Status of Marine Minerals Environmental Studies as of September 25, 2006

Total MMS Environmental Studies Program (ESP) $ Allocated to Date: $13,730,896

Total of All $ Allocated to Date on Marine Mineral Environmental Efforts (includes funds from all sources, e.g. ESP, USGS/BRD, LSU-CMI Matching Funds, LDNR, Marine Mineral Program Funds): $17,095,945

Compiled by:

Barry S. Drucker, Physical Scientist/Physical Oceanographer

MMS Leasing Division

Marine Minerals Program

Study Title	Awarded Amount
COMPLETED STUDIES	
Generic	
Marine Mining Literature Search Study (OCS Study 93-0006, March 1993)	$155,000
Marine Mining Mitigation and Technology Study (OCS Report 95-0003, July 1996)	$180,000
Marine Mining Placer Mining Test (Progress reports available)	$60,000
West Florida Shelf Benthic Repopulation Study (OCS Report 95-0005, Sept. 1996)	$425,000
Synthesis of Hard Mineral Resources on the Florida Panhandle Shelf (Final Report completed Sept. 1998)	$149,782
A Numerical Modeling Examination of the Cumulative Physical Effects of Offshore Sand Dredging for Beach Nourishment (MMS Study 2001-098, March 2003)	$200,000
Development of Criteria to Evaluate Wave Refraction Models (OCS Study 99-0096, Oct. 1999)	$60,000
Design of a Monitoring Protocol/Plan for Environmentally Sound Management and Development of Federal Offshore Sand Borrow Areas Along the United States East and Gulf of Mexico Coasts (OCS Study 2001-089, Oct. 2001)	$351,296
Model Development or Modification for Analysis of Benthic and Surface Plume Generation and Extent During Offshore Dredging Operations (Final model delivered December 2003)	$200,000
Worldwide Analysis of Shipwreck Damage Caused by Offshore Dredging: Recommendations for Pre-Operational Surveys and Mitigation to Avoid Adverse Impacts (OCS Study 2004-0005, Feb. 2004)	$123,327
Review of Existing and Emerging Environmentally Friendly Offshore Dredging Technologies (OCS Study MMS 2004-076, November 2004)	$176,664

Focused Analysis/Review of Benthic Assemblages on Ridge and Shoal Features of the U. S. East and Gulf of Mexico Coasts (Conducted by USGS/BRD)	Total BRD $, one-year effort: $210,000
Environmental Investigation of the Use of Shoals Offshore Delaware and Maryland by Mobile Benthos and Finfish Species (Versar/OCS Study MMS 2005-042 – Report Title: Comparisons Between Marine Communities Residing on Sand Shoals and Uniform-Bottom Substrate in the Mid-Atlantic Bight)	$500,000
Field Testing of a Physical/ Biological Monitoring Methodology for Offshore Dredging and Mining Operations (Cooperative Agreement with Virginia Institute of Marine Science) OCS Study MMS 2005-056)	$669,821
Study to Address the Issue of Seafloor Stability and the Impact of Sand Dredging Activities on Oil and Gas Infrastructure in the Gulf of Mexico (Baird and Associates/OCS Study MMS 2005-043)	$110,000
	Total of Completed Generic Efforts: $3,570,890
Site-Specific	
Environmental Surveys of OCS Sand Resources off Virginia (OCS Report 97-0025, January 1998)	$420,000
Wave Climate Modeling and Evaluation Relative to Sand Mining on Ship Shoal, Offshore LA, for Coastal and Barrier Islands Restoration (OCS Study 96-0059, Oct. 1996)	$396,171
Environmental Surveys of OCS Sand Resources Offshore Alabama (OCS Study 99-0051, Sept. 1999)	$498,943
Environmental Report: Use of Federal Sand Resources for Beach and Coastal Restoration in New Jersey, Maryland, Delaware and Virginia (OCS Study MMS 99-0036**,** November 1999) ***Note: This was not funded using ESP dollars.***	$450,000
Surveys of Sand Resource Areas Offshore Maryland/Delaware and the Environmental Implications of Sand Removal for Beach Restoration Projects (OCS Study 2000-055, August 2000)	$384,241
Environmental Surveys of OCS Sand Resources Offshore New Jersey (OCS Study 2000-052, Dec. 2000)	$599,048
Wave Climate and Bottom Boundary Layer Dynamics with Implications for Offshore Sand Mining and Barrier Island Replenishment, South-Central Louisiana (OCS Study 2000-053, Dec. 2000)	$393,671
Collection of Environmental Data Within Sand Resource Areas Offshore North Carolina and the Environmental Implications of Sand Removal for Coastal and Beach Restoration (OCS Study 2000-056, Sept. 2003)	$499,969
Environmental Surveys of Potential Borrow Areas Offshore Northern New Jersey and Southern New York and the Environmental Implications of Sand Removal for Coastal and Beach Restoration (OCS Study 2004-044, November 2004)	$500,000
Environmental Surveys of Potential Borrow Areas on the East Florida Shelf and the Environmental Implications of Sand Removal for Coastal and Beach Restoration (OCS Study 2004-037, January 2005)	$550,000
Winter Waterbird Survey of Offshore Shoals From Northern New Jersey to the Virginia/North Carolina	$25,000

Border (Interagency Agreement with Fish and Wildlife Service)	
	Total of Completed Site-Specific Efforts: $4,717,043
Aggregate Studies	
Investigation of Benthic and Surface Plumes Associated With Marine Aggregate Dredging Activities (OCS Study 99-0029, July 1999)	$140,000
Study of the Cumulative Effects of Marine Aggregate Dredging (OCS Study 99-030, Feb. 1999)	$100,000
Integrated Study of the Biological and Physical Effects of Marine Aggregate Dredging (OCS Study 2000-054, October 2002)	$320,000
	Total of Completed Aggregate Dredging Effects Efforts: $560,000
	Total $ Expended for All Completed Efforts: $8,847,933
ONGOING STUDIES (Contracted)	
Analysis of Potential Biological and Physical Dredging Impacts on Offshore Ridge and Shoal Features/Engineering Alternatives and Options to Avoid Adverse Environmental Impacts (Generic/Continental Shelf Associates)	$400,000
Worldwide Survey of Dredging Impacts on Commercial and Recreational Fisheries and Analysis of Available Mitigation Measures to Protect and Preserve Resources (Generic/EMU, Limited) ***Note: Interim reports are available on MMS website.***	$249,849
Biological Characterization/Numerical Wave Model Analysis within Identified Borrow Sites Offshore the West Coast of Florida/Physical Implications of Sand Dredging on the Topography of the West Florida Shelf (Site-Specific/Scientific Environmental Applications, Inc.)	$517,959
Biological Characterization/Numerical Wave Model Analysis within Identified Borrow Sites Offshore the Northeast Coast of Florida (Site-Specific/Scientific Environmental Applications, Inc.)	$524,248
Examination of the Physical and Biological Implications of Using Buried Channel Deposits and Other Non-Topographic Offshore Features as Beach Nourishment Material (Generic/Baird and Associates)	$299,957
Investigation of Dredging Guidelines to Maintain and Protect the Integrity of Offshore Ridge and Shoal Regimes/Detailed Morphologic Evaluation of Offshore Shoals (Generic/Baird and Associates)	$400,000

Critical Technical Review of MMS Site-Specific Studies Techniques (Generic/Research Planning, Inc.)	$100,000
	Total, Ongoing Contracted Studies: $2,592,013
ONGOING COOPERATIVE and INTER-AGENCY AGREEMENTS	
Environmental Investigation of the Long-Term Use of Ship Shoal Sand Resources for Large-Scale Beach and Coastal Restoration in Louisiana (Cooperative Agreement with Louisiana State University) (Co-funded with Louisiana Department of Natural Resources)	$600,000 (MMS $) ***(LDNR providing additional $600,000 – total project cost is $1.2 million)***
Environmental Investigation of the Long-Term Use of Trinity and Tiger Shoals for Large-Scale Beach and Coastal Restoration in Louisiana (Cooperative Agreement with Louisiana State University)	$700,000
	Total, Ongoing Cooperative Agreements, MMS $ Only: $1,300,000
ONGOING STUDIES - MMS/LSU COASTAL MARINE INSTITUTE	
Wave-Bottom Interaction and Bottom Boundary Layer Dynamics in Evaluating Sand Mining at Sabine Bank for Coastal Restoration, Southwest Louisiana	MMS: $345,172 (LSU Match: $349,671)
Ship Shoal, Louisiana: Sand, Shrimp, and Seatrout Investigation	MMS: $145,778 (LSU Match: $145,877)
New WAVCIS Ocean Observing System on Ship Shoal, Louisiana (***Note: match money being provided by LDNR)***	MMS: $500,000 (LDNR Match: $500,000)
	Total, Ongoing MMS/LSU CMI (MMS $ only): $990,950)
	Total, Ongoing MMS/LSU CMI

	Studies including match money: $1,490,950
	Total of all ongoing studies (MMS $ only): $4,882,963
ONGOING MARINE MINERAL ENVIRONMENTAL STUDY EFFORTS BEING CONDUCTED BY USGS BIOLOGICAL RESOURCES DIVISION (USGS-BRD)	
Investigation of Finfish Assemblages and Benthic Habitats Within Potential Borrow Areas in Federal Waters Offshore Southeastern Texas and Southwestern Louisiana (Site-Specific) ***Note: interim reports are available on MMS website.***	Total BRD $ over 3 years: $1,020,000
Utilization of Benthic Communities by Fish Populations on Ridge and Shoal Features (Ship Shoal)	Total BRD $ over 4 years: $540,000
	Total BRD $: $1,770,000