

CALIFORNIA COASTAL COMMISSION

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



W16c

November 18, 1999

TO: Coastal Commissioners and Interested Parties

FROM: Jaime C. Kooser, Deputy Director
Alison J. Dettmer, Manager, Energy and Ocean Resources Unit

SUBJECT: Final Draft Scope of Work for the Chevron 4H Platform Shell Mound Study

Attached for your review and comment is the Final Draft Scope of Work for the proposed Chevron 4H Platform Shell Mound Study. Since the November 1999 Coastal Commission meeting, Coastal Commission staff has revised the Draft Scope of Work after evaluating comments given by the Coastal Commission and other interested parties.

Please submit any written comments on the proposed Final Draft Scope of Work to Alison Dettmer at the Coastal Commission's San Francisco office no later than December 6, 1999. Alternatively, you can provide oral comments at the Coastal Commission's December 8, 1999 meeting in San Rafael.

Special Condition 7 of coastal development permit ("CDP") E-94-6 states that "if the Executive Director determines that removal of the debris attributed to Chevron is necessary to avoid an unreasonable risk of snagging by trawl nets, this matter shall be set for public hearing before the Coastal Commission for the purpose of determining whether or not this coastal development permit shall be amended to require debris removal." The proposed Final Draft Scope of Work is a description of the information necessary for Coastal Commission staff to make a recommendation to the Coastal Commission as to whether the Coastal Commission should require Chevron to submit an amendment to CDP E-94-6 to remove the shell mounds. The standard of review as to whether an amendment is required is the policies of Chapter 3 of the Coastal Act. Accordingly, the scope of the shell mound study must evaluate the short- and long-term environmental impacts of shell mound removal and in-place abandonment.

Once the Final Draft Scope of Work is finalized, Coastal Commission staff will work with State Lands Commission staff to develop a Request for Proposals ("RFP"). The RFP will be circulated to prospective consultants who will be selected through a competitive bidding process. Consultant selection will be based, in part, on an evaluation of the methods proposed by bidder to carry out the proposed study.

FINAL DRAFT SCOPE OF WORK
for
Chevron 4H Platform Shell Mound Studies

Physical Characterization of Mounds

The consultant shall summarize existing information on the size and shape of each of the four mounds of drilling muds and cuttings and their layer of shells (hereinafter called "shell mounds"). Information regarding the areal extent of the mounds is contained in the debris and trawl survey reports submitted by Chevron at the conclusion of the four State Waters Platforms Decommissioning Project. The consultant shall design and supervise a sampling program that will provide data for the analysis of the internal structure of each mound. The sampling program will also provide material for analysis of any possible contaminants within the mounds as well as further document the existing biological resources present at the site. Sampling of the mounds shall be designed to provide physical and chemical characterization of mounds and should include testing for hydrocarbon and heavy metal content (using ACOE Dredge Sample Characterization Criteria). Chevron has prepared a report that summarizes the drilling mud use documented in the drilling records for the platforms. This report also contains an extensive literature summary related to drilling mud characteristics and should be used to the extent feasible to quantify the chemical composition of the original mud and cuttings discharge.

Sedimentation rates and scour rates shall be determined for the mound areas. The consultant shall take into account the caissons remaining at the site of Platform Hazel, and their potential impact on any removal strategy.

The consultant shall also conduct a literature search to assess the potential habitat value of the shell mounds, focusing on any research that addresses the question of whether underwater materials, such as the mounds serve to attract or to produce fish.

Environmental Impacts of Removal

The consultant shall identify feasible methods to remove the shell mounds, including, but not limited to, dredging, nets and explosives. The study shall include a review of shell mound removal methods employed in the Gulf of Mexico and the North Sea, taking into account differences in scale (size of platforms, volume of material) and water depth. For each feasible method, or combination of methods identified, the consultant shall provide information on the following four types of impacts, specifically addressing short-term, long-term, and cumulative effects:

Water Quality

The consultant shall examine the effects of removal to marine water quality from temporary increase in turbidity and the release of materials contained within the shell mounds. The consultant shall assess the toxicity in the marine environment of the drilling muds and cuttings or other contaminants within the shell mounds. The assessment shall be based on laboratory analysis of core samples taken from the shell mounds and a review of all available

drilling records to determine the type(s) and quantities of muds used. Testing for hydrocarbons and heavy metals shall be done using ACOE Dredge Sample Characterization Criteria as well as relevant water quality criteria contained in the RWQCB Ocean Plan, and Section 401/NPDES Permit requirements.

Air Quality

The consultant shall identify emission sources associated with shell mound removal and provide an estimate of emissions that would result from the removal project. The emission estimates shall be compared with applicable federal and state ambient air quality standards, based on Santa Barbara County APCD criteria and thresholds.

Biological and Related Hard Bottom Impacts

The consultant shall assess the impact of removal operations to fisheries, marine mammal resources and natural hard-bottom habitat in the vicinity of the shell mounds. Potential impacts considered shall include direct physical impacts from work vessel anchors, actual removal equipment or methodology such as dredges, explosives or other equipment and impacts to hard-bottom communities due to turbidity and siltation.

Commercial and Recreational Fishing Impacts

The consultant shall identify current commercial and recreational fishing activities in the project area and assess the impacts of shell mound removal on the commercial and recreational fishing industry. This assessment shall include, but not necessarily be limited to:

- An evaluation of whether the shell mounds benefit any types of commercial and/or recreational fisheries (e.g., commercial lobster fishing, or commercial sportfishing charters).
- An evaluation of the potential adverse impacts to marine biological resources that will result from the resumption of trawl fishing in the shell mound areas.

The consultant shall also consider if means exist to make the mounds trawlable using current or modified fishing gear.

Environmental Impacts of Leaving Shell Mounds in place

Water Quality

The consultant shall assess the potential of the shell mounds to maintain their integrity over time, and the potential impacts to water quality should leaching of materials from within the mounds into marine waters occur.

Air Quality

The consultant shall identify any emission sources associated with leaving the mounds in place. The emission estimates shall be compared with applicable federal and state ambient air quality standards, based on Santa Barbara County APCD criteria and thresholds.

Biological and Related Hard Bottom Impacts

The consultant shall discuss the potential beneficial impacts associated with maintaining the existing hardbottom habitat as presented by the shell mounds and adjacent natural hardbottom area.

Commercial and Recreational Fishing

The consultant shall assess the impacts to the commercial and recreational fishing industries that will result if the shell mounds are left in place. This assessment shall be based on:

- A specific quantitative analysis of (1) the potential economic value of the shell mound areas to commercial halibut trawlers in the context of the total area fished by affected trawlers; and (2) identification and evaluation of feasible mitigation measures to reduce or eliminate impacts to commercial trawl fishing, including an analysis of the existing navigation aids or the Global Positioning System (GPS) equipment proposed by Chevron for the affected trawl fishermen.
- An evaluation of whether the shell mounds benefit any types of commercial and/or recreational fisheries (*e.g.*, commercial lobster fishing, or commercial sportfishing charters) and an evaluation of related impacts to the affected fisheries.
- An analysis of potential risk to trawlers if the mounds are left in place, and the ability of potential mitigation to reduce that risk.
- Potential adverse impacts to the marine biological resources that will result from the continuation of trawl fishing in the shell mound areas.
- Nature and extent of potential use conflicts in the shell mounds area (*e.g.*, between trawlers and sport fishermen).

Previous Studies Available to Consultants

Bascom, W., A.J. Means, and M.D. Moore, 1976. *A Biological Survey of Oil Platforms in the Santa Barbara Channel*. Proceedings of the Offshore Technology Conference, Paper 2523

Carlisle, J.G., C.H. Turner, and E.E. Ebert, 1964. *Artificial Habitat in the Marine Environment*. California Department of Fish and Game Fish Bulletin 124.

de Wit, L.A., 1999. *4H Platforms Shell Mound Study Santa Barbara Channel, California*. Prepared for Chevron U.S.A., Inc. Ventura, CA.

Love, M.S., J. Caselle, and L. Snook, in press. *Fish Assemblages on Mussel Mounds Surrounding Seven Oil Platforms in the Santa Barbara Channel and Santa Maria Basin*.

Naughton, Aiden J., 1997. *Chevron Carpinteria Platforms Abandonment Mitigation and Monitoring Program, Report of Project Completion*. California State Lands Commission, Mineral Resources Management Division.

O'Reilly, Kirk, 1998. *Decommissioned Platform Shell Mounds: Impacts of Drilling Fluids*. Prepared for Chevron U.S.A., Inc. Ventura, CA.

Simpson, R.A., 1977. *The Biology of Two Offshore Platforms*. U.C. Institute of Marine Resources Ref. Document 76-13.