

BOEM ENVIRONMENTAL STUDIES PROGRAM: Ongoing Studies

Region: Pacific OCS Region

Planning Area(s): Washington, Oregon, California

Title: Inventory and Analysis of Coastal and Submerged Archaeological Site Occurrence on the Pacific OCS

BOEM Information Need(s) to be Addressed: Development of energy and mineral resources on the Outer Continental Shelf off the west coast of the United States is expected to continue, whether as a result of the opportunity for development of renewable energy resources created by the Energy Policy Act of 2005, the possible inclusion of areas off California on a 5-Year Oil and Natural Gas Leasing Program, or proposals by developers for exploiting strategic mineral resources. Therefore, a complete understanding of known and potential submerged cultural resources, as well as an understanding of potential visual impacts to coastal historic properties will be crucial for environmental assessment and mitigation of potential adverse affects to these resources. The study “Inventory and Analysis of Coastal and Submerged Archaeological Site Occurrence on the Pacific OCS” will address the issue. This information is necessary under Section 106 of the National Historic Preservation Act and Executive Order 11593, which require that Federal agencies must apply the National Register Criteria to properties that may be affected by a Federal undertaking.

Total BOEM Cost: \$642,229.01

Period of Performance: FY 2011-2013

Conducting Organization: ICF International Jones and Stokes

Principal Investigators: Dana McGowan, Michael Bever

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Description:

Background: It’s been over twenty years since any type of archaeological study has been completed on the Pacific OCS for BOEM. The study *Archaeological Resource Study: Morro Bay to Mexican Border*, completed in 1987, evaluated potential submerged archaeological resources along the southern coast of California; and the study *California, Oregon and Washington Archaeological Resource Study*, volumes I through VI, completed in 1990, assessed potential submerged archaeological resources from Morro Bay, California, north to the Canadian border. Since that time, there have been a number of significant archaeological discoveries along the Pacific coast, including both historic shipwrecks and submerged prehistoric sites. Additionally, an assessment of the potential for visual impacts from offshore energy development to coastal properties that are either listed on, or eligible for listing on the National Register of Historic Places has never been conducted along the Pacific coast. These properties include historic structures, historic archaeological sites, and prehistoric archaeological sites.

The Pacific Coastline is lined with many historic properties that potentially could be impacted visually. The determination of adverse impacts to historic properties (either physical or visual) is a requirement of Section 106 of the NHPA. The basis for making the determination of whether a property is adversely impacted depends upon the description within the property listing or the archaeological and historic assessment of the property. If within the description the rationale for listing the property or its potential eligibility includes the visual aspects of its surroundings, then the property may be adversely impacted by visual disruption. Analyses under the National Environmental Policy Act will be made as to whether visual impacts could affect the revenue from the property. In particular where a property is open to the public for a fee, a concern is whether visitation of the property would be affected by an altered visual experience. The first step in making this evaluation is to determine which properties are open to the public and what level of visitation occurs.

As a result, there is a critical need to update baseline studies, identify areas where inundated prehistoric sites might be located, develop a digital database of known and reported submerged cultural resources, and a digital database of coastal historic properties along the Pacific OCS. A similar effort is nearing completion for the Atlantic OCS (GM-08-10 and GM-09-10).

Objectives: While remote sensing surveys will be required of permittees for all offshore activities within the area of potential effect, an inventory of potential submerged archaeological resources developed by the proposed study will help guide decisionmakers in developing appropriate mitigation strategies and best management strategies for targets located by remote sensing; the development of an effective survey strategy is contingent upon knowing the nature of these resources and where they most likely may be located. The objectives of this study are to develop digital inventories of known, reported, and potential submerged archaeological sites for the Pacific OCS, similar to what has been developed for the Atlantic and Gulf of Mexico Regions, and listed or potentially eligible coastal properties that could be impacted through BOEM-permitted undertakings. The proposed study will develop an inventory of historic shipwrecks, emphasizing the use of primary historic sources; assess areas of the Pacific OCS for prehistoric site potential and develop a model for where prehistoric sites might be expected; recommend appropriate survey methodology in order to detect and avoid impacts to such resources; and develop an inventory of coastal historic properties. The database and survey strategy should incorporate the entire West Coast of the United States.

Methods: Using the previous two Pacific Region studies as a baseline, the proposed study will synthesize data collected over the past 20 years to develop an inventory of historic shipwrecks emphasizing the use of original sources; assess areas of the OCS for prehistoric site potential by evaluating current theories on prehistoric settlement patterns, paleo- shorelines, sea level rise, and regional geology; and synthesize this information to recommend an appropriate survey methodology in order to detect and avoid impacts to archaeological resources. The database will be developed using the same format as the current GOMR and Atlantic shipwreck databases and should link to a Geographic Information System (GIS) compatible to the existing BOEM GIS.

Current Status: The study was awarded 6/21/2011, and a post-award meeting was held on 8/18/11. Revisions to the existing BOEM shipwreck databases have been made and a revised database for the Pacific OCS was submitted for review in November 2011. Data collection of existing shipwreck databases, collection of paleoshoreline information and literature review of paleoenvironmental information, and data collection of coastal cultural resources is on-going. A draft database of coastal properties was also developed for BOEM review.

Final Report Due: June 2013

Publications Completed: None at this time.

WWW sites: None at this time.

Revised Date: April 18, 2012