STATE OF CALIFORNIA—THE RESOURCES AGENCY PETE WILSON, *Governor*

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

Tu12a

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STAFF REPORT: REGULAR CALENDAR

Application No.:	**E-98-13**
Project Applicant:	**Unocal**
Location:	Sandy beach areas at Avila Beach, San Luis Obispo County
Project Description:	Temporarily remove a portion of the Avila Municipal Pier; temporarily install sheet pile wall on the beach; remove by excavation approximately 37,000 cubic yards of petroleum hydrocarbon contaminated silt and sand; and replace the contaminated material with clean imported sand.
Related Approvals:	San Luis Obispo County Planning Commission. Coastal Development Permit/Development Plan No. D940227D. (June 25, 1998).
Substantive File Documents:	Appendix B

Note: Exhibits 1 – 12 of this report were provided as a separate packet to the Coastal Commissioners on July 24, 1998, with the staff report for Appeal No. A-3-SLO-98-072. Exhibit 13 is attached to this report.

SYNOPSIS

Project Description

Unocal is in the process of obtaining all its agency approvals to excavate petroleum hydrocarbon contamination underlying the beach and town areas of Avila Beach in San Luis Obispo County. Unocal's proposed cleanup project is located in areas of both the County of San Luis Obispo's certified local coastal program ("LCP") permit jurisdiction and the Coastal Commission's retained coastal permit jurisdiction.

The overall cleanup project involves excavation in three phases: northwest town (Cell 1), beach (Cell 2) and northeast town (Cell3) (See Exhibit 4, "Approximate Sheet Pile Wall Locations for Three-Cell Approach"). Within each cell, Unocal proposes to relocate or demolish utilities and structures, install temporary sheet pile to shore the excavation, stockpile overburden (the top layer of clean beach sand), excavate contaminated material, backfill the excavation with imported sand, replace the stockpiled overburden, and conduct post-excavation ground water monitoring. Cells 1 and 3 are located within the County's LCP jurisdiction; Cell 2 is located primarily within the Coastal Commission's retained permit jurisdiction.

In this application, Unocal proposes to conduct the following activities within the Coastal Commission's area of retained permit jurisdiction:

- Augment the east side of the beach with clean imported sand if necessary during Cell 1 activities (which precedes Cell 2 excavation) to prevent "daylighting" of the subsurface contamination during the 1998-99 winter storm season;
- Temporarily remove an approximately 150-foot section of the Avila Municipal Pier;
- Install a temporary sheet pile wall on the beach at the 100 ppm ("parts per million") TPH ("total petroleum hydrocarbon") contour line;
- Temporarily stockpile approximately 63,000 cubic yards of clean overburden;
- Remove by excavation approximately 37,000 cubic yards of petroleum hydrocarbon contaminated silt and sand from the sandy beach area; and
- backfill the Cell 2 excavation with clean imported sand and the stockpiled overburden.

Background

Cleanup or Abatement Order No. 98-37

On April 3, 1998, the Central Coast Regional Water Quality Control Board ("RWQCB") issued Cleanup or Abatement Order ("CAO") No. 98-37 (See Exhibit 12, "CAO 98-37"), which in part directs Unocal to remediate by excavation the beach, Front Street and properties north, and the San Antonio Street Plume. The order requires Unocal to commence and complete remediation by December 1, 1998, and December 1, 2000, respectively.

The order does not address remediating the Avila Terminal Facility (Unocal's tank farm facility), the Intertidal Zone Plume, the San Luis Creek Plume, the West of San Luis Obispo Creek Pipeline Plume, the Former Loading Station Plume, and any other soil contamination that is discovered through future site characterization efforts. (See Exhibit 2, "Current Hydrocarbon Soil Plume Map") Establishing cleanup levels for these areas has been deferred until the completion of additional studies and further site characterization, and may be addressed in a future CAO.

Settlement Agreement and Judgment

In June 1998, a settlement agreement and judgment were entered into by the California Department of Fish and Game ("CDFG"), the California Regional Water Quality Control Board for the Central Coast Region ("RWQCB"), the County of San Luis Obispo ("County"), Communities for a Better Environment ("CBE"), Avila Alliance, Environmental Law Foundation ("ELF"), and Unocal (See Exhibit 6, "Settlement Agreement and Judgement," and Section 4.1.9 of this report for a more detailed discussion).

This agreement establishes in part three provisions for Unocal to mitigate adverse impacts to public access and recreation due to the contamination and the remediation:

1. Of $6,000,000 placed into the Avila Beach Restoration Trust, $3,500,000 shall be used for restoration projects relating to lost use and enjoyment of natural resources, public beaches, and other public facilities in the Avila area impacted by the oil release.

2. Unocal shall transfer ownership of three parcels for the purpose of creating community parks. Unocal shall also expend up to $500,000 to design and construct the parks to specifications agreed upon by the County and Unocal.

3. Unocal shall expend up to $3,500,000 to complete the design and implementation of the "Front Street Enhancement Project," the conceptual plan for which was approved by the Coastal Commission in 1997 via Minor Amendment No. 3-96 to the LCP.

The settlement agreement further provides that $2,500,000 be used for studies concerning impacts to biological resources in the marine environment and restoration projects relating to injuries to biological resources impacted by the oil release at Avila Beach.

As part of this permit application Unocal proposes to comply with the provisions of the settlement agreement.

San Luis Obispo County Planning Commission' s Action on Unocal's Overall Cleanup Plan

On June 25, 1998, the San Luis Obispo County Planning Commission approved Unocal's coastal development permit application/development plan (File No. D940227D) to remediate the contamination by excavation.[1] Pursuant to Unocal's project description of June 2, 1998, the

[1] Note that although the Regional Water Quality Control Board's cleanup or abatement order (CAO 98-37) requires Unocal to excavate certain portions of Avila Beach, the order defers establishing cleanup levels for other areas pending additional studies and further site characterization. Therefore, Unocal's proposed cleanup plan, the San Luis Obispo County Planning Commission's conditional approval of that plan, and the settlement agreement do not address cleanup of the deferred areas, one of which is the intertidal plume. (See Sections 3.2.3 and 3.2.9 of this report for further information about the intertidal zone plume and the CAO, respectively.)

Planning Commission considered excavation of the beach and town in two phases, west side then east side.

Coastal development permit/development plan D940227D does not include reconstruction of buildings except for the public restrooms on the east side of Front Street, the pier, and existing structures on the pier (the Yacht Club building will have been temporarily relocated). The County is expeditiously developing an Avila Beach Specific Plan to govern the rebuilding of all other structures. The specific plan will require by the Coastal Commission certification of an LCP amendment.

On July 1, 1998, after the County Planning Commission approved coastal development permit/development plan D940227D, Unocal changed its project implementation plan to conduct the work in three phases: northwest town, beach, and northeast town (See Exhibit 4, "Approximate Sheet Pile Wall Locations for Three-Cell Approach").

Unocal intends to complete all project activities before the 2000 summer tourist season although the RWQCB's CAO No. 98-37 gives Unocal until December 1, 2000.

Appeal by Coastal Commissioners Wan and Reilly (Appeal No. A-3-SLO-98-072)

On July 16, 1998, Coastal Commissioners Wan and Reilly filed an appeal of the Planning Commission's decision. The appellants contend that the development as described in Unocal's coastal development permit application/development plan (File No. D940227D) and as approved on June 25, 1998, by the San Luis Obispo County Planning Commission does not conform to the County's certified local coastal program ("LCP") policies concerning public access, recreation, and low-cost visitor serving facilities, and Coastal Act policies concerning public access for the following reasons:

1. Nonconformity with certified LCP policies concerning public access and recreation and Coastal Act policies concerning public access; and

2. Nonconformity with certified LCP policies concerning low-cost visitor-serving facilities.

August 12, 1998 Appeal Hearing

At the August 12, 1998, Commission hearing, the Commission staff recommended that the appeal filed by Commissioners Wan and Reilly raised a substantial issue as to conformity of the proposed project with the County of San Luis Obispo's certified LCP. However, the Commission staff qualified its recommendation with the view that the issues raised by the appeal could be resolved if (a) the County revises its conditions of approval to address fully the LCP and Coastal Act issues raised in the appeal, and (b) the CDFG/OSPR executes a Memorandum of Understanding ("MOU") with the Coastal Commission that specifies to the Coastal Commission's satisfaction how and when the public access, recreation and marine biological settlement agreement mitigation monies would be spent.

At the hearing the Commission considered the following:

- The Commission staff presented draft revised conditions of approval to be added to the County's coastal development permit/development plan D940227D to address the LCP and Coastal Act issues raised in the appeal. The County staff proposed taking these changes to the Planning Commission for adoption at its August 27, 1998 meeting. Unocal agreed to the condition changes.
- The Commission staff presented a draft MOU to be executed between the CDFG/OSPR and the Commission that includes but is not limited to the following elements:
    - Criteria for the CDFG/OSPR to use in selecting public access and recreation enhancement projects under the terms of the settlement agreement that will be reasonably certain to mitigate the impacts of Unocal's remediation project on coastal public access and recreation. Specifically, the projects must be (a) of benefit to the Avila Beach area and (b) provide substantial improvements for public beach use, coastal access and/or public visitor-serving facilities.
    - An agreement that CDFG/OSPR will consult closely with the Coastal Commission and its staff in selecting projects to be funded in accordance with the criteria specified in the MOU; and
    - An agreement that by December 1, 2000, CDFG/OSPR shall have granted approval of all projects to be funded, and that said projects shall include an expeditious implementation schedule and in no case shall be completed later than December 1, 2002, unless extended by written agreement between the parties.

In response to this information, the Commission passed a motion that (1) opened and continued the appeal hearing until the Commission's September 1998 meeting, and (2) expressed the Commission's concurrence in the withdrawal by Commissioners Wan and Reilly of their appeal if the County Planning Commission adopts the suggested revised conditions of approval at its August 27, 1998 meeting and the CDFG/OSPR signs the proposed MOU.

CDP Application No. E-98-13 Consistency with Coastal Act Policies

The purpose of the proposed remediation project is to remove large quantities of petroleum hydrocarbons underlying the beach, thereby eliminating discharges of petroleum hydrocarbons to surface, ground, and marine waters, and restoring and enhancing municipal, agricultural and industrial water supplies; contact and non-contact recreation; aquatic habitat; wildlife habitat; rare, threatened and endangered species; estuary habitat; and commercial and sport fishing.

Removal of the contamination will also assist Avila in returning to its status as one of San Luis Obispo County's premier public beaches, thereby enhancing future public access and recreational opportunities.

Although the intent of the proposed remediation project is clearly consistent with the marine resource (Sections 30230 and 30231) and the public access and recreation (Sections 30210, 30211, 30212.5, 30220 and 30221) policies of the Coastal Act, executing the cleanup project (e.g., installing the sheet pile wall, excavating beach areas, augmenting the east beach with imported sand) could result in significant short-term adverse impacts to marine resources and cause beach closure during at least one, if not two, summer seasons.

Table 1 summarizes project-related significant issues, potential impacts to coastal resources, and conditions and mitigation measures Unocal will implement to avoid or reduce those impacts. Nevertheless, not all significant impacts can be avoided or mitigated.

Specifically, the project is inconsistent with the following Coastal Act policies:

- Section 30230 due to unavoidable impacts to grunion spawning from the sheet pile wall,
- Section 30232 due to inability to provide effective containment and cleanup equipment for oil spills; and
- Section 30233(a) due to placement of fill in coastal waters that is not an allowable use.

However, Coastal Act Section 30007.5 states:

> *The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore 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 centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.*

The Commission staff recommends that after applying the standard of Coastal Act Section 30007.5, on balance, it is most protective of significant coastal resources to approve the project for the following reasons:

- Although the project is inconsistent with Coastal Act Section 30230 due to adverse impacts to the grunion population, if the hydrocarbon contamination is left in place, future discharges of the contaminated material into marine waters could cause greater damage to the grunion population which is in clear conflict with the Coastal Act 30230 standard that healthy populations of marine species be maintained.

- Although the project is inconsistent with the second test of Coastal Act Section 30232 which requires that an applicant provide effective cleanup equipment for accidental spills that do occur, leaving the contamination in place will increase the likelihood of a large release of hydrocarbons into marine waters and San Luis Obispo Creek especially since much of the contamination underlies the active beach area and is susceptible to erosion.

Therefore, eliminating the potential for the spillage of hydrocarbons by removing the contamination, as required by the first test of Coastal Act Section 30232, will be more protective of coastal resources than leaving such contamination in place.

- Although the placement on the beach below the mean high tide line of temporary sheet pile and imported clean sand does not meet the "allowable use" fill test of Coastal Act Section 30233(a), to leave the contamination in place, and not allow the addition of clean sand to the beach, could result in a large release of hydrocarbons into marine waters and San Luis Obispo Creek which conflicts with the marine resource (Sections 30230 and 30231), oil spill (Section 30232) and public access and recreation policies (Sections 30210, 30211, 30212.5, 30220 and 30221) of the Coastal Act.

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

Accordingly, the staff recommends that the Commission approve the proposed cleanup project, as conditioned.

Table 1. Issue Summary: Potential Impacts and Proposed Conditions and Measures

Significant Issue Area	Proposed Special Conditions and Mitigation Measures
Marine Resources: Grunion	**Issue:** Conducting remediation activities on beach areas will prevent grunion spawning activities. **Mitigation Measure:** No feasible mitigation measures exist.
Marine Resources: Tidewater Goby	**Issue:** Vibration caused by driving sheet pile could collapse tidewater goby burrows, thereby suffocating eggs and males that are tending them. (Tidewater gobies are listed as federally endangered.) **Mitigation Measure:** **Special Condition 12** requires that Unocal shall retain a qualified biological monitor approved by the executive director, the U.S. Fish and Wildlife Service ("USFWS"), and the Army Corps of Engineers ("ACOE") to survey immediately prior to installing or removing sheet pile in the vicinity the lower reaches of San Luis Obispo Creek and the estuary for the presence of tidewater gobies. If the tidewater goby is found to be present, Unocal shall conduct all work according to measures and conditions identified by the ACOE and the USFWS to protect tidewater gobies and their habitat.
Marine Resources: Creosote	**Issue:** Re-use of creosote-treated wood pilings to support Avila Pier could cause creosote, a toxic material, to leach into marine waters and adversely affect coastal water quality and marine resources. **Mitigation Measure:** **Special Condition 15** requires that Unocal shall (1) plastic wrap all creosote-treated pilings prior to installation in a watertight plastic sleeve in accordance with current industry standards, (2) comply with conditions specified by the California Department of Fish and Game ("CDFG"), and (3) obtain Regional Water Quality Control Board ("RWQCB") approval.
Marine Resources: Surface Water Quality	**Issue:** Conducting remediation activities could adversely affect the quality of waters in the ocean and San Luis Obispo Creek. **Mitigation Measures:** **Special Condition 17** requires that Unocal shall obtain an NPDES Construction Storm Water Activity Permit approved by the RWQCB. The pollution prevention plan shall specify the installation and maintenance of Best Management Practices ("BMPs") to reduce erosion of disturbed soils within and adjacent to construction and staging areas. These BMPs may include but are not limited to: use of hay bales, silt fences, sediment traps, coffer dams, and containment berms. **Special Condition 18** requires that Unocal shall submit for approval by the executive director final erosion control and pollution prevention plans that specifically identify drainage and erosion control BMPs for each excavation phase. The plans must address conveyance of runoff from upstream areas as

Significant Issue Area	Proposed Special Conditions and Mitigation Measures
	well as potential downstream sedimentation and capacity impacts. The plans must include the following items: • Flood hazard information; • Complete drainage calculations that demonstrate measures to prevent flooding of any properties surrounding any grading or stockpile site; and • An engineered drainage plan that includes erosion and sedimentation control measures that demonstrate how existing stormwater drainage patterns throughout the work area will be handled for each phase of operations. The plans must also include measures to: • Construct off-site drainage facilities or provide evidence of adequate drainage easements; • Locate staging areas, equipment and materials storage areas, drilling fluids, and soil stockpiles away from surface water bodies to minimize the potential for releases into San Luis Obispo Creek or the ocean; • Store equipment and materials, particularly materials that can cause turbidity and sedimentation, inside bermed areas where surface runoff can be controlled and kept away from San Luis Obispo Creek and the ocean; • Use silt fences or other containment devices shall be used in areas where sediment, suspended materials, and settleable materials could be released to San Luis Obispo Creek or the ocean; and • Implement construction BMPs to minimize the potential for accidental release of materials that can cause turbidity, sedimentation, or result in suspended or settleable materials in San Luis Obispo Creek or the ocean.
Oil Spill Prevention and Response	**Issue:** Conducting the remediation project could cause an accidental release of hydrocarbons into surface waters due to (a) a breach of the sheet pile wall during high wave run-up, (b) a release of hydrocarbon foam due to vibrations from driving sheet pile, and (c) the loss of fuel or free product from vacuum trucks. **Mitigation Measures:** Unocal proposes to complete beach remediation between April '99 and October '99 to avoid winter storms and wave overtopping. If Cell 2 cannot be remediated by October 31, 1999, and Unocal wants to work during the winter season, **Special Condition 22** requires that sheet pile be designed to ensure no release of oil to the marine environment. Unocal has prepared an **oil and fuel spill contingency plan** that in part

Significant Issue Area	Proposed Special Conditions and Mitigation Measures
	provides that on-site spill equipment be available during all excavation activities. Unocal is a member of the **Clean Seas** oil spill cooperative.
Shoreline Processes	**Issue**: The Cell 2 plume is on the beach and requires excavation in an area that is regularly subject to waves, and inundation. There can be risks to life and property from flooding and slope instability. **Mitigation Measures**: **Special Condition 20** requires that all shoring, sheet pile and wave energy breaks seaward of Front Street be designed to withstand the maximum 100-year seasonal storm conditions for the period when Cell 2 excavation is planned to occur. **Special Condition 21** requires that the Cell 2 sheet pile wall be monitored for movement, to provide early detection of possible instability. **Special Condition 22** requires that if the excavation of Cell 2 cannot be completed by October 1, 1999, that Unocal prepare and submit a contingency plan to either vacate the beach for the winter and remove all remaining hydrocarbons in Spring 2000, or resize and redesign the Cell 2 shoring wall to all safe excavation of the remaining hydrocarbons during the fall and early winter. **Issue**: The excavated contaminated soils will be replaced with clean imported material that could change the recreational and sand supply characteristics of the beach. **Mitigation Measures:** **Special Condition 13** requires that all imported sand clean, uncontaminated sand that shall be the similar in color and grain size to the native material. **Special Condition 14** requires that the top layer of clean beach sand in Cell 2 shall be stockpiled and reused as final beach cover. Also the clean over burden shall be stockpiled and used for the uppermost portions of the backfill.
Public Access and Recreation	**Issue:** The beach will be closed to the public during all Cell 2 excavation activities (one to two summer seasons). The beach will be partially open during Cell 1 and Cell 3 activities, subject to safety constraints determined by the County. **Mitigation Measures:** **Special Condition 24** requires that during Cell 1 and 3 remediation activities, Unocal shall relocate beach recreational equipment to another portion of the beach designated by the Port San Luis Harbor District. Unocal shall repair and replace any recreational equipment damaged during this relocation effort.

Significant Issue Area	Proposed Special Conditions and Mitigation Measures
	Special Condition 25 requires that Unocal shall publish in local newspapers notices describing the location/duration of beach closures and the relocation of any recreational equipment during remediation activities. The notices shall be placed prior to commencement of construction and at least on a monthly basis thereafter. **Special Condition 26** requires that prior to commencement of construction, Unocal shall in coordination with Caltrans place signs near both freeway exits and on U.S. Highway 101 giving notice of beach closure. **Special Condition 27** requires that prior to commencement of construction, Unocal shall (1) place signs at key visitor access points informing the public of the beach closure schedule and the relocation of any recreational equipment during remediation activities; (2) place signs in town to identify parking areas, pedestrian routes, cross walks, and access points to the beach; and (3) inform groups that have historically held annual/special events at Avila Beach of the beach closure schedule. **The Settlement Agreement and Judgment** establishes in part three provisions through which Unocal will mitigate adverse impacts to public access and recreation: • Section 5.3(a)(2) provides that of $6,000,000 placed into the Avila Beach Restoration Trust, $3,500,000 shall be used for restoration projects relating to lost use and enjoyment of natural resources, public beaches, and other public facilities in the Avila area impacted by the oil release. • Section 5.4 provides for Unocal to transfer ownership of three parcels for the purpose of creating community parks. Unocal shall also expend up to $500,000 to design and construct the parks to specifications agreed upon by the County and Unocal. • Section 5.5 provides that Unocal shall expend up to $3,500,000 to complete the design and implementation of the "Front Street Enhancement Project," the conceptual plan for which was approved by the Coastal Commission in 1997 via Minor Amendment No. 3-96 to the local coastal program.

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STAFF RECOMMENDATION

Approval with Conditions

The staff recommends conditional approval of Coastal Development Permit Application No. E-98-13.

Motion:

I move that the Commission approve Coastal Development Permit Application No. E-98-13, subject to the conditions specified in the staff recommendation dated August 28, 1998.

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-98-13, 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.

1.0 STANDARD CONDITIONS

See Appendix A.

2.0 SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

GENERAL CONDITIONS

1. All work authorized under this permit must be completed by December 1, 2000. Unocal may request in writing no later than October 1, 2000, and the executive director may grant, an extension of this deadline of up to 60 days if Unocal demonstrates just cause for such an extension.

2. Unocal shall comply with all provisions of the settlement agreement (Case Number CV079728) entered into on June 25, 1998. Any changes to the settlement agreement may require an amendment to this permit.

3. If Unocal proposes to relocate the Yacht Club to a site that is within the Commission's retained coastal permit jurisdiction, Unocal must obtain a separate coastal development permit prior to carrying out such an action.

4. Prior to commencement of construction, Unocal shall submit to the executive director evidence that its designated contaminated soil disposal facility(s) has adequate capacity to and will accept the volume of Cell 2 contaminated material.

5. Prior to issuance of this permit, Unocal shall submit to the executive director evidence of Port San Luis Harbor District approval of the proposed project.

6. Prior to issuance of this permit, Unocal shall fund the hiring of an independent monitor, approved by the executive director, to observe all activities associated with this permit. Funds for this monitoring shall be administered by the County of San Luis Obispo. The monitor shall (a) monitor the project for compliance with the conditions of this permit; and (b) submit to the executive director, County of San Luis Obispo, Central Coastal Regional Water Quality Control Board ("RWQCB") and the California Department of Fish and Game Office of Spill Prevention and Response ("CDFG/OSPR")

   (i) weekly project status reports; and

   (ii) within 60 days of project completion a final report and visual documentation (photographs, slides, video, etc.) detailing all project-related activities.

   Monitoring will be carried out as specified in a Scope of Work approved by the executive director, County of San Luis Obispo, the RWQCB and the CDFG/OSPR.

7. The Coastal Commission staff or its designee shall have the right of entry at any time to any portion of the project site subject to health and safety constraints to determine permit compliance.

8. Unocal may conduct a maximum of five sand augmentations consisting of up to 5,000 cubic yards of sand each at Avila Beach on or before April 15, 1999. In the event Unocal seeks a time extension and/or more than five sand augmentations, Unocal shall apply for and obtain an amendment to this coastal development permit.

9. Acceptance of this permit shall be deemed acceptance of all conditions of this permit. Authority to conduct work encompassed by this permit is contingent upon full and continuing compliance with every condition of this permit. In addition to all other remedies, failure to comply fully with the requirements of any condition of this permit shall constitute grounds for a cease and desist order issued by the executive director or by the Coastal Commission (sections 30809 and 30810 of the California Coastal Act).

10. In addition to any immunities provided for by law, in exercising this permit, Unocal agrees to hold harmless and indemnify the California Coastal Commission, its officers, employees, agents, successors and assigns from any claims, demands, costs, expenses and liabilities for any damage to public or private property or personnel injury that may result directly or indirectly from the project.

11. Unocal shall reimburse the Coastal Commission in full for all costs and attorney fees — including (1) those charged by the Office of the Attorney General; and (2) any court costs and attorney fees that the Coastal Commission may be required by a court to pay — that the Coastal Commission incurs in connection with the defense of any action brought against the Coastal Commission, its officers, employees, agents, successors and assigns, challenging the approval or issuance of this permit, the interpretation and/or enforcement of permit conditions, or any other matter related to this permit or its approval or issuance.

MITIGATION MEASURES

Marine Resources

12. Unocal shall retain a qualified biological monitor approved by the executive director, the County of San Luis Obispo, the USFWS, the CDFG/OSPR and the ACOE to survey immediately prior to installing or removing sheet pile in the vicinity the lower reaches of San Luis Obispo Creek and the estuary for the presence of tidewater gobies (*Eucyclogobius Newberryi*). If the tidewater goby is found to be present, Unocal shall conduct all work according to measures and conditions identified by the ACOE and the USFWS to protect tidewater gobies and their habitat.

13. All imported sand (borrow material) shall be (a) similar in color and grain size to the native material which it is replacing or augmenting, (b) clean or organic debris, and (c) free of chemical contaminants. To assure grain size similarity, d10, d50, and d84 of borrow material shall be similar to native material and the calculated overfill ratio shall be between 0.8 and 1.2. Final selection of borrow material shall be approved by the executive director in consultation with the County of San Luis Obispo. To evaluate borrow material suitability, Unocal shall provide the executive director and the County the following information:

    - Source of borrow material;
    - Volume of borrow material needed;
    - Sieve analyses for all possible borrow material and native sands (16^{th}, 50^{th}, and 87^{th} percentile grain sizes by weight, at a minimum);
    - Overfill ratio; and
    - Color analysis and color sample of all borrow and native material.

14. The top layer of clean beach sand ("overburden") shall be stockpiled and reused as final beach cover material. The clean overburden shall be used for backfilling the uppermost portion of the excavated beach areas. Beach sand shall be stockpiled separately.

15. This permit authorizes Unocal to use creosote-treated pilings only if wrapped prior to installation in a watertight plastic sleeve in accordance with current industry standards. Unocal's use of creosote-treated pier pilings shall also conform to the following requirements:

    a. Compliance with the following California Department of Fish and Game (CDFG) conditions as stated in the letter from Melissa Boggs, CDFG, to William Sharrer, Unocal, dated August 14, 1998:

        (i) Where feasible, the responsible party will plastic wrap and re-use the original piles (as opposed to installing new creosote-treated piles wrapped in plastic);

        (ii) The responsible party will take measures to prevent damage to the plastic wrap from boat use (such as installation of rub strips or bumpers);

        (iii) The responsible party will take measures to prevent creosote from dripping over the top of the plastic wrapping into State waters (such as wrapping pilings to the top, or installing collars to prevent dripping);

        (iv) The responsible party will seal the plastic wrapping at all joints to prevent leakage; and

        (v) The responsible party will use a plastic material that will maintain its integrity for at least ten years, and will repair holes and leaks in the plastic wrapping in a timely manner.

    b. Approval by the Regional Water Quality Control Board (RWQCB). Prior to the installation of plastic-wrapped creosote-treated pilings, Unocal shall submit for executive director review and approval written evidence that the RWQCB has reviewed and approved the use of such materials, or evidence that no such approvals are required.

16. During Cell 2 remediation activities, Unocal shall, with oversight by the independent onsite environmental monitor, collect in intertidal waters weekly marine water and sediment samples and analyze them for elevated hydrocarbon concentrations per the direction of the CDFG/OSPR.

17. Prior to issuance of this permit, Unocal shall submit to the executive director an NPDES Construction Storm Water Activity Permit approved by the RWQCB. The pollution prevention plan shall specify the installation and maintenance of Best Management Practices ("BMPs") to reduce erosion of disturbed soils within and adjacent to construction and staging

areas. These BMPs may include but are not limited to: use of hay bales, silt fences, sediment traps, coffer dams, and containment berms.

18. Prior to issuance of this permit, Unocal shall submit for review and approval by the executive director final erosion control and pollution prevention plans that specifically identify drainage and erosion control Best Management Practices ("BMPs") for each excavation phase. The plans shall address conveyance of runoff from upstream areas as well as potential downstream sedimentation and capacity impacts. The plans shall include the following items:

    - Flood hazard information;
    - Complete drainage calculations that demonstrate measures to prevent flooding of any properties surrounding any grading or stockpile site; and
    - An engineered drainage plan that includes erosion and sedimentation control measures that demonstrate how existing stormwater drainage patterns throughout the work area will be handled for each phase of operations.

    The plans shall also include measures to:

    - Construct off-site drainage facilities or provide evidence of adequate drainage easements;
    - Locate staging areas, equipment and materials storage areas, drilling fluids, and soil stockpiles away from surface water bodies to minimize the potential for releases into San Luis Obispo Creek or the ocean;
    - Store equipment and materials, particularly materials that can cause turbidity and sedimentation, inside bermed areas where surface runoff can be controlled and kept away from San Luis Obispo Creek and the ocean;
    - Use silt fences or other containment devices shall be used in areas where sediment, suspended materials, and settleable materials could be released to San Luis Obispo Creek or the ocean; and
    - Implement construction BMPs to minimize the potential for accidental release of materials that can cause turbidity, sedimentation, or result in suspended or settleable materials in San Luis Obispo Creek or the ocean.

Oil Spill Prevention and Response

19. Prior to issuance of this permit, Unocal shall submit to the executive director a CDFG/OSPR-approved project-specific final oil and fuel spill contingency plan that includes the following provisions:

- Emergency oil spill containment and cleanup equipment, including skimmers and sorbent booms shall be staged onsite during all site preparation, sheet pile driving and excavation activities;
- Containment boom shall be stockpiled in close proximity and ready for immediate deployment along the ocean side of the sheet pile wall and/or San Luis Obispo Creek pursuant to CDFG/OSPR direction;
- To avoid a release of foam, a standby containment boom shall be deployed along the shoreline of the ocean during sheet pile installation. Unocal shall also maintain a standby boom for immediate deployment in the creek if directed by the CDFG/OSPR. The foam and visible film shall be removed regularly (i.e., 2 to 4 times per day) and contained for disposal;
- Staging areas, equipment and materials storage areas, and soil stockpiles shall be located at least 100 feet from any surface water body. Fueling of vehicles and storage of heavy equipment shall occur in these staging areas and they shall be constructed so fuel release/spills can be contained and recovered. No vehicle refueling shall occur on the beach; and
- If a release into State waters occurs, Unocal shall with oversight by the independent onsite environmental monitor collect samples as soon as practicable such that quantification of the spill volume can be estimated and potential impacts to biota and water quality can be evaluated. Unocal shall provide split samples to the CDFG/OSPR and the RWQCB as requested.

Shoreline Processes

20. All shoring, sheet pile and wave-energy breaks seaward of Front Street shall be designed to withstand the maximum 100 year seasonal storm conditions for the period between May 1, 1999 and October 30, 1999. The maximum 100-year seasonal storm conditions shall be based, at a minimum, on maximum 100-year seasonal wave forces and the maximum coincident water level. The maximum water level coincident with the maximum wave conditions shall be determined as follows:

    - The peak astronomical tide will be taken as the predicted high tide level for the period May 1, 1999 through October 30, 1999, which corresponds to a 10% exceedance probability;
    - A "residual" water level (taking into account storm surge, atmospheric pressure and El Nino) will be added to this astronomical tide level, based on an analysis of predicted vs. recorded tide levels within the Bay for a number of severe storms which have affected the Avila Beach area using a 10% exceedance probability; and
    - Maximum seasonal beach scour.

    Engineering designs shall be prepared by a licensed civil engineer with experience in coastal processes.

21. Unocal shall monitor the sheet pile wall during excavation activities to provide early detection of any movement of the wall. If wall movement occurs, the excavation sequence or excavation area shall be adjusted to prevent further displacements.

22. The excavation of the contamination underlying Cell 2 and the removal of Cell 2 sheet pile shall be completed by October 30, 1999. If by September 1, 1999, Unocal has not completed excavation of all contamination underlying Cell 2, Unocal shall submit to the executive director, the County of San Luis Obispo, the CDFG/OSPR and the RWQCB for a review and approval a contingency plan for one of the following options:

Option 1

- Safely vacate the beach by October 30, 1999;
- Insure no marine release of the remaining hydrocarbons; and
- Promptly remove all remaining hydrocarbons in Spring 2000.

Option 2

- Resize or redesign Cell 2 for safe excavation of the remaining hydrocarbons during the late fall and early winter and in no case later than December 1, 2000; and
- Insure no marine release of the remaining hydrocarbons.

23. Within 30 days of completing Cell 2 backfill operations Unocal shall remove from the beach the wave energy dissipater and sheet pile, except the sheet pile that will be incorporated into the Cell 3 excavation.

Public Access and Recreation

24. Unocal shall during Cell 1 and 3 remediation activities relocate beach recreational equipment to another portion of the beach designated by the Port San Luis Harbor District. Unocal shall repair and replace recreational equipment damaged during this relocation effort.

25. Unocal shall publish in local newspapers (such as the San Luis Obispo County Telegram Tribune, Five Cities Press Recorder, and New Times) notices describing the location/duration of beach closures and the relocation of any recreational equipment during remediation activities. The notices shall be placed prior to commencement of construction and at least on a monthly basis thereafter.

26. Prior to commencement of construction, Unocal shall in coordination with Caltrans place signs near both freeway exits and on U.S. Highway 101 giving notice of beach closure.

27. Prior to commencement of construction, Unocal shall (1) place signs at key visitor access points informing the public of the beach closure schedule and the relocation of any recreational equipment during remediation activities; (2) place signs in town to identify parking areas, pedestrian routes, cross walks, and access points to the beach; and (3) inform groups that have historically held annual/special events at Avila Beach of the beach closure schedule.

Air Quality

28. Within 30 days of issuance of this permit, Unocal shall submit to the executive director (a) proof that it has addressed to the satisfaction of the San Luis Obispo Air Pollution Control District's ("APCD's") all comments raised in the APCD's July 22, 1998, letter, and (b) proof of final issuance of all required APCD permits.

4.0 FINDINGS AND DECLARATIONS

4.1 BACKGROUND

4.1.1 Project Location

The community of Avila Beach is located on the coastline of San Luis Bay between the cities of Morro Bay and Pismo Beach, approximately eight miles west of State Highway 101. The town is bordered to the south by the Pacific Ocean, to the east by the Unocal Avila Tank Farm facility and the coastal bluffs at Fossil Point, and to the north and west by the San Luis Creek and Estuary. Further west lie the Unocal Pier and Port San Luis. (See Exhibit 1, "Avila Beach and Vicinity" Map)

4.1.2 History of Oil Handling Operations

Petroleum hydrocarbon storage and transfer activities were conducted in the Avila Beach area from the early 1900's until 1997. Gasoline, diesel, gas oil (a semi-refined product similar to diesel) and crude oil were pumped between Unocal's bluff top tank farm and the Unocal Pier through a network of underground pipelines that run beneath Front Street and Avila Beach Drive. (See Exhibit 1, "Avila Beach and Vicinity" Map) Unocal discontinued the tank farm and terminal operations in 1997.

4.1.3 Discovery of Contamination

In 1989, petroleum hydrocarbon contamination in soil and groundwater was discovered during a routine geotechnical survey for a commercial building permit. Since then, Unocal has conducted assessments under the direction of the Central Coast Regional Water Quality Control Board ("RWQCB") to evaluate the contaminants' extent and composition.

The contamination was first thought to comprise two distinct plumes, a smaller plume (the "west plume") at the west end of the beach adjacent to San Luis Creek, and a larger plume (the "main

plume") under the developed portion of the town. Subsequent subsurface investigations have further defined the extent of the contamination, revealing the plumes are actually connected. A more current extent of the known gasoline-, diesel-, and crude oil-grade hydrocarbons underlying the town (particularly along and in the vicinity of Front Street), beach areas, and intertidal areas is shown in Exhibit 7, "Avila Beach Plume Areas Map." The hydrocarbons are contained both above and below groundwater, and within the soil. Contamination has been identified at depths ranging from 0.5 ft. at the far west end of the beach to 59 ft. near San Rafael Street.

The contamination is reportedly caused by leaks from Unocal's pipelines from the early part of this century to the mid 1970's. The lines carried regular, super and unleaded gasoline; diesel; no. 4 fuel oil; crude oil; and ship ballast material. According to Unocal, the suspect pipelines have since been repaired or removed from service.

Unocal discovered additional hydrocarbon contamination in the intertidal zone in December, 1996, which remains submerged except during the periods of extremely low tide. Although the seaward extent of this intertidal plume has not yet been determined, it extends seaward along the pier to at least a distance of 400 feet south of Front Street with total petroleum hydrocarbon ("TPH") concentrations as high as 63,000 parts per million ("ppm"). The southernmost sample, located at an elevation of –2.7 mean sea level and depth of approximately 5 to 6 feet, showed a concentration of 42,000 ppm TPH.

4.1.4 RWQCB Sets Groundwater Cleanup Standards

In September 1994 the RWQCB established cleanup standards for soil at 100 ppm TPH and groundwater at 1 ppm TPH. In March 1995 the RWQCB reconsidered, leaving the groundwater cleanup level in place, but suspending the soil cleanup level until the RWQCB could comply with provisions of the California Environmental Quality Act ("CEQA") (See Section 4.1.7 for a discussion of the project environmental impact report). The RWQCB determined that for the purpose of CEQA review the preferred soil cleanup level would be 100 ppm TPH.

4.1.5 Coastal Commission Retained Permit Jurisdiction

The area of the Coastal Commission's retained, or original, permit jurisdiction is the union of the extent of public trust lands and the extent of tidelands and submerged lands.

For all permits issued up until June 8, 1998, the Commission claimed retained permit jurisdiction for the western portion of the Avila Beach community, just west of San Miguel Street. The eastern portion fell within the County of San Luis Obispo's permit jurisdiction under its certified Local Coastal Program ("LCP"), but remained within the Commission's appeal jurisdiction. (See Exhibit 8, "Former CCC Jurisdiction Map").[2]

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[2] The extent of tidelands and submerged lands is based on the "mean high tide line." Because this is an ambulatory line, maps depicting the Commission's retained and appeal jurisdiction cannot precisely show this boundary.

On June 8, 1998, the Coastal Commission adopted the revised map of post-LCP certification jurisdiction for the Pismo Beach quadrangle (map 107). The revised map incorporates changes to all properties affected by the State Lands Commission's 1970 Boundary Line Agreement No. 119. Per this revision, the public trust boundary is changed such that the western portion of the community falls under San Luis Obispo County's jurisdiction, although the Commission retains appeal jurisdiction.

Exhibit 9, "Revised CCC Jurisdiction Explanation and Map," shows the revised areas where the Commission retains permit authority pursuant to Public Resources Code (PRC) §30519(b) and §30613, and where appeals of local government coastal development permit ("CDP") approvals are allowed pursuant to PRC §30603(a)(1) and (2) within the Avila Beach area of San Luis Obispo County.

Because the revised boundary was immediately effective upon its adoption, it governs the permits issued for the overall remediation at Avila (including this permit application).

4.1.6 History/Summary of Past Coastal Commission Permits

Soil Vapor Extraction System

On March 16, 1992, the RWQCB determined that the contamination posed "an imminent threat to groundwater quality and a potential threat to people or property due to explosion and fire." In response, the Commission's executive director issued Emergency Permit No. E-92-3-G to Unocal on March 27, 1992, to install and operate six soil vapor extraction ("SVE") wells and convert nine former groundwater monitoring wells to SVE wells. The project includes 15 wells within the Commission's retained permit jurisdiction, which are part of a larger vapor extraction system that extends into San Luis Obispo County's jurisdiction. The Commission issued a follow-up regular permit, CDP No. E-93-15, in September, 1993, and an amendment (No. E-93-15-A) authorizing the addition of five additional SVE wells to the existing system in May, 1994.

Unocal estimates that as of June, 1998, the SVE system has removed nearly 25,000 pounds (4,000 gallons gasoline equivalent) of hydrocarbons through vapor extraction and 518,000 pounds (67,000 gallons diesel/crude equivalent) of hydrocarbons through biodegradation.

Site Assessment / Spill Characterization

Unocal funded an independent site assessment as the initial component of the Environmental Impact Report ("EIR") that was prepared for the overall cleanup project. The assessment included review of existing data, identification of data gaps, and field investigation to close those gaps. To implement the site assessment workplan, which included installing ten groundwater monitoring wells, the Coastal Commission granted to Unocal CDP No. E-96-15 on May 7, 1996.

On February 20, 1997, the Commission's executive director issued Administrative Permit No. E-97-02 to Unocal to install and operate temporary monitoring well/piezometer clusters on beach areas to gather the data necessary to evaluate the potential for discharge of hydrocarbon-

contaminated groundwater to the intertidal zone. The executive director authorized two minor amendments to this permit, which were reported at the Commission's May and July, 1997, meetings.

On July 24, 1997, the Commission's executive director issued Administrative Permit No. E-97-12 to Unocal to collect soil and groundwater samples on sandy beach and intertidal areas as part of an overall effort to characterize fully the extent of contaminated soil and groundwater and to assess the possibility that the contamination could be released into surface waters. In particular, this permit allowed Unocal to address data gaps identified by the RWQCB.

The Commission's executive director also issued two waivers, E-97-13-W and E-97-14-W, to the County of San Luis Obispo Health Agency to conduct sampling activities as part of the Avila Beach Health Study. Issued August 8 and September 3, 1997, the waivers allowed the Agency to collect soil gas samples, and drill and sample soil borings on sandy beach areas.

West End Excavation

On October 13, 1995, the County of San Luis Obispo Division of Environmental Health issued a letter to Unocal stating "an imminent threat to public health exists because of the probable erosion of remaining sand coverage (approximately 2.5 feet) over the western hydrocarbon plume adjacent to the bridge." On October 19, 1995, the RWQCB issued CAO No. 95-89 which required Unocal to proceed immediately with soil and groundwater remediation activities at the west end of Avila Beach.

In response, the Commission's executive director issued Emergency Permit No. E-95-16-G to Unocal on November 13, 1995, to excavate the portion of petroleum hydrocarbons adjacent to San Luis Obispo Creek that posed an "imminent threat" of release if exposed by winter weather conditions. Unocal removed approximately 2,300 cubic yards of overburden, and recovered approximately 5,200 cubic yards of contaminated soil and free product. Unocal completed excavation activities in January, 1996.

The northeastern sheet pile wall (which was used to shore the excavation) and a high-density polyethylene ("HDPE") curtain (placed in the excavation against the wall) were left in place as a barrier to soil and groundwater contamination located hydraulically upgradient of the excavation, to block the flow of upgradient contamination from returning to the west plume area.

The follow-up regular permit was to address remediation of the contamination remaining under the sandy beach area. Therefore, application for such permit was deferred pending completion of the EIR/S and further delineation and characterization of the plumes. Unocal's current proposal for overall remediation (of which this application is a part) will serve as the follow-up permit for the west end excavation. Pursuant to the Commission's adoption of the revised jurisdiction map on June 8, 1998, San Luis Obispo County will process the follow-up permit for the west end excavation.

On March 13, 1996, the Coastal Commission issued CDP No. E-96-04 to Unocal to install three temporary monitoring wells to evaluate the effectiveness of the sheet pile wall/HDPE curtain barrier. The wells were placed per a January 30, 1996 order by the RWQCB.

Sand Augmentation

A special condition of Emergency Permit No. E-95-16-G requires Unocal to ensure that at least four feet of sand cover exists over the hydrocarbon plume on beach areas to prevent it from "daylighting." Unocal's April, 1996, survey showed less than four feet of sand cover on the east side of the beach, triggering Unocal to evaluate various sand augmentation alternatives. In addition, the RWQCB issued CAO No. 96-42 on August 27, 1996, which directed Unocal to implement an interim plan to reduce the risk of releasing petroleum hydrocarbons to the marine environment during the winter of 1996-97.

The Port San Luis Harbor District conducts semiannual dredging as part of normal operations. Dredging activities at the harbor are authorized under existing permits. Unocal proposed to coordinate with the harbor district to dredge sand from the boat launching area for use as the sand augmentation source. Unocal also considered proposals that contained alternative sand augmentation sources. To this end, the Coastal Commission granted CDP No. E-96-22 to Unocal, authorizing up to five sand augmentations from alternative sand sources during the winter season.

In October, 1996, Unocal placed harbor dredge sand over the plume, thus satisfying both the special condition of Emergency Permit No. E-95-16-G and CAO No. 96-42.

On August 22, 1997, the Commission's executive director issued to Unocal Immaterial Amendment No. E-96-22-A1 to authorize sand import and beach augmentation activities through an additional storm season.

4.1.7 Completion of an Environmental Impact Report and Statement (EIR/S); Identification of the "Least Environmentally Damaging Practicable Alternative"

The RWQCB and the County of San Luis Obispo have acted as co-lead agencies under the California Environmental Quality Act ("CEQA") to prepare an environmental impact report ("EIR") that would provide a comprehensive description of the underground petroleum hydrocarbon contamination, suggest various alternatives for the overall cleanup, evaluate the proposed project and select alternatives, and recommend a final course of action.

The Draft EIR was circulated for public review on May 14, 1997. During the public comment period, the U.S. Army Corps of Engineers ("ACOE") determined that an EIS would be necessary under the National Environmental Policy Act ("NEPA"). The Draft EIR was therefore amended to include analysis required by NEPA, and a Draft EIR/S was circulated for public review on November 14, 1997. The final EIR was certified by the County of San Luis Obispo Planning

Commission on February 26, 1998, and the final EIR/S was certified by the RWQCB on April 3, 1998.

Unocal's proposed project included solidifying[3] beach areas around the pier, biosparging west beach areas, biosparging[4] and vapor recovery under Front Street and areas north, and excavating limited beach areas on the east side. See Exhibit 10, "Unocal's Proposed Project."

However, the EIR/S identified "Alternative 7" as the least environmentally damaging practicable alternative, which includes phased excavation of all areas except the intertidal. See Exhibit 11, "Remedial Alternative 7." This alternative was found to have the fewest impacts on the environment because it would avoid or minimize significant long-term impacts to water quality, public safety, recreation, socioeconomics, marine water quality, and biological resources. In addition, excavation of the beach area plumes was found to be relatively cost-effective when compared to solidification.

The final EIR/S concluded that it would be premature to identify a preferred alternative for the intertidal zone due to the uncertainty of the plume's extent and potential effects on marine biological resources.

4.1.8 Cleanup or Abatement Order No. 98-37

At its April 3, 1998, meeting, the RWQCB directed its Executive Officer to sign and issue Cleanup or Abatement Order ("CAO") No. 98-37. (See Exhibit 12, "CAO 98-37") This order (1) establishes soil cleanup levels, (2) adopts performance goals, and (3) requires that much of the contamination be remediated by excavation.[5] The order requires Unocal to commence and complete remediation by December 1, 1998, and December 1, 2000, respectively.

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[3] Solidification is a process by which the sediment and hydrocarbons are mixed with concrete to form a solid structure that will stabilize the hydrocarbons and reduce their interaction with the surrounding environment.

[4] Biosparging is a process by which air is introduced to the subsurface below the contamination, through vertical or horizontal wells, to promote the growth of aerobic microorganisms which could degrade dissolved-phase and separate-phase hydrocarbons. As the injected air sweeps upward through the affected soil and groundwater, volatile compounds may convert from a liquid to a vapor phase, vent to the surface, and be captured in a vapor recovery system. In addition, nutrients canbe added through the biosparging wells to increase biological activity in the plume area and thus the efficiency of the remediation.

Remediation experts from the U.S. Environmental Protection Agency noted at a recent Avila Beach site visit that biosparging is a "polishing" cleanup method that would not be very effective in remediating the high concentrations of crude and diesel contamination found under Front Street and the town.

5 As co-lead Agency with the County for California Environmental Quality Act review, the RWQCB adopted Resolution No. 98-03, which (1) certified the FEIR/S, (2) adopted findings of mitigation or overriding considerations, and (3) adopted a mitigation monitoring program to ensure compliance with the mitigation measures. Those mitigation measures within the RWQCB's jurisdiction are incorporated into CAO No. 98-37 to ensure implementation.

Hydrocarbon Mass Balance and Impacts to Ground and Surface Waters
The order summarizes that the following approximate quantities of petroleum hydrocarbons reside in soil beneath Avila Beach: 420,000 gallons reside beneath the beach, Front Street and areas north, and within the intertidal plume and several outer plumes (e.g., San Antonio, San Juan Avenue, etc.). Petroleum products are intermixed in the subsurface into three hydrocarbon ranges--6% gasoline, 80% diesel, and 14% crude oil—the mass quantities of which are approximately distributed geographically as follows: 28% Front Street, 26% north of Front Street, 7% intertidal, 39% beach, and 0.3% outer plumes.

The order states that substantial evidence indicates hydrocarbons in soil, both in the saturated and unsaturated zone, are providing a continuous source of water quality degradation to ground and surface waters.

Establishment of Soil Cleanup Levels
The order establishes a soil cleanup level of 100 ppm TPH, which will achieve the groundwater cleanup level that was previously established at 1 ppm TPH.[6]

Remediation
Remediation will be completed by excavating Avila Beach (east and west of the pier and under Front Street), properties north of Front Street, and the San Antonio Street Plume. The order requires remediation of the East Front Street Plume by natural bioremediation and requires Unocal to monitor the bioremediation progress. (See Exhibit 2, "Current Hydrocarbon Soil Plume Map")

Deferred Areas
The order does not address remediating the Avila Terminal Facility (Unocal's tank farm facility), the Intertidal Zone Plume, the San Luis Creek Plume, the West of San Luis Obispo Creek Pipeline Plume, the Former Loading Station Plume, and any other soil contamination that is discovered through future site characterization efforts. (See Exhibit 2, "Current Hydrocarbon Soil Plume Map") Establishing cleanup levels for these areas has been deferred until the completion of additional studies and further site characterization, and may be addressed in a future CAO.

Excavation Standards
Although excavation will not immediately achieve the 100 ppm TPH soil cleanup level mandated in the order, excavation will remove such a high percentage of the mass of petroleum waste that natural bioremediation is expected to achieve the cleanup level in a relatively short period of time.

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[6] CAO No. 94-85, ratified by the RWQCB on March 10, 1995, established a 1 ppm TPH cleanup level for groundwater.

Additional Site Assessment
The order also requires Unocal to undertake additional site assessment work, such as at the intertidal plume, as determined necessary and approved by the RWQCB's Executive Officer to fully characterize the horizontal and vertical extent of hydrocarbon contamination.

4.1.9 Settlement Agreement and Judgment

In 1998, a settlement agreement and judgment were entered into by the California Department of Fish and Game ("CDFG"), the California Regional Water Quality Control Board for the Central Coast Region ("RWQCB"), the County of San Luis Obispo ("County"), Communities for a Better Environment ("CBE"), Avila Alliance, Environmental Law Foundation ("ELF"), and Unocal. (See Exhibit 6, "Settlement Agreement and Judgement") This agreement became public on June 25, 1998.

In signing the agreement, Unocal agreed to remediate the town and beach areas by excavation rather than pursue its original proposal to combine solidification, biosparging, vapor recovery, and excavation.

The settlement agreement also establishes in part three provisions through which Unocal will mitigate adverse impacts to public access and recreation:

1. Section 5.3(a)(2) of the settlement agreement provides that of $6,000,000 placed into the Avila Beach Restoration Trust, $3,500,000 shall be used as follows:

   $3,500,000 shall be used for restoration projects relating to lost use and enjoyment of natural resources, public beaches, and other public facilities in the Avila area impacted by the oil release. DFG shall make the final determination as to which projects will receive funding, based on input and proposals from the County, the Community Services District, CBE, Avila Alliance, ELF, Port San Luis Harbor District, and other interested Parties.

2. Section 5.4 of the settlement agreement provides for Unocal to transfer ownership of three parcels for the purpose of creating community parks. Unocal shall also expend up to $500,000 to design and construct the parks to specifications agreed upon by the County and Unocal.

3. Section 5.5 of the settlement agreement provides that Unocal shall expend up to $3,500,000 to complete the design and implementation of the "Front Street Enhancement Project," the conceptual plan for which was approved by the Coastal Commission in 1997 via Minor Amendment No. 3-96 to the local coastal program.

The settlement agreement further provides in Section 5.3(a)(1) that $2,500,000 be used for studies concerning impacts to biological resources in the marine environment and restoration projects relating to injuries to biological resources impacted by the oil release at Avila Beach.

4.1.10 Appeal No. A-3-SLO-98-072

San Luis Obispo County Planning Commission Action

On June 25, 1998, the San Luis Obispo County Planning Commission adopted the resolution approving Unocal's coastal development permit application/development plan (File No. D940227D) to clean-up petroleum hydrocarbon contamination in Avila Beach via excavation, remove abandoned pipelines, move or demolish buildings and facilities to facilitate cleanup, continue site characterization activities, and authorize previous clean-up and protective activities approved by coastal emergency permits.[7]

Pursuant to Unocal's project description of June 2, 1998, the Planning Commission considered excavation of the beach and town in two phases, west side then east side, which would have allowed a portion of the beach to remain accessible during excavation to the extent "reasonable and safe."

Within each phase, Unocal proposes to conduct pre-construction activities (identify support areas, secure sand borrow and contaminated-material disposal sites, mobilize personnel and equipment), construction activities (relocate or demolish utilities and structures, install sheet pile, excavate, and backfill), and post-construction activities (groundwater monitoring).

The Planning Commission also authorized implementation of the Front Street Enhancement Plan as a part of site restoration. The plan provides for street facilities and improvements (e.g., crosswalks, handicapped facilities, parking, drainage, loading spaces, lighting, and trees), restrooms, a beach observation deck and performance area, and beach access. The Coastal Commission approved the Front Street Enhancement Plan in concept in 1997 via Minor Amendment No. 3-96 to the LCP.

Coastal development permit/development plan D940227D does not include reconstruction of buildings except for the public restrooms on the east side of Front Street that are proposed as part of the Front Street Enhancement Plan, the pier, and existing structures on the pier (the Yacht Club building will have been only temporarily relocated). The County is expeditiously developing the Avila Specific Plan to govern the rebuilding of all other structures. The specific plan will require by the Coastal Commission certification of an LCP amendment.

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[7] Note that although the Regional Water Quality Control Board's cleanup or abatement order (CAO 98-37) requires Unocal to excavate certain portions of Avila Beach, the order defers establishing cleanup levels for other areas pending additional studies and further site characterization. Therefore, Unocal's proposed cleanup plan, the San Luis Obispo County Planning Commission's conditional approval of that plan, and the settlement agreement do not address cleanup of the deferred areas, one of which is the intertidal plume. (See Sections 3.2.3 and 3.2.9 of this report for further information about the intertidal zone plume and the CAO, respectively.)

Unocal Modifies Project Implementation Plan

On July 1, 1998, after the County Planning Commission approved coastal development permit/development plan D940227D, Unocal changed its project implementation plan to conduct the work in three phases:

- Cell 1 - Northwest Town: Bounded to the west by Avila Beach Drive, to north by an approximate diagonal between San Juan and San Miguel Streets, to the east by San Miguel Street, and to the south by a sheet pile bulkhead immediately inshore of the seawall.

- Cell 2 – Beach: Bounded to the west by Avila Beach Drive, to the north by a sheet pile bulkhead immediately inshore of the seawall, to the east by San Luis Street, and to the south by a sheet pile bulkhead following the 100 ppm TPH contour at the seaward limit of the plume.

- Cell 3 - Northeast Town: Bounded to the west by San Miguel Street, to the north by First Street, to the east by San Luis Street, and to the south by a sheet pile bulkhead along Front Street.

Exhibit 4, "Approximate Sheet Pile Wall Locations for Three-Cell Approach" shows the approximate boundaries of the three cells.

Unocal has also proposed to remove the performance area component of the Front Street Enhancement Plan in order to finalize its design without delaying commencement of the overall cleanup project. Unocal will apply to construct the performance area under a separate coastal development permit.

Unocal intends to complete all project activities before the 2000 summer tourist season but the RWQCB's CAO No. 98-37 gives Unocal until December 1, 2000. However, final scheduling is contingent upon Unocal's ability to obtain access to properties in the excavation areas, and final design details.

Appeal by Coastal Commissioners Wan and Reilly

On July 16, 1998, Coastal Commissioners Wan and Reilly filed an appeal of the Planning Commission's decision. The appellants contended that the development as described in Unocal's coastal development permit application/development plan (File No. D940227D) and as approved on June 25, 1998, by the San Luis Obispo County Planning Commission did not conform to the County's certified local coastal program ("LCP") policies concerning public access, recreation, and low-cost visitor serving facilities, and Coastal Act policies concerning public access for the following reasons:

2. Nonconformity with certified LCP policies concerning public access and recreation and Coastal Act policies concerning public access.

As part of its package of measures to mitigate impacts to public access and recreation, San Luis Obispo County required Unocal in Condition No. 73 of its June 25, 1998 action to execute the settlement agreement. The appellants contended that although said agreement provides that Unocal expend $3.5 million for restoration projects relating to lost use and enjoyment of natural resources, public beaches, and other public facilities in the Avila area, it does not provide the level of specificity necessary to enable a determination to be made that impacts will actually be mitigated in a timely manner, and thus that the proposed project conforms with certified LCP public access and recreation policies or Coastal Act public access policies, for the following reasons:

- Specific acquisition or access measures or projects are not identified;
- Criteria that will be used to select measures or projects are not included;
- Project commencement or completion dates, or criteria on when projects will be implemented, are not addressed; and
- No assurance that appropriate measures or projects will be funded, will be adequate, or will be implemented in a timely fashion is made.

The appellants further contended that a change proposed by Unocal to the project description concerning project timing and beach closure reinforced the appellants' allegation that the mitigation contained in the County's approval did not conform to said policies, especially considering that Unocal proposed the change after the County Planning Commission had rendered its decision.

2. Nonconformity with certified LCP policies concerning low-cost visitor-serving facilities.

As part of its package of measures to mitigate impacts to low-cost visitor-serving uses and facilities, San Luis Obispo County required Unocal in Condition No. 73 to execute the settlement agreement. The County Planning Commission adopted findings that with implementation of mitigation measures addressing socioeconomic impacts that are provided in the conditions of approval the proposed project is consistent with Urban Area Standard No. 5 in the San Luis Bay Local Coastal Plan, which addresses low-cost visitor-serving facilities.

The appellants' contended that the County's conditions of approval including the settlement agreement did not provide the level of specificity necessary to enable a determination to be made that mitigating measures for the loss of low-cost visitor serving facilities are commensurate with the impacts, and thus that the proposed project conforms to Urban Area Standard No. 5 in the LCP.

August 12, 1998 Appeal Hearing

At the August 12, 1998, Commission hearing, the Commission staff recommended that the appeal filed by Commissioners Wan and Reilly raised a substantial issue as to conformity of the proposed project with the County of San Luis Obispo's certified LCP. However, the

Commission staff qualified its recommendation with the view that the issues raised by the appeal could be resolved if (a) the County revises its conditions of approval to address fully the LCP and Coastal Act issues raised in the appeal, and (b) the CDFG/OSPR executes a Memorandum of Understanding ("MOU") with the Coastal Commission that specifies to the Coastal Commission's satisfaction how and when the public access, recreation and marine biological settlement agreement mitigation monies would be spent.

At the August 12 hearing the Commission considered the following:

- The Commission staff presented draft revised conditions of approval to be added to the County's coastal development permit/development plan D940227D to address the LCP and Coastal Act issues raised in the appeal. The County staff proposed taking these changes to the Planning Commission for adoption at its August 27, 1998 meeting. Unocal agreed to the condition changes.
- The Commission staff presented a draft MOU to be executed between the CDFG/OSPR and the Commission that includes but is not limited to the following elements:
    - Criteria for the CDFG/OSPR to use in selecting public access and recreation enhancement projects under the terms of the settlement agreement that will be reasonably certain to mitigate the impacts of Unocal's remediation project on coastal public access and recreation. Specifically, the projects must be (a) of benefit to the Avila Beach area and (b) provide substantial improvements for public beach use, coastal access and/or public visitor-serving facilities.
    - An agreement that CDFG/OSPR will consult closely with the Coastal Commission and its staff in selecting projects to be funded in accordance with the criteria specified in the MOU; and
    - An agreement that by December 1, 2000, CDFG/OSPR shall have granted approval of all projects to be funded, and that said projects shall include an expeditious implementation schedule and in no case shall be completed later than December 1, 2002, unless extended by written agreement between the parties.

In response to this information, the Commission passed a motion containing two components. The first component of the motion opened and continued the appeal hearing until the Commission's September 1998 meeting. The second component of the motion expressed the Commission's concurrence in the withdrawal by Commissioners Wan and Reilly of their appeal if the County Planning Commission adopts the suggested revised conditions of approval at its August 27, 1998 meeting and the CDFG/OSPR signs the proposed MOU.

4.2 PROJECT DESCRIPTION

Unocal's proposed cleanup activities that fall within the Commission's retained permit jurisdiction and are therefore the subject of this permit include:

- Augment the east side of the beach with clean imported sand if necessary during Cell 1 activities (which precedes Cell 2 excavation) to prevent "daylighting" of the subsurface contamination during the 1998-99 winter storm season;
- Temporarily remove an approximately 150-foot section of the Avila Municipal Pier;
- Install a temporary sheet pile wall on the beach at the 100 ppm ("parts per million") TPH ("Total Petroleum Hydrocarbon") contour line;
- Temporarily stockpile approximately 63,000 cubic yards of clean overburden;
- Remove by excavation approximately 37,000 cubic yards of petroleum hydrocarbon contaminated silt and sand from the sandy beach area (referred to as "Cell 2"); and
- backfill the Cell 2 excavation with clean imported sand.

As part of this application Unocal also proposes to comply with and/or implement the provisions of the settlement agreement and judgment (Case No. CV079728) entered into on June 25, 1998.

Unocal will conduct work in "prime" and "secondary" shifts six days per week. Prime shift work hours are 7:00 am to 5:30 pm, followed by secondary shift hours until 10:30 pm. To minimize impacts on the community, heavy construction activities in the town will generally be limited to prime shift hours. However, Unocal may extend heavy construction activities into the secondary shift (e.g., to make up for delays due to weather conditions, logistics, or material supply issues) to achieve its May 2000 target completion date. Secondary shift activities will otherwise include free product recovery, equipment maintenance, loadout of affected soil, and import of backfill for stockpiling.

Specific project activities are described in more detail as follows.

Augment sand on east side of beach
Per a condition of Emergency Permit No. E-95-16-G, Unocal will continue to conduct monthly beach surveys and maintain at least four feet of clean sand over the plume on beach areas during the 1998-99 storm season (while conducting west town activities). Unocal proposes up to five sand augmentations, each of which comprises placement of up to 5,000 cubic yards of clean imported sand.

Remove a portion of the pier
The landward end of the Avila Municipal Pier stands over an area of the west beach plume. Unocal will demolish and remove a 150-foot portion of the pier prior to excavating the beach cell.

The pier is constructed of treated timber piling with a bolted and nailed superstructure, most of which has been extensively rebuilt (i. e., it is not the original construction). Workers will first remove the previously disconnected utilities that feed the pier (sewer, drain, power and water lines). Workers will then dismantle the superstructure and extract the timber pilings. The dismantled pier components that are compatible with the rebuild design and are of reusable condition will be stored in the project support area located north of the excavation cell (bounded

by Avila Beach Drive, First, Second, and San Miguel Streets). Emergency personnel access, emergency lighting, navigation lights, and firewater will be maintained at the pier.

Unocal proposes to plastic-wrap and reuse as many existing pilings as possible. Unocal will replace those pilings that can't be reused (due to breakage or rot, for example) with new plastic-wrapped creosote-treated wood pilings. Unocal will dispose the creosote-treated pilings that cannot be reused at either the McKittrick, Buttonwillow, or Kettleman Hills facility, all of which are located in Kern County.

Install sheet pile wall

Unocal will install a sheet pile wall at the 100 ppm TPH concentration contour to form a containment cell for the Cell 2 excavation (see Exhibit 4, "Approximate Sheet Pile Wall Locations for Three-Cell Approach"). Cell 2 may be further divided into smaller cells if necessary.

The wall will consist of externally braced or strengthened interlocking "Z" section steel sheet piles, or a proprietary system using alternate "H" and "Z" sections. The design will be developed by a California registered engineer to meet the depths required for safe excavation and applicable standards for temporary installations, and will be able to withstand the effects of a 100 year seasonal storm wave at its position above the tide line. Workers will install the temporary sheet piling using vibratory methods. Approximately 1,900 linear feet of sheep piling will be installed and extracted over the course of Cell 2 construction activities.

Although Unocal plans to excavate the beach during non-winter months to reduce or eliminate the need for an energy dissipater, Unocal will incorporate such a structure on the beach side if needed to reduce the effects of storms and waves, and to minimize the amount of water that crests over the containment cell. Dissipater options include a sand breakwater, filled fabric cells or booms, and deflecting type structures incorporated as a pile cap. The structure will also undergo a marine structural analysis.

Remove and stockpile clean overburden

Unocal will remove and stockpile approximately 63,000 cubic yards of clean overburden from the beach using a combination of heavy construction equipment (tracked hydraulic excavators, scrapers, articulated off-road dump trucks, tracked dozers and front-end loaders). A 12-inch layer of overburden will be covering the contaminated soil to form a buffer zone and reduce contamination of construction equipment during the mass excavation.

Some of the overburden will be used to construct a berm on the west beach south of the sheet pile wall, to protect the excavation area from wave and tidal action. The remaining material will be stockpiled at Unocal's tank farm facility. Overburden from the beach will be stockpiled separately from overburden from the town areas to facilitate return to its respective location after excavation.

Remove contaminated material
Unocal estimates removing approximately 37,000 cubic yards of hydrocarbon-contaminated material from the beach using a combination of construction equipment (tracked hydraulic excavators, articulated off-road dump trucks, dozers). Unocal will stockpile the contaminated soil at its tank farm facility. Transport will require approximately 2,500 truck loads.

Material that is relatively dry will be loaded directly into trucks with liners to prevent leakage. Wet material will be temporarily stockpiled within the excavation area to allow the water to decant and drain back into the excavation before transport to the tank farm.

The majority of contaminated soil is expected to be removed below the groundwater level. Unocal will use containment boom (harbor and sorbent), water sprays, hand tools, mechanical recovery equipment (e.g., weir skimmer, drum skimmer, oleophilic skimmer, self-leveling weir skimmer, or vacuum truck), and sorbent materials to herd and recover any free product released to the groundwater surface in the excavation. Recovery operations will be continuous once adequate water depths are achieved within the excavation site to accommodate skimming systems.

The recovery equipment will discharge into holding tanks for separation of the oil phase, possibly enhanced by the action of weirs or clarifiers. Free product will be collected for disposal, treatment or reuse off-site at an approved facility. The water remaining after separation will be returned to the excavation within the containment boom. Any contaminated debris will be removed with hand tools and disposed off-site at a licensed facility.

After mechanical excavation and during floating product recovery, contaminated sediments are expected to settle to the bottom of the excavation. If analytical results from bottom samples indicate the need for further removal, Unocal will conduct a "polish" dredge operation to recover the sediments using a small pontoon-mounted vortex or suction dredge. Discharge from the dredge will be run through a cyclone desander system, the silt collected for disposal, and the water returned to the excavation. Unocal is evaluating centrifuge separation of the silt phase as an alternative method.

Unocal will transport the contaminated material stockpiled at its tank farm facility by truck to either the McKittrick, Buttonwillow, or Kettleman Hills licensed disposal and/or recycling facility, all of which are located in Kern County.

Import and backfill with clean sand
Unocal will commence backfilling after samples confirm that sufficient contaminated material has been removed to satisfy the CAO 98-37 criteria. Unocal will import sand from a source approved by the executive director to replace contaminated material that has been removed, and to replace clean overburden that has been washed away or lost during the project. Unocal will complete a sand source study prior to the import activities to ensure that the sand is free from contaminants, and that the color and grain size of the source is compatible with Avila Beach sand. The native clean overburden will be returned to the upper portion of the excavation area on the beach, and will cover the imported material.

Remove sheet pile wall and reconstruct pier
After excavation of Cell 2 is complete, workers will remove the sheet pile wall using electric or hydraulic vibratory equipment. If used during beach excavation, the energy dissipater will also be removed after completion of that phase.

Unocal will reconstruct the pier using the dismantled components to the greatest extent possible. Creosote-treated timber pilings will be plastic wrapped before reuse.

Monitor ground water post-excavation
Unocal will establish a new groundwater monitoring well network within the excavation areas in coordination with the RWQCB after completing excavation activities. The new monitoring wells will be sited and installed to adequately characterize the impact of post-excavation residual petroleum hydrocarbons. Unocal will also continue its quarterly ground water monitoring and reporting program under an existing RWQCB order.

4.3 COASTAL ACT ISSUES

4.3.1 Marine Resources

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.*

Coastal Act Section 30232 states in part:

> *Protection against the spillage of...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 purpose of the proposed project is to remove large quantities of petroleum hydrocarbons underlying the beach. Removing this contamination will eliminate discharges of petroleum hydrocarbons to surface, ground, and marine waters, thereby restoring and enhancing municipal, agricultural and industrial water supplies; contact and non-contact recreation; aquatic habitat; wildlife habitat; rare, threatened and endangered species; estuary habitat; and commercial and sport fishing.

Thus the intent of the proposed remediation project is clearly consistent with Coastal Act Sections 30230 and 30231. However, executing some elements of the project (e.g., installing the sheet pile wall, excavating beach areas, augmenting the east beach with imported sand) may result in adverse impacts to marine resources. Such potential impacts are discussed below.

4.3.1.1 Grunion

Grunion *(Leuresthes tenuis)* spawning was observed at Avila Beach in 1995 and 1996 during May and June, and in 1998 during April and July.[8] Although it was observed approximately 130 feet east of Avila Pier, spawning could occur along any segment of the beach. Grunion spawn from late February to early September during spring tides (higher tides), laying their eggs high on the beach. Eggs develop in 10-14 days and hatch on the following spring tide.[9] The California Department of Fish and Game has determined that peak spawning occurs in July and August in San Luis Obispo County.[10]

Unocal is proposing to excavate the beach from April to October, 1999. If excavation cannot be completed by October, 1999, Unocal will complete remediation of the beach the following summer. Thus, installation and placement of sheet pile along the mean sea level contour will prevent grunion spawning by eliminating access to the upper tidal zone for at least one spawning season.

Although grunion are not a legally protected species, their numbers north of Point Conception are low. Also, grunion do not migrate over large distances and tend to stay offshore in one location for extended periods.[11] Prevention of spawning could thereby reduce the size of the local population of this recreationally-important species. The EIR/S classifies this impact to grunion under "observable changes in the population of intertidal or near-shore subtidal communities that are recognized for scientific, recreational, ecological, or commercial

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[8] Grunion surveys were conducted in Port San Luis and Avila Beach as a condition of U.S. Army Corps of Engineers Dredging Permit No. 93-693-TW and as part of the Avila Beach Enhancement Project during spawning season from 1994-1996 (Tenera, Inc., 1994, 1995, 1996a, 1996b). Grunion eggs were also found to be present during surveys conducted by Tenera on April 30 and July 31, 1998.

[9] Spratt, J. D. 1986. The Amazing Grunion. Marine Resources Leaflet No. 3. CA Dept. of Fish & Game.

[10] Letter from Melissa Boggs, CDFG-OSPR, to Alison Dettmer, CCC, dated August 14, 1998.

[11] Walker, B. W. 1952. A Guide to the Grunion. *California Fish & Game.* 38:409-420.

importance," and thus as meeting an identified threshold of significance. The EIR/S therefore concludes that disturbance of grunion spawning activities is a significant impact on marine biological resources.

Unocal asserts it cannot avoid remediating the beach cell during grunion spawning season and still meet its goal of completing cleanup by summer 2000. Furthermore, as required in the CAO, the seaward edge of the sheet pile wall must follow the 100 ppm TPH contour line, and thus cannot be moved shoreward of the grunion spawning areas. No feasible measures to mitigate disturbance to grunion spawning have been identified.

The Commission therefore finds that the proposed project cannot be carried out in a manner that will maintain healthy or optimum populations of grunion at Avila Beach as required by Coastal Act Section 30230.

4.3.1.2 Onshore and Marine Organisms

The EIR/S states that remediation activities on the beach will cause a temporary reduction in invertebrate populations, such as sand crabs and beach hoppers, and their habitat. The document identifies that vibration from driving sheet pile could reduce invertebrate populations in the sand, and collapse burrows of organisms in beach, lagoon, and adjacent upland habitats. It concludes, though, that collapse of burrows for common species such as gophers and earthworms will have minimal impacts on the populations of these organisms.

The EIR/S also identifies that grading, driving heavy equipment on and excavating the surface sand would reduce or remove invertebrates that live in and on the sand, such as beach hoppers and flies. The degree of impact will vary along the beach profile; communities of marine invertebrates become more numerous and diverse moving from the upper beach to the intertidal zone where five marine taxa contribute to an elevated intertidal invertebrate density of 3,170 $feet^{-2}$. Up to about 44 million invertebrate organisms could be impacted by nearshore remediation activities within a 40-foot swath of the intertidal zone.

The EIR/S concludes, though, that damage to the marine invertebrate community from physical disturbance of habitat will be adverse but not significant for three reasons: (1) a relatively small area of habitat will be impacted by disturbance; (2) the number and biomass of invertebrate organisms lost will be comparatively low, will represent only a few species, none of which are considered rare or endangered, and are not likely to represent a major food source for marine predators; and (3) excavated organisms will rapidly repopulate the area, enabling the invertebrate community to fully recover within a relatively short period following completion of remediation activities.

Finally, the EIR/S identifies that nearshore activities could suspend particulates in the marine water column, increasing turbidity and ultimately burying sessile benthic organisms and clogging the filter-feeding and respiratory tissues in aquatic life. The EIR/S concludes, however, that with or without mitigation measures, impacts from increased suspended particulate loads on marine

organisms are likely to be temporary and will not result in significant changes in community structure or loss of rare or endangered species.

As discussed above, conducting the proposed project will only minimally impact or temporarily decrease populations of onshore and marine species. The Commission therefore finds that ongoing biological productivity of surface waters will be maintained, and populations of marine organisms will return to healthy and optimum levels within a few months after remediation of the beach cell is completed.

4.3.1.3 Birds

Numerous shorebirds--willets, sanderlings, marbled godwits, long-billed curlews, black-bellied plovers, Baird's and pectoral sandpipers, semipalmated plover, terns, and gulls—are present in the project area.

California brown pelicans (*Pelecanus occidentalis californicus,* state and federally listed as endangered) are common in the area, especially during summer. They forage over offshore waters and rest on rocks, piers, and sometimes the beach (although beach resting is likely limited by recreational beach users). American peregrine falcons *(Falco peregrinus anatum,* state and federally listed as endangered) occasionally may forage in the project area because nesting occurs in Diablo Canyon and has occurred at Shell Beach. A few western snowy plovers *(Charadrius alexandrinus nivosus,* federally listed as threatened) may winter in the project area.

The EIR/S identifies a temporary loss of beach habitat for bird resting and foraging due to remediation activities on the beach, but concludes there will be no significant impacts on local bird populations because (1) the area affected will be small relative to that present in the region, (2) the duration of the activities will be less than one year in any one location, and (3) no nesting will be affected. Short-term decreases in prey due to project activities will also have negligible effects on bird populations due to the small area affected and the short duration of the loss. In addition, beach remediation will not be conducted in the winter, when western snowy plovers may be in the project area.

In addition, Unocal will implement its wildlife contingency plan to minimize project impacts on wildlife species, particularly sensitive species. Unocal will (1) implement a wildlife training program for project personnel; (2) employ hazing measures to deter or flush birds from the project area; (3) consult promptly with agency personnel if wildlife is becoming attracted to the excavation areas; (4) provide for capture and rehabilitation of wildlife that becomes injured, sick, or oiled; and (5) collect dead wildlife and notify appropriate agency personnel.

The Commission therefore finds that due to the above measures, conducting the proposed project will allow healthy populations of bird species to be maintained.

4.3.1.4 Tidewater Gobies

San Luis Obispo Creek flows into the ocean on the west side of the project area. A lagoon forms at the mouth of the creek, providing habitat for a variety of aquatic species. One such species is the tidewater goby *(Eucyclogobius newberryi)*, federally listed as endangered. Tidewater gobies were reported to be in San Luis Obispo Creek in 1984 (Swift et al. 1989) and 1989 (Swift et al. 1993).[12] They are restricted to coastal lagoons, but may move upstream during the winter (although a low dam upstream of the lagoon constrains such movement in San Luis Obispo Creek.)

The EIR/S identifies that vibration from driving sheet pile could collapse tidewater goby burrows, thereby suffocating the eggs and males that are tending them. Loss of more than a few individuals would be a significant impact.

The Commission is therefore requiring Unocal in **Special Condition 12,** to retain a qualified biological monitor approved by, among others, the executive director to survey the lower reaches of San Luis Obispo Creek and the estuary for the presence tidewater gobies immediately prior to installing or removing sheet pile wall in the vicinity. If the tidewater goby is found to be present, Unocal shall conduct all work according to measures and conditions identified by the Army Corps of Engineers and the U. S. Fish and Wildlife Service to protect tidewater gobies and their habitat.

The Commission therefore finds that with implementation of the procedures set forth in **Special Condition 12,** the proposed project will be carried out in a manner that will maintain healthy populations of tidewater gobies.

4.3.1.5 Vegetation and Substrate

Vegetation

Sandy beach habitat is bounded to the north by a seawall that runs along Front Street from Avila Beach Drive to San Luis Street, and a bluff east of San Luis Street. San Luis Obispo Creek flows into the ocean on the west side of the project area, forming a lagoon at its mouth.

Conducting the large-scale excavation inherent in the proposed remediation project could disturb sensitive plant species. However, no vegetation is present on the beach between the ocean and the seawall or the bluff. Furthermore, although a narrow band of salt marsh exists along the lagoon's edge, no listed plant species are known to occur in or along the margins of the estuary.

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[12] Swift, C.C., J.L. Nelson, C. Maslow, and T. Stein. 1989. Biology and Distribution of the Tidewater Goby, *Eucyclogobius newberryi* (Pisces: Gobiidae) of California. *Los Angeles County Museum of Natural History Contributions in Science* 404:1-19.

Swift, C.C., T.R. Haglund, M. Ruiz, and R.N. Fisher. 1993. The Status and Distribution of the Freshwater Fishes of Southern California. *Bulletin of the Southern California Academy of Sciences* 92(3):101-167.

Substrate

All proposed remediation activities will occur in sandy beach habitat areas. Thus, no hard-bottom substrate or communities will be impacted.

Backfill with sand of inappropriate grain size, however, could result in changes to the beach profile. The Commission therefore imposes **Special Condition 13**, which requires that all imported sand be (a) similar in color and grain size to the native material that it is replacing or augmenting, (b) clean of organic debris, and (c) free of chemical contaminants. To assure grain size similarity, diameters at the 10^{th} , 50^{th}, and 84^{th} percentiles by volume of borrow material must be similar to native material, and the calculated overfill ratio must be between 0.8 and 1.2. **Special Condition 14** also requires Unocal to use the clean stockpiled overburden as final beach cover material.

The Commission therefore finds that with the imposition of **Special Condition 13 and 14**, the proposed project can be conducted in a manner that will maintain marine resources as required by Coastal Act Section 30230.

4.3.1.6 Use of Creosote-Treated Wood Pilings

The Avila Municipal Pier piles are currently treated with creosote, a pesticide used to preserve wood products. Specifically, creosote discourages organisms that may impair wood's integrity, such as wood borers, from contacting the treated wood item. Although the subject of scientific debate, many studies suggest that creosote is partially soluble and mobile in aquatic environments, and contributes polycyclic aromatic hydrocarbons (PAHs) to the marine environment at levels that may be toxic to biota. Even the small amounts of creosote constituents that dissolve and mobilize in water over time can have lethal or sublethal effects on marine resources.[13]

The Port San Luis Harbor District (PSLHD) contends that although alternatives to creosote-treated pier piles exist, using pier piles constructed of different materials will compromise the structural integrity of the pier. In a March, 1998, decision authorizing the PSLHD to conduct repair and maintenance activities at Avila Pier *(CDP No. 3-97-078)*, the Commission found it appropriate to allow use of creosote-treated wood products on an interim basis (in this particular case it is five years) to allow for the replacement of creosote-treated materials with environmentally superior products, with provisions to ensure that adverse impacts are avoided or minimized to the maximum degree feasible. One such provision is that the piles be plastic wrapped.

The Port has thus directed Unocal to replace Avila Pier piles with creosote-treated plastic-wrapped piles *(Letter from Jay Elder, PSLHD, to Kevin McNichol, Unocal, dated July 2, 1998)*.

[13] Refer to Coastal Development Permit No. 3-97-078 for a complete discussion and references.

Furthermore, although the California Department of Fish and Game (CDFG)[14] has taken a position against the use of creosote-treated wood products in State waters, preferring alternatives such as high pressure-treated wood, steel, plastic, or concrete pilings, it has stated that it is willing to accept the use of plastic-wrapped creosote-treated wood products in the marine waters of the State under the following conditions *(Letter from Melissa Boggs, CDFG, to William Sharrer, Unocal, dated August 14, 1998)*:

(a) Where feasible, the responsible party will plastic wrap and re-use the original piles (as opposed to installing new creosote-treated piles wrapped in plastic);

(b) The responsible party will take measures to prevent damage to the plastic wrap from boat use (such as installation of rub strips or bumpers);

(c) The responsible party will take measures to prevent creosote from dripping over the top of the plastic wrapping into State waters (such as wrapping pilings to the top, or installing collars to prevent dripping);

(d) The responsible party will seal the plastic wrapping at all joints to prevent leakage; and

(e) The responsible party will use a plastic material that will maintain its integrity for at least ten years, and will repair holes and leaks in the plastic wrapping in a timely manner.

The Commission therefore finds that with the imposition of **Special Condition 15** the proposed project can be conducted in a manner that will sustain the biological productivity of coastal waters, maintain healthy populations of all species of marine organisms, and protect against the spillage of hazardous substances as required by Coastal Act Sections 30230, 30231 and 30232.

4.3.1.7 Surface Water Quality

The Central Coast Water Quality Control Plan (1994) requires that surface water not contain suspended material, sediment, or settleable material in concentrations that cause nuisance or adversely impact the beneficial uses of water. The plan also requires that surface waters be free of turbidity that causes a nuisance or adversely impacts the beneficial uses of ground water--turbidity is not to exceed 20% of natural background levels. These impacts are considered significant.

The EIR/S identifies that conducting the proposed project could increase turbidity in surface waters, or release sediment, suspended material, or settleable material into surface waters, thereby reducing water quality. Increased turbidity can result either from direct introduction of sand overburden into marine waters or from wave-induced resuspension of disturbed sand in the

[14] The CDFG is a regulatory party because there is question as to whether the use of creosote-treated wood products in State waters violates Section 5650 of the Fish and Game Code (Section 5650 provides that it is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of the State, any of several specified materials, including coal tar (of which creosote is derived), or any substance or material deleterious to fish, plant life, or bird life).

intertidal zone. Specific activities that could increase turbidity include grading, installation and removal of sheet pile, excavation, backfilling, operation of equipment near the water's edge, and sand augmentation.

The Commission is therefore imposing several special conditions that address surface water quality. **Special Condition 17** requires Unocal to obtain a NPDES Construction Storm Water Activity Permit from the RWQCB. The permit's pollution prevention plan must specify best management practices to reduce erosion of disturbed soils within and adjacent to construction and staging areas.

Special Condition 18 requires Unocal to submit for executive director approval final erosion control and pollution prevention plans that specifically identify drainage and erosion control best management practices ("BMPs") for each excavation phase. The plans must address conveyance of runoff from upstream areas as well as potential downstream sedimentation and capacity impacts. The plans must include the following items:

- Flood hazard information;
- Complete drainage calculations that demonstrate measures to prevent flooding of any properties surrounding any grading or stockpile site; and
- An engineered drainage plan that includes erosion and sedimentation control measures that demonstrate how existing stormwater drainage patterns throughout the work area will be handled for each phase of operations.

The plans must also include measures to:

- Construct off-site drainage facilities or provide evidence of adequate drainage easements;
- Locate staging areas, equipment and materials storage areas, drilling fluids, and soil stockpiles away from surface water bodies to minimize the potential for releases into San Luis Obispo Creek or the ocean;
- Store equipment and materials, particularly materials that can cause turbidity and sedimentation, inside bermed areas where surface runoff can be controlled and kept away from San Luis Obispo Creek and the ocean;
- Use silt fences or other containment devices shall be used in areas where sediment, suspended materials, and settleable materials could be released to San Luis Obispo Creek or the ocean; and
- Implement construction BMPs to minimize the potential for accidental release of materials that can cause turbidity, sedimentation, or result in suspended or settleable materials in San Luis Obispo Creek or the ocean.

The County of San Luis Obispo has also imposed a condition of approval in its coastal development permit/development plan that requires street improvement plans to identify and evaluate the installation and maintenance of Best Management Practices to prevent or control runoff to coastal waters.

Finally, the EIR/S concludes that although increased turbidity in the marine water column is adverse, the impacts will not be significant due to their short duration (limited to a few days), small areal extent (less than 100 feet), and minor amplitude compared to the natural background variability in the suspended sediment loads of the littoral zone.

The Commission therefore finds that impacts to surface water quality from the proposed project due to increased particulate loads or turbidity will either (1) never reach a level of significance or (2) be mitigated to a level of insignificance upon application of the requirements imposed in **Special Conditions 17 and 18**. The Commission therefore finds that the project as proposed and conditioned can and will be carried out in a manner that will maintain the biological productivity of surface waters as required by Coastal Act Section 30231.

4.3.1.8 Ground Water Quality

The Central Coast Water Quality Control Plan (1994) requires that surface and ground waters be maintained free of toxic substances in concentrations toxic to human, plant, animal, or aquatic life. The plan also requires that surface and ground waters not contain taste or odor-producing substances that adversely impact beneficial uses of water or create a nuisance.

The EIR/S identifies that excavating contaminated sand and soil will release free product to the ground water surface and increase dissolved phase contaminant levels in ground water. Furthermore, ground water contaminants could continue to migrate. These impacts are considered significant.

To mitigate these impacts, the County of San Luis Obispo has imposed conditions of approval in its coastal development permit/development plan that address ground water quality.

One such condition requires Unocal to develop a RWQCB-approved method to remediate residual hydrocarbons that remain in soil and ground water after excavation, or monitor natural attenuation following excavation. Another condition requires Unocal to treat, then properly discharge or dispose of, any extracted ground water. Other conditions require Unocal to enhance bioremediation and increase dissolved oxygen levels in ground water per a RWQCB-approved plan, and to monitor ground water to determine if dissolved phase contaminants continue to impact ground and surface waters above cleanup levels.

The Commission finds that impacts to ground water quality from the proposed project due to discharge of free product to the ground water surface and increase dissolved phase contaminant levels in ground water will be mitigated to a level of insignificance upon application of the requirements imposed in the County's conditions of approval. The Commission therefore finds

that the project as proposed and conditioned can and will be carried out in a manner that will maintain the biological productivity of ground water as required by Coastal Act Section 30231.

4.3.1.9 Conclusion: Marine Resources

As discussed in Section 4.3.1.1 of this report, Cell 2 excavation activities will unavoidably prevent grunion spawning at Avila Beach during one, and perhaps two, summer seasons. The Commission therefore finds the project inconsistent with Coastal Act Section 30230 which requires that healthy populations of marine resources be maintained.

Nevertheless, the project can be found consistent with the Coastal Act under the "conflict resolution" section of the Coastal Act for the reasons discussed in section 4.4.9 of this report.

4.3.2 Oil Spill Prevention and Response

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.*

Potential Project-Related Oil Spills

The purpose of the proposed project is to cleanup petroleum hydrocarbon contamination that underlies the beach and town areas of Avila Beach and therefore protect against the spillage of oil into the ocean and San Luis Obispo Creek. The EIR/S acknowledges, however, that the massive cleanup project itself could cause an accidental release of petroleum hydrocarbons into surface waters due to (i) a breach of the sheet pile containment structure during periods of high wave run-up, (ii) the mobilization of petroleum contaminants entrained in foam as a result of sheet pile installation, and (iii) the loss of diesel or free product from vacuum trucks.

A temporary sheet pile containment dam will be constructed on the beach to prevent the release during excavation activities of free product or petroleum contaminated sand into the ocean or San Luis Obispo Creek. A wall failure or overtopping of the wall during periods of high tides and wave run-up could result in a spill. Also, in past Unocal cleanup actions petroleum hydrocarbon foaming in near-shore waters has occurred due to the vibrations caused by pounding of sheet pile on the beach. Further, the project involves the use of heavy equipment on the beach. Recovered free product from the excavation area will be collected in vacuum trucks and transported to the Unocal tank farm for treatment and disposal. Therefore, fuel or free product could be spilled during truck refueling or ongoing operations.

Oil Spill Prevention

The first test of Coastal Act Section 30232 requires the applicant to provide "protection against the spillage of crude oil, gas, petroleum products, or hazardous substances...." Unocal proposes to excavate the beach (Cell 2) between April and October which will avoid the winter storm season and reduce the potential for wall failure and wave overtopping. If Unocal cannot complete the Cell 2 excavation by October 30, 1999, **Special Condition 22** requires Unocal to submit by September 1, 1999, a contingency plan to either (1) safely vacate the beach by October 30, 1999 and then promptly remove all remaining hydrocarbons in Spring 2000, or (2) resize or redesign the Cell 2 sheet pile for the safe excavation of the remaining hydrocarbons during the late fall and early winter (and in no case later than December 1, 2000) so as to insure no marine release of hydrocarbons.

In **Special Condition 19** the Commission is also requiring Unocal to submit prior to issuance of this permit a final CDFG/OSPR-approved oil and fuel spill contingency plan that includes measures to prevent the release of contaminants into the ocean and San Luis Obispo Creek. In part Unocal shall (a) deploy boom along the shoreline during sheet pile installation, and (b) maintain all staging areas, equipment and materials storage areas and soil stockpiles at least 100 feet from the ocean and creek.

The Commission therefore finds the project, as conditioned, to be consistent with the first test of Coastal Act Section 30232.

Oil Spill Response

The second test of section 30232 requires Unocal to provide effective containment and cleanup equipment and procedures for accidental spills that do occur.

Unocal has prepared a draft project-specific oil and fuel spill contingency plan that includes provisions for responding to spills. A "first response" trailer will be staged on-site for the duration of all sheet pile installation and excavation activities. The trailer will be equipped in part with 1,000 feet of fast current boom, 1,000 feet of sorbent boom, a 15-foot skiff, and a GT skimmer. Forty-hour HAZWOPER trained personnel will be onsite at all times to provide initial response to oil and fuel spills.

Unocal is a also a member of the Clean Seas oil spill cooperative located in Santa Barbara County. Clean Seas has in its inventory over 54,000 feet of boom including open ocean, offshore, near-shore and protective boom. Clean Seas has three oil spill response vessels, *Mr. Clean I*, *Mr. Clean II*, and *Mr. Clean III*, which are usually moored at Port San Luis, Santa Barbara Harbor and Platform Harvest. The Clean Seas' oil spill response vessel moored at Port San Luis is 30 minutes away from Avila Beach. The majority of Clean Seas equipment for near-shore spill response is located 2.5 hours away in Carpinteria.

Notwithstanding the extensive oil spill containment and cleanup equipment and services provided by Unocal and Clean Seas, the Commission finds that the second requirement of

section 30232, which requires "effective" containment and cleanup equipment for spills that do occur, cannot be met at this time. The Commission interprets the word "effective" to mean that spill containment and recovery equipment must have the ability to keep spilled oil off the coastline. Unfortunately, the state-of-the-art is such that no equipment currently available has the capability to recover all oil from large spills and often even small spills in the open ocean.

Testing results of equipment and government research facilities in the United States and Canada have demonstrated that oil recovery equipment operates with about 50% efficiency in relatively calm waters. These tests and actual experience in the field demonstrate that recovery efficiencies decrease as the dynamics of the sea (turbulence) increases. Cleanup capabilities in the open ocean will continue to deteriorate if sea dynamics increase. All booms and skimmers are limited in their effectiveness depending on wave height and wind speed. Under conditions of wave heights above six feet, booms and skimmers are largely ineffective (i.e., no measureable amounts of hydrocarbons are recovered). In wind wave conditions, the containment effectiveness of boom begins to lessen at a wave height of two feet. High winds can also cause some types of boom to lay over, allowing oil to splash or flow over the boom.

Weather conditions, characteristics of spilled oil, response time, amount of spilled oil, and the availability of equipment and trained personnel also influence the degree to which a response to a spill is successful. Data from the General Accounting Office indicates that although spill response technology has improved, no more than 10-15% of the oil in most major spills is ever recovered. In a much smaller spill, such as the 1991 rupture of a pipeline at the El Segundo Marine Terminal, about 25% of the estimated 660 barrels of spilled oil were recovered in spite of a rapid and large spill response.

Therefore, notwithstanding the on-site spill response equipment provided by Unocal and Clean Seas, the ability to effectively contain and cleanup an oil spill does not exist at this time. The proposed project is thus inconsistent with the second requirement of Coastal Act section 30232. Nevertheless, the project can be found consistent with the Coastal Act under the "conflict resolution" section of the Coastal Act for the reasons discussed in section 4.4.9 of this report.

4.3.3 Fill in Coastal Waters

Coastal Act Section 30108.2 defines "fill" as "earth or any other substance or material, including pilings placed for purposes of erecting structures thereon, placed in a submerged area."

The proposed remediation project involves (i) the temporary construction on the beach of a sheet pile containment dam and (ii) the placement of up to 25,000 cubic yards of clean sand (i.e., the placement of up to 5,000 cubic yards of clean sand per each sand augmentation) on the east side of the beach during the 1998-99 winter storm season. That portion of the sheet pile structure and volume of sand placed below the mean high tide line constitute "fill" as that term is defined in Coastal Act Section 30108.2.

Coastal Act Section 30233(a) states in part:

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:

1. *New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
2. *Maintaining existing, or restoring previously dredged depths on 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 30233(a) restricts the Commission from authorizing a project that includes open coastal water fill unless it meets the "allowable use" test. To meet this test the activities must fit into one of eight categories of uses permitted for open coastal water fill enumerated in Coastal Act Section 30233(a).

The purposes of the proposed project are to (a) maintain on the east side of the beach during Cell 1 cleanup activities at least four feet of clean sand cover and (b) remove petroleum hydrocarbon contamination that underlies the beach. The project is not intended for beach replenishment, enhancement or restoration. Increasing the thickness of sand cover for the purpose of preventing an oil release and installing sheet pile for the purpose of containing petroleum hydrocarbons are

not identified as allowable uses under Coastal Act Section 30233(a). Therefore, the proposed project is inconsistent with the requirements of Coastal Act Section 30233(a).

Nevertheless, the project can be found consistent with the Coastal Act under the "conflict resolution" section of the Coastal Act for the reasons discussed in section 4.4.9 of this report.

4.3.4 Shoreline Processes

Section 30235 of the Coastal Act states in part:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply.*

Section 30253 of the Coastal Act states in part:

> *New development shall:*
>
> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(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.*

Sheet pile walls will be installed to facilitate excavation in all three cells and will provide temporary site stability while the overburden and contaminated soils are removed and while clean imported and stockpiled soils are backfilled. The temporary Cell 2 sheet pile will be in place for at least 6 months and possibly up to 18 months. The location and extent of Cell 2 are set by the seaward limits of the plume and the inland boundaries of Cells 1 and 3. The seaward portion of the Cell 2 sheet pile wall will follow the mean sea level contour and will be regularly inundated by tidal action.

The sheet pile wall will function as a seawall to protect the Cell 2 excavation. There is no existing structure in danger from erosion, nor is the sheet pile wall serving a coastal dependent use or protecting a public beach. Therefore, the Commission is not required under Coastal Act Section 30235 to approve this construction.

Section 30253 requires that new development, such as the Cell 2 excavation, minimize risks the life and property and assure stability and structural integrity. The sheet pile enclosure for Cell 2 is critical for safe excavation of Cell 2. The sheet pile wall is needed both to limit the bounds

of the excavation and to protect the excavation, plume, equipment and workers from dangers from cave ins, flooding, wave attack and erosion. It is not feasible to relocate the cell or reduce the cell size to eliminate the need for the sheet pile protection. The sheet pile wall will provide shoring protection that is most suited to the constraints of the Avila Beach site. The sheet pile wall is necessary to minimize risks to life and property during the excavation of Cell 2 and is; therefore, consistent with Section 30253 of the Coastal Act.

Unocal has designed the sheet pile wall system (i.e. the main Cell 2 shoring walls, a possible energy dissipater, interior bracing, subcell shoring walls, etc.) in concept only; engineering details are being developed. To further ensure that the sheet pile wall will provide the necessary level of flood protection and structural stability, the Commission imposes several conditions. **Special Condition 20** lists the wave and coastal conditions that the sheet pile wall must meet to function safely and withstand the seasonal wave forces without buckling or failure. As a further check on wall safety, **Special Condition 21** requires that Unocal monitor the sheet pile wall for movement. If wall movement occurs, the excavation sequence or excavation area shall be adjusted to prevent further wall displacements. The Commission is further requiring in **Special Condition 23** that within 30 days of completing Cell 2 backfill Unocal shall remove from the beach the wave energy dissipater and sheet pile except the sheet pile that will be incorporated into the Cell 3 excavation.

Unocal proposes to begin construction of the Cell 2 sheet pile wall in late March 1999 and begin removing the overburden and contaminated soil by late April 1999. Unocal plans to have all the contaminated soil removed by the end of July 1999 and to remove the Cell 2 sheet pile wall (except the portion that will be used for the Cell 3 construction) by September 2, 1999. The Cell 2 sheet pile wall will be designed to withstand wave forces for the April through October time period. If all the contaminated soil is not removed by September 1, 1999, **Special Condition 22** requires that Unocal submit for executive director approval a contingency plan to either (1) safely vacate the beach by October 30, 1999 and remove all remaining hydrocarbons in Spring 2000, or (2) resize and redesign the sheet pile wall for safe excavation of the remaining hydrocarbons during the fall and early winter. In either case, the work must be completed by December 1, 2000. If Unocal chooses to use the second option, the wall must be shown to be able to withstand the seasonal storm conditions for the extended excavation time period.

Finally, Unocal estimates it will excavate and stockpile approximately 63,000 cubic yards of clean overburden sand and will excavate and remove approximately 37,000 cubic yards of contaminated silt and sand in Cell 2. Removal of beach sand will have an adverse impact on local sand supply. Impairment of sand supply can result in detrimental beach erosion locally as well as down coast. To mitigate this impact, Unocal will replace all contaminated silt and sand with clean, uncontaminated material and restore the beach to its pre-project contours. **Special Conditions 13 and 14** require that all imported sand be similar in color and grain size to the native material, that the volume of sand be equivalent to the volume removed, and that the clean stockpiled overburden be used as final cover for the Cell 2 area. These conditions will ensure that the restored area will closely resemble the pre-project recreational and sand supply aspects of the beach.

The Commission thus finds that since the Cell 2 sheet pile wall will be temporary and constructed to minimize risks to life and property, to assure structural stability of Cell 2, and mitigate any adverse impacts to local sand supply, the project as conditioned is consistent with Coastal Act Sections 30235 and 30253.

4.3.5 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 30212.5 states:

> *Wherever appropriate and feasible, public facilities, including parking areas or facilities, shall be distributed throughout an area so as to mitigate against the impacts, social and otherwise, of overcrowding or overuse by the public of any single area.*

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 30221 states:

> *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Excavating the petroleum hydrocarbon contamination underlying the beach will assist Avila in returning to its status as one of San Luis Obispo County's premier public beaches. The cleanup project will therefore enhance future public beach and recreational uses. During the excavation

project itself, however, there will be a significant loss of public beach access and recreational opportunities until the contamination is removed.

The entire beach will be closed to the public during Cell 2 remediation activities.[15] Unocal plans to complete the Cell 2 remediation between April '99 and October '99. However, if Unocal cannot complete the Cell 2 excavation by October '99, **Special Condition 22** requires Unocal to submit for executive director approval a contingency plan for one of two options: (1) safely vacate the beach by October 30, 1999 and promptly remove all remaining hydrocarbons in Spring 2000; or (2) resize or redesign Cell 2 for safe excavation of the remaining hydrocarbons during the late fall and early winter and in no case later than December 1, 2000. Therefore, under a worst-case scenario, the beach could be closed for two summer seasons.

Beach excavation will also (a) necessitate closure of Avila Pier during the length of Cell 2 remediation; (b) temporarily eliminate existing parking spaces that provide convenient access to the beach and recreation areas; and (c) temporarily eliminate the public restrooms that serve beach users. Therefore, the proposed project will cause severe short-term public access and recreation impacts.

The Commission is thus requiring several special conditions to minimize the cleanup project's adverse impacts to public access and recreation. **Special Conditions 25-27** require Unocal to implement a public information program that includes the following measures:

- Provides notice in local newspapers of the locations and durations of beach closures, and the location of relocated recreational equipment during remediation activities;
- Informs groups that have historically held annual or special events of the beach closure schedule;
- In coordination with Caltrans, places signs near freeway exits and on U.S. Highway 101 giving notice of beach closure to avoid unnecessary trips to Avila Beach;
- Places signs in key visitor access points identifying location of relocated recreational equipment for the duration of proposed remediation activities; and
- Places signs in town that clearly identify any parking areas, pedestrian routes, cross walks, and access points to the beach for the duration of remediation activities.

The County is also requiring in its coastal development permit/ development plan for the overall cleanup project that Unocal provide access to the beach during Cell 1 and 3 excavations if the County determines that such access can be provided safely. **Special Condition 24** of this permit requires Unocal during Cell 1 and 3 activities to relocate recreational equipment to another portion of the beach if directed to do so by the Port San Luis Harbor District. Unocal shall repair and replace any recreational equipment damaged during this relocation effort.

[15] Remediation of the northwest town cell (Cell 1) will at least partially restrict, and likely fully restrict, beach use from October '98 until April '99 due to access and safety reasons. Remediation of the northeast town cell (Cell 3) will at least partially restrict beach use from April '99 until summer 2000 due to rebuilding of the seawall and implementation of the Front Street Enhancement Plan.

In addition, the settlement agreement (see Section 4.1.10 of this report) establishes three provisions through which Unocal will mitigate adverse impacts to public access and recreation.

The first provision is that of the $6,000,000 placed into the Avila Beach Restoration Trust, $3,500,000 shall be used for restoration projects relating to lost use and enjoyment of natural resources, public beaches, and other public facilities in the Avila area impacted by the oil release. The agreement specifies that the CDFG will make the final determination as to which projects will receive funding, based on input and proposals from the County, the Community Services District, CBE, Avila Alliance, ELF, Port San Luis Harbor District, and other interested Parties.

The Coastal Commission and the CDFG's Office of Oil Spill Prevention and Response ("OSPR") drafted a Memorandum of Understanding ("MOU") in response to an appeal filed by Coastal Commissioners Wan and Reilly (See Section 4.1.10 of this report for a full discussion of the appeal) that includes the following elements (See Exhibit 13, "MOU"):

- Criteria for the OSPR to use in selecting projects under the terms of the settlement agreement that will be reasonably certain to mitigate the impacts of Unocal's remediation project on coastal public access and recreation; specifically, projects must (1) be of a benefit to the Avila Beach area and (2) provide substantial improvements for public beach use, coastal access, and/or public visitor-serving facilities;

- Agreement that the OSPR will consider proposals, input and comments generated from a series of public workshops that will be held jointly by the OSPR and the Coastal Commission;

- Agreement that the OSPR will consult closely with the Coastal Commission and its staff in selecting projects to be funded in accordance with the criteria specified in the MOU; and

- Agreement that by December 1, 2000, the OSPR shall have granted approval of all projects to be funded with the $3.5 million, and that said projects shall include an expeditious implementation schedule and in no case shall be completed later than December 1, 2002, unless extended by written agreement between the parties.

The second provision established in the settlement agreement through which Unocal will mitigate adverse impacts to public access and recreation is for Unocal to transfer ownership of three parcels for the purpose of creating community parks, and to expend up to $500,000 to design and construct the parks to specifications agreed upon by the County and Unocal.

The final provision is for Unocal to expend up to $3,500,000 to complete the design and implementation of the "Front Street Enhancement Project" (which is described in Section 4.1.10 of this report) which will enhance long-term public beach access and recreation opportunities at Avila Beach.

The Commission finds that through implementation of (a) the settlement agreement as guided by the MOU and (b) the above-referenced conditions of approval, the loss of public access and recreation through a maximum of two summer seasons will be adequately mitigated. The Commission therefore finds the project consistent with Coastal Act Sections 30210, 30211, 30212.5, 30220 and 30221 which require the protection of public beach access and coastal recreational opportunities.

4.3.6 Visual Resources

Coastal Act Section 30251 states in part:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.*

The EIR/S identifies two major adverse visual impacts from the proposed project. The first would result if imported sand changed the color and/or texture of beach sand. The second impact will result from construction and installation of remediation technologies (e.g., sheet pile wall, heavy equipment) interrupting and blocking views from key travel routes and use areas.

To mitigate for the first impact, the Commission imposes **Special Condition 13**, which requires Unocal to (a) import sand that is, among other requirements, (i) similar in color and grain size to the native material that it is replacing or augmenting, and (ii) clean of organic debris, and (b) stockpile and re-use clean overburden as final cover material. **Special Condition 14** also requires Unocal to use all clean stockpiled overburden as final beach cover material.

With respect to the second impact, however, construction and installation of remediation technologies cannot be sited elsewhere, cannot be designed to protect scenic views, and are not compatible with the character of the surrounding areas. The significant adverse visual impacts of the cleanup project will be temporary, however, lasting approximately 19 months. Unocal will remove all sheet pile, restore the beach to its pre-project contours, and visually enhance the Avila Beach community by implementing the Front Street Enhancement Plan. The Commission thus finds that due to the temporary nature of the cleanup project and implementation of the Front Street Enhancement Plan, the project is consistent with Coastal Act Section 30251.

4.3.7 Archaeological and Historical Resources

Coastal Act Section 30244 states:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

No historic buildings or structures are located in the project area. Furthermore, the project will be conducted in areas of the Commission's retained jurisdiction that are tidally influenced. Archaeological sites are normally located above active beach sands in protected terraces. The EIR/S states that the potential for encountering prehistoric archaeological deposits in the beach area that has been continuously subject to wave erosion is extremely small. In fact, monitoring of past remedial actions at the west end of Avila Beach identified only a few bottles without significant historical context.

Nevertheless, the EIR/S concludes that although highly unlikely, it is possible that an archaeological or cultural resource could be encountered on beach areas. Such resource would most likely be located above areas of tidal influence. The County of San Luis Obispo is therefore requiring Unocal to implement a cultural resources mitigation plan that includes monitoring by a County-qualified archaeologist and local Native American representative. If a potentially significant archaeological or historical material is identified, work shall be temporarily redirected and Unocal shall fund a Phase 2 archaeological assessment of the find. If the materials are determined to be significant under California Environmental Quality Act, Appendix K, criteria, or if Unocal agrees to assume that the resources are significant, Unocal shall fund a Phase 3 data recovery mitigation program to collect a representative sample of the materials that would be lost.

The Commission therefore finds the project consistent with Coastal Act Section 30244.

4.3.8 Air Quality

Coastal Act Section 30253(3) states:

> *New development shall be consistent with requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.*

The San Luis Obispo County Air Pollution Control District (APCD) has the authority to permit the proposed project. For regulatory purposes, air pollutants are generally recognized as "criteria pollutants" or toxic, or hazardous, pollutants. Criteria pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter with a diameter of up to 10 microns (PM_{10}), lead, sulfates and hydrogen sulfide (H_2S). Reactive Organic Gases (ROG) are also of concern because of their role in forming ozone, a secondary or regional pollutant. Toxic air contaminants may be emitted from three main source categories: Industrial facilities; stationary and mobile internal combustion engines; and small "area sources."

The EIR/S identifies that air pollutant emissions will result from construction activities, operation of construction equipment, fugitive dust sources and exposed hydrocarbon areas. Remedial activities can also expose the public to emissions of toxic vapors, resulting in adverse health effects.

Although the EIR/S quantifies pollutant emissions and compares them with APCD established significance thresholds for operations, the analysis was based on a project in which excavation was conducted over a three-year period, and contaminated sand was treated with a thermal oxidizer. Unocal now proposes to complete the project within approximately 19 months and does not propose to treat the contaminated sand. Consequently, the pollutant emission summary contained in the EIR/S is no longer completely applicable and thus is not included in this report.

Nevertheless, the APCD has made a preliminary decision that it can permit Unocal's project as currently proposed contingent upon final design of some air quality control devices and a final air quality mitigation agreement *(letter from Robert Carr, APCD, to Alison Dettmer, CCC, dated July 7, 1998)*.

Also, San Luis Obispo County has imposed the following conditions in its coastal development permit/development plan for the proposed project that require Unocal to implement the following measures to the satisfaction of the APCD:

- Unocal shall implement an APCD-approved Dust Control Plan that includes measures to water disturbed areas, stabilize stockpiles, and inspect heavy duty equipment to reduce particulate emissions.

- Unocal shall implement an APCD-approved Emission Reduction Plan that addresses use of all heavy-duty, diesel-fueled equipment. The plan could include (a) nitrogen oxide (NOx) reduction strategies for off-road construction equipment, (b) NOx and ROG reduction strategies for on-road heavy-duty trucks and other equipment, and (c) use of California Air Resources Board-approved diesel fuel for all diesel powered equipment.

- Unocal shall maintain all construction equipment to reduce ROG, NOx, and PM_{10} emissions.

- Unocal shall provide emission offsets for unmitigated project emissions to the extent required by the APCD.

- Unocal shall conduct excavation activities so as to minimize the area of exposed hydrocarbons, thereby reducing the emissions of ROG due to off-gassing.

- Unocal shall implement an APCD-approved Asbestos Management Plan showing compliance with the applicable federal requirements.

The APCD has submitted comments and corrections to Unocal's Odor Control Plan, Dust Control Plan, Air Monitoring Plan, Emergency Response Plan, and Health and Safety Plan, and stated that some required plans such as the Air Emission Reduction Plan and Asbestos Management Plan, have yet to be received by the District *(letter from Robert Carr, APCD, to William Sharrer, Unocal, dated July 22, 1998)*.

The Commission therefore is requiring Unocal in **Special Condition 28**, to (a) submit proof to the executive director that it has addressed to the APCD's satisfaction all comments raised in the APCD's July 22, 1998, letter, and (b) submit proof of final issuance of all required APCD permits.

The Commission finds that with the imposition of **Special Condition 28**, the proposed project will be consistent with the requirements of the APCD and is therefore consistent with Coastal Act Section 30253(3).

4.3.9 Policy Conflict Resolution

Coastal Act Section 30007.5 states:

> *The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore 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 centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.*

The Commission finds that in applying the policies of Chapter 3 of the Coastal Act to Unocal's proposed cleanup project results in conflicts between certain Coastal Act policies. However, for the reasons described below, the Commission believes that after applying the standard of Coastal Act Section 30007.5, on balance, it is most protective of significant coastal resources to approve the project:

- The Commission found in Section 4.3.1 of this report that the cleanup project will prevent grunion spawning during at least one, if not two, summer seasons thereby potentially reducing the healthy population of this marine species. The Commission thus found the project inconsistent with Coastal Act Section 30230 which requires healthy populations of marine species to be maintained.

  However, if the hydrocarbon contamination is left in place, future discharges of the contaminated material into marine waters could cause greater damage to the grunion population which is in clear conflict with the Coastal Act 30230 standard that healthy populations of marine species be maintained.

- The Commission found in Section 4.3.2 of this report that in the event of a release of hydrocarbons into marine waters and San Luis Obispo Creek, there is currently no "effective" oil spill cleanup equipment available to keep oil off the shoreline. The Commission thus found that the project is inconsistent with the second test of Coastal Act Section 30232 which requires that an applicant provide effective cleanup equipment for accidental spills that do occur.

However, leaving the contamination in place will increase the likelihood of a large release of hydrocarbons into marine waters and San Luis Obispo Creek especially since much of the contamination underlies the active beach area and is susceptible to erosion. Therefore, eliminating the potential for the spillage of hydrocarbons by removing the contamination, as required by the first test of Coastal Act Section 30232, will be more protective of coastal resources than leaving such contamination in place.

- The Commission found in Section 4.3.3 of this report that the placement on the beach below the mean high tide line of temporary sheet pile and imported clean sand does not meet the "allowable use" fill test of Coastal Act Section 30233(a). However, to leave the contamination in place, and not allow the addition of clean sand to the beach, could result in a large release of hydrocarbons into marine waters and San Luis Obispo Creek which conflicts with the marine resource (Sections 30230 and 30231), oil spill (Section 30232) and public access and recreation policies (Sections 30210, 30211, 30212.5, 30220 and 30221) of the Coastal Act.

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 cleanup project. Accordingly, the Commission concludes that the project is consistent with the Coastal Act.

4.3.10 California Environmental Quality Act

As "lead agencies" under the California Environmental Quality Act ("CEQA") the County of San Luis Obispo and the Central Coast Regional Water Quality Control Board certified on February 26, 1998 and April 3, 1998, respectively, an environmental impact report for Unocal's proposed Avila Beach remediation project.

The Commission's permit process has also been designated by the State Resources Agency as the functional equivalent of the CEQA environmental impact review process. Pursuant to section 21080.5(d)(2)(i) of the CEQA and section 15252(b)(1) of Title 14, California Code of Regulations (CCR), the Commission may not approve a development project "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment." The Commission finds that there are no feasible less environmentally damaging alternatives or additional feasible mitigation measures that would substantially lessen any significant adverse impact which the activity may have upon the environment, other than those identified herein. Therefore, the Commission finds that the project is consistent with the provisions of the CEQA.

APPENDIX A

Standard Conditions

1. 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. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.

4. Interpretation. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

5. Inspections. The Commission staff shall be allowed to inspect the site and the development during construction, subject to 24-hour advance notice.

6. 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.

7. 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.

APPENDIX B

Substantive File Documents

AGENCY PERMITS AND ORDERS

Coastal Development Permit/Development Plan No. D940227P. San Luis Obispo County Department of Planning and Building Staff Report (June 25, 1998).

Cleanup or Abatement Order No. 98-37. Central Coast Regional Water Quality Control Board (April 3, 1998).

Coastal Development Permit No. 3-97-078 (Port San Luis Harbor District) (Hearing Date: March 13, 1998).

County of San Luis Obispo Local Coastal Program Minor Amendment No. 3-96 (January, 1997).

AGREEMENTS

Draft Memorandum of Understanding between California Department of Fish and Game, Office of Spill Prevention and Response and California Coastal Commission regarding Unocal Avila Beach Cleanup Project (August, 1998).

Settlement Agreement and Judgment No. CV079728 (June 25, 1998).

REPORTS

Implementation Plan for Cleanup or Abatement Order 98-37 for Avila Beach Remediation Project. Unocal, Jacobs Engineering (June 1, 1998, as amended June 3, 1998, June 27, 1998, July 22, 1998, August 6, 1998, August 7, 1998, and August 20, 1998.)

Environmental Impact Report and Statement for the Unocal Avila Beach Cleanup Project. Arthur D. Little; SCH #95071094 (February, 1998).

CORRESPONDENCE

In-House Memorandum from Boyd Gibbons, CDFG, dated March 2, 1994, entitled "Creosote."

In-House Memorandum, CDFG, (date not found), entitled "Summary of Practices and Authority Regarding Creosote Discharges to Waters of the State."

Letter from Melissa Boggs, CDFG-OSPR, to Bill Sharrer, Unocal, dated August 14, 1998.

Letter from Diane Noda, USFWS, to Richard Schubel ACOE, dated August 7, 1998.

Letter from Robert Carr, APCD, to William Sharrer, Unocal, dated July 22, 1998.

Letter from Jay Elder, PSLHD, to Moira McEnespy, CCC, dated July 17, 1998.

Letter from Alex Hinds, SLO Planning, to Peter Douglas, CCC, dated July 16, 1998.

Letter from Robert Carr, APCD, to Alison Dettmer, CCC, dated July 7, 1998.

Letter from Jay Elder, PSLHD, to Kevin McNichol, Unocal, dated July 2, 1998.

Letter from Kevin McNichol, Unocal, to Alison Dettmer, CCC, and Tiffany Welch, USACOE, dated June 26, 1998.

MEMORANDUM OF UNDERSTANDING
BETWEEN
CALIFORNIA DEPARTMENT OF FISH AND GAME
OFFICE OF SPILL PREVENTION AND RESPONSE
AND
CALIFORNIA COASTAL COMMISSION
REGARDING UNOCAL AVILA BEACH CLEANUP PROJECT

This Memorandum of Understanding (MOU) is between the California Coastal Commission (hereinafter "the Commission") and the Department of Fish and Game – Office of Spill Prevention and Response (hereinafter "OSPR"). Each party is an agency of the State of California.

WHEREAS, the OSPR intervened in a lawsuit entitled Avila Alliance, et al. v. Unocal Corporation, et al Case Number #CV079728; and

WHEREAS, a settlement was reached in the above captioned matter and a settlement agreement and judgment was filed in San Luis Obispo County on June 25, 1998; and

WHEREAS, the OSPR pursuant to the settlement agreement and judgment will receive the sum of $3.5 million and all accrued interest for compensation for lost use and enjoyment of natural resources, public beaches, and other public facilities in the Avila area impacted by the oil release (Government Code § 8670.56.5(g)(7)); and

WHEREAS, the OSPR as Trustee intends to utilize the above mentioned sum for the planning and implementation of restoration projects that will enhance and benefit the public beach and recreational activities in the Avila area; and

WHEREAS, the OSPR pursuant to the settlement agreement and judgment will receive the sum of $2.5 million and all accrued interest for impacts to biological resources in the marine environment (Government Code 8670.56.5(g)(3)); and

WHEREAS, the OSPR as trustee intends to utilize the above mentioned sum for studies concerning impacts to biological resources in the marine environment and the planning and implementation of restoration projects relating to injuries to biological resources impacted by the oil release at Avila Beach; and

WHEREAS, the excavation and removal of contaminated soil which the settlement agreement obligates Unocal to carry out 1) is located within the "coastal zone" of the

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State of California as that term is defined in Public Resources Code § 30103, and 2) constitutes "development" within the meaning of that term as it is defined in Public Resources Code § 30106; and

WHEREAS, Public Resources Code § 30600 requires that any person desiring to carry out development within the coastal zone of the State of California must first obtain a coastal development permit under the California Coastal Act (Public Resources Code § 30000 *et seq.*); and

WHEREAS, on June 25, 1998, the County of San Luis Obispo issued a coastal development permit for the above-described remediation project; and

WHEREAS, on July 16, 1998, pursuant to Public Resources Code § 30603, two Commissioners of the Commission appealed the County's coastal development permit to the Commission, thus removing to the Commission Coastal Act jurisdiction over Unocal's remediation project; and

WHEREAS, the Commission may not either 1) pursuant to Public Resources Code § 30625(b)(2), dismiss its appeal of, or 2) pursuant to Public Resources Code §§ 30604(b) and (c), issue a permit for Unocal's remediation project, unless it can find that the impacts of that project on coastal public access, recreation and coastal biological resources have been fully mitigated; and

WHEREAS, the Commission pursuant to Chapter 3 policies and the regulatory requirements of the California Coastal Act has jurisdictional authority to require sufficient and specific mitigation for adverse impacts to public access, recreational resources and biological resources in the Avila Beach area; and

WHEREAS, the Commission and the OSPR wish to provide criteria for the OSPR to use in selecting under the terms of the settlement agreement projects which will be reasonably certain to mitigate the impacts of Unocal's remediation project on coastal public access, recreation and biological resources, so as to enable the Commission to make the findings it must make in order to either dismiss its appeal or issue a permit for Unocal's project.

NOW THEREFORE, the parties hereto agree as follows:

(1) The OSPR and the Commission shall jointly hold a series of public workshops to solicit public access, beach enhancement, and visitor serving project proposals from the members of the Avila Beach Community, the local Avila Valley Advisory Committee (AVAC), Port San Luis Harbor District, and other interested parties. The input and comments from these workshops will be fully considered by OSPR prior to any final decisions on project selection and funding.

Consistent with the provisions of the California Coastal Act and the Lempert–Keene–Seastrand Oil Spill Prevention and Response Act, funded projects must 1) be of a benefit to the Avila Beach area and 2) provide substantial improvements for public beach use, coastal access, and/or public visitor serving facilities.

The types of projects that would satisfy the above-described criteria include:

- Beach access
- Improvements to publicly operated visitor-serving facilities
- Bikepaths that provide coastal access
- Alternative beach transportation programs (such as a beach shuttle program)

Projects that may be beneficial in their own right, but do not provide any significant enhancement for public coastal access or visitor serving needs, shall not be funded from this $3.5 million.

The OSPR agrees that it shall consult closely with Coastal Commission and its staff in selecting projects to be funded in accordance with the criteria specified herein.

(2) Actual construction of the approved projects will follow normal regulatory processes and may require a separate coastal development permit from San Luis Obispo County and/or the Coastal Commission. The Coastal Commission commits to an expeditious processing of any necessary Commission permits for the selected mitigation projects.

(3) The OSPR will work closely with the Coastal Commission and its staff — especially the Commission's marine ecologist — to develop marine biological studies and technically feasible marine resource restoration projects in the Avila area that address impacts from the oil release and cleanup in a manner consistent with the Coastal Act.

(4) By December 1, 2000 (RWQCB's Cleanup or Abatement order no. 98-37 deadline for Unocal's project completion), the OSPR shall have granted approval of all projects to be funded with the $3.5 million and the $2.5 million. All approved projects shall include an expeditious implementation schedule and in no case shall be completed later than December 1, 2002 unless extended by written agreement between the parties.

(5) As soon as possible after the execution of this agreement the OSPR and the Commission shall designate staff members who shall function as contact persons for the consultation to be conducted under this MOU.

(6) It is understood between the parties that the OSPR is receiving the sum of $3.5 million and all accrued interest as trustee for the loss of beach use and recreational resources and receiving $2.5 million and all accrued interest for impacts to biological resources in the Avila area. It is further understood that under the terms of the settlement agreement, the OSPR has the ultimate authority for determining the appropriate projects to be funded by these monies, subject to terms of this MOU including full consultation with the Coastal Commission. Due to similarity between regulatory standards in California Coastal Act and in the Lempert–Keene–Seastrand Oil Spill Prevention and Response Act, respectively, the parties do not anticipate conflicts as to which projects are to be funded.

This Memorandum of Understanding is executed on _____ in Sacramento, and on _____ in San Francisco, California.

_____ _____

PETER DOUGLAS DATE
EXECUTIVE DIRECTOR
CALIFORNIA COASTAL COMMISSION

_____ _____

PETE BONTADELLI DATE
ADMINISTRATOR
OFFICE OF SPILL PREVENTION AND RESPONSE