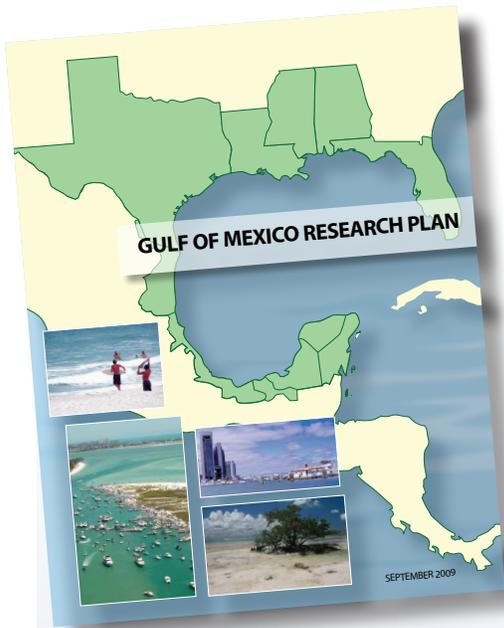


# Gulf of Mexico Research Plan

## Deepwater Horizon Oil Spill Rapid Research Needs Assessment



### BACKGROUND

The Gulf of Mexico Research Plan (GMRP) was released in September 2009. The implementation of the plan is under way and is coordinated by the four Gulf of Mexico Sea Grant college programs and guided by a Planning and Review Council. The plan was developed with input from:

- More than 260 universities, government agencies, businesses, NGOs and other organizations,
- More than 1,500 people with over 20,000 years of professional experience through a survey, and
- Approximately 300 people who participated in five regional research planning workshops.

The GMRP is intended for broad use as a research guidance document for academic, governmental and other research activities in the Gulf of Mexico. As of June 2010, at least fourteen groups are incorporating the GMRP in their strategic planning and/or request for proposals, which have been used to fund millions of dollars of research.

### GMRP MISSION

To identify priority research needs for the Gulf of Mexico through broad constituent input and to implement strategies to address these needs.

### OIL SPILL RESEARCH ADDENDUM TO GMRP

In order to be responsive to current events, an addendum to the GMRP is under way that focuses on oil related research priorities. The rapid assessment of needs initiated with a survey that was sent to Gulf of Mexico leaders from the research and resource management communities. This initial survey collected immediate and mid- to long-term economic, environmental and social research needs. The next step is to widely distribute a comprehensive survey to the Gulf of Mexico research community and beyond. The same network will be used to disseminate the original GMRP survey, and there is anticipation that more than 2,000 people will provide input through this process.

The results from the needs assessment and possible follow-on activities, such as workshops and results from other planning activities, will be used to create an addendum to the GMRP. The addendum will be widely distributed and the GMRP coordinator will work with individual groups to provide customized results that meet specific needs. This may include groups that want priorities that were identified for a specific state or topic area.

### CONTRIBUTE TO THIS EFFORT

To be successful this GMRP addendum needs input from as many stakeholders as possible. Please go to the following website to enter your contact information: [www.surveymonkey.com/s/oilresearchemail](http://www.surveymonkey.com/s/oilresearchemail). Once the comprehensive survey is ready for release we will send you information to complete it.

### MORE INFORMATION

The GMRP is available online at: [www.masgc.org/gmrp](http://www.masgc.org/gmrp). Please contact Steve Sempier, Sea Grant Gulf of Mexico Research planning coordinator, at [stephen.sempier@usm.edu](mailto:stephen.sempier@usm.edu) for more information.

# Inventory of Oil Spill Research and Monitoring Activities

## BACKGROUND

With multiple agencies, contractors and grantees carrying out a diverse array of research projects responding to the Deepwater Horizon oil spill in the Gulf of Mexico, there is an urgent need to coordinate research activities to ensure the best use of resources.

## APPROACH

To further enhance the coordination of oil-spill research in the Gulf, a team is leading the charge to develop and host a web-based clearinghouse that will provide one-stop location for investigators and funding agencies. The Gulf of Mexico Sea Grant Programs and NOAA National Coastal Data Development Center are leading this effort and the NOAA Gulf of Mexico Regional Team, Gulf of Mexico Coastal Ocean Observing System, Northern Gulf Institute and other partners in the region are contributing to the clearinghouse. The clearinghouse will include basic information on oil spill related research projects and monitoring activities.

The web-based clearinghouse will allow users to enter information about current oil spill research or monitoring activities or perform searches and queries to access information that others had entered. The information requested for each project will be relatively minimal in order to reduce burden on researchers. Preliminary development of the online clearinghouse is already under way, and the site will be available in mid-June 2010. The Gulf of Mexico Sea Grant Programs are collecting information regarding university-based oil-spill related research in order to expedite the development of the clearinghouse and sharing of activities.

## LOCATION

Once the framework is complete, users can enter and access the information through the Gulf of Mexico Sea Grant website: [gulfseagrant.org](http://gulfseagrant.org).

## QUESTIONS

Please contact Steve Sempier, Sea Grant Gulf of Mexico research planning coordinator, at [stephen.sempier@usm.edu](mailto:stephen.sempier@usm.edu) or Russ Beard, director, National Coastal Data Development Center at [Russ.Beard@noaa.gov](mailto:Russ.Beard@noaa.gov) for more information.

## CLEARINGHOUSE PARTNERS (AS OF JUNE 1, 2010)



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# GULF OF MEXICO RESEARCH PLAN

## Deepwater Horizon Oil Spill Research Needs Survey

### PRELIMINARY RESULTS

The group that developed the Gulf of Mexico Research Plan (GMRP) has begun an effort to rapidly identify oil spill related research needs as an addendum to the GMRP. Phase one of this effort was to survey a small group of leaders in the research community (researchers, research administrators and research users) to identify economic, environmental and social research needs. The results of this survey are provided below. The next phase of this multi-phase effort is a comprehensive survey that will be sent to thousands of people within the research community. The GMRP website is: [www.masgc.org/gmrp](http://www.masgc.org/gmrp).

Table 1. Common themes from phase one of the Gulf of Mexico Research Plan Rapid Research Needs Survey for the Deepwater Horizon Oil Spill, number of times comments were mentioned in a theme and weighted score of theme.

Theme	Number of Comments			Weighted score*	
	Total	Immediate research need	Mid- to long term-research need		Additional research need
Communities	66	34	26	6	198
Ecosystem Impacts	56	33	19	4	170
Fisheries	35	18	17	0	127
Restoration Post-Spill	25	12	13	0	77
Tourism	18	13	5	0	56
Ecosystem Services	17	7	10	0	64
Impacts from Dispersants	13	9	3	1	40
Displaced People and Workers	12	4	6	2	35
Seafood Industry	11	6	5	0	36
Oil and Alternative Energy	10	5	5	0	24
Communication	8	1	2	5	15
Modeling and Tracking Oil	6	1	5	0	50
Impacts to Individuals	6	4	2	0	20
Social Networks and Systems	5	1	4	0	23
Policy	5	2	3	0	15
Human Health	4	1	1	2	10
Legal Research	4	2	0	2	8
Microbes Role	3	2	1	0	8
Impacts on Tax Base	3	0	2	1	7
Observation Systems	3	1	1	1	6
Methane	2	1	1	0	8
Perceptions of Oil Spill	2	2	0	0	8
Miscellaneous	2	2	0	0	6
<b>Total</b>	<b>316</b>	<b>161</b>	<b>131</b>	<b>24</b>	<b>1011</b>

\* Weighted score is based on whether the research need within the theme was mentioned as the number 1, 2, 3 or additional priority. More weight was given for a number 1 priority than a number 3 priority.

## **SAMPLE OF RESEARCH NEEDS IDENTIFIED BY SURVEY RESPONDENTS**

### **Communities**

- Identify the most effective and efficient types of assistance to foster economic recovery
- Examine attitudes, perceptions and beliefs of resource-dependent communities to assist them in finding alternative livelihoods
- Determine the economic impact of the spill on the various coastal zone segments and economies
- Examine, record and document the intangible cultural heritage of displaced people
- Assess the current status and well-being, vulnerability and resilience of coastal communities

### **Ecosystem Impacts**

- Estimate the extent and duration of environmental impacts to inform damage assessment efforts
- Examine the impacts of the spill on food webs and life histories (life stages and recruitment) of aquatic organisms
- Evaluate which floral and faunal communities are the most endangered due to the oil spill
- Determine the impacts to barrier island, water column, coastal, nearshore and deepwater habitats and organisms

### **Fisheries**

- Assess the economic losses to commercial fishing interests
- Examine the impacts on commercial, for-hire and recreational fisheries if recruitment levels of targeted species are affected
- Determine the effects of oil and chemicals on fisheries to inform how to expedite reopening fisheries
- Estimate when different types of fisheries rebound to levels prior to the spill

### **Restoration Post-Spill**

- Evaluate the effectiveness of different response and restoration activities to protect and foster recovery of habitats and species
- Examine the economic costs and time to restore seagrass beds, oyster beds and mangroves
- Conduct cost-benefit analysis of different clean-up and restoration activities

### **Tourism**

- Assess the economic impact of the oil spill on beaches and beach resorts and losses to beach-oriented tourism
- Examine how the real or perceived degradation of the coast impacts tourism and sales tax revenues
- Determine the steps needed to recover from the impacts of the spill on beaches and beach resorts

### **Ecosystem Services**

- Assess how the ecologic impacts relate to the economic impacts of the spill
- Predict the value of oil spill damages based on nonmarket non-use valuation
- Determine the value of ecosystem services in monetary and non-monetary terms based on impacted habitats

### **Impacts from Dispersants**

- Evaluate the impacts of dispersants on natural resources in the water column, at depth, offshore, nearshore and along the coast and how it effects different life stages of finfish and shellfish
- Examine impacts of dispersants on the persistence of oil in ecosystems due to oil settling and being re-suspended

### **Displaced People and Workers**

- Identify the costs and determine who pays the costs of displacing the coastal population
- Examine the decisions displaced coastal people make regarding the loss of livelihoods and subsistence resources
- Identify and monitor the impacts of change upon relocated coastal populations

### **Seafood Industry**

- Determine how the increased cost of local seafood products and seafood safety impact eating habits of the region
- Assess the economic impact on the seafood dealers, restaurants and related industries that depend of fresh seafood

### **Oil and Alternative Energy**

- Examine the change in attitudes, perceptions and beliefs of the public and elected officials regarding oil and gas versus alternative energy and how that was influenced by the spill and by the response of politicians
- Analyze the economic costs and benefits of fossil fuels (including the costs of spills) versus alternative and/or sustainable energy

### **Modeling and Tracking Oil**

- Predict location and magnitude of oil spill and its impacts and include models of circulation and mass transport in surface and subsurface waters of the Gulf of Mexico
- Determine the fate, distribution and persistence of the oil based on the volume released and its characteristics