

BOEM ENVIRONMENTAL STUDIES PROGRAM: ONGOING STUDIES

BOEM OCS Region: [Gulf of Mexico](#)

Title: Gulf Coast Subsidence and Wetland Loss: A Synthesis of Recent Research (GM-92-42-131)

Planning Area: Gulfwide

Total Cost: \$67,031

Period of Performance: FY 2007 – 2009

Conducting Organization: [Coastal Marine Institute](#), Louisiana State University

BOEM Contact: [Dr. Harry Luton](#)

Description:

Background: The subsidence of lowlands has been one of the major causes of coastal land loss along Louisiana's coast. In 1988, the BOEM (formerly MMS) funded a study conducted by Turner and Cahoon to determine the extent to which offshore oil and gas activities in the Gulf of Mexico Region (GOMR) were contributing to the alteration of Gulf coast states' coastal ecosystems, in particular, the well-documented wetland losses. Since the time of that study, the subsidence debate continues to unfold and develop as new research, analyses, and methods (e.g., additional core data, remotely sensed images, Global Positioning System data, radiocarbon dating, and National Geodetic Survey benchmarks) are employed to address the problem and offer innovative solutions for reversing wetland loss.

Objectives: This project proposes to conduct an extensive literature review of recent research examining the determining factors of coastal land loss and its implications for exploration and production (E&P) activities in the Outer Continental Shelf (OCS). A descriptive and qualitative approach will be facilitated through the use of recent analyses, reports, and studies from governmental agencies, research institutes, and the private sector. This synthesis of existing research will explore the changing nature of the subsidence debate since Turner and Cahoon's 1988 BOEM (formerly MMS)-funded study. The project will focus on the primary issues associated with coastal subsidence and land loss, with a particular focus on the implications that its occurrence has upon the Gulf coast and the communities and business of the region.

Methods: The methods utilized in this project will focus exclusively on research from secondary sources. The study will use a descriptive and qualitative approach. The secondary sources of information that will be reviewed include: research institute analyses; newspaper articles; government reports; trade journal articles; and trade association reports. To the extent that any energy company studies on subsidence are publicly available, these will also be consulted and synthesized into the current study.

Products: Final report, comprehensive bibliography.

Importance to BOEM: The results of this research project will provide BOEM with an unbiased view of the subsidence debate and its potential effects on the Gulf of Mexico's energy industry. The research will highlight and quantify important potential socioeconomic impacts of coastal land loss that can be included in future EIS analyses of upcoming lease sales. Understanding the localized and regional nature of subsidence, including its underlying causes, will be important in determining the impact of future coastal land loss on upcoming lease sales and offshore activities.

Current Status: This project was delayed one year due to the PI accepting a new position. BOEM has received and reviewed the draft study. The draft final report is going through the final BOEM review process.

Final Report Due: May 2009

Publications: None

Affiliated WWW Sites: [Coastal Marine Institute](#), Louisiana State University

Revised date: January 2012

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