

**REQUEST FOR PROPOSALS**  
**Study to Provide Information Related to Oil and Gas Platform**  
**Decommissioning Alternatives in California**

**October 31, 2008**

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## **1. INTRODUCTION AND SUMMARY**

### **1.1 Purpose of this Request for Proposal (RFP)**

The State of California is examining alternatives for decommissioning existing oil and gas platforms in State Tidelands and in the Federal Outer Continental Shelf off the California coast. The State also is reviewing the policies, programs, and regulations that would need to be adopted or revised under various decommissioning alternatives. The purpose of this Request for Proposals (RFP) is to hire a qualified Contractor to provide key information to address future decommissioning alternatives for California's offshore oil and gas platforms. Information developed through this study will be used by the California Resources Agency to evaluate and inform policy discussions.

The California Resources Agency oversees the state's environmental policies and activities, with a budget of \$6.4 billion and 16,000 employees in 25 departments, commissions, boards and conservancies. The issues under its jurisdiction range from conservation, water, fish and wildlife, forestry, parks, energy, coastal, marine and landscape.

### **1.2 Description of Services Required and Timeline**

The Contractor (i.e., an organization or team) shall perform all aspects of the required work outlined in the Scope of Work (Section 4). The Contractor will coordinate work with the California Ocean Science Trust and staff.

The contractor will complete the required work within 9 months following the execution of a contract.

### **1.3 Available Funding (Compensation)**

Funding for this study will be contingent upon approval of grants from the California Ocean Protection Council, Chevron Corporation, and the Ocean Conservancy. The maximum amount to be allocated for the study is \$450,000.

### **1.4 How to respond to the RFP**

Instructions for responding to this RFP are provided below in Section 3.

All proposals must be submitted electronically as an MS Word or PDF document to Amber Mace at the California Ocean Science Trust at [amber.mace@calost.org](mailto:amber.mace@calost.org) by close of business, 5:00 PM on December 12, 2008. Hard copies that are mailed or hand-delivered to the address below by the closing date and time also are welcome.

Dr. Amber Mace  
California Ocean Science Trust  
1330 Broadway, Suite 1135  
Oakland, CA 94612

Late submittals, including those postmarked before the deadline, will be considered at the California Ocean Science Trust's discretion.

### 1.5 Whom to Contact for Questions or Clarifications

All questions concerning this RFP can be submitted in writing or by email to Amber Mace of the California Ocean Science Trust at [amber.mace@calost.org](mailto:amber.mace@calost.org) or by fax to (510-251-8327) no later than December 7, 2008. All answers to these questions will be posted on the California Ocean Science Trust website <http://www.calost.org/> within three business days.

### 1.6 Key Events and Deadlines

Key events and deadlines are as follows:

<b><u>Event</u></b>	<b><u>Due Date</u></b>
<b>RFP Available to Prospective Bidders</b>	<b>10-31-08</b>
<b>Written Question Submittal Deadline</b>	<b>12-7-08</b>
<b>Final Date for Submission of Proposal (no later than 5:00 pm)</b>	<b>12-12-08</b>
<b>Send Proposals out for Review</b>	<b>12-19-08</b>
<b>Send Comments to Bidders to Revise Proposals</b>	<b>1-23-09</b>
<b>Proposal Revisions Due</b>	<b>2-6-09</b>
<b>Proposal Selection Panel Meets</b>	<b>2-13-08</b>
<b>Interviews with Finalists</b>	<b>2-20-09</b>
<b>Contractor Selected</b>	<b>2-25-09</b>
<b>Selected Contractor to Provide Any Necessary Revisions to Scope of Work</b>	<b>3-4-09</b>
<b>Contract Start Date</b>	<b>3-18-09</b>
<b>Interim Deliverable (see 4.4.1)</b>	<b>4-29-09</b>
<b>Interim Advisory Committee Meeting</b>	<b>5-20-09</b>
<b>Revised Interim Deliverable</b>	<b>5-27-09</b>
<b>Mid-Point Briefings to: 1) Ocean and Coastal Policy Stakeholders, and 2) Inter-Agency Decommissioning Working Group</b>	<b>TBD</b>
<b>Submission of Draft Final Report and Analytical Framework</b>	<b>9-2-09</b>
<b>Final Advisory Committee Meeting</b>	<b>9-23-09</b>
<b>Final Product Due</b>	<b>12-2-09</b>

## 2. FOCUS OF THE STUDY

### 2.1 Background

Existing offshore oil and gas leases in California require state and federal lessees to completely remove the production facility (i.e., the platform, including jacket, drilling rig, conductors, and all infrastructure and utilities) and to restore the seafloor to a natural state when the facility is no longer producing oil and gas. The platform removal and the seafloor restoration are a multi-million dollar undertaking with many technical challenges. To meet the regulatory requirements in the most cost effective manner without harming the environment, oil companies have explored alternatives to the complete removal of these facilities with federal and state agencies. For example, in the Gulf of Mexico, state and federal agencies have allowed decommissioned platforms to be converted into artificial reefs. In turn, the oil and gas companies have donated a portion of their cost savings to the Gulf of Mexico states.

There currently exist 27 operating oil and gas platforms in State Tidelands and on the Outer Continental Shelf off California that eventually will be decommissioned. In 2000, legislation was introduced in California that would have provided a process to consider allowing portions of decommissioned platforms off the California coast to serve as artificial reefs and/or be reconfigured to uses related to aquaculture, education, research, tourism, alternative energy production, etc. This legislation was passed by the state legislature, but was vetoed by Governor Davis, who cited the lack of conclusive evidence that artificial reefs created from oil and gas platforms were beneficial to the marine environment.

The purpose of this study is to assemble and examine scientific and legal information that will frame future State policy discussions on the alternatives for decommissioned platforms.

In 2007, the California Resources Agency began investigating the issues surrounding alternatives for decommissioned platforms in the State Tidelands and on the Outer Continental Shelf off California. In June 2007, the Resources Agency held a meeting with 25 ocean and coastal conservation stakeholders to begin identifying the issues associated with and assess alternatives for decommissioned platforms. It was concluded that a more thorough investigation of the issues would be necessary.

The Resources Agency established a three-phase process to formulate and inform policy options:

Phase I – Identify Issues (completed): In December 2007, the Resources Agency convened a facilitated discussion with a group of representative stakeholders to: 1) reaffirm existing and identify additional alternatives for decommissioning California's oil and gas platforms; and 2) identify the information needs for a science-based study to support future policy discussions related to a State decommissioning program. In January 2008, the Resources Agency subsequently convened a meeting of the Interagency Decommissioning Working Group<sup>1</sup> along with other technical experts to review the information needs identified by the stakeholders and to develop a set of key questions and priority information needs. The

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<sup>1</sup> The Inter-Agency Decommissioning Working Group includes representatives of federal, state, and local agencies with technical expertise in oil and gas platform decommissioning in California. Their main function is to provide technical advice and information on platform decommissioning issues.

Resources Agency used this input to develop a draft RFP for a comprehensive investigation of the major issues and questions that merited further investigation related to alternatives for decommissioned platforms.

Phase II – Conduct Comprehensive Investigation: The California Ocean Science Trust submitted the draft RFP to extensive peer-review and then issued the present revised RFP. The California Ocean Science Trust will select a team to conduct the required comprehensive study; and will assemble an Advisory Committee that will iteratively review the team's products, advise on the study process, and help ensure that the final product is robust and authoritative.

Phase III – Policy Evaluation. The California Resources Agency will use the report to develop the policy options that may lead to new federal regulations, state legislation, and/or other mechanisms to address all potential alternatives for decommissioning platforms.

## **2.2 Definition of Key Terms**

Appendix A contains a list of key terms used in this RFP.

## **2.3 Regulatory and Statutory Context**

Decommissioning of oil and gas platforms off the California coast is governed by various federal and state policies, statutes, and regulations including:

- California Public Resources Code, Division 6, 1938, details the authority of the California State Lands Commission (SLC). The mission of the SLC is to manage some 4.5 million acres of land held in trust for the people of California, including a three-mile section of tidal and submerged land adjacent to the coast. Chapter 3 of the SLC's regulations defines its responsibilities related to Oil and Gas Mineral Leases, including provisions for the permitting, operation and surrender of oil and gas leases. There are currently four (4) oil and gas platforms, in addition to other facilities such as offshore islands, in state waters.
- California Coastal Act (CA Public Resources Code Division 20) requires review and permitting of activities within the coastal zone, including both water and land areas, pursuant to its adopted Coastal Resources Planning and Management Policies. For example, Article 4 Section 30230 states: "Marine policies shall be maintained, enhanced, and where feasible, restored. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters....adequate for long-term commercial, recreational, scientific and educational purposes."
- Federal Coastal Zone Management Act (CZMA), Title 16, U.S. Code (U.S.C.) Sections 1451et seq.; CZMA Regulations, Title 15, Code of Federal Regulations (C.F.R.) Parts 923 and 930. The CZMA emphasizes the primacy of state decision-making regarding the coastal zone. Federal license or permit activities that have reasonably foreseeable coastal effects must be fully consistent with the enforceable policies of state coastal management programs. In California, the CZMA gives the California Coastal Commission regulatory control (federal consistency review authority) over all federal activities and federally licensed, permitted or assisted activities, wherever they may occur (i.e., landward or seaward of the respective coastal zone boundaries under state

law) if the activity affects coastal resources. Such activities include outer continental shelf oil and gas leasing, exploration and production.

- The Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. 1331-1356a, provides the U.S. Minerals Management Service (MMS) with the full range of authority to manage the oil and gas leasing program on the OCS, including rulemaking and enforcement authority. The MMS also conducts extensive research into issues related to OCS development. There are currently 23 oil and gas platforms operating in federal waters off the California coast.
- 1984 National Fishing Enhancement Act (NFEA) (Public Law 98-623, Title I) recognizes the social and economic values of artificial reefs and establishes national standards for the development of artificial reefs.
- The National Artificial Reef Plan, written in 1985 pursuant to the NFEA, allows for the planning, siting, permitting, constructing, installing, monitoring, managing and maintenance of artificial reefs within and seaward of state jurisdictions. This includes the conversion of decommissioned oil and gas platforms into artificial reefs.
- The Energy Policy Act of 2005, section 388, added a new paragraph (p) to section 8 of OCSLA, 43 U.S.C. 1337, providing that MMS is authorized to issue a lease, easement or right-of-way on the OCS for activities that, among other things:
  - Produce or support production, transportation or transmission of energy from sources other than oil and gas; or
  - Use existing facilities on the OCS for energy-related purposes or for other marine-related purposes.

## 2.4 Oil and Gas Platform Decommissioning Alternatives under Consideration

The focus of the study will be on oil and gas platforms that will no longer be producing oil and gas. Oil and gas platforms, as referred to in this RFP, are considered to include the drilling rig and other topside facilities, the jacket, the conductors, all related infrastructure and utilities.

The study will focus on the following decommissioning alternatives as well as any additional alternatives identified by the Contractor (see also Figure 1 below and requirement for the contractor to categorize potential decommissioning alternatives in Section 4.2.1):

- A. **Total removal of platform.** This could include reuse, disposal, or recycling of the platform (or any combination thereof) on-shore.
- B. **Leave platform in place and reuse.** Possible examples of reuse include education, research, tourism, alternative energy production, aquaculture etc.
- C. **Structural alternatives:** There are three main types of structural alternatives.
  1. *Partial removal (“topping”):* This includes removing some portion of the rig, with the remaining structure below being left in place. It may also include enhancements (e.g., adding canopy or quarry rock as reef matter).
  2. *Topple* all or portion of platform in place.
  3. *Remove* platform and tow it to a different offshore location for disposal.

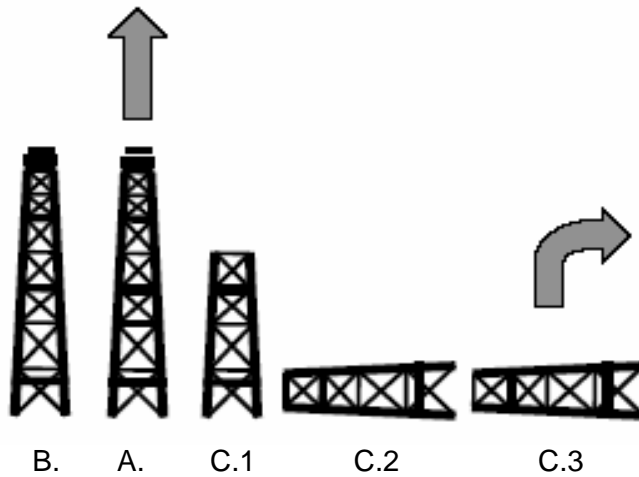
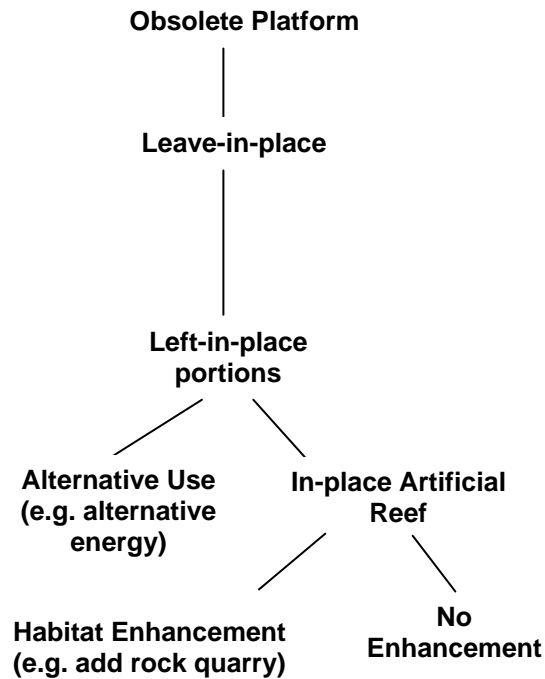


Figure 1. Summary of oil and gas platform decommissioning alternatives (Diagram from Holbrook et al. 2000)

These decommissioning alternatives are further described in Figure 2 below. Figure 2 illustrates that for the leave-in-place alternative (B) or the structural alternatives (C.1, C.2, and C.3), several removal options have been identified for disposing the removed including recycle, reuse, send to landfills, or to serve as material for artificial reefs.

Figure 2 also outlines the alternatives for what to do with the remaining portion of platforms (this applies to alternatives A, C.1, or C.2). In particular, platforms can be left in place (whole or in parts) as artificial reefs, which can also be enhanced by adding quarry rock or canopy. Alternatively, they can also be designated for other types of reuse (e.g., research, alternative energy, etc.).



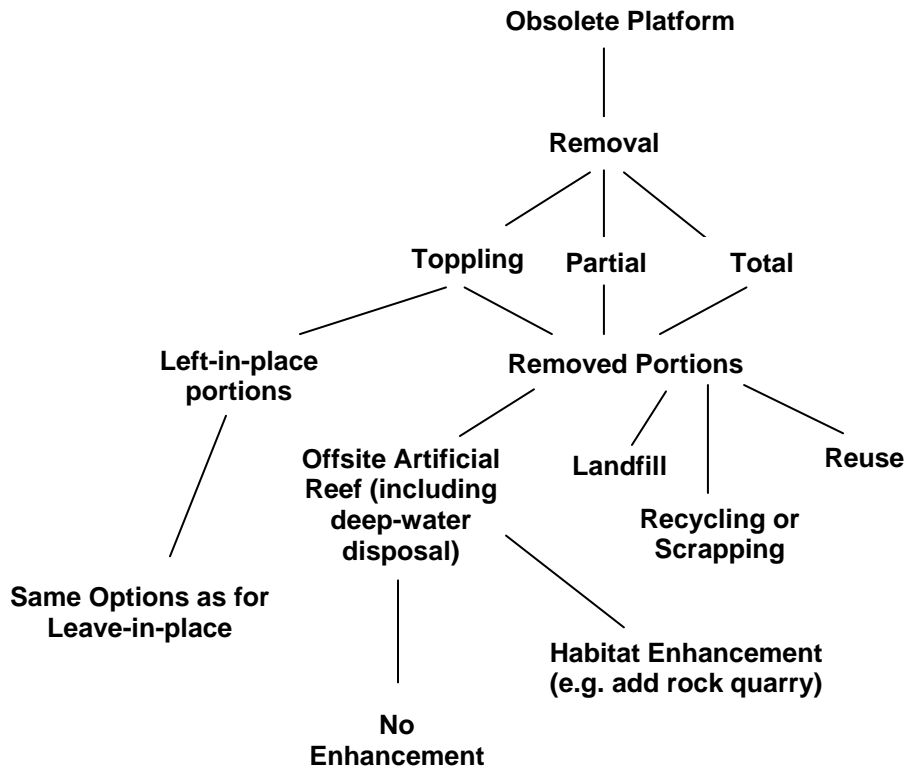


Figure 2. Decommissioning alternative flow chart for oil and gas platforms (Diagram adapted from Schroeder and Love 2004)

## 2.5 Programmatic Approach of RFP for Decommissioning of Oil and Gas Platforms

The California Ocean Science Trust anticipates an iterative process for evaluating decommissioning options for the State's oil and gas platforms.

The first step is the compilation and analysis of scientific, economic, legal, and other information needed to assess and compare the potential effects of the various decommissioning alternatives. The specific elements of this analysis are described further in Section 4.2.

The second step is the development of an analytical framework to support assessment of site-specific decommissioning proposals and, in particular, to elucidate the types of processes and analyses the State should undertake in considering such proposals. These future site-specific evaluations will consider more extensive information related to each decommissioning project at the time they occur. The State anticipates that this site-specific assessment, along with analyses required by NEPA and CEQA, will contribute significantly to the State's evaluation of specific, future, decommissioning projects.

## **2.6 Information Sources to Be Used to Prepare the Study**

See Appendix B for a partial list of information sources and references to relevant scientific and technical investigations. The Contractor will be expected both to draw fully on these resources and to develop additional ones as appropriate.

### **3. PROPOSAL REQUIREMENTS**

Bidders submitting a proposal must address all of the required sections identified below. Each component of the proposal must be complete and accurate. Any deviation from the work specifications, unless explained in full and to the satisfaction of the California Ocean Science Trust, will be considered sufficient cause for rejection of proposal.

#### **3.1 Summary of Information to Be Included in Proposal**

The proposal should be organized as follows and must include the following information. All pages must be numbered, and the text must be single spaced, 12 point font and with 1 inch borders on sides and top and bottom. Page counts identified in parentheses below represent the maximum desired length for each section.

Cover Letter (1 page): The cover letter, which shall be part of the proposal package, must be signed by the individual who is authorized to bind the bidder contractually. The cover letter should include the name of the bidders and key contact information, including mail and email addresses, and telephone numbers.

Table of Contents (1 page): Immediately following the cover letter, there must be a comprehensive Table of Contents of the material included in the proposal. The Table of Contents must clearly identify the section/subsection and the applicable page numbers.

Section A: Summary of Project Approach and Project Management (2 pages maximum): This section should include a brief description of the Bidder's analytical approach to accomplishing the tasks identified in the Scope of Work (Section 4). This should include a description of the approach and methods used for accomplishing each task outlined in Section 4.2. Bidders are encouraged to be innovative in their approaches to address the Scope of Work in the most effective manner possible. This section also should describe the management structure, including how the team and project will be organized and managed.

Section B: Description of Contracting Team (3 pages maximum): This section should list the proposed team members (along with a synopsis of their educational, expertise, and experience qualifications), and their projected roles for the proposed work. Resumes (not to exceed 3 pages each) should be at the end of the proposal for each team member. This section also should include a copy of any teams, subcontract, or other agreement between any parties that would be performing work as part of a team.

Section C: Relevant Work Experience (3 pages maximum): This section should include a list of relevant projects completed by the project team, including a clear description of work delivered, time frames, and fees. It should focus on projects of similar subject matter, size, and complexity.

Section D: Statement of Work Plan and Timeline (2 pages maximum): Include a work plan consistent with the timeline in section 1.6 for conducting and completing tasks, ending in submittal of the final report by December 2, 2009. This work plan should describe the proposed tasks. Priority will be given to proposals that can meet the aforementioned

deadlines for deliverables. If you are unable to meet these deadlines, please include a justification and a proposed alternate schedule.

Section E: Statement of Budget (3 pages maximum). Present a budget and budget narrative that includes an estimate of all labor, equipment, travel, and material expenses. The budget should include sufficient detail and justification that it will be understood easily by outside reviewers. Include description of matching funds (including in-kind), if available.

Section F: References (3 pages maximum). List three references for similar services performed within the last five years, including: project name, major tasks, contract amount, client name and contact information (phone and email).

Section G: Example of Summary Report. Provide one summary from past work (electronic copy is preferable) for a project of similar size and relatively similar subject matter.

Section H: Statement of Work (15 pages maximum). The Statement of Work should demonstrate a clear understanding of the project, the client's interests and needs, and the Bidder's proposed approach for achieving the project's objectives and tasks. Bidders are encouraged to be creative and innovative in their proposed approach for accomplishing the project goals in the most effective manner possible.

Key elements of the Statement of Work should include:

1. A detailed analytical approach for accomplishing the project's objectives and purpose.
2. Specific methods and approaches used to address the information needs identified in the Scope of Work (Section 4.2). This should include a description of the proposed methods and types of analysis the Bidder would use to address each of the eight tasks in Section 4.2 below.
3. The Contractor's approaches to data validation, including how the Contractor plans to validate data and studies prepared by industry. Any analytical models referenced should be cited appropriately.
4. Other critical information needs not identified in the Scope of Work that the Bidder believes should also be addressed as part of this study
5. A summary of which aspects of the project are likely to pose the greatest challenges and how the Bidder plans to deal with these challenges.
6. An explanation of how the Bidder will exercise quality control throughout the project.

Section I: Description of Key Elements of Final Report (1 page maximum). This section should briefly describe the anticipated format and structure of the Final Report.

### 3.2 Standard Conditions of Service

- a. Contractor's service shall be available **either five days** after all approvals have been obtained and the agreement is fully executed, or on the express date set by the California Ocean Science Trust and the Contractor. Should the Contractor fail to commence work at the time when service is required to be available, the California Ocean Science Trust reserves the right to terminate the agreement upon five days written notice to the Contractor. In addition, the Contractor shall be liable to the California Ocean Science Trust for the difference between Contractor's Proposal price and the actual cost of performing work.

- b. All performance under the agreement shall be completed on or before the termination date of the agreement.
- c. No oral understanding or agreement shall be binding on either party.

## **4. SCOPE OF WORK – REQUIRED TASKS AND DELIVERABLES**

### **4.1 Project Goals**

The primary goal of the study is to provide a science-based response to the following three overarching issues:

- What are the potential effects (positive and negative) of each decommissioning alternative over short and long time frames? What are the environmental, economic, and social consequences of each decommissioning alternative? How can we compare the effects of various decommissioning alternatives that might be possible at a given site?
- What processes and analyses should the State undertake to evaluate the consequences of each specific proposal to decommission a platform on a case-by-case basis? What site-specific information, along with analyses required by NEPA and CEQA, will be needed by the State to evaluate future decommissioning?
- Based on the existing legal, programmatic, and administrative framework, what additional mechanisms (legislative, programmatic, and administrative) would be required for the State to consider the full range of decommissioning alternatives?

Participants in the stakeholder workshop organized by the Resources Agency identified the questions in Box 1 (see 4.2) as highly relevant to decommissioning policy decisions. These questions, although not comprehensive, do touch on many and perhaps most of the issues relevant to decommissioning decisions. The Contractor should use these questions as a solid starting place for analyzing the various impacts of the decommissioning alternatives.

### **4.2 Required Tasks**

Required tasks that make up the Scope of Work include the following:

#### **4.2.1 Categorize the Potential Decommissioning Alternatives**

The Contractor will develop a categorization of the various decommissioning alternatives that encompasses the full range of potential options. This categorization will be used subsequently by the consultant to organize and summarize information about the impacts and characteristics of each option and to make comparisons among options. This categorization should include both options that are already being considered (e.g., Figure 1) and options that might arise over the next ten to fifteen years.

#### **4.2.2 Inventory Issues Associated with Decommissioning**

The Contractor will develop an inventory of the full range of issues that should be considered in evaluating the impacts, costs, and risks of various decommissioning alternatives. Such issues include:

- a. benefits;
- b. potential measures to enhance benefits and the costs/feasibility of these measures;
- c. harmful impacts;
- d. risks;
- e. potential risk mitigation actions and their costs/feasibility;
- f. implementation feasibility and costs;
- g. issues raised in the “Stakeholder Questions” (see Box 1). Topics include: biology/ecology/environment, economics, state administration, visual resources and esthetics, and alternatives uses;
- h. additional considerations identified by the Contractor.

To inform this effort, the Contractor will develop case studies of decommissioning projects that have occurred elsewhere (such as the Gulf of Mexico), including impacts, costs, unanticipated events/impacts, and policy and public processes lessons.

#### **4.2.3 Assess the Impacts, Costs, Risks, and Other Relevant Aspects of Each Potential Decommissioning Alternative**

The Contractor will assess and characterize each potential decommissioning alternative in terms of the full range of issues included in the inventory in 4.2.2. Information should be presented in narrative text and in a summary table.

#### **4.2.4 Inventory of the Context Issues that Might Affect the Outcome of Any Specific Decommissioning Project**

The Contractor will inventory and describe the full range of context-specific issues that might affect the impacts, costs, and risks of any particular decommissioning project. Examples include: location; proximity to marine protected areas (MPAs) or other specific ocean-use areas; local socioeconomic conditions; etc. The analysis should evaluate the relative significance of each particular context issue.

As part of this analysis, the Contractor should describe the benthic habitat of each platform that might be a candidate for decommissioning and discuss the relevance of regional distribution of hard substrate (see Box 1, Question 1 under “Key Question Related to Biology/Ecology/Environment”). Additionally, as the industry may choose to decommission several platforms in the same time period due to the expense, the Contractor specifically should address how the sequencing and proximity of decommissioned platforms might yield additive or compound ecological, environmental, and/or socioeconomic impacts.

#### **4.2.5 Identify Legal and Administrative Mechanisms for Decommissioning Alternatives**

The Contractor will outline the existing legal, programmatic, and administrative framework for implementing decommissioning alternatives. The Contractor should assess any gaps in the existing legal, programmatic, and administrative framework at both the State and Federal level and recommend specific mechanisms for filling these gaps in order for the State to be able to consider the full range of decommissioning alternatives.

#### **4.2.6 Develop Framework**

The Contractor shall develop an integrated framework that: a) makes it possible to synthesize information about the various issues laid out in 4.2.1 to 4.2.5 above for each decommissioning alternative; and b) enables comparison among alternatives.

#### **4.2.7 Recommend Processes, Questions, and Tools to the State for Evaluating Decommissioning Proposals**

The Contractor will make recommendations about the processes, questions, and tools that the State should use in evaluating future decommissioning proposals. Specifically, the Contractor should provide an approach that the State can use for case-by-case analyses of decommissioning proposals. This approach must address the various issues identified and compiled in 4.2.1 through 4.2.6 above and draw on the various disciplines described in Section 5.1 of this RFP. For example, how might the framework developed in 4.2.6 be integrated into State decision-making? Further, the recommended approach should include methods for managing liability and indemnification of any decommissioned platforms left wholly or partially in place. This analysis should identify information and resources that could be drawn upon for implementing the recommended approach and processes and how they might be accessed by the State. Critical information and resource gaps should be identified, and the Contractor should make recommendations as to how these gaps could be remedied.

#### **4.2.8 Answer Stakeholder Questions (Box 1)**

The Contractor specifically will answer the stakeholder questions identified in Box 1. They also should identify and answer any critical questions that were revealed through completion of the previous tasks – but not on the list in Box 1 – that would be relevant to various stakeholders and decision-makers.

## **Box 1: Stakeholder Questions**

*The key questions identified in this section were developed in consultation with interested stakeholders, the Inter-Agency Decommissioning Working Group and other technical experts, and Resources Agency staff and consultants.*

### **Key Questions Related to Biology/Ecology/Environment**

1. To provide regional context, and to clarify likely consequences of decommissioning alternatives to fisheries and other biological resources, analyze and discuss the following:
  - a. Using benthic habitat maps, estimate the regional contribution of platform substrate to hard substrate in State Tidelands and the federal Outer Continental Shelf, using available sea floor maps or other resources.
  - b. Using the best oceanographic, biological or other information available, estimate the range and degree of connectivity in early life history stages of key species between platform communities and natural communities. Key species include threatened, endangered, and managed species.
  - c. How do demographic rates (e.g., birth, death and migration rates) for key species vary between platform and natural habitats?
2. What changes may occur in species richness, diversity, density and biomass among the decommissioning alternatives when compared to (1) existing platform habitat, and (2) soft sediment habitat (simulating pre-construction conditions)?
3. What changes may occur in the distribution and abundance of key species among decommissioning alternatives? (This includes demolition and removal impacts.)
4. Given observed differences in habitat structure, oceanographic conditions, and typical species assemblages, how may trophic structure differ between platform and natural reef habitat? How would platform trophic structure change according to each decommissioning alternative?
5. What are the water quality impacts (e.g., oil spill risk, sediment and contaminant suspension) attributable to each decommissioning alternative?
6. What are the noise impacts to living marine resources (fish, marine mammals and birds etc) including those resulting from the use of explosives, attributable to each decommissioning alternative?
7. For an entire decommissioning project, which includes transportation to and from the site, on-station emissions, recycling, land filling, and ongoing maintenance impacts, what are the air pollution emissions (e.g., criteria pollutants, toxics, and greenhouse gases) attributable to each decommissioning alternative, where the analysis also includes the disposition of platform-associated shell mounds, and decommissioning of pipelines and power cables?
8. Among the "structural alternatives" for decommissioning (identified in section 2.4 above), compare and contrast the relative impacts between them (e.g., topping versus toppling, or removing versus towing).

### **Key Questions Related to Economics**

5. What are the economic and fiscal impacts to state and local government attributable to each of the following activities under the various platform decommissioning alternatives: a) commercial fishing; b) recreational and sport fishing; c) sport-diving; d) other industries/stakeholders that may be significant; and e) other impacts deemed appropriate by the study consultant?
6. What are the potential non-market benefits or costs from: a) habitat preservation or destruction (e.g., of sandy bottom); and b) impacts on key species (e.g., mussels, crabs, scallops, sea stars)?
7. What are the impacts on the oil and gas industry? Specifically: a) What are the economic and fiscal impacts associated with each of the decommissioning alternatives? b) What is the likelihood that these impacts would cause platforms to be decommissioned early? c) Do any of the decommissioning alternatives change the taxes paid by oil and gas companies to state and federal governments? What tax deductions could be taken? d) How would each decommissioning alternative change incentives to invest in future oil and gas activities?

1. What are the potential costs to state and local governments and non-profit agencies created by each decommissioning alternative? Who would be liable and what are the potential costs of this liability? Would moving liability to a nonprofit be feasible and save money?
2. How do you estimate and validate the costs and cost-savings associated with the various decommissioning alternatives? Include all mitigation costs.
3. How can state revenues from a rigs-to-reefs program be managed to ensure that these monies will result in an increase in funding for coastal and ocean environmental programs and not be offset by deductions in current funding? What alternatives could be utilized to ensure long-term security of funds for intended coastal and ocean environmental programs?
4. How do you estimate and validate the costs and cost-savings associated with the various decommissioning alternatives? Include all mitigation costs.

#### **Key Questions Related to State Administration**

##### Liability and Indemnification

1. Identify all types of liability that could arise under each decommissioning alternative. For example, the Bidder could examine case studies in the Gulf of Mexico regarding claims for personal injury and property damage from platform decommission and estimate any liability for a CA program.
2. What types of liability-limiting methods should be available to permittees under each decommissioning alternative?

##### Regulatory Enforcement and Institutional Control

3. Who will be responsible for managing the following activities post-decommissioning: safety, operations and maintenance, and enforcement of applicable regulations?
4. What is the feasibility and cost of maintaining adequate safety and navigational warning devices, and what are the liability consequences if they fail (e.g., refer to 4H platforms removal project)?
5. What federal and/or state regulatory and legislative changes might be needed to support each of the decommissioning alternatives? Specifically, what regulatory approvals and process would be required if a decommissioned platform was converted to any of the decommissioning alternatives?

##### Access and Ownership

6. What possible scenarios can be developed for access to a decommissioned platform site? This includes a variety of uses, e.g., fishing, diving, etc.
7. How is ownership of a site determined under each decommissioning alternative (National Fishing Enhancement Act 33 U.S.C. Sec. 2101 et seq.)?

#### **Key Questions Related to Visual Resources and Esthetics**

1. What are the positive and negative consequences to visual resources of all decommissioning alternatives? What is the nature and extent of visual and aesthetic impacts?
2. What are the durations of the visual and aesthetic impacts?

#### **Key Questions Related to Alternative Uses**

1. What are the possible alternative uses of decommissioned platforms (e.g. wind or wave energy extraction), and what are their consequences?
2. How would liability be assessed for each alternative use?

### **4.3 Guiding Principles for Analysis**

The Contractor shall:

1. Exercise quality control throughout the process and provide an explanation of how such quality control was achieved.
2. Rely on existing information, wherever possible, to address the study questions. A significant amount of information and data exist related to the issues and questions identified in Section 4.2. The Contractor will:
  - a. Access relevant expertise in the private sector, government, academia, NGOs and any other relevant organizations.
  - b. Use all appropriate sources of data (e.g., major state efforts).
  - c. Contact and seek input, as appropriate, from all parties with relevant expertise in the private sector, government, academia, NGOs, and any other relevant organizations.
  - d. Contact and seek input, as appropriate, from industry to gain a thorough understanding of the technical possibilities and limitations of the various decommissioning alternatives.
3. Specify where conclusions reached in the report are based on quantitative data versus qualitative analyses, and on peer reviewed versus grey literature and/or expert opinion.
4. Identify areas of scientific consensus and areas where scientific consensus is lacking
5. Identify key information gaps, if any; explain whether and how these gaps are relevant to decision-making; and identify the type of information and/or research that would be necessary to fill these gaps.

### **4.4 Summary of Major Deliverables to Be Provided as Part of the Study**

The Contractors should deliver the following products both electronically (either via email or CD). Please reference Section 1.6 for the timing of the products.

The major deliverables to be provided as part of the study include:

#### **4.4.1 Interim Deliverable**

The Interim Deliverable will include:

1. a report outline;
2. unanticipated challenges that the Contractor has encountered during the preliminary stages of the study;
3. adjustments the Contractor has made to the methods and work plan;
4. a working categorization of decommissioning alternatives as described in 4.2.1.
5. a preliminary outline of the legal, programmatic, and administrative mechanisms for decommissioning alternatives as described in 4.2.5.

The Interim Deliverable will be submitted to the California Ocean Science Trust. The Ocean Science Trust will provide this deliverable to the study the Advisory Committee for review. The Contractor will be provided with the resulting review comments prior to the Advisory Committee Meeting (4.4.2 and 4.4.3.)

#### **4.4.2 Agenda for Interim Advisory Committee Meeting**

The Contractor shall prepare a proposed agenda for the first Advisory Committee Meeting. This agenda will focus on key issues identified through the review process or during the initial phase of the study that would benefit from the Committee's deliberations and advice. The Advisory Committee meeting will serve as a forum for discussion and collaborative problem solving by the Contractor and the Committee members. The meeting will be facilitated jointly by the California Ocean Science Trust and the Advisory Committee.

#### **4.4.3 Participation in the Interim Advisory Committee Meeting**

The Contractor will participate in the Advisory Committee Meeting.

#### **4.4.4 Revised Outline**

Based on the Advisory Committee's comments and the work at the Advisory Committee Meeting, the Contractor will revise the interim deliverable as appropriate (e.g., the decommissioning categorization and the report outline).

#### **4.4.5 Mid-point Briefing and PowerPoint for Ocean and Coastal Policy Stakeholders and Members of the Inter-Agency Decommissioning Working Group**

The Contractor will coordinate with California Ocean Science Trust staff to conduct two ½-day briefings at the mid-point of the study. The first briefing will be with Ocean and Coastal Policy Stakeholders and the public. The purpose is to familiarize participants with status of the study. The second briefing will be with members of the Inter-Agency Decommissioning Working Group. The Contractor will assist California Ocean Science Trust staff in drafting agendas to guide the briefings. The Contractor shall prepare PowerPoint presentations to present at the briefings. To the extent that it is relevant and appropriate, the Contractor will integrate information developed through the briefings into the project analyses.

#### **4.4.6 Draft Report and Framework**

The draft (and final) report will include, at a minimum, the following sections:

- a. Executive Summary
- b. Chapter Summaries
- c. A discussion of each decommissioning alternative, based on the inventory of issues (see 4.2), including a focus on the potential long- and short-term effects of each decommissioning alternative and comparisons between the decommissioning alternatives, taking into consideration environmental, economic, and social factors. This will be presented in both narrative and tabular format.

- d. A discussion of the legal, programmatic, and administrative mechanisms (see 4.2.5) necessary for implementation of full range of decommissioning alternatives.
- e. A description and justification of the analytical framework developed to synthesize information about each decommissioning alternative and to make comparisons among alternatives (see 4.2.6).
- f. Answers to the Stakeholder Questions from Box 1.
- g. In each chapter, a discussion of how the Contractor synthesized the data. This should include a description of the assumptions and methodologies employed to obtain the results and conclusions, and any data limitations. This should also include a description of procedures used for data validation.
- h. Recommended guidance to the Resources Agency, including the analytical framework (see 4.2.6) to assess the site-specific decommissioning proposals.
- i. Recommendations on procedures for assessing and validating cost savings.
- j. Recommendations to the Resources Agency for managing liability and indemnification of any decommissioned platforms left wholly or partially in place.

The Contractor will prepare a complete Draft Report and deliver to the California Ocean Science Trust staff for review and comment. California Ocean Science Trust will send the draft report to the Advisory Committee (and additional reviewers, if deemed necessary) for review. The Contractor will review comments, meet with California Ocean Science Trust staff and the Advisory Committee to discuss how to respond to them, and revise the Report accordingly.

#### **4.4.7 Participate in Second Advisory Committee Meeting**

The Contractor will participate in a second meeting of the Study Advisory Committee. This meeting will focus on clarifying needed changes and refinements to the draft report and any gap-filling research and analysis that might be merited. As with the first meeting, this one is intended to serve as a forum for collaborative problem solving.

#### **4.4.8 Prepare Final Report**

The Contractor will prepare a Final Report and deliver 50 copies to the California Ocean Science Trust, along with a master electronic copy on a CD and via email so the California Ocean Science Trust can produce additional copies as needed.

#### **4.4.9 Conduct a Briefing for Resources Agency Staff, Ocean and Coastal Policy Stakeholders, and Members of the Inter-Agency Decommissioning Working Group**

The Contractor will prepare for and conduct a briefing of the study's final results. The briefing will include summary written materials and a PowerPoint presentation. The Contractor will work with California Ocean Science Trust staff to draft a detailed agenda for the briefings. All written materials provided by the Contractor will be made available over the OST website – at the OST's discretion.

- a. A briefing to present the Final Report to Resources Agency staff, Ocean and Coastal Stakeholders, and the Inter-Agency Decommissioning Working Group. This briefing will include summary written materials and a PowerPoint presentation of the study results.
- b. A PowerPoint presentation summarizing the study process, contents, conclusions, and recommendations to be used by Resource Agency staff for public presentations.

## 5. EVALUATION AND SELECTION OF CONTRACTOR

### 5.1 Selection Criteria

Selection of the Contractor will be based on the degree to which Bidders meet the following key selection criteria:

1. Scientific/technical expertise in the following areas:
  - Knowledge and familiarity with Pacific OCS oil and gas development;
  - Expertise with decommissioning procedures for all of the oil and gas platform decommissioning alternatives identified;
  - Engineering, including marine engineering and environmental engineering;
  - Socioeconomics, including expertise with fisheries and socioeconomic impact analyses, cost/benefit assessment, valuation of ecosystem services; and decision analysis;
  - Fisheries biology, including experience with California marine fisheries;
  - Ecology, including expertise with evaluating ecosystem structure and function
  - Knowledge of California coastal and marine policy, law, and regulations;
  - Knowledge of CEQA and NEPA processes;
  - Air quality;
  - Water quality;
  - Hazardous and toxic pollutants, including expertise in fate and effects;
  - Underwater noise and vibration impacts; and
  - Regional oceanography, geology, and geography.
  - Geographic Information Science (GIS).
2. Project management experience, expertise, and skills:
  - Proven track record in completing contracts on time and on budget.
  - Experience managing and working in multiparty, multidisciplinary teams.
  - Project management tools and skills.
3. Demonstrated experience in science advising for public policy, and appreciation for the policy context of this assignment.
4. Ability to prepare clearly written reports. This includes clear and effective communication of data sources, methods, assumptions, results, and management implications. Additionally, the Contractor must possess the ability to make clear and effective verbal presentations, which may include visual aids.
5. Ability and commitment to accomplish the work outlined in the Scope of Work to meet the project timeline.
6. A full disclosure statement from the Bidder of potential or perceived conflicts of interest.

## 5.2 Proposal Evaluation Process

Each proposal will undergo review and evaluation by external reviewers and an Advisory Committee appointed by California Ocean Science Trust. Proposals will be evaluated based on the scoring system described below. Total score will consist of the sum of the score for the proposal (which includes a score for the proposed cost) and the score for the interview performance.

### 5.2.1 Evaluation of Proposals

Reviewers will review, comment, and rank proposals according to the objectives of the RFP, using the following scoring system as a guide.

Criteria	Points
<b>1. Team: Organization, Experience and Qualifications (as validated by references)</b>	<b>25</b>
a. Team organization, appropriateness of staffing, and availability of requisite expertise. This includes extent of team members' experience working together and clarity of expectations regarding what each team member will provide.	
b. Team member qualifications for all technical areas and tasks identified; relevance of experience and expertise of the proposed team.	
c. Experience and expertise in working with federal, state, and/or local government agencies in science advising for public policy.	
d. Demonstrated proficiency in writing reports and providing briefings. Depth and quality of example report.	
<b>2. Project Approach</b>	<b>45</b>
a. Demonstrated understanding of project objectives, available information, Scope of Work, and deliverables.	
b. Completeness and feasibility of the proposed work plan, including schedule with milestones.	
c. Proposed approach and methods to address the required tasks identified in section 4.2. Attention will be placed on the Bidder's approach to addressing the information needs described in 4.2, as well as the Contractor's identification of key issues not described in the RFP. This also includes the Bidder's proposed approach to validate data sources.	
d. Proposed organization of final report.	
<b>3. Project Administration: Project management and costs</b>	<b>30</b>
a. Project management, capacity and approach, program controls, communication with OST and Advisory Committee, and adequacy of subcontracting process (if any).	
b. Experience in effectively and successfully managing and completing similar projects on time and within budget.	
c. The Proposal clearly and adequately demonstrates	

how the project tasks will be accomplished within the budget. The Proposal clearly and adequately allocates funding to project tasks and appropriately allocates funding to the team members who will be responsible for the work. The Proposal also includes written verification that the work contained in proposal will be provided within the budget allocated for this project.	
<b>TOTAL</b>	<b>100</b>

### 5.2.2 Performance in Interview

Please note that only Bidders receiving the highest scores on their proposals will be interviewed. The OST will interview no more than five Bidders. The selection committee will evaluate the Bidder's description and justification of project approach and answers to questions posed by review committee.

## Appendix A

### Definition of Key Terms

Artificial reef: A structure that is constructed or placed in waters for the purpose of enhancing fishery and/or marine resources.

Conversion (of existing oil and gas rigs): The process of converting a decommissioned oil or gas platform to another use.

Decommissioning: As stated in Title 30 Code of Federal Regulations, Section 250.1700: "Decommissioning means: (1) ending oil, gas, or sulfur operations; and (2) returning the lease or pipeline right-of-way to a condition that meets the requirements of regulations of Minerals Management Service and other agencies that have jurisdiction over decommissioning activities."

Decommissioning alternatives: the ways in which a decommissioned oil or gas platform can be treated after cessation of production, including: a. Total Removal of Platform and all related infrastructure; b. Leave Platform in Place and Reuse; c. Leave Platform in Place with partial dismantling; may include enhancements such as rock or canopy; d. Topple Platform in Place; e. Remove Platform and tow it to a different location.

Facility: A producing oil or gas platform and all related infrastructure.

Natural reef: A naturally occurring and persistent hard structure formation composed of rock, hard-packed sediment or similar naturally occurring material.

Platform: Includes the drilling rig and other topside facilities, the jacket, the conductors, all related infrastructure and utilities.

Reuse (of existing oil and gas rigs): The potential new use of all or part of a former oil or gas platform after it has been decommissioned.

Rigs to Reef: Decommissioning alternatives that involve leaving all or part of an abandoned platform structure in the marine environment for the purposes of establishing an artificial reef (see above).

## Appendix B

### Information Resources

*The information below is based on an initial review. It is considered to be partial. The Contractor is expected to utilize additional information sources, as appropriate.*

#### Web Sites

There are several web sites that contain information that can be used when undertaking the study, including:

1. The federal Minerals Management Service Technology Assessment and Research Program maintains a website focusing on decommissioning activities and information resources that the contractor will find useful. See: <http://www.mms.gov/tarprojectcategories/decommis.htm>
2. Off-Shore Environment.com, a collection of sources and research findings from several countries. See: <http://www.offshore-environment.com/decomlinks.html>
3. Compass on-line; includes references and reports from scientists, agencies, industry and environmental groups. See: [http://www.compassonline.org/pdf\\_files/SLB\\_6\\_06\\_References.pdf](http://www.compassonline.org/pdf_files/SLB_6_06_References.pdf)

#### References/Citations (Partial Bibliography)

References which provide a good overview of oil and gas decommissioning issues are marked with an \*. Many of the materials listed below can be found on-line. The OST will provide the Contractor with an Endnote database with the following references:

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Gitschlag, G. R., M. J. Schirripa, and J. E. Powers. 2001. Estimation of fisheries impacts due to underwater explosives used to sever and salvage oil and gas platforms in the U.S. Gulf of Mexico. A final report prepared by the National Marine Fisheries Service for the U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. Contract No. IA-17912. OCS Study MMS 2000-87. 94 pp.

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