed will be plugged with sorbent material to prevent fluid release during handling and transport. Portions of the pipelines that are to remain in place will be capped or plugged. If condition of the pipelines will allow, caps will be welded to the cut ends of the pipe. Where the metal has deteriorated to the point that welding is infeasible, the lines will be fitted with permanent plugs to prevent leakage.

Based on a January 2001 biological survey and wetland delineation, approximately 971 square feet of wetlands in three areas will be filled due to road repair activities. Two of the wetlands to be impacted exist on or adjacent to the access road and encompass 335 and 140 square feet, respectively. A third wetland area is located at the end of the access road and measures approximately 6,125 square feet. Of this amount, a maximum of roughly 1,107 square feet or approximately 18% of the wetland will be impacted by road and seawall repairs. Venoco investigated less damaging wetland fill alternatives (e.g., bridging) but concluded that the alternatives are infeasible and unsafe.

In order to accomplish the well work, certain demolition and repair to both piers will be necessary to support the weight of construction and repair equipment. Major work includes the following: remove, inspect, and replace, if necessary, all deck planks; remove and replace wooden joists as necessary; drive 25 pipe piles to depth (minimum 25 feet); assemble, weld, and install 5 steel joints and; reinstall miscellaneous handrails, fences, and appurtenances.

Major equipment necessary to accomplish the above work includes: two truck-mounted mobile cranes (20 ton and 35 ton), welding truck, pile driving equipment, power pack, bulk cement unit and cementing equipment, pump truck, flatbed truck, caisson drilling truck, excavator, vacuum truck, 1-ton tool truck, vibra-plate compactor, jack hammer, air compressor, and concrete saw.

After the road and pier repair work is complete, Venoco proposes to: 1) "kill" both wells and maintain both in a "dead" condition; 2) pull the injection well and the oil well components; 3) strip and replace all corroded casing and wellhead components; 4) determine the casing wall thickness in each well cellar by non-destructive test means; 5) install downhole casing-tubing annulus packers in each well; 6) install a surface controlled subsurface safety value in the oil production well; 7) monitor the casing(s) pressure on both wells on a monthly basis and; 8) remove a 500-barrel vertical tank, horizontal tank, pumping unit, and other infrastructure from

both piers. At pier 421-2, Venoco proposes to recover the rod pumping completion, repair the 9 inch casing and wellhead, and place a temporary abandonment string comprised of 2-7/8 inch tubing in well 421-2, as fully described in a facsimile from John Hood to Dan Chia dated September 27, 2001.

Well repair work is estimated to last until October 16, 2001, including a contingency period for project delays, and will be accomplished during daytime hours 7 days a week. However, when an unnecessary risk to operations, as determined by Venoco, DOGGR, and SLC, would occur if well work is shut down during the day, work will continue into the night. Existing lighting used to monitor the wells and equipment at night will be also used for well repairs. Heavy equipment lighting and a 40-foot light tower may also be used at night. Lighting will be directed away from adjacent property owners and minimized to reduce marine mammal disturbance.

The proposed project is more fully described in: a) a letter from Stephen A. Greig, Venoco, to Alison Dettmer, Coastal Commission, dated January 4, 2001, for emergency permit application E-01-001-G, including the PRC 421 Demolition and Repair Execution Plan; b) a letter from Dennis Harper, Venoco, to Dan Chia, Coastal Commission, dated February 7, 2001; c) a letter from Dennis Harper, Venoco, to Michelle Pasini, Santa Barbara County, dated February 20, 2001; d) a letter from Stephen A. Greig, Venoco, to Dan Chia, Coastal Commission, dated March 1, 2001; a letter from Stephen A. Greig, Venoco, to Dan Chia, Coastal Commission, dated March 7, 2001 e) an email from Stephen A. Greig, Venoco, to Dan Chia, Coastal Commission, dated March 9, 2001; f) letter from Dennis Harper to Dan Chia and Michelle Pasini dated April 13, 2001 g) letter from Dennis Harper to Dan Chia and Michelle Pasini dated April 25, 2001; h) letter from Dennis Harper to Michelle Pasini dated May 1, 2001; i) letter from Dennis Harper to Dan Chia dated May 4, 2001; j) letter from Stephen Greig to Dan Chia dated May 11, 2001 and; k) an email from Wes Penington to Dan Chia (Proposed Maintenance Work on State Lease 421 Culvert Pipes) dated May 15, 2001; l) a letter from Steve Greig, Venoco, to Dan Chia, Coastal Commission, dated September 12, 2001; m) emails from John Lorentz to Dan Chia dated September 20, 2001 and September 24, 2001; n) facsimile from John Loretz to Dan Chia, dated September 24, 2001; o) facsimile from John Hood to Dan Chia, dated September 27, 2001.

Executive Director's Determination: This permit constitutes approval of the emergency work you or your representatives have requested to undertake at the location listed above. I understand from your information and our site inspection that an unexpected occurrence in the form of an imminent threat to marine waters of a petroleum hydrocarbon release from two idle wells on State Lease 421 requires immediate action to prevent or mitigate loss or damage to life, health, property or essential public services. (14 Cal. Admin. Code § 13009). The Executive Director hereby finds that:

- (a) An emergency exists which requires action more quickly than permitted by the procedures for administrative or ordinary permits and the development can and will be completed by November 16, 2001, unless extended pursuant to the terms of the permit;
- (b) Public comment on the proposed emergency action has been reviewed as time allows; and

(c) As conditioned, the proposed work would be consistent with the requirements of the California Coastal Act of 1976.

The work is hereby approved, subject to the attached conditions.

Very Truly Yours,

PETER M. DOUGLAS Executive Director

Standard Conditions

- 1. This permit is not valid until a copy of the permit is signed by the permittee or authorized agent, acknowledging receipt of the permit and the acceptance of the terms and conditions, is returned to the Commission office.
- 2. The authorization conferred by this emergency permit to conduct the activities described in the application shall expire on November 16, 2001 unless, at least 72 hours before that date, the applicant applies for and the Executive Director grants for good cause, an extension of that expiration date.
- 3. The applicant shall not deviate from the operations, timing, or sequence of operations specified in the application unless and until authorized by the Executive Director.
- 4. Within 30 days of issuance of this emergency permit, the applicant shall submit to the Coastal Commission a regular coastal development permit application to authorize the activities approved herein.

Special Conditions

- 5. The entire length of the Lease 421 access road (both sides) proposed for repair shall be staked every 5 meters just outside of the proposed road repairs in order to establish specific limits of construction.
- 6. The Lease 421 access road shall not exceed 12 feet in width.
- 7. No project activities or equipment shall be allowed on the beach.
- 8. The replacement of supplemental rip rap (rock) shall not further extend the base of existing rip rap towards the beach. The placement of additional rock shall be restricted to specific locations where the seaward road embankment has failed and the existing revetment has

- deteriorated. The installation of supplemental rip rap shall be coordinated with and approved by Santa Barbara County's (EQAP) biological monitor.
- 9. Any soil that is used to backfill spaces or gaps between the supplemental or existing rip rap shall be compacted, in consultation with the EQAP monitor.
- 10. The applicant shall avoid, and, if total avoidance is not feasible, minimize impacts to native vegetation, wetlands, and other sensitive resources.
- 11. Prior to project commencement and within one week after project completion, the applicant shall photograph the project area to document any changes in vegetation and landform.
- 12. The applicant shall record in writing and by photograph all damage to or destruction of native vegetation caused by project activities. The species impacted, date, time, location, size (area) of impact, and activity contributing to the damage or destruction shall be recorded on a daily basis. Within two weeks of project completion, the applicant shall submit to the Executive Director a written report incorporating the above information and the pre and post-disturbance photographs required in condition #11.
- 13. A qualified biological monitor, to be approved by the Executive Director, shall be present at all times during project operations. The monitor shall ensure that the applicant fully complies with the conditions of this permit.
- 14. Best management practices (BMPs) for construction activities contained in the California Storm Water Best Management Practices Handbook (March 1993) or other BMPs shall be implemented, as appropriate, during road repairs to minimize erosion and limit sedimentation of receiving waters. At a minimum, silt fencing shall be installed and maintained on the southern end of the entire access road, just outside the limits of road construction for the duration of the project. Silt fence shall also be in place prior to the installation of sheet pile. As determined by the EQAP monitor, the silt fence can be staggered in certain areas to allow collected runoff to drain from the road.
- 15. The applicant shall install additional erosion control measures if, in the judgement of the EQAP monitor, they are necessary to minimize erosion and limit sedimentation of receiving waters.
- 16. The bluff face or toe of the bluff slope along the Lease 421 access road shall not be altered in any way.
- 17. The applicant shall submit to the Executive Director for review and approval the location of and engineering design for sheetpile installation at least 5 days prior to installation.
- 18. A project-specific Oil Spill Contingency Plan shall be submitted to the Executive Director for approval at least 5 days prior to the start of structural repairs to the piers and caissons. At a minimum, the plan shall include: a) an estimate of a reasonable worst case spill caused

by project operations; b) potential causes and sources of oil spills that may result from this project, c) the measures to be taken to prevent each type of spill; d) a response and clean-up plan in the event of a spill; e) a list of all clean-up equipment that will be maintained on-site; and f) designation of an onsite person who will have responsibility for implementing the plan. In the event of an oil spill, the applicant shall notify Ellen Faurot-Daniels at the Coastal Commission at 415/904-5285 or 415/201-5792 (pager).

- 19. The applicant shall make available two oil spill response trailers during the pier and well repair operations. One trailer shall be staged on pier 421-1 or 421-2. The second trailer shall be staged at the Ellwood Onshore Facility. All equipment listed in Appendix I: Equipment Lists of the applicant's Emergency Action Plan shall be maintained and ready for use.
- 20. All critical well repair operations, as described in a letter dated January 22, 2001, from Richard Rosenbaum, Venoco, to Kristen Getler, Santa Barbara County, or as described in the project-specific Oil Spill Contingency Plan, shall be scheduled during the morning hours to the maximum extent feasible, when there is less wind and smaller swells.
- 21. A vacuum truck shall either be on the project site or immediately deliverable for oil spill response during the well repair operations.
- 22. When removing the well head and during nighttime operations, the applicant shall have a clean-up response vessel standing by, in immediate proximity to Lease 421, to respond to an unanticipated oil leak.
- 23. During pier and well demolition and repair, a debris log will be maintained on site. All fallen debris shall be immediately recovered, to the maximum extent feasible.
- 24. The applicant shall install protective barriers under heavy equipment to insure that fuel or fluid leaks do not contaminate soil or groundwater.
- 25. The applicant shall minimize the need to refuel equipment on the project site to the maximum extent feasible.
- 26. Equipment shall be inspected daily for fuel or fluid leaks. Leaking equipment shall be repaired or replaced immediately.
- 27. Pile driving work on both piers shall be temporarily suspended if any marine mammal(s) are observed within a 500 feet radius of the pile driving activity. Pile driving may resume once the mammal(s) is outside of this safety zone. The County's onsite EQAP monitor will be responsible for monitoring the safety zone during pile driving activities. In the event that, in the opinion of the monitor, a mammal has entered this safety zone, the monitor shall have the authority to suspend pile driving activities until the mammal has passed outside of this zone.

- 28. Prior to the commencement of pile driving work, the applicant shall provide evidence (e.g. attenuation model) to the Executive Director for review and approval that the safety zone required in Special Condition 27 is adequate to mitigate any adverse noise impacts to marine mammals. If a safety zone other than a 500 foot radius is recommended, the applicant shall abide by the recommendation.
- 29. An initial ramp-up period shall occur at the commencement of pile driving activities to avoid potential impacts to marine mammals that may be undetected within the safety zone. This period shall be coordinated with the County's EQAP monitor.
- 30. The applicant shall schedule pile driving activities during periods of low tides to the maximum extent feasible to minimize potential noise impacts to marine mammals.
- 31. All feasible measures shall be taken to achieve 100% containment of the slurry mix used during the drilling of the soldier piles. A waterproof barrier shall be placed on the ground in the immediate work area, under the containment boxes, and around each hole to be drilled. The slurry mix and drill cuttings shall be properly disposed of offsite.
- 32. All culvert maintenance activities, including access to the culverts, shall be coordinated with the County's EQAP monitor to ensure that impacts to native vegetation and wetlands are avoided or minimized to the maximum extent feasible. If unacceptable impacts to native vegetation or wetlands are likely to occur, as determined by the monitor, due to maintenance activities, the applicant shall implement the French drain proposal, as described in the project description, instead.
- 33. Prior to the commencement of culvert maintenance activities, the applicant shall clearly mark the limits of the maintenance zones, including access corridors, with stakes or equivalent markers. All native vegetation and wetlands shall be avoided to the maximum extent feasible. No unauthorized project personnel or equipment shall be allowed outside the maintenance limits.
- 34. Prior to cleaning the culverts and in coordination with the County's EQAP monitor, the applicant shall submit to the Executive Director for review and approval a plan to determine the feasibility of: 1) containing and/or filtering the discharge of material from the outlets of both culverts during maintenance activities and; 2) capturing runoff into a catch basin at the culvert inlets during culvert operation. If the plan is deemed feasible by the Executive Director, the applicant shall implement the plan.
- 35. Nighttime work shall be allowed only with the express authorization of DOGGR and SLC staff.
- 36. Night lighting shall be minimized to the maximum extent feasible to reduce potential impacts to marine mammals and other wildlife while maintaining safe work conditions.

37. Where feasible, as determined in consultation with the Executive Director and the County of Santa Barbara, the applicant shall undertake site restoration and/or revegetation activities (as required by the County) east of pier 421-1 prior to November 1, 2001 (the start of the rainy season) in consultation with the County's EQAP monitor.

Acknowledgment:

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee acknowledges that Government Code § 818.4 which states in pertinent part that "A public entity is not liable for injury caused by issuance ... of any permit ..." applies to this permit.

IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE. 14 CCR § 13158(a).

By:		Date:	
	Signature of Permittee		