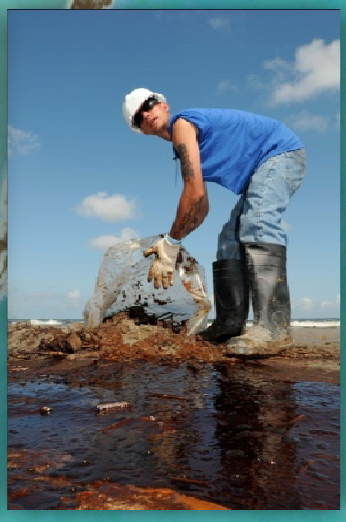
America's Gulf Coast

A Long Term Recovery Plan after the Deepwater Horizon Oil Spill



www.RestoreTheGulf.gov

September 2010

Photos by U.S. Coast Guard and U.S. Navy

"We need to understand that the environment and our lifestyle and our communities and the businesses that flourish down here must work together."
(Town Hall Participant, Houma, Louisiana)

The Deepwater Horizon oil spill was one of the worst man-made environmental disasters our country has ever experienced. The oil spill has dramatically affected the lives, jobs, and futures of millions of Gulf Coast residents. The Gulf of Mexico is a natural resource of vital importance which provides immeasurable benefits and services to citizens throughout the United States. The Gulf is also critical to nationwide commerce. Over time, the countless demands made on the region have critically impacted the entire Gulf environment. The most recent, and most damaging, of the impacts to the Gulf is Deepwater Horizon.

Today, the well is dead, oil no longer flows into the Gulf, and the attention of the media and the public is beginning to shift elsewhere. But as the President said on June 15, 2010, we will not forget what occurred, and we will not forget the promise made to the people of the Gulf Coast to help them restore their ecosystems and economy to health. The effects of the oil spill may reverberate in the region and across the country for years to come.

What happens in the Gulf of Mexico affects America. Nearly one third of the seafood harvested in the continental United States, as well as 30 percent of oil production and 13 percent of our natural gas production, come from the Gulf. The Gulf is an environmental treasure and central to the nation's economy. America needs the Gulf. America needs the Gulf to be clean. America needs the Gulf to be healthy. America needs the Gulf to be sustainable.

For the past several months, at the President's direction, I have examined the question of what comes next. What can our country do to make good on our commitment to the region? This report is the result of that examination. It is the result of many trips to the Gulf Coast and meetings and conversations with fishermen; health officials; environmental workers; nonprofits and local leaders; scientists; members of the business community; elected officials; and thousands of Gulf Coast residents who expressed their opinions in meetings and town halls across all five states that touch the Gulf.

Throughout, I heard several common themes expressed over and over again: the plans put in place to restore the Gulf must come from the people of the Gulf; they must be based on science and good research; and the responsible parties must pay for the effects of the oil spill. Additionally, people of the Gulf Coast believe the impacts of years of economic and environmental damage resulting from coastal erosion and environmental neglect should be addressed by those who have benefitted from the Gulf's resources.

In a town hall in Ocean Springs, Mississippi, I heard the best expression of the plan that is needed: ***"Recovery and sustainability for the Gulf depends on three critical resources: our people; our environment; and our commerce. We need a recovery plan that brings these aspects back into balance."***

This report will focus on these three central requirements for recovery in the Gulf Coast: the environment; the economy; and health and human services. These three areas are inextricably linked – what happens to the ecosystem of the Gulf affects its economy and the welfare of all Gulf Coast residents. As the Gulf ecosystem is rebuilt, economic activity will rise, jobs will be created, and the region's health will improve. The report will also discuss the role of nongovernmental organizations and community service in addressing each of the three issue areas.

During the town hall meetings, I heard one other theme: The need for dedicated recovery funding. As a gentleman told me in Theodore, Alabama: ***"I've seen so many starts, but then, because there wasn't a dedicated funding source, nothing happened."***

A key recommendation of this report will be to call on Congress to dedicate a significant amount of any civil penalties obtained from parties responsible for the oil spill under the Clean Water Act to the recovery of the region that was damaged, and to those impacted by its effects. The report will outline a recommendation for establishment of a congressionally mandated governance structure to oversee and implement these and other sources of funding Congress may appropriate with the goal of a coordinated federal, state, and local long-term recovery strategy.

It is clear that as we move forward, there must be a seamless transition from response to recovery. In the five months since the Deepwater Horizon tragedy, many effective mechanisms have been put in place to respond to the environmental, economic, and health impacts of the spill. What has already been done cannot be lost, but rather must be built upon and expanded. To accomplish this, the report recommends leadership in overseeing the transition as well as the immediate establishment of a new Gulf Coast Ecosystem Restoration Task Force. This intergovernmental structure will be lean, flexible, adaptive, and able to rapidly incorporate the ideas of the communities it is designed to serve.

The task ahead is difficult and the actions recommended in this report will not resolve every problem faced but they can serve as building blocks for a better future in the Gulf. Our country has repeatedly faced big challenges, but it is exactly then that we display what is best about America. We never give up. We never give in. Instead, we band together to work toward a better future. Together, we will help make the Gulf of Mexico and the entire Gulf Coast whole again – for its citizens, and for all America.

Ray Mabus
Secretary of the Navy

America's Gulf Coast

I. Introduction

"This is a national issue to try to restore the Gulf. It's not just the Gulf States that are at stake here." **(Town Hall Participant, Galveston, Texas)**

America's Gulf Coast is a national treasure. Its natural resources are an important economic engine for the entire United States; its waters sustain a diverse and vibrant ecosystem; and the Gulf's culture, natural beauty, and historic significance to the birth and growth of America are unique and priceless. Each year, millions of tourists visit the Gulf to vacation, swim, boat, fish, hunt, and birdwatch. Together, the Gulf's tourism and commercial and recreational fishing industries contribute tens of billions of dollars to the U.S. economy.[1] More than 90 percent of the nation's offshore crude oil and natural gas is produced in the Gulf,[2] and the federal treasury receives roughly $4.5 billion dollars every year from offshore leases and royalties.[3] And it is in the Gulf of Mexico that nearly one third of seafood production in the continental U.S. is harvested.[4] America needs a healthy and resilient Gulf Coast, one that can support the diverse economies, communities, and cultures of the region.

In the wake of the Deepwater Horizon disaster, what has become clear is that the economy of the Gulf Coast and the health of its citizens are inextricably linked to the health of the Gulf's waters and shoreline. A significant portion of the jobs in the region are connected to companies and small businesses involved in tourism; commercial and recreational fishing; and related services. Because of the spill, these industries have lost income as confidence in the safety of the Gulf's beaches and seafood has fallen. Many tourists have chosen to vacation elsewhere and the Gulf's beautiful coastline has been marred in the public eye by the constant television presence of orange oil booms and tar balls on the beaches.

The spill has exacerbated the effects of a multitude of storms and years of environmental decline. Building on these earlier problems, the oil spill created economic uncertainty for hundreds of thousands of Americans, and its social consequences and behavioral health effects have stretched the capacity of nonprofit organizations and local governments. Moreover, local, state, and tribal governments face the prospect of diminished resources to deal with these issues due to lower tax revenues from lost economic activity and diminished property values.

The Gulf Coast recovery process must address a range of effects of the oil spill. This report identifies these effects and provides recommendations for comprehensive Gulf Coast recovery. The report is not structured to distinguish between needs that may be addressed through legal claims brought by individuals, businesses, and governmental entities against the parties responsible for the spill and those that will need to be addressed through a combination of existing federal, state, and local programs and proposals for new congressional action.

For example, the Oil Pollution Act of 1990 (OPA) provides for recovery by designated state and federal trustee agencies of natural resource damages to address injuries to natural resources resulting from oil spills. These funds must be spent in accordance with OPA's directives. Therefore, damages recovered under this provision for injuries caused by the Deepwater Horizon spill may address many, but not all, of the natural resource needs identified in this report. Other existing funding sources may be available to aid in this effort, in accordance with governing statutes. [5]

Integral to the recovery also must be the empowerment of the residents of the Gulf Coast. We must establish conditions that will allow the people of the Gulf to build upon the recovery process and create a more resilient Gulf Coast for the future.

II. An Unprecedented Crisis and Response

On April 20, 2010, the Deepwater Horizon oil rig exploded in the Gulf of Mexico 41 miles southeast of the Louisiana coast. The explosion killed 11 people, and released a torrent of oil and gas into the Gulf that spewed unrelentingly for almost three months, until the well was successfully capped in a coordinated effort on July 15, 2010.[6]

By the time the well was capped, it is estimated that the Deepwater Horizon had released more than 4.9 million barrels of oil into the Gulf,[7] resulting in significant impacts on the Gulf's communities, ecosystem, and economic activity. It is one of the worst man-made environmental disasters in American history. The spill caused the closure of 88,522 square miles of federal waters to fishing, and affected hundreds of miles of shoreline, bayous, and bays.[8] While the full long-term effects of the spill will take time to determine, the negative environmental, economic, and social impact on the Gulf's habitats and communities may persist for years.

In response to the spill, President Obama called for immediate and coordinated federal, state, local, and industry action. At its peak, efforts to stem the spill and combat its effects included more than 47,000 personnel; 7,000 vessels; 120 aircraft; and the participation of scores of federal, state, and local agencies.[9] The dedicated efforts of the thousands of men and women involved mitigated the worst impacts of oil on shorelines across the Gulf. The response led to the deployment of nearly four million feet of oil boom,[10] and the recovery of approximately one million barrels of oil.[11]

The federal response also took steps to care for people impacted by the spill. At the President's request, BP committed $20 billion to a trust fund designed to provide compensation for damages incurred by individuals and businesses, as well as for certain government claims. Responsibility for adjudicating individual and business claims against BP to be paid out of this fund was turned over to an independent claims facility run by Kenneth Feinberg, who on August 23, 2010 opened the Gulf Coast Claims Facility to manage the process. Additionally, the National Incident Command (NIC) established the Integrated Solutions Team (IST) to develop

and coordinate support services for individuals and small businesses impacted by the spill's effects.

Agencies across the federal government have reached out to local communities. In particular, an interagency Economic Solutions Team (EST) composed of representatives from the departments of Agriculture, Commerce, Homeland Security, Labor, the Small Business Administration, and other agencies, have worked with local communities to listen to their concerns. The EST is working to help create local solutions to the problems facing Gulf residents. This has included sending 21 assessment and evaluation teams to counties, parishes, and communities across the Gulf to help them begin facilitating economic recovery.

Other departments and agencies, including the Department of Health and Human Services, (HHS), the Department of Labor, the Environmental Protection Agency (EPA), The Corporation for National and Community Service (CNCS), as well as state and local governments and nonprofits, are responding to the health and human services needs of the Gulf Coast.

The ecosystem protection and restoration effort is also already underway. Several federal agencies, including the Department of Agriculture, the National Oceanic and Atmospheric Administration (NOAA), the EPA, the U.S. Fish and Wildlife Service (USFWS), the U.S. Geological Survey (USGS), and the National Park Service, in coordination with state environmental agencies and nonprofit groups, have supported response operations with the best available science and years of experience working in the Gulf.

In addition, a Natural Resource Damage Assessment (NRDA) is underway. The function of this process is to assess environmental harm in order to restore natural resources and natural resource services injured by the spill. The USFWS, on behalf the Department of the Interior serves as the Federal Lead Administrative Trustee on the Natural Resource Damage Assessment Trustee Council.

The government's response to this latest disaster is guided primarily by the Clean Water Act of 1977 (CWA), the Oil Pollution Act of 1990 (OPA), and related regulations. The CWA has a primary goal of restoration and maintenance of the Nation's waters and provides several causes of action enforceable by the United States in order to promote these goals. These include provisions for the recovery of civil (and criminal) penalties. The CWA civil penalty provision associated with oil spills provides that penalties recovered under the Act must be deposited into the Oil Spill Liability Trust Fund. The Fund, in turn, is designed, among other things, to ensure that there are available funds for clean-up, response, and restoration efforts for future oil spills. The Fund is available to pay compensation for removal costs and damages if a responsible party does not do so and to pay compensation in excess of the responsible parties' liability. OPA, enacted in the wake of the 1989 *Exxon Valdez* oil spill, makes parties responsible for oil spills liable to pay the costs to remove the oil as well as to pay certain damages resulting from the spill, subject to liability caps. OPA damages include several categories of economic damages as well as damages associated with injuries to natural resources. OPA also amended sections of the CWA to mandate new contingency planning and

response preparedness responsibilities for both industry and the federal government. Finally, as mentioned above, OPA provides for an assessment of natural resource damages from oil spills and mandates that, subject to certain statutory limitations, responsible parties pay the cost of these damages.

The actions taken thus far are the first steps towards recovery. In his Oval Office address on June 15, 2010, the President committed the nation to help the Gulf Coast and its people recover from this tragedy, to make a commitment to the Gulf that would go beyond the crisis of the moment. To fulfill that pledge, the report recommends a set of additional actions.

III. A Way Forward

This report recommends two parallel and complementary efforts to ensure a seamless recovery and restoration effort in the Gulf Coast.

In order to help address the harm inflicted upon the region, dedicated funds are absolutely essential. This report recommends that the President urge Congress to dedicate a significant amount of any civil penalties recovered under the Clean Water Act from responsible parties toward assisting the region where the damage from the spill occurred. The report also recommends that Congress establish a Gulf Coast Recovery Council to coordinate the federal, state, local, and tribal actions that will be taken, funded in part with financial support from CWA civil penalties, to restore the Gulf Coast. The Gulf Coast Recovery Council would also coordinate with and provide support to the trustee agencies charged with seeking natural resource damages and conducting restoration through the NRDA process.

It is critical that there be a seamless transition from response and clean up to recovery and restoration in parallel with congressional action. To accomplish this, the report recommends the immediate establishment of a federal lead for Gulf recovery and the creation of a Gulf Coast Ecosystem Restoration Task Force. The function of the Gulf Coast Ecosystem Restoration Task Force will be to coordinate the recovery of the region's ecosystem. If Congress acts to establish the proposed Gulf Coast Recovery Council, the Gulf Coast Ecosystem Restoration Task Force could be modified or dissolved, with its duties and coordinating bodies subsumed by the Gulf Coast Recovery Council as directed by Congress.

It is also recommended that the Departments of Health and Human Services, Commerce, Agriculture, and Labor, in conjunction with the Small Business Administration (SBA), the Internal Revenue Service (IRS), the Corporation for National Community Service (CNCS), and other agencies, continue their important recovery work in close coordination with state and local governments and organizations.

In summary, this plan encompasses five topic areas critical to the long-term recovery of the Gulf region:

- Proposal to Congress to Dedicate Clean Water Act Civil Penalties to the Gulf Coast

- Long-Term Ecosystem Restoration
- Health and Human Services Recovery
- Economic Recovery
- Nonprofit Sector Recovery

IV. Congressional Action

"We need a strong funding mechanism to support the many aspects of Gulf restoration."
(Town Hall Participant, St. Petersburg, Florida)

Restoring the Gulf Coast, assisting in its full recovery, and reversing the effects of the Deepwater Horizon oil spill on its economy, environment, and public health are not just local or regional priorities, they are national issues. It is in the Gulf where much of the nation's oil and seafood are produced, it is in the Gulf where the damage from the spill occurred, and it is to the Gulf where recovery funds must be dedicated. This section outlines a proposal for Congress to create a new Gulf Coast Recovery Council that would be funded in part by civil penalties collected under CWA, and which would work to facilitate environmental restoration and economic recovery, and attend to health issues arising from the spill.

A. Dedication of Clean Water Act Civil Penalties to the Gulf Coast Recovery Effort

It is recommended that the President urge Congress to pass legislation that would dedicate a significant amount of any civil penalties recovered under the Clean Water Act from parties responsible for the Deepwater Horizon oil spill to those directly impacted by that spill. As previously discussed, the Clean Water Act directs that civil penalties associated with oil spills must be deposited into the Oil Spill Liability Trust Fund. The Fund is designed, among other things, to ensure that there are available funds for cleanup and response efforts for future oil spills. Without additional legislation, these funds cannot be deposited into a Gulf Coast Recovery Fund. Deepwater Horizon was more than an order of magnitude greater than any other oil spill the nation has faced to date. Therefore, a new mechanism to help fund overall Gulf restoration and recovery operations is necessary.

Specifically it is recommended that the President propose to Congress that legislation be passed that would allow:

- A significant amount of any civil penalties recovered under the Clean Water Act from the Deepwater Horizon spill be deposited into a Gulf Coast Recovery Fund managed by a Gulf Coast Recovery Council. These funds would be used to address those critical recovery needs that may fall outside the scope of the OPA.

- The establishment of a Gulf Coast Recovery Council to lead to long-term ecosystem, economic, and health recovery in the Gulf.

- A portion of any Clean Water Act civil penalties be directed to the Gulf states (Alabama, Florida, Louisiana, Mississippi, and Texas) to enable them to jumpstart their own recovery efforts.

- The remaining amount of penalties be deposited in the Oil Spill Liability Trust Fund in accordance with existing law. This would allow for resources to be available to respond to future spills.

B. Additional Request to Congress

In addition, this report recommends that the President urge Congress to act on the legislative priorities that the Administration has already outlined in the context of a supplemental package that was submitted on May 12, 2010 and included both funding and authorizing language intended to facilitate a response that would be expedient, deliver speedy assistance to people affected by this spill, and strengthen and update the oil spill response system.

Many of the provisions included in the package were included in legislation (H.R. 4899) which was enacted in late July, 2010. (P.L. 111-212). However, H.R. 4899 excluded Administration-proposed provisions that increase the availability and flexibility of:

- Unemployment Insurance: The Administration requested a new program of unemployment assistance, modeled after the Disaster Unemployment Assistance program, to help workers who are unemployed as a result of a spill of national significance.

- Employment Assistance: The Administration's request proposed funding and additional flexibility to temporarily expand the service capacity of Workforce Investment Act training and employment programs at the state and local levels through the National Emergency Grant (NEG) program.

- Liability Limits: In addition, the Deepwater Horizon tragedy has shown that the current liability regime under OPA needs to be updated. Congress should remove the liability cap for damages associated with offshore drilling activity and increase the liability caps for other activities that could result in a spill.

There may be other cases where more flexibility would be helpful, and this report recommends working with Congress to review the May request and identify needs that have become apparent since then.

C. Responsibilities of the Gulf Coast Recovery Council

This report recommends that Congress establish a Gulf Coast Recovery Council that should focus on improving the economy and public health of the Gulf Coast, and on ecosystem

restoration not dealt with under NRDA. These three areas are inextricably linked to the successful recovery of the region.

The Council should include representatives from the following departments and agencies: Agriculture, Commerce, Corporation for National Community Service, Energy, Environmental Protection Agency, Health and Human Services, Housing and Urban Development, Interior, Justice, Labor, the Small Business Administration, Treasury, and the U.S. Army Civil Works/Corps of Engineers. The Council should also include representatives from states and from federally-recognized Gulf tribal organizations, who would be appointed by the President. These entities would have the opportunity to recommend possible candidates to the President.

While it would be a separate body, the Council should support, closely coordinate with, and possibly share overlapping membership with the Natural Resource Damage (NRD) Trustee Council in order to ensure coordinated ecosystem restoration actions across the region without preempting the NRDA decisions of the Trustee Council.

Using any CWA civil penalties that Congress dedicates to Gulf Coast recovery and any other available funds, a congressionally mandated Council should support projects that will restore the ecosystem to health or make it more resilient. The damage from the oil spill was not, however, just environmental. The spill hurt the Gulf's ability to market its seafood and tourism; it harmed small businesses across the region; and it negatively affected the physical and behavioral health of thousands of Gulf residents. Therefore, funds should also be used to strengthen the health of the regions residents and make the Gulf's economy adaptable to future economic dislocations by expanding markets, diversifying products, and strengthening the workforce.

D. States and Local Communities Must Lead Their Own Recovery:

State and local governments must be allowed to lead their own recovery, and should be provided resources and a prominent role in Gulf Coast recovery. State leadership will be facilitated by the proposal that Congress dedicate an amount of any Clean Water Act civil penalties recovered from the Deepwater Horizon oil spill directly to state governments.

- To ensure adequate state representation, in addition to a presidentially-appointed federal chair, this report recommends that the leadership of the Gulf Coast Recovery Council should also include a presidentially-appointed state co-chair. The governors of the Gulf states would have the opportunity to recommend possible candidates to the President.

- Local governments and citizen stakeholders must play a critical role in the Gulf Coast Recovery Council. The Gulf Coast Recovery Council must be allocated the resources to maintain adequate intergovernmental outreach, public affairs, and communications personnel to be effective while remaining lean and efficient.

E. The Gulf Coast Can Recover Stronger and Better:

Through the recovery process, the Deepwater Horizon oil spill presents a unique opportunity to go further and make the Gulf healthier and more resilient than it was before the spill. Because the recovery process, personnel, and equipment will already be in place as a result of the NRDA process, dedicated penalty funds can provide the flexibility to tackle issues related to, but not specifically caused by, the spill. While these funds may not fully address all of the challenges facing this region and this ecosystem, they will allow for a level of effort and focus that is unprecedented. A congressionally chartered Gulf Coast Recovery Council would oversee management of these tasks during the recovery effort.

F. Participation and Transparency are Critical:

The Gulf Coast Recovery Council should seek out participation from a wide array of stakeholders, involve the private and nonprofit sectors, be transparent and accountable to taxpayers, and maintain the confidence of the public.

G. Scientific Coordination and Audit Functions are Crucial:

The Gulf Coast Recovery Council should work with existing federal and state advisory committees, as appropriate, to ensure that relevant scientific and technical knowledge underpins recovery planning and decision making, and that research, monitoring, and assessment efforts are organized. The Council should also provide oversight and accountability into Gulf of Mexico recovery efforts by developing quantifiable performance measures that can be used to track progress towards recovery goals.

V. Other Potential Funding Sources

This report makes recommendations on programs and efforts that may require additional funding beyond what can be addressed through existing legal mechanisms. Without some combination of Clean Water Act civil penalties or successful requests to responsible parties, it is possible that many funding priorities laid out in this report will not be immediately realized. That is why it is critical both that Congress act and that the parties responsible for the spill play their part in the recovery of the Gulf Coast.

A. Private Action

An idea that has arisen on numerous occasions is the need for an independently funded, nongovernmental recovery effort. This would be an opportunity for local and regional leadership to tackle issues not funded through the Oil Pollution Act or other existing sources. Individuals and companies with a significant interest in the economic and environmental health of the Gulf Coast have a role to play in recovery. Private action is an important component of Gulf Coast recovery and could serve as a long-term complement to the federal government response of seeking congressional action.

B. Requests to Responsible Parties

To date, some federal agencies have secured from BP initial funding to support immediate response and recovery needs beyond the ecosystem. HHS's Substance Abuse and Mental Health Services Administration (SAMHSA) successfully coordinated with state agencies to gain $52 million in behavioral health services and surveillance funds from BP; and HHS's National Institutes of Health (NIH) received $10 million in public health research funding. Going forward, the Administration, working with state and local governments, should develop a unified additional request to the responsible parties for the oil spill for economic recovery and public health needs.

- In coordination with state public health and behavioral health departments, HHS and other agencies should continue their efforts to identify health and human services funding needs that should be met by BP and other responsible parties. Some examples of potential needs include funding for surveillance, behavioral health services, and research.

- Building on work already being done by the states, the Department of Commerce and EPA should lead an effort in partnership with state fish and wildlife agencies to develop a coordinated plan and funding requirements for seafood certification and marketing.

- In partnership with state and major municipal governments, the Administration should lead efforts to develop a coordinated plan that responsible parties should fund to promote tourism.

C. Accelerating the Flow of Coastal Impact Assistance Program (CIAP) Funds

CIAP was created by Congress in 2005 to allow coastal states to provide for ecosystem restoration, and to help mitigate the impacts of oil and gas production on the Outer Continental Shelf. Under CIAP, the Secretary of the Interior is authorized to distribute $250 million for each of the fiscal years 2007 through 2010 to oil and gas producing states and coastal political subdivisions.

Following Deepwater Horizon, the Department of the Interior is working to implement necessary changes to CIAP to speed the flow of remaining funds to the four eligible Gulf States (Alabama, Louisiana, Mississippi, and Texas). Accelerating CIAP could send up to $598 million in additional funding for ecosystem projects to the Gulf.

VI. Transition from Response to Recovery

In order to ensure that there is continuity between the response efforts led by the National Incident Command (NIC) and proposed recovery efforts, this report recommends that a structure be established by administrative action through existing authorities. (This should be

in addition to the ongoing work being conducted by the Natural Resource Trustees through the NRDA process). Administrative action should formalize the environmental work already underway by establishing an intergovernmental Gulf Coast Ecosystem Restoration Task Force.

The departments of Commerce, Agriculture, and Labor, along with the SBA, IRS, HHS, and CNCS, should continue their respective economic and public health efforts with states and local governments, and nonprofit organizations. If Congress dedicates any obtained Clean Water Act civil penalties to the Gulf Coast Recovery Fund and establishes the Gulf Coast Recovery Council, this Gulf Coast Ecosystem Restoration Task Force may be modified or dissolved, with its duties and coordinating bodies subsumed by the Recovery Council.

It is also essential that there be a single presidentially-appointed leader to oversee the transition from cleanup and response to recovery and restoration. This individual could serve as the chair of the Gulf Coast Ecosystem Restoration Task Force and as the single point of contact within the Administration to help coordinate federal restoration and outreach efforts.

A. Gulf Coast Ecosystem Restoration Task Force

The images of oil drenched pelicans and tar soaked beaches may no longer headline the news, but the environmental impacts of the Deepwater Horizon oil spill are uncertain. The impacts of the spill both exacerbated ongoing environmental issues and caused new injuries. Federal and state scientists and independent researchers are working to understand the harm to natural resources caused by the spill. [12] From an ecological standpoint, the impacts on the water column, fisheries, habitats, and diverse species of the Gulf are of great concern.

Plans to restore the Gulf must come from the people of the Gulf. To effectively address the damage caused by the Deepwater Horizon oil spill, address the long-standing ecological decline, and begin moving toward a more resilient ecosystem on the Gulf Coast, the federal government must work with state and local governments, non-profit organizations, community groups, scientists, academics, the private sector, and the public.

In order to facilitate the implementation of programs and projects – those needed to repair harm from the spill, as well as those envisioned before the spill – this report recommends a unifying structure be created to facilitate efforts between disparate federal, state, and local stakeholders.

A lean federal-state Gulf Coast Ecosystem Restoration Task Force should immediately be established to support the Natural Resource Damage Assessment (NRDA) process and coordinate non-NRDA ecosystem funds, programs, and projects. While the Task Force would not direct the actions of other federal agencies, it would serve in a critical advisory capacity to ensure that Gulf restoration efforts are coordinated, collaborative, and effective.

Membership

The Gulf Coast Ecosystem Restoration Task Force would include federal and state representatives, as well as representatives from federally recognized tribes. Federal membership on the Task Force could include the departments of Agriculture, Commerce, Interior, Justice, and Transportation, along with the Environmental Protection Agency, U.S. Army Civil Works/Corps of Engineers, the Council on Environmental Quality, the Office of Science and Technology Policy, the Domestic Policy Council and the Office of Management and Budget. The departments of Health and Human Services, Homeland Security, Labor, and the Small Business Administration and other agencies could serve in an advisory role to offer guidance on issue-specific topics.

Each Gulf state could have one representative on the Gulf Coast Ecosystem Restoration Task Force, nominated by each Gulf state governor and appointed by the President. In many cases, individuals who would serve on the Task Force from the state agencies are likely to be the same as those serving as their state's representative on the Deepwater Horizon oil spill NRDA Trustee Council. Such overlap in membership would be encouraged to help ensure coordination with NRDA restoration activities. It is important that the Task Force reach out to federally recognized tribes in the region to engage them in undertaking its responsibilities, in collaboration with them, and determine an appropriate structure for tribal participation.

Leadership

The Gulf Coast Ecosystem Restoration Task Force would be chaired by a federal representative. One state representative, jointly selected by the state representatives on the Gulf Coast Ecosystem Restoration Task Force, would serve as vice-chair.

Responsibilities of the Gulf Coast Ecosystem Restoration Task Force

The role of the Gulf Coast Ecosystem Restoration Task Force would be to draw from the expertise and implementation mechanisms of the various existing programs and authorities and suggest ways to better align and coordinate those efforts across federal agencies and state governments. Key responsibilities of the Task Force should include:

- Facilitate Project Implementation: The Gulf Coast Ecosystem Restoration Task Force should develop ways to make restoration project review and implementation more effective in developing and implementing science based projects. It would be a priority for the Task Force to identify and work under existing agency authorities and programs to resolve barriers to implementation for restoration projects identified by its members, as well as to address needs raised by the Deepwater Horizon oil spill NRDA Trustee Council.

- Program and Authority Coordination: The Gulf Coast Ecosystem Restoration Task Force should work with the federal and state agency members on improving the alignment of each agency's relevant programs and authority.

- Coordination with Other Agencies: The Gulf Coast Ecosystem Restoration Task Force also would be expected to coordinate with HHS on health and human services issues and with Commerce, Labor, SBA, Treasury and other federal agencies on ways to maximize the economic impact of ecosystem restoration projects.

- Budget Coordination: The Gulf Coast Ecosystem Restoration Task Force should coordinate with OMB in developing annual budgetary guidance on Gulf of Mexico priorities for all member agencies.

- Oversight and Accountability: The Gulf Coast Ecosystem Restoration Task Force should work with agencies to develop performance measures and prepare a biennial report card on progress.

Stakeholder Outreach

The Gulf Coast Ecosystem Restoration Task Force should conduct its operations in such a way as to ensure that stakeholder groups have the ability to express their views. It is important to create formal mechanisms for public outreach and stakeholder engagement and information sharing. All relevant options should be reviewed and evaluated to ensure formal, comprehensive public engagement of the Gulf community throughout restoration efforts.

Science Coordination and Research

The Gulf Coast Ecosystem Restoration Task Force should work with existing federal and state advisory committees and the NRDA Trustee Council, as appropriate, to ensure that relevant scientific and technical knowledge underpins restoration planning and decision making, and that research, monitoring, and assessment efforts are organized, in consultation with the Office of Science and Technology Policy.

The Gulf Coast Ecosystem Restoration Task Force should also coordinate with colleges and universities and other related efforts across the Gulf Coast, such as the National Oceans Council, Hypoxia Task Force, and Gulf of Mexico Alliance, who are studying the unique ecosystems and economic conditions of the region. These institutions have years of expertise working on the Gulf and are trusted by Gulf residents. The Task Force should also coordinate with other research institutions and among federal agencies. In addition, it should look to enable innovative and sustainable solutions for restoration of coastal ecosystems, wetlands and estuaries, whether through academic institutions, private enterprise, non-profits or governmental entities.

B. Health and Human Services Efforts

HHS has been coordinating public health efforts with federal agencies, states, and local communities. This report recommends that HHS maintain this function and serve in an advisory capacity to the Gulf Coast Ecosystem Restoration Task Force.

In the context of a complex disaster like the oil spill, it is critically important to ensure that rigorous surveillance inform the science and research agenda and recovery actions, including behavioral health prevention and treatment, the delivery of medical services, and access to human services. Likewise, ensuring seafood safety not only protects human health, but promotes economic recovery across the region. The health response on the Gulf Coast must be based on empirical evidence made possible by targeted research.

Much has been learned from prior efforts about the critical need to promote cooperation and coordination between federal, state, and local entities in order to align, refine, and adapt recovery plans and projects. The evolving nature of the oil spill's effects requires a particularly active collaborative process governed by community needs and carried out through local, state, and federal government, as well as through public-private partnerships.

Surveillance

Appropriate surveillance is essential for detecting harmful health effects, understanding behavioral health needs, assessing the impact of behavioral health interventions, and monitoring human services needs related to the spill. Surveillance is taking place across the Gulf Coast, and needs assessments have begun. However, in order to allow for long-term needs assessment and planning activities, all of the Gulf States need both technical assistance and additional funding to expand their current capacity for surveillance and data collection.

Behavioral Health

Over 20.5 million people live on the Gulf Coast and are dependent on the area for their livelihoods. Behavioral health consequences will be especially prevalent in those whose livelihoods depend on industries affected by the spill. State behavioral health providers have indicated that some in the affected population are already exhibiting early signs of developing substance abuse and dependence, psychiatric disorders, suicidal risk, and family breakdown, including domestic violence and child abuse. Responding to these needs now will positively address the behavioral health consequences of the spill.

Medical Services

Health-related claims will need assured access to the claims process as long-term health effects are identified. Dedicated and reliable funding must be put in place to guarantee access to care for those with oil-related health effects. Reimbursement for emergency departments, definitive care facilities, and specialty care providers that treat oil spill-related health effects must be reliable, efficient, and timely.

Human Services

A reduction in resources caused by the Deepwater Horizon oil spill will likely increase demand for human and social services designed to assist impacted populations. Job training, child care assistance, early childhood education programs, nutrition assistance, domestic violence response, senior services, and cash assistance programs may all see increased demand. Federal efforts to address these concerns must consist of three components: monitoring; making best use of existing programs and funding; and creating new programs as appropriate.

Seafood Safety

As mentioned throughout this report, restoration of confidence in seafood safety will be a long-term effort on the Gulf Coast. HHS, NOAA, and EPA are committed to this effort and have identified several recovery activities such as long-term surveillance and inspection requirements to ensure that seafood harvested from Gulf waters is safe. It is essential that state and federal laboratories be able to receive, analyze, confirm, and report the presence of oil, dispersants, and other toxic agents in seafood, clinical, and environmental samples.

Research

Although there are many studies on research into spill response technologies and on the effects of oil spills on the environment, there are surprisingly few studies on the long-term effects of oil spills on human health. Most studies to date have focused on short-term effects such as skin, eye, nose and throat irritations and not on the long-term health impacts of a spill.

It will be necessary to continue identifying and supporting research efforts to address community health concerns and fill gaps in knowledge about the health consequences of clean-up activities surrounding the oil spill. The research efforts span studies of seafood safety, response workers, and volunteer populations as well as studies of the general population and at-risk groups, including children and pregnant women. This research should continue to be funded.

C. Economic Recovery

It is critical that the economic response reflect local priorities, incorporate local input, and build from local visions for economic recovery. The spill occurred at a moment when communities across the region were actively engaged in planning new economic development. Those visions and plans cannot be lost. They must form the basis for federal, state, local, and private economic development efforts.

The oil spill presents a unique set of economic challenges for the Gulf region. This is a region where many workers are underemployed or work in jobs that pay below the national average, or have little or no safety net. The impact is grave on such populations that are not as resilient to downturns. As the effort progresses it is essential that recovery funds are directed into local

economies, which will result in increased employment opportunities and heightened local economic activity.

The departments of Commerce, Agriculture, and Labor, in conjunction with the SBA and the IRS, should continue their economic recovery work in close coordination with other federal agencies and with state and local governments and organizations. These agencies should also coordinate closely with the Gulf Coast Ecosystem Restoration Task Force, in order to optimize the economic impact of ecosystem recovery and better leverage public and private sector investments in the region. This includes:

- Maximizing participation of the local labor force in contracting and job skills training and providing opportunities for disadvantaged and underemployed members of the population.

- Utilizing recovery projects to support economic diversification and communities that have been historically underserved and underrepresented.

- Working to fund green recovery projects and promote clean energy market development.

- Providing technical assistance to communities, small businesses, and individuals in navigating the recovery process.

Through conversations and meetings with fishermen, small business owners, local leaders, elected officials, and thousands of people who participated in town halls and community economic assessments, several recommendations emerged that should be considered by the federal and state response.

Compensation and Income Support for Affected Individuals and Businesses

For people across the Gulf, obtaining compensation for lost income and economic damages through the claims process is a critical short-term measure necessary to building economic health. Across the Gulf Coast, communities have expressed significant concern about the efficiency of the claims system and about their own capacity to use the process. Specifically, some communities have requested technical assistance to ensure that individuals and small businesses are able to file claims. The federal government has made significant efforts to ensure that those eligible for compensation have access to the Gulf Coast Claims Facility. These efforts will continue.

In addition, from the earliest days of the spill, the federal government has made it a top priority to ensure access to support services. The federal government, along with state and local governments and organizations, should:

- Continue efforts to integrate services and facilitate access to government programs. Integration of services for disaster victims should remain a priority for the Administration. It is particularly important that individuals unemployed as a result of the oil spill be

effectively connected to safety net programs such as unemployment compensation, Temporary Assistance for Needy Families, and the Supplemental Nutrition Assistance Program (SNAP formerly Food Stamps).

- Provide technical assistance with claims submissions.

- Work to address the financial education and financial access needs of affected individuals, including helping claims recipients manage their payments. The federal government and its partners should also work to address the specialized credit and counseling support needs of small businesses in the region.

- Offer resources for tax guidance to those affected by the spill or receiving compensation from the GCCF. The IRS has taken a number of steps to support taxpayers impacted by the spill such as assisting with questions and issues through their website, establishing a dedicated phone line, and conducting outreach programs.

- Increase federal efforts to drive local hiring in response and recovery funds.

Economic Assessment, Technical Assistance and Capacity Building for Affected Communities

To develop effective recovery plans, local communities should assess the scope of local damage and identify a desired path to recovery. However, communities often lack the capacity to do this effectively, particularly in the wake of a disaster, when limited resources and human capital are already stretched thin.

Meetings and conversations with communities and local governments point to multiple economic challenges associated with insufficient local capacity. To mitigate local challenges and provide additional capacity to disaster-impacted communities the federal government should support state and local government organizations in their work to:

- Build economic development strategies around community needs, and take particular efforts to address the needs of disadvantaged, underserved, and resource constrained communities.

- Publicize and distribute an economic toolkit to help communities understand and access federal programs that may be relevant across different phases of recovery. (The Tool Kit has been included as an appendix to this report).

- Develop Gulf Coast Regional Economic Assets and Economic Clusters. Economic cluster strategies may include such efforts as establishing regional organizations to run business incubators, or assisting new companies in accessing early capital.

Rebuilding Public Support for Affected Industries

Communities in the Gulf are already reporting that negative perceptions of Gulf waters, beaches, and seafood industry are having a harmful effect on tourism and recreational activities. While communities remain concerned about seafood and water-safety issues; the cleanliness of beaches; and the need for continued testing and monitoring; they are also looking for ways to balance these safety concerns with efforts to market core industries and restore the image of the Gulf as a desirable place to live, visit, vacation, and do business.

To date, there have been a number of significant efforts to bolster the image of the Gulf and its core industries. This effort must continue. Recommendations for the federal government, along with state and local governments and organizations, include:

- Providing grants for seafood marketing: NOAA is already working with the Gulf States on plans to restore national confidence in Gulf fishery products. These efforts should continue. For example, in an effort to show its support for the Gulf, the Department of Defense will continue pursuing opportunities to procure more Gulf seafood.

- Fishery disaster assistance: The state of fisheries and fishery dependent businesses should continue to be monitored in order to identify and address potential challenges as they evolve.

- Industry priorities: Tourism and marketing should remain a priority if future funds become available.

- Contractor flexibility: Legislation that would allow greater flexibility for federal contractors to give priority to organizations, firms, and individuals residing in areas affected by the spill for contracts directly related to the response and recovery efforts.

Targeted Small Business Support

Communities report that small businesses are challenged by the uncertainty of current circumstances. In particular, concerns about the future are contributing to a general wariness about whether to take on new loans and employees and invest in future business opportunities. Local banks report difficulty extending operating credit to businesses for payroll and working expenses and the economic uncertainty is dissuading investment from outside the region. Many of these small and locally owned businesses were recovering but on tenuous ground following the hurricane seasons of 2004 and 2005 and the national economic crisis further destabilized many of these businesses.

Small businesses are critical to the long-term health and economic recovery of the Gulf Coast. They are an economic engine for local economies and one of the first catalysts of economic recovery. Support to small businesses should include:

- On-site small business counseling: Across the five Gulf States, SBA has established five Small Business Development Centers, 15 Women's Business Centers, and 25 SCORE (small business mentoring and training) chapters, with a total of more than 950 counselors operating on the ground.

- Small business federal procurement opportunities: SBA should work with the General Services Administration and other federal agencies to identify federal procurement opportunities for small businesses in the five states.

- Community development block grant funding: Gulf Coast states can make applications to HUD for competitive Section 108 Loans now for small business assistance, which include: working capital loans, real estate acquisition, development, expansion, or equipment purchase loans.

Long-Term Economic Diversification and Resilience

While the immediate efforts in response to the spill have centered on compensation, assessment, marketing, and other near term priorities, a central component of the economic vision for the Gulf Coast involves diversifying the economic drivers that create jobs and increase wealth in the region. Communities across the Gulf Coast have almost uniformly articulated a strong desire to diversify, often noting that the spill led them to the conclusion that their economies are too narrowly concentrated.

The challenge in this area is to balance short-term spill responses with pre-existing long-term goals and economic challenges faced by many communities in this region. The vision of a healthy, diverse, 21st century economy has great potential to come to fruition in several key areas that are vital to the Gulf Coast's long-term success. Ultimately, the decision of whether and how to diversify an economy must be the decision of and driven by the local community. Efforts to diversify should focus on:

- Investing in export potential: Directing funds toward businesses that take advantage of new opportunities to sell in foreign markets will present new sources of revenue for Gulf Coast companies.

- Supporting the development of a 21st century workforce: Job training efforts will enable workers to enter new and potentially lucrative careers in new technologies and industries.

- Promoting of a clean energy economy: Residents of the Gulf Coast have expressed a desire to transition to a clean-energy economy. A number of efforts from both the public and private sector have helped prime the pump for additional investments in clean energy. For instance, the US Department of Energy recently awarded the Southeast Energy Efficiency Alliance $20 million to implement energy efficiency programs in 13 Southern cities including New Orleans. These programs are underway and are scheduled to increase their scale over a period of two to three years. The Department of Energy's American Recovery and

Reinvestment Act (ARRA) projects have also provided the Gulf Coast with the initial seed money necessary to make sure that green technology and green jobs are an integral part of the 21st century Gulf economy.

- Increasing federal efforts to drive local hiring in response and recovery funds: Ensuring that resources are used to bolster employment opportunities for Gulf Coast residents will help drive economic recovery.

D. Nonprofit support

Nonprofit organizations play a critical role in augmenting the support that federal, state and local governments provide to the residents in the Gulf Coast, as do philanthropic, faith-based and business interests. As such, their success will be an integral part of the recovery effort in the region. In order to help ensure the vitality of these important groups, it is recommended that nonprofits consider taking the following actions:

- Enhancing coordination: Improved methods for sharing information among nonprofits; local communities; and state and federal governments should be developed. In addition, efforts should be made to engage community and faith-based organizations.

- Increasing public awareness of the needs related to the oil spill: Advertising campaigns should be conducted to inform the public of opportunities to help with the recovery. These campaigns will be aimed at increasing philanthropic and volunteer participation in recovery efforts.

- Leverage Volunteers and Community Service Assets: In addition to soliciting support from the federal government and the philanthropic community, nonprofits should be encouraged to engage volunteers and other organizations dedicated to providing free services.

- Conducting additional needs assessments: Additional studies should be conducted to determine how nonprofits can help with recovery efforts.

- Enhance the fundraising capacity of nonprofits: Resources should be provided to help nonprofits better identify and leverage new and existing funding sources (for example, providing technical assistance related to grant writing). Additional dedicated funding resources to meet specific needs of affected communities and residents may be needed.

VII. Conclusion

This report provides recommendations for funding the recovery effort in the wake of the spill, as well as mechanisms designed to empower Gulf residents to take charge of their own recovery. Through Congressional action to dedicate any obtained CWA civil penalties to the

Gulf and creation of a Gulf Coast Recovery Fund and Gulf Coast Recovery Council, the Gulf can begin to repair the damage and address the broader challenges facing the Gulf Coast's ecosystems and build upon existing mechanisms to address the negative economic and health effects caused by the spill. Although this funding may not provide for all the needs identified in this report, this report strongly recommends that Congress act quickly to dedicate a significant amount of any civil penalties recovered under the Clean Water Act from parties responsible for the spill to those directly impacted by the spill as a critical first step.

Long-Term Recovery Working Groups

The four chapters that follow were developed over the course of the past three months through the tireless efforts of four working groups. The work of these groups documents some of the impacts of the Deepwater Horizon oil spill on the people, economy, and ecosystems of the Gulf Coast and helped inform the final long-term recovery recommendations made in this report.

As previously mentioned, during the Deepwater Horizon Oil Spill the National Incident Command established several interagency teams in addition to the traditional National Contingency Plan response and clean up functions. The teams provided core staff to the four long term recovery working groups that have contributed to this report. The teams coordinated integration of private and governmental recovery assistance and have focused on the longer term issues such as health, social services, the economy, and environment and natural resources. These issue areas represent important federal responsibilities which are contingent upon the availability of funding. These key recovery support functions were identified by stakeholders during the development of the upcoming National Disaster Recovery Framework, which is designed to ensure early attention to recovery issues and a smooth transition from response to recovery.

Ecosystem Restoration Working Group:

The long term ecosystem restoration working group was led by the Council on Environmental Quality and was composed of the departments of Agriculture, Commerce, Homeland Security, Interior, Justice, and Transportation, along with the Environmental Protection Agency, the Army Corps of Engineers, the Office of Management and Budget, and the Office of Science and Technology Policy. The working group drew upon previous work by these agencies from the Roadmap for Restoring Ecosystem Resiliency and Sustainability as well as discussions with state officials, stakeholder groups and state and local leaders in the environmental community.

Health Recovery Working Group:

The health recovery working group was led by the Domestic Policy Council and the Department of Health and Human Services and included the Departments of Labor, Commerce, and Agriculture, along with the Environmental Protection Agency, the Council on Environmental Quality, the Office of Management and Budget, and the Office of Science and Technology Policy. The working group drew upon the work these agencies have been conducting on the Gulf Coast to ensure worker safety, seafood safety, long-term health monitoring, and behavioral health support.

Economic Recovery Working Group:

The economic recovery working group was led by the National Economic Council and composed of the departments of Commerce (Economic Development Administration), Agriculture (Rural Development), Housing and Urban Development, Energy, Treasury, Labor, and Homeland Security, along with the Small Business Administration, the Office of Management and Budget, and the Council of Economic Advisors. The group drew upon previous work from the National Disaster Recovery Framework, as well as from the experiences of 21 economic-assessment teams that interacted with local communities across the Gulf Coast.

Corporation for National Community Service:

The Corporation for National Community Service (CNCS) worked with the other three working groups to assess the contribution and needs of nonprofits working on the Gulf Coast, and to determine how nonprofit organizations can contribute to long-term recovery efforts.

Long-Term Ecosystem Restoration

I. Introduction

The Deepwater Horizon oil spill underscores the critical linkage between the environment and the economic health of the Gulf of Mexico. There is a broad dependence of Gulf Coast communities on the sustained beauty and bounty of the region for their lives and livelihoods. This linkage was clearly demonstrated every day that oil continued to flow from the Deepwater Horizon wellhead. A critical component of the recovery from the spill is restoring the marine and coastal ecosystems of the Gulf, both for the public, and for those who rely on its natural resources for their livelihood.

The need to recover from the direct impacts of the oil spill should serve as the impetus to jumpstart a broader effort to restore and protect the Gulf Coast's ecosystems. This is a region that was already struggling with urgent environmental challenges, such as the loss of coastal barrier islands and marshes that protect coastal communities from frequent hurricanes. While trustee agencies are working to assess and repair the injuries to the environment from the Deepwater Horizon oil spill, it only makes sense to look at the broader challenges facing the system, and to leverage ongoing efforts to find solutions to some of the complex problems that face the Gulf. Sustained activities that restore the critical ecosystem functions of the Gulf will be needed to support and sustain the region's economic revitalization.

There are numerous ways to work toward achieving ecosystem restoration, including maintaining and restoring critical habitats; acquiring habitats for protection; taking regulatory action; and reducing flows of excess nutrients into the Gulf to improve water quality and fishery stocks. Ecosystem restoration will support economic vitality and employment; enhance human health and safety; protect infrastructure and communities; enable communities to better withstand storms; facilitate commerce and trade; sustain safe seafood and clean water; provide recreational and cultural opportunities; and contribute to the overall resilience of coastal communities and the nation.

The Gulf of Mexico encompasses dynamic, interconnected ecosystems spanning 600,000 square miles, with thousands of miles of shoreline, bayous, and bays across five U.S. states (Alabama, Florida, Louisiana, Mississippi, and Texas) and six Mexican states. Within the United States, the Gulf of Mexico watershed extends over a thousand miles upstream and drains over 40 percent of the contiguous U.S.[13] The region is highly diverse – both environmentally and culturally – and this diversity has made the Gulf region an economic engine for the nation. The Gulf of Mexico system contributes a range of ecosystem services – including fisheries, energy production, infrastructure protection, and recreational opportunities – that provide jobs and food, enhance safety, underpin the unique cultures of the region, and generate billions of dollars in revenue annually.

A number of environmental problems – the causes of which are both natural and manmade – have plagued the Gulf of Mexico. Though some of the problems are relatively state-specific, many of these problems span the entire region, and their solution requires a federal coordinating role to ensure that Gulf-wide activities are facilitated by coherent policies that promote science-based decision-making, balance objectives, and ensure the consistent, effective application of federal resources. The federal coordinating role is to promote a shared vision among the states and other stakeholders in planning and prioritizing actions that will sustain the many valuable goods and services that the Gulf of Mexico provides to coastal communities and the nation.

Ecological restoration is an intentional activity that initiates or accelerates the recovery of an ecosystem with respect to its health, integrity and sustainability. It also includes protecting and conserving healthy ecosystems so they can continue to provide services to reduce impacts from tropical storms and other disasters; support robust economies; and assist in mitigating and adapting to the impacts of climate change. Understanding restoration to mean restoration, enhancement, and protection is important for a comprehensive, proactive effort to enhance the resiliency of Gulf ecosystems and the ecosystem services they provide.

Recovery from the oil spill and the broader restoration of the Gulf region will take sustained leadership and commitment over many years. This is a partnership and a collaboration that requires participation by and investment from all parties – federal, state, tribal, and local governments; non-profit organizations; the private sector; academics; and scientists. It is also important to note that there are other activities in the coastal zone that could impact ecological goals and objectives, such as levee construction; dredging operations; and oil and gas activities. These activities must be carefully assessed and balanced with restoration goals.

Although the long-term goal should be to restore ecological processes, it is not possible to restore the ecosystem to a pristine pre-industrial state, in the face of climate change and other uses of the coast. The goal of the broader recovery is to reverse long-term degradation of the Gulf ecosystem's health.

It is important to recognize that some of the most significant problems affecting the Gulf cannot be solved within the five-state region alone. Coordination between ecosystem restoration efforts in the Gulf and work on stressors both upstream and outside of the U.S. is important. However, for the purpose of this chapter and the recommendations included here, the focus will remain on the five states bordering the Gulf of Mexico and the adjacent waters of the Gulf.

II. Background Information

The Gulf of Mexico region comprises the coastal areas of five southern states (Alabama, Florida, Louisiana, Mississippi, and Texas) and the offshore waters of the Gulf of Mexico extending into the exclusive economic zone of the United States.[14] The U.S. portion of the Gulf of Mexico is fed by 20 river systems covering over 3.8 million square kilometers of the contiguous United

States. The Mississippi River Basin alone drains over 40 percent of the contiguous U.S. and brings excess nutrient runoff from 31 states and two Canadian provinces into the Gulf.

The Gulf of Mexico is home to a diverse and vibrant network of interconnected ecosystems that, despite a variety of environmental stressors, offer immense productivity. The abundance and variety of life of the Gulf of Mexico and its coastal areas are an ecological, economic and cultural treasure. The Gulf's dynamic shoreline includes beaches, marshes, forested wetlands, and mangroves that provide aesthetic value; support a host of habitats and recreational uses; and provide the backdrop for the unique cultures and heritage of this region.

Some of the world's most important migratory bird flyways cross the Gulf of Mexico and a wide variety of bird species utilize the marshes, dunes, rivers, and other coastal habitats for foraging and nesting. The coastal wildlife refuges, parks, preserves, and other areas managed by public and private entities offer nurseries for many species of fish, invertebrates, and birds as well as opportunities for recreation. The Gulf region is home to a number of coastal, marine, and freshwater species listed as threatened or endangered under the Endangered Species Act, including five species of sea turtles. Twenty-one species of marine mammals in the Gulf (including dolphins, manatees and whales) are protected under the Marine Mammal Protection Act.

The coastal shelf and deeper habitats, as well as the water column above them, are home to rich biological assemblages of plants, animals, and microbes – ranging from deepwater coral, sponge, and fish communities on rocky reefs, to unique methane seep communities, and from the poorly characterized deeper parts of the water column to the rich planktonic assemblages in the upper waters exposed to sunlight. A plethora of commercial and recreational fisheries depend upon the health of this integrated ecosystem, including the coastal habitats that serve as nursery grounds for the vast majority of economically important species, including fish, shrimp, and crabs.

The Gulf Coast ecosystems are highly complex and dynamic and provide immense aesthetic, economic, and environmental value. Barrier islands and wetland complexes of this region provide critical infrastructure and are the first line of defense for coastal communities against powerful and persistent storms. They are also rich havens of biodiversity that provide essential habitat to a number of commercially and recreationally important species of fish, invertebrates, mammals, and birds. Moreover, the Gulf's wetlands provide a flood attenuation function, which reduces the impacts of flooding associated with storms, and they reduce potential future impacts associated with climate change. These ecosystems also perform critical water filtration functions, removing and trapping contaminants in the water and storing carbon. Collectively, the functions and services provided by these systems are considered key "ecosystem services" of the Gulf Coast.

A. Pre-Existing Ecosystem Challenges in the Region

The Gulf Coast has been and continues to be subject to a number of ongoing environmental challenges that have attracted significant attention from state and federal natural resource managers and conservation interests. Despite these problems, which are significant cause for concern, the Gulf continues to be intensely productive and supports multiple human uses. Ongoing issues include:

- **Loss of wetland habitats, including coastal marshes, forested wetlands, barrier islands, and coastal shorelines that form the Mississippi River Delta and Chenier Plains.** While an issue in every Gulf state, the loss of coastal habitat has been most dramatically illustrated in Louisiana, and highlights the need to maintain freshwater and sediment flows to the Gulf of Mexico. Since the 1930s, the coast of Louisiana has lost over 2,000 square miles (25-35 square miles per year) of wetlands.[15] Causes of this loss include a combination of erosion; storm damage; land subsidence; alterations of the natural freshwater and sediment flow from the Mississippi River; dredging of canals for oil and gas exploration and pipeline-installation activity; and the construction of navigation and flood control structures along the Mississippi River. Climate change (including the impacts of inundation and sea level rise) threatens to accelerate the loss of these habitats.

- **Erosion of barrier islands and shorelines throughout the Gulf Coast.** From Florida to Texas, continued erosion of the coastal barrier island system undermines storm protection for coastal communities, threatens the beaches that support the local tourism economy, and affects numerous species that rely on these barrier islands for habitat (e.g., Kemp's Ridley and loggerhead sea turtles, numerous shorebirds, and the Alabama beach mouse).

- **Loss and degradation of coastal estuarine habitat**. The estuaries and coastal systems of the Gulf Coast – such as Mobile Bay, Apalachicola Bay, Galveston Bay, Tampa Bay, Florida Bay, the Mississippi Sound, Barataria Bay, and others – provide the nursery habitat for most of the fishery resources in the Gulf, and support a nationally important oyster industry. These estuaries are impacted by a variety of stressors, including pollution, coastal development, energy development, erosion, hydrological alteration, changes in freshwater inflow, structural marsh management, and overfishing. Many of these bay systems have been recognized as estuaries of national significance by the National Estuary Program of the Environmental Protection Agency (EPA) under the Clean Water Act or as National Estuarine Research Reserves under the Coastal Zone Management Act, and are the focus of existing place-based protection and restoration efforts.

- **Imperiled Fisheries**. Several of the major commercially and recreationally important finfish species are currently experiencing pressures from overfishing or have been overfished. In some cases, these conditions have persisted for many years. Additionally, contaminants such as methyl-mercury in fishes, and red tide organisms and human pathogens in shellfish, reduce fishery values and endanger human health. Under the Magnuson-Stevens Fishery Conservation and Management Act, federally managed populations of National Oceanic and

Atmospheric Administration (NOAA) trust species such as red snapper, grouper, and mackerel are being rebuilt through the efforts of the Gulf of Mexico Fishery Management Council and state fishery management agencies.[16] The impact of the Deepwater Horizon oil spill on the rebuilding efforts for these species is as yet unclear.

- **Hypoxia (low oxygen) in the Gulf of Mexico.** Hypoxia occurs where the concentration of dissolved oxygen in the water column decreases to a level that reduces the quality of habitat, resulting in death or migration away from the hypoxic zone. The northern Gulf of Mexico adjacent to the Mississippi River is the site of the largest hypoxic zone in the United States and the second largest hypoxic zone worldwide.[17] This Gulf of Mexico "Dead Zone" is caused by input of excess nutrient pollution to the Gulf, most of which comes from upstream through Mississippi River drainage. A federal-state Hypoxia Task Force has been working to address factors leading to low-oxygen conditions, and EPA and the Department of Agriculture (USDA) have jointly worked to develop strategies to reduce nutrient runoff. NOAA has been working on developing models to support better understanding of biological-systems transport, including hypoxia predictions.

- **Climate change.** Our changing climate is already altering, perhaps irreversibly, the physical, chemical, and biological characteristics of our oceans, coasts, and adjacent watersheds. Increasing air and water temperatures, changing precipitation patterns, rising sea levels, and ocean acidification will increasingly confound efforts to restore or sustain system states. Federal and state natural resource managers need the information and tools to develop strategies for mitigating and adapting to a dynamic environment and ongoing habitat reorganization and restructuring.

The degradation of coastal and marine ecosystems and the services they provide has direct and indirect impacts on the economy, communities, and environment of the region. Future impacts associated with storms, subsidence, and sea level rise will serve to only amplify the region's vulnerability. Steps must be taken to curb the impacts of multiple stressors on Gulf ecosystems in order to reduce the negative consequences for the marine and terrestrial environment, national commerce, maritime industry, energy security, fisheries, and the rich cultural legacy of the Gulf Coast.

B. How the Deepwater Horizon Oil Spill Further Impacts the Region

The Deepwater Horizon oil spill has caused significant environmental impacts. Federal and state agency scientists and independent researchers are currently working to understand and quantify the injuries to natural resources, ecosystems, and their services caused by the Deepwater Horizon oil spill. From an ecological standpoint, four areas of great concern are the impacts on the water column, fisheries, habitats, and species.

Water Column Impacts

It is estimated that the Deepwater Horizon oil spill has released over 4.9 million barrels of oil into the Gulf of Mexico.[18] This event is unique in its magnitude in volume and area but also in its location. The spill released the oil, and the response included the addition of dispersants, at almost a mile depth. This part of the open ocean is subject to strong and variable ocean currents that can transport oil, dispersants, and tar balls to remote locations, sensitive and valuable ecosystem areas, areas of large commercial and recreational use, and close to highly populated coastal areas. The eventual degradation of the oil and its constituents will occur at fine scales (through microbial processes) and may have significant impacts on the food chain. Monitoring of physical, chemical, and biological factors in the whole water column, at the oil spill site, and away from the wellhead is necessary to fully comprehend the impact of the oil spill on ecosystems and coastal areas.

Fisheries Impacts

The Deepwater Horizon oil spill has had a negative environmental, economic, and social impact on Gulf fisheries due to oil-related closures and concerns about seafood contamination. The extent of the harm is not yet well understood. Resource managers and scientists continue to discuss possible short- and long-term impacts to key stocks, indicator species, and food webs, but the studies required to address these issues are still in the earliest stages.

The Deepwater Horizon oil spill forced the temporary closure of up to 88,522 square miles or 36 percent of federal Gulf waters[19], and more in-state waters, to fishing. The majority of state and federal waters have been reopened based on joint efforts of NOAA, the EPA, the Food and Drug Administration (FDA) and the states in developing a reopening protocol that includes sensory and chemical testing of seafood for components of the oil. Finfish, shrimp, crabs, and oysters have been tested and were found to be safe for human consumption.

Fish eggs and larvae are particularly sensitive to even very low levels of oil in water. Crabs and oysters, which lack the ability or tendency to swim away from waters that are contaminated with oil, are also vulnerable.

The impact of the oil spill also extends to fresh-water ecosystems. Diadromous fishes move between fresh water and salt water to complete their life cycle and, therefore, are influenced by conditions in both environments.

Habitat Impacts

The Gulf of Mexico ecosystem hosts a variety of significant coastal and marine habitats, some of which are in marine protected areas that have been exposed to oil. These vital habitats include beaches; wetlands (including marshes, forested wetlands, mangroves, seagrasses and other submerged aquatic vegetation); intertidal and subtidal mudflats; oyster-reef habitats; shallow and deepwater corals; estuarine and marine benthic habitat; and marine habitat.

The long-term effects of oil on these habitats have yet to be determined. Oil can persist in wetlands and soft sediments for years and kill plants and animals through smothering or chemical toxicity. If there are significant impacts on marsh grasses, mangroves, and other vegetation, this could accelerate erosion of marsh edge, which would only exacerbate a large-scale problem plaguing the region. In addition, oil that becomes entrained with suspended sediment or other particles can sink to the bottom, affecting submerged vegetation, oysters, coral, and other benthic species that live on the seafloor.

Species Impacts

The nature of the impacts and their geographic and temporal scope are expected to vary by species. Many animals have died from direct contact with the oil, but more insidious, long-term stress from the oil and clean-up activities may affect food availability, growth, reproduction, behavior, disease, and the long-term health of many organisms.

Sea turtles, all of which are either endangered or threatened, feed along floating debris and seaweed (including *Sargassum*) that were heavily oiled during the spill. *Sargassum* is considered essential fish habitat for the juvenile life stages of a number of highly important recreational and commercial species, including mahi mahi, billfish (marlin and sailfish), and cobia. Additionally, the coastal lands and waters off Louisiana, Mississippi, and Alabama include critical habitat for species designated under the Endangered Species Act.

The Gulf of Mexico is the only spawning ground of the critically depleted western Atlantic population of the bluefin tuna, which was just past the peak of its spawning season at the time of the spill. Tuna produce buoyant eggs, which may be particularly impacted by the oil spill. Other threatened species, such as Gulf sturgeon and several species of shark, may also be impacted by the spill. Other impacts may be identified in the coming years.

C. Initial and Current Response to the Oil Spill

The Deepwater Horizon oil spill added new stresses on the Gulf of Mexico region's ecosystem and economy. The spill's impacts include both obvious, dramatic short-term impacts – such as the closure of up to 36 percent of federal waters in the Gulf to fishing during the oil spill, the oiling of birds, other animals, beaches, and coastal marshes, the disruptions associated with the massive response efforts in the Gulf and on-shore – as well as long-term impacts.

A key statute guiding the government's response to this latest disaster is the Oil Pollution Act of 1990 (OPA) and its related regulations. Passed in the wake of the 1989 *Exxon Valdez* oil spill, OPA expanded the scope of the National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan (NCP), by mandating new contingency planning and response preparedness responsibilities for the federal government and industry, as well as by providing additional guidance on coordinating and directing response and cleanup activities.

In addition, OPA provided funding for oil spill related response activities through the Oil Spill Liability Trust Fund, amended the Clean Water Act to increase penalties for oil discharged, broadened the response and enforcement authorities of the federal government; and preserved state authority to establish laws governing oil spill prevention and response. OPA also set financial responsibility requirements, and subjected parties determined responsible for the release or threat of release of oil to liability for a variety of removal costs and damage claims.

Under OPA, the process for restoring the damage to natural resources has already begun. A major goal of the legislation is to compensate the public for injury to, destruction of, loss of, or loss of use of, natural resources, including the reasonable costs of assessing the harm done as a result of a discharge or substantial threat of a discharge of oil.

This goal is achieved through returning injured natural resources and services to the condition they would have been in if an event had not occurred (otherwise referred to as "baseline" conditions), and compensating for interim loss of use of those resources, which are measured from the date of the injury until such natural resources are restored.

Under OPA Natural Resource Damage provisions, responsibility for assessing injuries to natural resource as a result of an oil spill, and implementing a restoration plan intended to compensate the public for those injuries, is shared by federal and state "trustee" agencies designated by the President and the governor of each affected state, and by Indian tribal trustees when natural resources under a tribe's jurisdiction have been injured. There are usually multiple trustees with overlapping responsibility for injured natural resources, and they typically seek to coordinate their efforts through a Trustee Council.

OPA includes a process referred to as Natural Resource Damage Assessment, or NRDA, which the trustees use to:

- Identify injuries to natural resources and services resulting from an incident.
- Provide for the return of injured natural resources and services to baseline conditions.
- Compensate for the losses that continue to occur until baseline conditions are returned.
- Include public involvement in the restoration planning process.

The NRDA process is governed by federal regulations, which define three main phases of a NRDA:

- Pre-assessment Phase, in which the trustees determine if they have the jurisdiction to pursue restoration under OPA and, if so, whether it is appropriate to do so.

- Restoration Planning Phase, in which the trustees evaluate the potential injuries to natural resources and services and use that information to determine the need for and scale of

restoration actions through two basic components: injury assessment and restoration planning.

- Restoration Implementation Phase, in which the Final Restoration Plan is presented to parties responsible for the spill to implement or fund the trustees' costs of implementing the plan. If the responsible parties decline to pay the claim, OPA authorizes trustees to bring a civil action for damages in federal court or to seek payment from the Oil Spill Liability Trust Fund for such damages (and allow the Fund to recover payment from the responsible parties as appropriate).

Funds recovered from responsible parties under OPA must be used for restoration, rehabilitation, replacement, or acquisition of equivalent natural resources or services. During the Deepwater Horizon oil spill, federal and state entities with natural resource trust responsibilities initiated the NRDA process to assess natural resource injuries caused by the spill, and to identify appropriate restoration options.

The natural resource trustees have formed a Trustee Council that presently includes representatives from Alabama, Florida, Louisiana, Mississippi, and Texas, and for the federal government the leads are the Departments of Commerce and Interior. As part of the NRDA process, the Trustees are reviewing and, as appropriate, incorporating the vast amount of monitoring data on the Gulf of Mexico into their assessment of the injuries that may potentially result from the Deepwater Horizon oil spill.

The Trustees also intend to develop a restoration plan; they will review and develop a suite of potential restoration options that ultimately will be scaled directly to the quantified injuries and will form the foundation of the natural resource damage claim. During the Trustee Council's process of developing the restoration plan, the Oil Pollution Act requires public review and comment.

The long-term Gulf of Mexico ecosystem restoration effort described throughout this report must be closely coordinated with the NRDA Trustee Council, which is responsible for management of the NRDA for the Deepwater Horizon oil spill. The two efforts will share information, and the long-term ecosystem restoration effort will seek to build off and complement the progress made through the NRDA process under OPA, but will not interfere with the Trustee Council's exercise of its statutory responsibilities. For example, the mechanisms proposed in Section IV could identify projects that might meet the needs of the eventual NRDA restoration plan.

In addition to response efforts under OPA, federal agencies and private partners took early action during the oil spill to avoid and minimize impacts to wildlife. A partnership between the National Fish and Wildlife Foundation, USFWS, NOAA, and private partners took action to transfer of 25,000 sea turtle eggs from Gulf of Mexico beaches to the Atlantic coast of Florida. The Natural Resource Conservation Service worked with landowners in the Gulf Coast to enhance migratory bird habitat to keep birds away from oiled areas. Conservation

organizations throughout the region engaged in complementary efforts with the support of the National Fish and Wildlife Foundation.

D. Major Relevant Efforts in the Region

At the time of the spill, there were already numerous entities engaged in restoration and recovery efforts in the Gulf region, including federal agencies; state and local governments; tribes; private corporations; non-governmental organizations (NGOs); academic and scientific organizations; private landowners; affected stakeholders; and the public. In addition, this administration has undertaken a number of initiatives across the region to coordinate federal programs and policies with local efforts. Many of these efforts seek to construct restoration projects on-the-ground and in-the-water and to operate under an array of authorities, programs, and management objectives.

The following summaries provide an overview of some of the major efforts underway in the Gulf of Mexico and on the Gulf Coast. These efforts represent critical first steps in restoring Gulf ecosystems, and this report seeks to build upon and coordinate with these efforts and draw from their expertise.

A review of existing programs indicates that there should be a mechanism to ensure communication and integration, in order to avoid duplication of efforts. However, this report is not intended to impede or derail any of these other programs. Rather, where possible, these existing efforts should be accelerated in an effort to achieve results. For example, existing efforts on hypoxia, including work by EPA and USDA to reduce nutrient loadings to the Mississippi Basin, can and should be accelerated during this effort.

State and Federal Restoration Efforts

The Gulf states, federal government, and localities have all engaged in numerous state-specific and local restoration planning efforts for the last several decades. These efforts vary in their geographic and ecological scope. These state-specific and local efforts will help drive priorities and identify critical gaps in the broader Gulf-wide restoration effort. The following non-exhaustive list describes several of the more prominent programs by state:

- Alabama: The state of Alabama has focused on a variety of restoration and conservation activities in its coastal areas. It cites tax revenues generated through tourism activity in the coastal counties as an important contribution to the state economy. Barrier-island restoration is a priority for the state. The health of Mobile Bay, particularly the Mobile-Tensaw River Delta, has been a major focus of state efforts. The Mobile River basin drains an area of nearly 44,000 square miles across Alabama, Mississippi, Tennessee, and Georgia into Mobile Bay.[20] Through the Forever Wild Program, and other programs, the state has invested in land protection around the delta and is working to address hydrologic connections, water quality, and nutrient pollution in the bay[21].

- Florida: A variety of state, local, and federal partners have been working together for decades on a number of significant scientific, planning, and implementation efforts to protect and restore the Everglades, including the implementation of the Comprehensive Everglades Restoration Plan (CERP). Other statewide programs include the Coastal Wildlife Conservation Initiative, a multi-agency effort led by the Florida Wildlife Commission to address threats to native wildlife and their habitats in coastal ecosystems. The Statewide Beaches Habitat Conservation Plan, led by the Department of Environmental Protection, seeks to preserve the unique and precious wildlife and natural resources of Florida's coastline.

- Louisiana: Due to a high rate of land loss and the impacts of Hurricanes Katrina and Rita in 2005, Louisiana has engaged in robust planning efforts that include the State Comprehensive Master Plan for a Sustainable Coast (Master Plan). This effort was completed in 2007, and outlines a dynamic, multipurpose strategy to integrate planning, design, and implementation of hurricane protection projects with projects aimed at restoring Louisiana's rapidly eroding coastal wetlands.

  The Master Plan serves to guide all coastal restoration and hurricane protection efforts in Louisiana over the next several decades. The state is currently updating its Master Plan for 2012. The federal government has also made coastal restoration in Louisiana a priority, with efforts that include the Louisiana Coastal Area (LCA) Near-Term Plan and the Louisiana Coastal Protection and Restoration Plan (LACPR). Finally, the federal Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) represents one of the oldest and largest federally funded restoration programs in the country.

- Mississippi: Mississippi has engaged in an active federal-state restoration effort called the Mississippi Coastal Improvement Program (MsCIP), which was developed to analyze and design comprehensive improvements or modifications to existing improvements in the coastal areas of Mississippi to reduce storm damage, prevent saltwater intrusion, conserve fish and wildlife, prevent erosion, and for other purposes. Fifteen "interim" projects that were congressionally authorized and funded in 2006 following Hurricane Katrina are included in MsCIP, with most of those fifteen projects now either underway or complete. In 2009, Congress authorized and appropriated $439 million for the U.S. Army Corps of Engineers to conduct barrier island restoration and other restoration opportunities. Since the final MsCIP report was recently completed and sent to Congress, the remaining projects have not yet been authorized.

- Texas: In Texas, coastal restoration priorities have focused on a number of areas including estuaries, coastal barrier islands, sea turtle conservation, and coastal bird habitats. Similar challenges to those found elsewhere in the Gulf - sea level rise, erosion, subsidence, and the need to restore hydrologic connections - are priorities for the state. For example, Texas has identified concerns with declines in coastal waterbirds in the mid-coast area and is working to restore eroding or subsiding habitat. In Galveston Bay, Hurricane Ike impacted nearly 8,000 acres of oyster reef and the state is working with partners to remove silt and restore

these areas.[22] Finally, the state is working to protect and restore nesting beaches for Kemp's Ridley sea turtles to provide critical backup nesting sites. Recognizing declines in seagrasses within Galveston Bay and some Coastal Bend regions of Texas, the state developed a comprehensive Seagrass Conservation Plan for Texas in 1996 to guide concerted planning and implementation of conservation and restoration actions to address documented loss and degradation throughout the state's bays and estuaries. Texas also has a state-wide Coastal Erosion Protection Planning and Response Act Program.

Gulf of Mexico Alliance (GOMA)

The Gulf of Mexico Alliance (GOMA) is a partnership between Alabama, Florida, Mississippi, Louisiana and Texas that was founded in 2004. GOMA engages federal agencies, academia, and non-governmental partners to develop strategies and coordinate implementation of the Governors' Action Plan. The Action Plan identifies regionally significant issues that could be effectively addressed through increased collaboration at the local, state, and federal levels by building partnerships and laying a foundation for a regional approach to ecosystem management and restoration. The Action Plan identifies six priority areas: 1) water quality for healthy beaches and seafood; 2) habitat conservation and restoration; 3) ecosystem integration and assessment; 4) reducing nutrients' impacts on coastal ecosystems; 5) coastal community resilience; and 6) environmental education.

Hypoxia Task Force

The Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, more commonly called the Gulf Hypoxia Task Force, provides executive level direction and support for coordinating the actions of ten states and five federal agencies working on nutrient management within the Mississippi River/Gulf of Mexico Watershed. Co-chaired by the EPA and the state of Mississippi, the Task Force oversees the implementation of the 2008 *Action Plan*. The *Action Plan* outlines critical needs to complete and implement nutrient reduction strategies, promote effective conservation and management practices, track progress, reduce existing scientific uncertainties, and promote effective communication to increase awareness of Gulf hypoxia.

Roadmap for Restoring Ecosystem Resiliency and Sustainability

In October 2009, President Obama formed the Louisiana-Mississippi Gulf Coast Ecosystem Restoration Working Group, co-led by the Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) and comprising high-level political appointees from the National Oceanic and Atmospheric Administration, the U.S. Environmental Protection Agency, and the Departments of the Army, Homeland Security, the Interior, and Transportation. In March 2010, the Working Group released a *Roadmap for Restoring Ecosystem Resiliency and Sustainability* (Roadmap). The Roadmap reaffirmed the federal government's partnership and coordination with the states of Mississippi and Louisiana. It outlined federal actions over an 18-month period to address pressing near-term policy, process,

and legal hurdles to restoration and laid the foundation for a long-term comprehensive vision to be achieved jointly with the states.

The Roadmap was developed to guide near-term federal actions for the restoration and protection activities in Louisiana and Mississippi, and seeks to complement and support the longer-term ecosystem restoration planning activities already under way in those states and in the various federal agencies. Recognizing that providing for the sustainability of the region is something that will take a committed effort over many years, the Roadmap outlines a process to establish a new and enduring entity to provide long-term leadership, shared responsibility, and coordination to resolve the difficult challenges facing the region. Establishment of a Gulf Coast Ecosystem Restoration Task Force described in this chapter could fulfill the need for a long-term coordinating body described in the Roadmap, while other actions outlined in the Roadmap could go to inform the work of the Task Force.

National Ocean Council and Regional Planning Bodies

In July 2010, President Obama signed Executive Order (EO) 13547, which creates a new National Ocean Council to coordinate federal stewardship efforts in the ocean, our coasts, and the Great Lakes. The National Ocean Council has nine National Priority Objectives, including "Regional Ecosystem Protection and Restoration," and as this new body identifies particular regions on which to focus, it is possible that the Gulf could become one of those regions. As that effort develops over the coming year, we should evaluate and consider the connections between that effort and the long-term restoration work outlined in this report.

EO 13547 also outlines a new approach to managing the multiple uses of coastal waters, referred to as "coastal and marine spatial planning." Coastal and marine spatial planning moves away from the current sector-by-sector, statute-by-statute approach. It moves toward management that can properly account for cumulative effects, sustain multiple ecosystem services, and explicitly evaluate the tradeoffs associated with proposed alternative uses.

Under this new approach, the National Ocean Council will work with states and federally recognized tribes to create regional planning bodies that guide the development of regionally driven plans. One of the National Ocean Council's designated regional planning areas is the Gulf of Mexico, which covers all five states discussed in this report. The membership of each regional planning body, which will be established by early 2011, will consist of federal, state, and tribal authorities relevant to coastal and marine spatial planning for that region.

Climate Science and Landscape Conservation Cooperatives

Several Gulf states have been working in cooperation with federal agencies, including the Department of the Interior, as part of a national initiative to develop Climate Science Centers (CSCs) and Landscape Conservation Cooperatives (LCCs). The CSCs will provide fundamental scientific information, tools, and techniques that land, water, wildlife, and cultural resource managers and other interested parties can apply to anticipate, monitor, and adapt to climate

change impacts. As they are developed in the Gulf, LCCs will focus principally on coastal and near-shore areas and will be applied conservation science partnerships that are intended to drive success at landscape scales. LCCs have a role in helping partners identify common goals and priorities to target the right science in the right places for efficient and effective conservation. LCCs provide scientific and technical support for landscape-scale conservation in an adaptive management framework by supporting conservation planning, decision support tools, prioritizing and coordinating research, and designing inventory and monitoring programs.

In addition, NOAA's climate services directors will build and strengthen regional partnerships to better assess and deliver regionally-focused climate science and information products and services to help people make informed decisions in their lives, businesses and communities.

Coastal and Marine Managed Areas

There are several federal programs in the Gulf region that have an important role addressing coastal and marine issues, including habitat restoration and protection, pollution, hypoxia, and climate change, through long-term research and monitoring, outreach and education, and environmental stewardship. The National Estuary Program (NEP), established by Congress in 1987 as part of the Clean Water Act, works to restore and maintain water quality and ecological integrity of estuaries of national significance. Seven of the 18 NEPs are located in the Gulf region. The National Estuarine Research Reserve System (NERRS), established by the Coastal Zone Management Act in 1972, is a series of 27 coastal areas in the United States, with five in the Gulf of Mexico. These reserves are protected for long-term research, water-quality monitoring, education, and coastal stewardship. Under the mandates and authorities of the National Marine Sanctuaries Act of 1972, NOAA manages 13 national marine sanctuaries, of which two (the Florida Keys and Flower Garden Banks) are in the Gulf of Mexico. The protection of these nationally significant marine areas is important for maintaining, protecting and restoring habitats and ecosystem services.

E. The Ecological-Economic-Health Nexus

The resources of the Gulf of Mexico serve as an important economic driver for both the region and the United States, as well as the cultural identity for many communities in the region. As discussed in detail in the economic chapter's section on background information, commercial, recreational, and subsistence fishing, oil and gas exploration and extraction, shipping, recreation, and tourism traditionally are the main drivers of the Gulf economy. The economy of the region is largely dependent on the health of the ecosystem and the safety of seafood, meaning that environmental impacts, such as an oil spill, can have serious economic impacts on millions of people. Likewise, efforts to improve the ecosystem in the Gulf region have important feedback effects on the region's economic health.

Beyond the core Gulf of Mexico jobs in tourism, fisheries, and other natural resource dependent sectors, ecosystem restoration offers "green jobs" opportunities, including engineers, surveyors, and demolition and construction jobs. Coastal restoration projects create

approximately 20 jobs for every $1 million spent. The average amount spent on salaries in proportion to the total project cost varies from project to project.

Any lost income in the region may result in diminished resources for volunteer organizations and charities that are augmenting state and local government efforts to support the provision of health-related prevention activities and services. This is particularly challenging given the behavioral health and human services needs that have increased as a result of the spill. From the fishing community to the local tourism industry, individuals in affected areas face an uncertain economic future, causing significant anger and resentment. The Deepwater Horizon oil spill has disrupted the delicate social, economic, and psychological balances in communities across the region.

Beyond resource extraction and management, Gulf of Mexico ecosystems provide a variety of ecosystem services that contribute to and protect the economy and culture of the region. These ecosystem services provide food and fiber, clean air and water, storm protection, recreation, carbon sequestration, and aesthetic values. Additionally, the coastal landscape of this region has sustained unique cultures for hundreds of years and ecosystem restoration and protection is critical to safeguarding and sustaining the region's rich cultural histories and heritages. Scientific research and modeling show that coastal wetlands, barrier islands, mangroves, and forested wetlands serve as natural buffer zones, protecting communities and other infrastructure against storms and floods and providing millions of dollars in savings annually.

III. Principles for Ecosystem Restoration

To restore the Gulf region, the restoration and recovery effort must recognize that the problems afflicting the Gulf of Mexico are of a great scale and the region has been significantly affected. Restoration and recovery efforts should recognize that that the economic vitality of the region is directly tied to the health of Gulf ecosystems. Under that premise we propose the following vision for the Gulf of Mexico ecosystem restoration:

> *Resilient, healthy Gulf of Mexico ecosystems that support the diverse economies, communities, and cultures of the region.*

To truly create a resilient Gulf of Mexico, the federal government must assist state and local governments, nonprofit organizations, community groups, scientists, academics, the private sector, and the public to identify and address the ecological decline that has already negatively impacted the region, including significant habitat loss (wetlands, barrier islands, bottomland hardwood forests, etc.), decline of indicator species (species whose relative well-being in a given environment is indicative of the health of its ecosystem as a whole), and hypoxia. This process must be a truly collaborative partnership, and it will require participation by and investment from all parties listed above.

Restoring the natural processes of Gulf ecosystems so that they are healthier, and more resilient may take decades. Restoration should be science-based, and must include restoration of the natural processes that maintain healthy ecosystems. Important progress can and must be made now. This is an opportunity to address the root causes of Gulf degradation and to come up with creative solutions to address problems.

The following principles serve as the drivers for achieving the vision of resilient and healthy Gulf of Mexico ecosystems. These principles represent broad objectives that draw from, and build upon, existing plans for the Gulf described earlier in this document. For the restoration effort to succeed, it should be guided by science and include a clear set of measurable objectives tied to indicators that gauge progress toward achieving the restoration vision.

- **Principle 1: Coastal Wetland and Barrier Shoreline Habitats are Healthy and Resilient.** In order to sustain the many ecosystem services upon which humans rely, coastal habitats must be healthy and resilient. Reversing ongoing habitat degradation and preserving the remaining healthy habitats is a key principle. It must be recognized that even the healthiest ecosystems are dynamic, so a restoration effort should not focus entirely on a fixed "footprint." A key objective of this principle is to bring greater balance to managing the Mississippi River and other rivers for flood control, navigation, and ecosystem restoration. Another objective is to retain sediments that nourish coastal wetlands, rather than releasing them to the Gulf.

- **Principle 2: Fisheries are Healthy, Diverse and Sustainable.** The Gulf is home to the largest commercial fishery in the contiguous United States. The total trip expenditures for recreational fishing in the Gulf states in 2008 were nearly $1.5 billion.[23] Key objectives of this principle may include incorporating testing and other mechanisms for seafood safety to ensure that fish and shellfish are safe for human consumption, and working through regulatory and other conservation mechanisms to restore populations of fish and shellfish.

- **Principle 3: Coastal Communities are Adaptive and Resilient.** The needs and interests of Gulf communities vary and the most effective solutions will be based on local conditions. Given that much of the land affected by the oil spill is privately held, full restoration will rely on local citizen support. The impacts of climate change, including sea level rise and more frequent and intense storms, will likely alter the landscape significantly, forcing communities to reassess their priorities. Key objectives of this principle may include providing coastal managers with information and tools to make better land use and public health decisions, and increasing awareness of the connection between ecosystem and community resilience.

- **Principle 4: A More Sustainable Storm Buffer Exists.** Persistent coastal land loss, compounded by sea level rise, is deteriorating natural lines of defense, leaving coastal communities vulnerable to tropical storms. Natural and engineered systems are necessary to reduce exposure and ensure protection. Key objectives of this principle may include maintaining and expanding natural storm buffers such as wetland and barrier islands,

improving decision-making with regard to structural protection and navigation interests so that these complement and enhance restoration of natural systems. Another objective is the reduction of risk posed to people and private property through effective planning, mitigation, and balancing of interests.

- **Principle 5: Inland Habitats, Watersheds and Off-Shore Waters are Healthy and Well-Managed.** Communities across the nation rely on our ability to maintain healthy, resilient, and sustainable ocean, coasts, and Great Lakes resources for the benefit of present and future generations. Additional stressors on the health of these systems and the resources they support include overfishing, pollution, and coastal development. Further, ocean and coastal resources are directly and indirectly impacted by land management and use decisions in the watersheds that drain into the Gulf of Mexico. Key elements of this principle include improving management of agricultural and forest lands; restoring floodplains and wetlands to improve water quality, reduce flood risks, and enhance wildlife habitat; reducing erosion and nutrient runoff from agricultural and developed land; and using state-of-the-art planning tools to deliver comprehensive, integrated ecosystem-based management of resources.

Each principle and its associated objectives will be based on science that will support the efforts designed to achieve them. To help achieve these objectives, agencies should work to develop performance indicators to evaluate effectiveness; adaptively manage efforts; provide a mechanism for oversight and accountability; and ultimately enable the vision of resilient and healthy Gulf of Mexico ecosystems.

IV. Recovery Strategy

From prior and ongoing planning and restoration efforts in the region, it has been learned that the best results are achieved through effective cooperation and coordination among various federal, state, and local entities. A Task Force where federal and state agencies can work together to coordinate their efforts, engage stakeholders, and address the policy and process obstacles to implementation will help align and advance restoration plans and projects. Below are the main elements of a Gulf Coast Ecosystem Restoration Task Force and Strategy that may be established under existing authorities that will provide the means to address some of the most pressing coordination needs in the region and that may evolve and adapt in the future.

Purpose and Need for a Gulf Coast Ecosystem Restoration Task Force and a Gulf Restoration Strategy

The scope and complexity of the sweeping ecological challenges facing the Gulf of Mexico region require action on a large scale. There is a need for an intergovernmental Gulf Coast Ecosystem Restoration Task Force that facilitates coordination of federal, state, and tribal efforts on long-term restoration and recovery. While the Ecosystem Restoration Task Force is

not meant to direct other Federal agencies or the expenditure of funds, the purpose of the Task Force would be to serve in an advisory capacity to:

- Provide for the development of a Gulf of Mexico Regional Ecosystem Restoration Strategy.
- Help coordinate the selection, funding, and implementation of protection and restoration projects, in coordination with existing authorities and efforts, including the Deepwater Horizon oil spill NRDA Trustee Council.
- Ensure transparency and accountability in decision making.
- Enhance public engagement in development and implementation.
- Coordinate science (including monitoring and adaptive management), regulatory decision making, management of other types of projects (i.e., navigation and flood control) with ecosystem restoration to improve compatibility with a healthy and resilient coast.

With so many existing planning efforts, ongoing restoration projects and new initiatives that have emerged prior to and since the Deepwater Horizon oil spill, there is a critical need for a unifying coordination structure that can serve to coordinate, leverage, and accelerate these parallel paths.

A Gulf Coast Ecosystem Restoration Task Force should be established immediately under existing authorities to provide a forum to coordinate the implementation of existing authorities for ecosystem restoration in the Gulf of Mexico. Recommendations regarding membership, leadership, responsibilities, and near-term deliverables of the Task Force are described below. The membership, leadership, and responsibilities of this Task Force could change over time.

Membership and Leadership

The Gulf Coast Ecosystem Restoration Task Force would include federal, state, and tribal government representatives, engaged at a high level (Assistant Secretary or equivalent), with a director and a staff that is assigned from member agencies to support the work of the entire effort.

Federal membership on the Task Force would include the Departments of Agriculture, Commerce, Interior, Justice, and Transportation, along with the Environmental Protection Agency, U.S. Army Corps of Engineers, the Council on Environmental Quality, the Office of Science and Technology Policy, and the Domestic Policy Council. The Departments of Health and Human Services, Homeland Security, Labor, and the Small Business Administration would serve in an advisory role to offer guidance on issue-specific topics. All federal agency participation would be consistent with each agency's existing statutory and regulatory responsibilities.

Each Gulf state would have one representative on the Task Force, nominated by each Gulf state governor and appointed by the President. In many cases, individuals who would serve on this Task Force from the state agencies are likely to be the same as those serving as their state's representative on the Deepwater Horizon oil spill NRDA Trustee Council. Such overlap in

membership would be encouraged as it could help ensure coordination with NRDA restoration activities. It is important that the Task Force reach out to federally-recognized tribes in the region to engage them in undertaking its responsibilities, in collaboration with them, and determine an appropriate structure for tribal participation.

The Task Force would be chaired by the Federal Gulf Coast Ecosystem Restoration Task Force chair, who would be appointed by the President and act as federal lead for Gulf recovery. There would also be one state vice-chair who would be jointly selected by the state representatives on the Task Force.

Responsibilities of the Task Force

The principal responsibility of the Task Force would be to coordinate intergovernmental efforts to implement restoration programs and projects in the Gulf of Mexico. This should include priority setting and better coordination of restoration efforts with federal and state agency regulatory and permitting authorities. The Task Force would develop ways to make restoration project implementation more coordinated and efficient, recognizing that many of the restoration needs in the Gulf of Mexico are of such scale and complexity that rapid implementation will not always be possible.

Still, efficiencies gained from improved coordination and communications among agencies are essential to smooth the path for critical projects. The Task Force would develop and foster innovative and collaborative ways to identify, design, review, implement, and assess restoration activities. The Task Force obviously cannot oversee implementation of every project, nor should it. Instead, this group should focus its project implementation efforts prioritizing and integrating efforts on complex, large-scale projects and on developing innovative approaches to resolving problems and conflicts. It would be a priority for this Task Force to identify policy and process barriers to implementation of restoration projects identified by Task Force members, as well as to address needs raised by the Deepwater Horizon oil spill NRDA Trustee Council.

Additionally, the Task Force should consider other mechanisms to communicate more broadly with interested constituents, building on and learning from the infrastructure that was set up to communicate information to the public during the response phase of the spill.

These mechanisms may include open, public meetings, a regularly updated website, conference calls with various stakeholder groups, and newsletters. The Task Force should also utilize existing meetings and events of stakeholder organizations, when possible, as opportunities to reach constituents.

The Gulf Coast Ecosystem Restoration Task Force also would be expected to coordinate with the Department of Health and Human Services on public health issues and with the departments of Commerce, Labor, and Treasury, along with the Small Business Administration and other federal agencies on ways to maximize the economic impact of ecosystem restoration projects.

Developing a Strategy for Gulf of Mexico Restoration

Within its first year, the Task Force would prepare a Gulf of Mexico Regional Ecosystem Restoration Strategy (hereafter, "the Strategy") that would identify major policy areas where coordinated federal-state action is necessary, such as sediment management. The Strategy would consider existing restoration planning efforts in the region to identify planning gaps and restoration needs, both on a state-by-state basis and on a broad regional scale. The members of the Task Force would identify ways under their various authorities to address these planning needs or propose new programs or actions needed to implement elements of the Strategy.

In accordance with the Strategy, the Task Force would work with the federal and state agency members on improving the alignment of each agency's relevant programs and authority with the Strategy. The Task Force would coordinate with OMB in the development of annual budget guidance on Gulf of Mexico priorities for all Task Force member agencies consistent with the Strategy.

The Task Force would work with existing federal and state advisory committees, as appropriate, to ensure that relevant scientific and technical knowledge underpins restoration planning and decision making, and that research, monitoring, and assessment efforts are organized to achieve the Strategy.

The Task Force would advise on Gulf of Mexico restoration efforts. Specifically, the Task Force would help agencies develop performance measures and prepare a biennial report card on progress toward the goals outlined in the Strategy. Implementation of Gulf-wide monitoring would provide the information necessary to evaluate progress toward performance measures. Furthermore, the Task Force could advise in the development of an overarching environmental review document under the National Environmental Policy Act in parallel with development of the Strategy from which individual project reviews would be tiered, as appropriate.

Outreach and Engagement

The Task Force would conduct its operations in such a way as to ensure that stakeholder groups, particularly those in the region, have access to share their needs and viewpoints, including state-specific perspectives. A wide variety of stakeholder groups should be involved, including local governments; private landowners; underserved and disadvantaged communities; scientists; business interests; commercial, recreational, and subsistence fishermen; agricultural groups; academic institutions; and nonprofits that have an interest in Gulf Coast restoration.

It is important to create a formal mechanism for public outreach and stakeholder engagement in this Task Force. All relevant options should be reviewed and evaluated to ensure formal, robust and comprehensive public engagement of the Gulf community throughout these restoration efforts.

It is also important that the Task Force reach out to federally-recognized tribes in the region to engage them in undertaking its responsibilities and determine an appropriate structure for tribal participation.

Task Force Structure

In order to conduct its work, the Task Force could be supported by technical teams that may be organized as described below. In organizing these technical teams, agencies should seek to involve staff people with relevant expertise who are located throughout their headquarters and regional offices. Effort should be made to ensure that all federal regional offices are engaged in supporting the Task Force.

If adopted, the teams described here should work together and are interdependent in fulfilling their responsibilities to support the Task Force.

- Regional Planning and Integration Technical Team: This team would be the technical group principally responsible for advising the Task Force on developing a Gulf of Mexico Regional Ecosystem Restoration Strategy, and for identifying gaps and planning priorities that will inform the efforts of both the Task Force and the Trustee Council.

  This team would advise the Task Force on integrating member agencies' activities into the Strategy. The team would consist of state and federal agency representatives with technical expertise in such vital areas as engineering, biology, oceanography, fisheries' management, environmental planning, and hydrology. This team could include members from the state advisory teams. Lastly, this team would be responsible for advising the Task Force on implementation of the Strategy and advising the Budget and Funding Coordination Team.

- Environmental Review Technical Coordination Team: This team would work with the Council on Environmental Quality (CEQ) to develop a strategy for environmental review under NEPA and state environmental review requirements, as well as other relevant authorities.

  NEPA requires federal agencies to consider environmental effects of their actions, including impacts to natural resources and cumulative effects, before deciding to proceed. NEPA also requires the analysis of social, cultural, and economic impacts. Moreover, NEPA provides stakeholders with an opportunity to be involved in the federal decision-making process, and ensures transparency with regard to complex issues and projects.

  The team would consider several approaches, and then examine site-specific proposals through more focused NEPA analyses that tier from the overarching environmental review document. This team will work to coordinate its efforts with similar state laws and the environmental review approaches for the Deepwater Horizon oil spill NRDA Restoration Plan.

- Budget and Funding Coordination Team: This team would be responsible for working across agencies to identify and coordinate implementation of shared budget priorities for the region. As described in Section V, numerous potential funding sources exist that could fund restoration activities in the Gulf of Mexico region. Many of these programs are subject to annual appropriation, as well as to prioritization among various federal agencies' objectives and programs.

  This team would also assist in ensuring accountability with the Gulf Restoration Strategy and develop annual budget guidance in consultation with OMB. This team would synthesize input received from the Science Coordination Team and Environmental Review Technical Team on monitoring, research, and restoration project priorities.

- Science Coordination Team: The Science Coordination Team would provide support to the Task Force to ensure that decisions are based on practical and applied science. This includes coordinating the scientific and technical framework for ecosystem restoration and monitoring, including ensuring that restoration decisions are informed by science and that the scientific and technical work of restoration is properly coordinated so as to achieve the Strategy and ensure coordination between restoration science and monitoring and public health management and economic development needs.

  The team would be established to respond to needs identified by the Task Force and in a manner consistent with existing authorities such as the National Ocean Council, the National Science and Technology Council, and other bodies as appropriate, and establish effective mechanisms for engaging academic and other non-governmental scientists. This team could assist in development of review or selection criteria, performance measures and indicators to track progress in achieving restoration goals, or research priorities, including research into new methods that will provide innovative and sustainable solutions that address the challenges facing coastal communities. Deliverables would be provided to the Task Force as science advice. The team would coordinate with other teams of the Task Force to ensure that the principles of ecosystem based restoration and management, integrated ecosystem assessment, and socio-economic-environmental interdependencies are used as the strategy is implemented.

Additional technical teams could be established by the Task Force on either a permanent or temporary basis, as needed. A number of technical teams already exist in the Gulf region (many organized under GOMA or the Roadmap), all of which have state and federal agency staff participation. The Task Force could draw upon the expertise and capacity of these existing teams.

Task Force Near-Term Actions

The Ecosystem Restoration Task Force should be established and begin work as soon as possible. Upon its establishment, the members of the Task Force should develop and adopt a

charter that outlines its functions and duties. This would include procedures for making decisions, resolving disputes, and addressing project-implementation needs. Development of the Strategy and the environmental review should be completed within a year and two years, respectively, of the establishment of the Task Force, and should build upon existing restoration planning and implementation efforts.

V. Funding Ecosystem Restoration

Accomplishing the vision for ecosystem restoration described in this Report will require an unprecedented level of cooperation and coordination among all levels of government and across the federal agencies. Moreover, as estimates to address existing coastal restoration needs make clear, the effort outlined in this report will require substantial investment. The recommendations in this chapter are related to ways that ecosystem restoration efforts might be improved within existing authorities. A number of federal statutory authorities currently exist that could be effectively coordinated with the work described here and use of these funds aligned to achieve an overall greater impact.

Federal agencies, in cooperation with the Task Force, should align implementation of these programs with a broader restoration vision. Moreover, the Gulf states have existing state sources of funding that have been highly effective in addressing coastal restoration needs. The Task Force should explore opportunities to align priorities between federal and state programs.

Finally, the effectiveness of restoration programs should be measured in terms of the Strategy, rather than on a program-by-program basis. No single program or authority will be sufficient on its own. It should be a principal responsibility of the Task Force to show how the combined efforts of all government programs are progressing toward restoration of this region as described in the Strategy, and to identify areas for improvement.

Potential funding sources to help achieve the vision of resilient and healthy Gulf of Mexico ecosystems include:

NRDA Damages

As explained above, under the Oil Pollution Act, responsible parties are liable to pay damages, including the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of the injured natural resources and/or the ecological and human use services provided by the injured resources; the diminution in value of those natural resources pending restoration; and the reasonable costs of assessing those injuries. OPA requires that all sums recovered for restoration must be used to restore, rehabilitate, replace or acquire the equivalent of the injured or lost natural resources, including “emergency” restoration projects under certain regulatory conditions. Decisions regarding the use of NRDA funds can be made only by designated natural resource Trustees.

Coastal Impact Assistance Program (CIAP)

CIAP was created by Congress in 2005 to provide for ecosystem restoration for coastal states to help mitigate the impacts of oil and gas production in the Outer Continental Shelf beyond their shores. The Secretary of the Interior is authorized to distribute to producing states and coastal political subdivisions $250 million for each of the fiscal years 2007 through 2010. While existing CIAP balances could be a source of funding for long-term restoration and recovery, the Gulf states have reported that they have encountered obstacles that have greatly limited their abilities to access these funds. Identifying and addressing any roadblocks in a timely fashion would further the goal of providing funding immediately to implement habitat protection and restoration projects. States could prioritize their use of CIAP funding for the highest priority projects in coordination with the Task Force and consistent with the final Gulf of Mexico Regional Restoration Strategy.

Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA)

The Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) is federal legislation enacted in 1990 that is designed to identify, prepare, and fund construction of coastal wetlands restoration projects. Since its inception, 145 coastal restoration or protection projects have been built, benefiting over 110,000 acres in Louisiana.[24] The annual budget for CWPPRA funded restoration has varied through the nearly 20-year life span of the Act. The budget, dependent on revenues from taxes on fishing equipment, import duties, and small engine motorboat fuels, has ranged between approximately $30 million per year to nearly $80 million per year.[25] The funded Louisiana projects provide for the long-term conservation of wetlands and dependent fish and wildlife populations with cost-effective plans for creating, restoring, protecting, or enhancing coastal wetlands.

Discretionary Appropriations

Another potential funding source may be found in the discretionary requests proposed under the various federal agencies' existing authorities.. While this approach has its challenges, it also has the advantage of being straightforward, and would provide certainty about available funding. It would not be dependent on unknown future penalty or settlement figures, or similar future anticipated receipts of unknown size and timing.

VI. Conclusion

The Deepwater Horizon oil spill has had tragic consequences for Gulf ecosystems and the Gulf economy, exacerbating existing restoration challenges and creating new ones in a region that has struggled with a legacy of environmental degradation. At the same time, it provides a tremendous opportunity to focus the nation's attention on addressing the latest challenge to this tremendously productive and diverse ecosystem.

This report outlines a path forward to maximize the opportunity for resilient and healthy, Gulf of Mexico ecosystems that support the diverse economies, communities, and cultures of the region. With statutory authority, the new governance model would provide a robust mechanism in which federal and state agencies can work together to coordinate their efforts, engage stakeholders, and resolve the policy and process obstacles to implementation that will help align and move forward restoration plans and projects. In a region that has long suffered from no shortage of plans but rather a lack of coordinated prioritization and implementation of those federal, state, and local plans, this report offers a strategic framework that can align the myriad regional interests and operations under a single structure so that the most pressing Gulf-wide ecosystem challenges can be addressed comprehensively and effectively.

Restoration of the Gulf of Mexico region will take sustained leadership and engagement by multiple stakeholders, and a significant commitment of resources over many years. This is a partnership and a collaboration that requires participation by (and investment from) all parties – federal, state, tribal, and local governments, non-profit organizations; the private sector; academics; and scientists. Together, the region and the nation can build a healthy and resilient Gulf Coast that can meet both this and future challenges.

Health and Human Services Recovery

I. Introduction

The Deepwater Horizon oil spill has had a profound impact on the lives and livelihoods of Gulf Coast residents; the region's environment, wildlife, and seafood; and the economy of all five states that border the Gulf. The sudden and emerging environmental disaster created by the spill has caused special health and economic needs for Gulf residents that must be addressed. [26] While all of the impacts are still unknown, effects of the spill are expected to continue for years to come.

Health and human services address a wide array of critical human needs. Strategic planning for health and human services recovery must be informed by the principle that federal efforts are designed to support locally driven priorities and needs in conjunction with affected states and communities. A strategic approach must also recognize that many interrelated systems are needed to support individual and community health, resilience, and well-being. These include the medical care and public health systems, behavioral health care, social services, and prevention. They also include elements essential to health such as equal access to care, employment and financial stability, functioning communities, and a safe environment.

In order for affected Gulf Coast communities to regain their momentum, it is essential that a long-term commitment be made to restoring the environment, seafood supply, and health of the region's population. This chapter details the health and human services challenges posed by the oil spill, reviews current activities, and proposes strategies to assist the people of the Gulf Coast in supporting themselves as they recover from this tragedy. The response to these challenges and the methods to recover from them span a number of domains. These include ***surveillance***, ***behavioral health*** prevention and treatment, the delivery of ***medical services***, access to ***human services***, ensuring ***seafood safety***, and cooperative and coordinated ***research***.[27]

II. Background Information

A. Pre-Existing Health and Human Services Challenges in the Region

Since Hurricanes Katrina and Rita, the Gulf Coast has experienced continuous overlapping cycles of emergency preparedness, response, and recovery. Health care, the functional needs of at-risk individuals, behavioral health, social services, and other service providers were neither exempt from these effects, nor from the destruction of homes and livelihoods. Because they had the resources to do so, many professionals left the area ahead of the storms, never to return. Many facilities were destroyed and have yet to be rebuilt, and some service providers continue to operate out of temporary structures or at locations with lower quality of service due to staffing challenges.[28]

Among the greatest existing health and human services recovery challenges in this region are:

- Loss of the professional behavioral health, health care, and social services workforce and the resulting impact on the recovery of the local economy.
- Acute and chronic health conditions in a population – much of which is disadvantaged – with insufficient access to healthcare.
- Reduced access to health care due to fewer delivery sites for services, with many sites still closed or operating in temporary, often smaller facilities.
- Increased demand for health, behavioral health, and community and social support services that are already stressed by decreased donations, lower revenue, and less functional facilities.

This damaged and fragile infrastructure was still moving toward full recovery when the oil spill occurred. All of this has produced challenges for state and local governments throughout the region, who now struggle to address these needs in an environment of reduced resources and personnel.

B. How the Deepwater Horizon Oil Spill Further Impacts the Region

Federal and state agency scientists are working to better understand and quantify the impact on health and human service needs caused by the spill. Although studies exist on the health impacts of other oil spills, the scale of the Deepwater Horizon oil spill makes it difficult to fully predict, with specificity, either the potential short- and long-term effects to both workers and residents of the region, or the needs that will result.[29] While coastal residents and tourists were urged to avoid close contact with oil, response workers may have been exposed to many different chemical, physical, and biological hazards depending on the type and stage of response and the workers' specific tasks. In addition, there are segments of the population along the Gulf Coast that have chronic health issues and lack access to adequate health care.[30] Should surveillance and research activities discover a connection between exposure and negative health effects, this could further affect health care access in the region.

While further research is needed to determine the physical health implications of the oil spill, behavioral health issues have already become a primary health concern in the immediate response. Evidence from past disasters, including the *Exxon Valdez* oil spill and Hurricane Katrina, show that behavioral health needs, and related issues such as domestic violence and family dysfunction, are likely to increase over time and become a greater burden on health care, public health, and social service systems during the recovery period.[31] This specific type of disaster can create a loss of social and economic support, causing significant anger and resentment, which can impact the human stress reaction and contribute to a host of medical conditions.[32,33] These stress reactions are real and can lead to specific mental and substance abuse patterns that may exacerbate or lead to various medical conditions. Such conditions include diabetes, hypertension, heart disease, and other illnesses. They may also profoundly impact a resident's life span and quality of life.[34]

Because of its impact upon the economic well-being of the Gulf Coast, the oil spill has important human services implications. If jobs are lost in key regional industries, aggravating already difficult circumstances for many Gulf Coast residents, large segments of the Gulf Coast population will experience an intense need for economic and social support. An increased demand for a range of federal, state, and local programs, including those providing support for income, home maintenance, and stress-related family challenges is already occurring.[35,36]

Seafood safety concerns further impact the region's health and economic climate. The crude oil in the Gulf waters as a result of the spill is a combination of many different chemicals, a number of which are harmful to people if inhaled, absorbed through the skin, or ingested in contaminated food or water. In addition, chemical dispersants were used both on the surface and at the well head to facilitate the oil's degradation. Furthermore, long-term accumulations of contaminants such as heavy metals, present in crude oil, will be monitored for years. Therefore, sampling, analysis, and surveillance of various types of seafood from affected and adjacent areas will continue to ensure that harvested seafood is untainted by oil spill-related contaminants.

C. Initial and Current Response to the Oil Spill

At the time of the spill, there were a number of entities working on Gulf Coast health and human services recovery activities as a result of damage inflicted by Hurricanes Katrina and Rita. These included federal agencies, state and local governments, federally and state-recognized tribes, private corporations, non-governmental organizations, academic and scientific organizations, other affected stakeholders, and the general public. The economic and environmental uncertainty as oil continued to flow from the wellhead and as the beaches, marshes, and waters became visibly polluted, presented a significant challenge to these efforts. As a result of the spill, federal departments and agencies, state and local governments, and others have responded to the immediate health and human services needs of the Gulf Coast states. But many less tangible needs continue to evolve as the recovery phase of operations begins. The following summaries provide a non-exhaustive overview of some of the major health and human services response efforts underway on the Gulf Coast.

Surveillance

Since the oil spill began, there have been concerns about the extent to which related hazards, such as physical and chemical exposures and social and economic disruptions, may impact human health. Using state-based and national surveillance systems and BP injury and illness data, Gulf Coast states and the HHS Centers for Disease Control and Prevention (CDC) are tracking short-term health effects potentially related to the oil spill in order to alert public health officials to trends that can be addressed or to trends that require further investigation.

At the request of public health officials in Alabama, CDC helped state and local officials conduct Community Assessment for Public Health Response (CASPER) surveys in two counties. A

CASPER rapidly measures the health status and basic needs of the affected community and provides objective information to public health practitioners and emergency management officials in order to direct assets. Conducting a CASPER provides state and local health officials with a more complete assessment of public health needs, including behavioral health needs. Additionally, EPA has monitored air and water for human health impacts.

Behavioral Health

To date, officials from Gulf Coast states report an increase in the need for behavioral health services. They also express concern about behavioral health issues related to job loss, as well as a perceived loss of the Gulf's distinct culture and way of life. As a result, community organizations, state officials, and traditional providers have been conducting outreach, training, and other services for those who exhibit fear, sadness, irritability, and loss of hope. At the federal level, HHS has been directing attention and resources to address the behavioral health issues arising from the oil spill. It has also sought to ensure that at-risk individuals and populations such as children, the elderly, and limited English proficient speakers, are considered in the Gulf Coast region's response efforts. [37]

HHS is engaged primarily in support of state and local efforts to assess and meet the behavioral health needs of those responding to the spill. Efforts focus both on prevention of long-term behavioral health problems, and provision of services for those who need them. To aid state efforts, the HHS Substance Abuse and Mental Health Services Administration (SAMHSA) has published and widely disseminated six "Tip Sheets" for coping with the disaster, including one targeting teachers and school administrators.[38] These tip sheets have been translated into multiple languages. In addition, HHS is developing a single number to access Gulf Coast disaster distress hotline counseling services. SAMHSA also regularly convenes Disaster Behavioral Health Coordinators in the Gulf Coast states to facilitate the provision of technical assistance, assess the impact of this event in each state, create opportunities for states to share information, and allow the Department to maintain an understanding of the current situation. The Department is also in communication with NGOs, such as the American Red Cross and Catholic Charities, that are active in the affected areas and are engaged in addressing the functional needs of at-risk individuals and behavioral health concerns.

Medical Services

In response to the oil spill, HHS activated the National Disaster Medical System as a precaution, should Gulf Coast states need additional medical support. In addition, an HHS mobile medical unit – located in Venice, Louisiana, and staffed by an HHS medical team comprised of a doctor, two nurses, two emergency medical technician-paramedics and a pharmacist – has supported the local medical community by triaging responders who are concerned about the health effects of the oil spill. Patients, who required medical attention beyond the basic care available through the mobile unit, were referred to local healthcare providers and hospitals.

Human Services

Federal human services program offices have been leaning forward to anticipate, prepare for, and respond to potential changes in service needs created by the oil spill. Many have been communicating directly with the Gulf Coast states about any immediate burdens created by the oil spill. Other program offices are seeking information directly from grantees in affected states, from Community Action Agencies or Community Action Programs. The HHS Administration for Children and Families (ACF) has observed a 13% increase in monthly calls to the National Domestic Violence Hotline from the Gulf Coast states between April and June 2010, including a 21% increase in calls from Louisiana.[39] ACF continues to track usage of the National Hotline. In addition, because state and local domestic violence programs respond to the bulk of crisis calls from victims of domestic violence, Gulf Coast state domestic violence coalitions are monitoring crisis calls to state hotlines and local domestic shelter usage. ACF's Family Violence Prevention and Services Program is also working with state domestic violence coalitions in the Gulf Coast states to identify issues of concern and respond to technical assistance needs.

Seafood Safety

The federal government led a comprehensive program to protect seafood safety by ensuring that seafood caught in the Gulf of Mexico is free from contamination as a result of the oil spill. This program is important not only for consumers who need to know their seafood is safe, but also for the fisheries industry, which needs to be able to sell its products with confidence. This program has been instituted in full cooperation with the states.

The comprehensive program was led by the HHS Food and Drug Administration (FDA) and the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), and included the Environmental Protection Agency (EPA), other federal agencies, and state authorities in the Gulf Coast region. The federal agencies have been taking a multi-pronged approach to ensure that marketed seafood from the Gulf of Mexico is safe. These measures include the precautionary closure of fisheries, surveillance and testing of seafood products, and inspections of primary seafood processing firms for compliance with FDA's Hazard Analysis and Critical Control Point regulations. Federal agencies, working collaboratively with the Gulf Coast states, implemented a protocol to determine when closed federal and state harvest waters can be reopened. This protocol involves sensory testing for polycyclic aromatic hydrocarbon (PAH) components of the oil and dispersant along with chemical-based testing for PAH as a confirmatory measure. Going forward, it will be important to continue to strengthen coordination among state laboratory systems, federal agencies, and laboratory networks and enhance the ability to exchange data, results, and analytical methods.

Research

Numerous workshops and panels have been held to define priorities for health issues related to the Gulf oil spill and to discuss the following matters: the potential health effects of the oil spill,

the short- and long-term effects of oil exposure on human health, current federal and state monitoring efforts, potential research modalities, and the characteristics of effective surveillance and monitoring systems.

Recommendations from previous spills, particularly from an Institute of Medicine workshop, are for prospective, long-term epidemiological studies to assess potential health effects associated with clean-up activities following an oil spill. In addition, both short- and long-term laboratory and human health studies involving local communities are necessary to assess the wide range of potential health consequences, and to develop the evidence base to inform present and future recovery and health care services. It will be essential that the federal government work in partnership across agencies and with local communities on the Gulf Coast in the planning and implementation of health research activities.

Future studies should address a range of potential health outcomes, such as cancer and effects on respiratory, reproductive, immune, and nervous (including neurobehavioral) systems; skin, renal function, and behavioral health effects. New research to establish sustainable models for delivering mental health care – when the number of people in need exceeds capacity by orders of magnitude – is needed. Such research has relevance for not only domestic preparedness and response, but also for non-emergency contexts where mental health infrastructure is limited (i.e., rural mental health), and for the United States' role in global health crises. The human health assessments should be coordinated with the ecosystem restoration science and monitoring efforts. It is critical to the sustained resilience of coastal communities that these efforts enhance understanding of the connection between ocean health and human health.

Soon after the spill occurred, CDC's National Institute for Occupational Health and Safety (NIOSH) conducted Health Hazard Evaluations (HHE) and surveillance of reported illnesses among workers involved in the oil spill response. As each HHE is completed, the findings are reported to BP and then posted to the NIOSH website.[40] NIOSH also collects and analyzes the acute injury and illness data that BP reported to the Department of Labor's Occupational Safety and Health Administration (OSHA). This NIOSH work is important for an understanding of the physical and mental health risks associated with Gulf Coast oil spill response work. NIOSH, in support of future research efforts, has compiled a roster of workers who participated in the response, to create a record of work and mechanisms to contact them about their spill-related symptoms of illness or injury.

More than 54,500 responders have been added to the roster, including BP-trained workers, volunteers, vessel of opportunity operators, and federal workers. NIOSH compiles the roster through a voluntary system at worker staging areas, during worker training, and through a secure web site. NIOSH is currently engaged in acute animal toxicity studies of both dispersants and crude oil from this well. Following the evaluation of toxicity studies results, NIOSH may consider other activities in follow-up. NIOSH's toxicity studies are included in a suite of studies planned by the National Toxicology Program of which NIOSH is a member.

Additionally, CDC is reviewing EPA sampling data to determine whether these exposures to oil, oil constituents, or dispersants might have caused human health effects. The data includes sampling results for air, water, soil/sediment, and waste oil samples. If the surveillance or monitoring systems identify potential health risks or groups of people with symptoms, state and local public health officials are able to follow up as needed to investigate whether there is an association between the symptoms and the oil spill.

D. The Economic - Nonprofit - Health and Human Services Nexus

Thriving, resilient communities are the result of strong private, public, nonprofit, and non-governmental organizations. Nowhere in the nation does government—local, state, or federal—provide all the resources required for successful communities. Sustainable employment opportunities across a range of occupations and sectors generate income for those employed; taxes provide support for various levels of governance; and donations to nonprofits, community and faith-based organizations, voluntary groups, and other charities provide a health and social safety net for many. Any threat to the delicate balance of a community's economic well-being can disrupt that safety net. Short-term disruptions often bring communities together, with people giving time, goods, or money to bridge a crisis. When communities experience longer-term disruptions, such as widespread job loss concentrated in a geographic area, it can significantly disrupt quality of life as residents are forced to abandon their livelihoods, drive long distances to jobs, or lose hope of any positive turnaround.

Oil production, fishing, and tourism are mainstays of the Gulf Coast economy. The oil spill has reverberated throughout all three sectors, with corresponding effects on associated businesses. Additionally, donations to nonprofits, community and faith-based organizations, voluntary organizations, and other charities have been significantly reduced. In turn, these stresses have provoked an increase in anxiety, hopelessness, and despair, just as the decline in resources has limited the capacity of the nonprofit sector to respond.

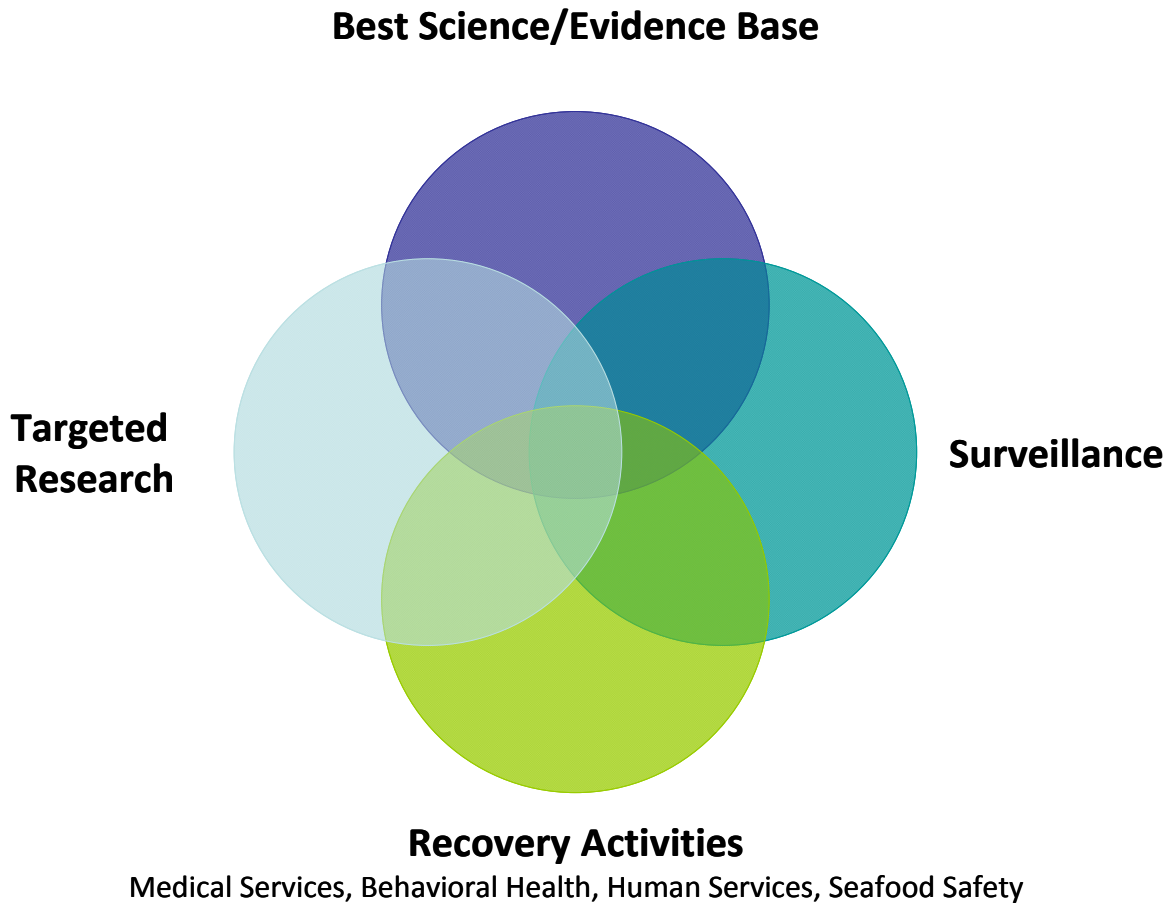
III. Principles for Health and Human Services Recovery

In order to achieve true recovery, a comprehensive framework is required to move beyond the cycle of continual response to recurrent disasters and provide the Gulf Coast with the infrastructure, information, and services it needs to recover. The plan for the recovery of health and human services following the oil spill is consistent with the principles of recovery and the vision of health security as set forth by the National Health Security Strategy.[41] Specifically, the proposed approach is built on a foundation of community resilience: healthy individuals, families, and communities with access to health care and with the knowledge and resources to be able to care for themselves and each other in both routine and emergency situations.

The plan addresses a set of interrelated health and human service needs and describes how the federal government can support the primary efforts being carried out at the state and local levels to optimize conditions for recovery of health and human services. In the context of a

complex disaster like the Deepwater Horizon oil spill, it is critically important to ensure that ongoing ***surveillance*** and scientific ***research*** inform the recovery agenda and that priorities include ***behavioral health*** prevention and treatment, the delivery of ***medical services***, and access to ***human services***. Likewise, ensuring ***seafood safety*** protects not only individual health, but promotes economic recovery by mitigating potential individual, family, and community dysfunction. All of these domains must be based on empirical evidence made possible by ongoing surveillance efforts and targeted scientific research. As shown in Figure 1 below, in this framework each element informs the others and promotes continual refinement of planning and recovery activities to meet the recovery needs of this disaster and build a foundation for addressing new threats experienced by the Gulf Coast.

Figure 1: Health and Human Services Recovery Framework



Vision: The restoration and resilience of the health and well-being of affected people and communities.

Goal 1: Design federal efforts to support locally driven priorities and needs with extensive collaboration with affected states and communities.

Goal 2: Initiate surveillance and monitoring of the health status and well-being of the impacted population early, with continued surveillance and monitoring activities for a number of years, as needed.

Goal 3: Ensure access to medical and behavioral health care and human services support. As surveillance uncovers potential health problems, connect findings to capacity for appropriate medical and behavioral health care and provision of human services programs.

Goal 4: Continue to ensure that the seafood on the market is safe, which is central to both public health and the economic recovery of the Gulf Coast.

Goal 5: Continue to develop the health, behavioral health, and human services evidence base in order to inform recovery and health care resource needs for the Deepwater Horizon oil spill and future disasters.

IV. Recovery Strategy

Much has been learned from prior planning efforts in the region about the critical need to promote cooperation and coordination among various federal, state, and local entities in order to align, refine, and adapt recovery plans and projects. The evolving nature of the oil spill requires a particularly active collaborative process governed by community needs and carried out through local-state-federal and public-private partnerships. The following section describes seven categories of recovery challenges, recovery activities already underway, and additional recovery needs. Some of the recovery activities currently underway were begun with initial funding support from BP and/or the federal government; however, none of these can be fully implemented as described without additional funding. Further, all other recovery needs listed below will require new funding before implementation. That is why it is critical that the responsible parties for the spill also do their part for the recovery of the Gulf Coast.

A. Surveillance

For public heath, behavioral health, and human services recovery efforts alike, effective systems of surveillance are critical to identify needs, target response actions, monitor conditions, and provide ongoing feedback on the efficacy of interventions. Yet, public health, behavioral health, and human services response efforts are all challenged by limitations in existing data, surveillance assets, and collection methods.

Studies of previous oil spills provide some basis for identifying and mitigating the human health effects of oil exposure. However, the existing data are insufficient to fully understand and predict the overall public health impact of spill hazards on the health of workers, coastal residents, and at-risk populations such as pregnant women, children, and the elderly. The surveillance systems currently employed are designed to look for health trends in different ways and to alert health authorities to signs of possible public health impacts due to exposure

to the oil or chemical mixtures associated with the oil spill. Yet, the systems will need amplification. While behavioral health issues – such as psychological and emotional distress, depression and substance abuse – and related problems, such as domestic violence, have already surfaced as primary health concerns, few of the current surveillance systems focus on such issues.

By fully utilizing and further developing public health surveillance systems, particularly systems that focus on behavioral health, the public health community will be able to gain a more complete picture and better understanding of the health issues related to the spill. It will also be able to share this information with the public. Enhanced surveillance coupled with targeted research will contribute to evidence-based information regarding the health effects of the oil spill that will enhance the ability of those in leadership positions to make informed decisions about mitigation activities and strategies.

In human services surveillance, the sudden and rapidly evolving economic changes in the wake of the recent oil spill require greater coordination of effort to ensure human services are delivered where most needed. Combining improved surveillance with existing data would allow HHS to more immediately target and enhance services in critical need areas on the Gulf Coast, as well as inform recovery for future disasters.

Recommended Recovery Actions:

Needs assessments are being funded on the Gulf Coast; however, all of the Gulf Coast states need both technical assistance and additional funding to expand current capacity for data collection and surveillance, in order to allow for long-term needs assessment and planning activities.

The following surveillance activities are critical to Gulf Coast recovery and community resiliency. Some have initial financial support from BP, but as explained above, few can be fully implemented without additional funding. These activities should be coordinated with the states, they should enhance ongoing surveillance activities, and they should subsequently inform recovery activities related to prevention and services:

- Conduct a telephone survey for the assessment of behavioral health and associated health impacts in the Gulf area. In partnership with state public health and mental health departments and SAMHSA, CDC will design and conduct a telephone survey in the affected coastal regions of the Gulf Coast states to monitor mental health status, including measures of psychological stress, anxiety, depression, potential stress-associated physical health effects, and other indicators. Some questions included in the survey will be pulled from the ongoing Behavioral Risk Factor Surveillance System (BRFSS), from which preliminary data show increases in several indicators of emotional stress. [42]

- Assess behavioral health needs via a new data collection tool developed and piloted for the Federal Emergency Management Agency Crisis Counseling Assistance and Training Program.

These forms would be used to gather demographic information, risk factors, signs and symptoms, and delineations of services provided. Available SAMHSA Emergency Response Grant (SERG) funding will support state use of the forms and the infrastructure for regular information reporting to SAMHSA.

- Use the National Survey on Drug Use and Health to compare the prevalence of substance use and mental health problems before, during, and after the oil spill. An over-sampling of the affected areas in the Gulf Coast region for up to two years would permit long-term surveillance of changes in the region's behavioral health status. This work would allow HHS to better understand both the long-term behavioral health needs and the impact of behavioral health interventions on recovery.

- Develop a comprehensive human services data tool that would consolidate existing data and provide real-time human services information, as discussed in the human services section of this chapter. Additional funding is needed to develop this tool, which would contain trend data at the city, county, and state levels for numerous contextual indicators. These indicators would include the number of residents by age, education, employment status, occupation, income, residence type, family structure, language preference, and home internet access. In addition, participation rates in Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), Head Start, and other key programs, as well as home foreclosure rates, would be included. HHS would work with partners across state and federal governments to create and update this tool, which is critical to understanding local contexts and progress in this disaster, as well as in future disasters across the country.

- Use the National Intimate Partner and Sexual Violence Surveillance System (NISVSS) to collect enhanced data on the impact of the crisis on domestic violence. Additional funds would be needed to expand the existing sample population to get a better understanding of the impacts of the oil spill on domestic violence rates.

- Support the operations of the five impacted Poison Control Centers (PCC) supported by the HHS Health Resources and Services Administration, including fielding calls from the public. Such support will make PCCs whole for expenditures for the additional call volume both to date and going forward, with the expectation that there will continue to be a high volume of calls over the next six months.

- Continue to monitor Medicaid and Medicare health care claims and program enrollment to determine whether at risk populations have access to care. This is being done through the use of an industry code for oil spill injuries or illness claims for hospitals and institutional providers and a Healthcare Common Procedure Coding System "CS" modifier for physician and other practitioner claims. These codes will assist in identifying health care claims due to oil spill illnesses or injuries and may be useful for program integrity, research purposes, and improving access to care.

B. Behavioral Health

The 20.5 million people living in the Gulf Coast region, and those dependent on the area for their livelihoods, may be adversely affected by the oil spill disaster for years to come. Significant among the consequences are the behavioral health effects of this disaster. The consequences likely will be especially prevalent for those who are directly impacted, but likely will also impact those "upstream" who provide care and services for individuals and families, and those whose livelihoods are dependent on the efforts of those individuals and families. According to reports from state behavioral health officials, some in the affected population are already exhibiting early signs of developing substance abuse and dependence, psychiatric disorders, suicidal risk, and familial breakdown, including domestic violence and child abuse. Addressing these needs now and over time for the residents and clean-up workers is crucial to the overall response to behavioral health concerns in the Gulf Coast.

The disaster represents a loss of social and economic support for people, causing anger and resentment toward each other and outsiders.[43] BP claims reports show that in the first 60 days of the disaster alone**,** one-third of all health claims associated with this oil spill have been for anxiety and stress. If these conditions are left untreated, it is expected that the mental health condition of these individuals will worsen.

The three most prevalent psychiatric diagnoses experienced following the *Exxon Valdez* oil spill were anxiety, depression, and post-traumatic stress disorder (PTSD). Research indicates that individuals closer to the affected area were 3.6 times more likely to experience generalized anxiety disorder and 2.9 times more likely to develop PTSD. Fishermen from local communities reported the most psychological distress. Additionally, the economic cost associated with other health conditions, domestic violence, criminal justice, education, and lost productivity will increase if mental health issues are ignored.[44]

People suffer adverse physical health effects from stress and stress reactions. Stress is linked to several leading causes of death, including heart disease, cancer, lung ailments, unintentional injuries, cirrhosis of the liver, and suicide. Behavioral health conditions can manifest themselves physically as headaches, gastrointestinal disorders, insomnia, inability to eat or eating too much, increased use of alcohol, or use of substances of abuse, including prescription drugs. The link between behavioral health and physical health is one that must be understood in the context of this disaster.

These physical and behavioral reactions to stress are associated with community disruptions. These can include increased arrests for driving under the influence and an increase in domestic violence, assault, child abuse, and child welfare cases.[45] Effects also can include increased difficulty in early learning centers and schools by children affected by the spill; an increase in bullying, truancy, and inappropriate behavior, which often leads to more emotional distress on teachers and other children; reduced educational performance; and the possibility of other severe behaviors.

Gulf communities have shown incredible resilience and strong cultural and community commitment to recovery. However, state behavioral health professionals report that their systems are chronically stretched to meet the needs of their citizens. Communities and state officials need help to fund and conduct outreach efforts, psychological first aid, brief interventions, and peer support. They also need help in providing timely and culturally responsive treatment and services for disorders that emerge.

Recommended Recovery Actions:

In order to meet the expanding needs of Gulf Coast residents, it will be important to ensure that behavioral health services are informed by both existing and enhanced surveillance efforts and an evidence base described by current and developing research. Gulf Coast state officials report the need for assistance in the provision of comprehensive services to address the behavioral health issues caused by the oil spill. States indicate needing approximately $97 million for the first year and over $400 million for five years to provide interventions to prevent behavioral health disorders as well as to provide both crisis counseling and treatment services. BP recently announced its intention to contribute $42 million toward these state-identified needs and another $10 million to federal needs.

From prior disaster research, service needs within the general population can be estimated as follows for the first five years:[46]

- 15 - 30% of the estimated population at risk will need no help at all.
- 30 - 60% will respond to the following:
    - Community supports and service
    - Public messaging
    - Outreach and information dissemination
- 25 - 35% of the population at risk will need increased levels of clinical care:
    - Screening and assessment for current or emerging substance abuse and mental health concerns
    - Evidence-based counseling by trained professionals or para-professionals, by telephone, telehealth capacity, or face-to-face, in short and infrequent interactions, individually or in groups (e.g., with fishermen or oil spill workers as they come in from their shifts)
    - Brief/short-term interventions in non-specialty settings (for example, primary care or human services settings or mobile medical units)
    - Referral and assistance accessing professional mental health and substance abuse treatment and services utilizing private insurance and public assistance where possible (although coverage for gaps in insurance will be significant in these high-uninsured states[47])
    - Inpatient, outpatient, and medication treatment services for those with diagnosed ongoing disorders

The federal government is committed to continued work with the Gulf Coast states and support their implementation of recovery activities. Federal actions can be placed into elements that

would extend state capability and be usable by all within the regions. HHS has identified the following behavioral health activities, that have received first year funds from BP, as critical to recovery. There may be unknown additional needs beyond these activities:

- Develop enhanced media outreach materials. It is critical in this disaster to provide information to the public informing them that strong emotions are to be expected; that it is important to stay connected with friends and family; that families and neighbors should take care of themselves, their children, and each other; that peer or professional help may be needed to prevent or treat behavioral health issues and the circumstances in which they occur; and where to find help when it is needed.

- Establish a toll-free behavioral health hotline number explicitly for disaster-affected individuals and families that will use the National Suicide Prevention Lifeline network's electronic telephone system to connect callers in distress to the nearest Lifeline member crisis center in the Gulf Coast area. This service will assist states and local communities in meeting the many complex behavioral health needs resulting from the Deepwater Horizon oil spill.

C. Medical Services

The healthcare systems within the Gulf Coast region previously impacted by hurricanes of the past have continued to struggle during recovery. Rural populations in coastal as well as inland areas are already heavily burdened with chronic illness. They have also faced daunting challenges to accessing medical care as primary care practitioners and networks have left the affected area.[48] Poor access to medical care not only challenges the continued medical care of the chronically ill and those most susceptible to exposure-related illness, but also the ability of surveillance to identify emerging illness and provide the required level of medical care. Recovery strategies must be based on science and the best current surveillance available to improve access to medical care, prevent and mitigate illness and injury to at-risk individuals, and respond to any emerging exposure-related disease.

Monitoring responders and community members exposed to contaminants from the Gulf Coast oil spill will be important to identifying any emerging associated disease burdens. The known toxic effects of crude oil exposure make oil spill responders working near or at sites of oil plumes, burn-off locations, and clean-up operations, an obvious target for short- and long-term surveillance for health effects. Other potential exposures exist due to dispersants and mixtures of associated chemicals and crude oil in various stages of degradation. The routes of exposure to the dispersants and complex mixtures may occur through inhalation, skin contact, swallowing, or through ingestion of contaminated food.[49] Environmental sampling data collected by EPA suggests that the likelihood of exposure of community members to oil or dispersant contaminants is low. However, many of the contracted responder population involved in the response come from rural and remote coastal communities.

Existing studies of workers and residents near oil spills report short-term health effects from exposures to crude oil and oil mixtures, including immune function effects, respiratory, skin, and eye irritation.[50] Effects were found to be greatest in clean-up workers and commercial and subsistence fishermen involved in clean-up efforts. In one study following the *Prestige* oil spill, fishermen involved in the clean-up were found to have increased levels of lower respiratory tract symptoms more than a year after the accident, and risk increased with increasing work exposure to oil and oil mixtures. Several studies indicate that women may be particularly vulnerable to the effects of exposure to oil and clean-up activities, although few have assessed adverse effects on maternal, child, and reproductive health.[51]

A few studies involved collection of environmental samples of air, water, or dust to assess exposure levels in relation to reported health effects. A smaller number of studies involved collection of human biospecimens, such as urine or blood, to assess body burden, renal and endocrine function, and DNA damage. Only two studies on the *Braer* and *Prestige* oil spills reported evidence of DNA damage and alterations in hormonal status related to exposure; and in both, the analysis involved only a small subset of the exposed population.

Compounding the uncertainty of assessing any short-term and long-term health effects from crude oil spill exposures are the various degrees of degraded oil exposures, new and poorly understood widespread exposure to dispersant chemicals, and the mixture of these substances. Despite the large number of spill disasters and affected populations in the United States and globally, we know relatively little about the short- and long-term health consequences that could help direct where limited resources are allocated for environmental clean-up, medical and social services, and surveillance. Potential long-term health effects could include cancer and adverse effects on immune, cardiovascular, respiratory, neurologic, reproductive, dermal, and neurobehavioral and neurocognitive function.[52,53]

The short- and long-term health effects that are identified by ongoing surveillance and toxicological studies will thus place additional burdens on an already impacted healthcare system in the region. Responders will need continued care for acute injuries and illnesses while cleanup operations continue. While BP has provided onsite management of acutely ill or injured workers, the recovery plan needs to consider workers who wish to seek care outside of BP established care stations, those who seek care after being released from employment with BP or related oil-response contractors, and those who need specialty care management during the recovery phase. Private practitioners will need to support ongoing surveillance efforts by reporting oil-related conditions to existing and future state and federal surveillance systems. Efficient and timely mechanisms for claim filing and reimbursement related to oil exposure also need to be in place to manage claims that occur both in the short- and long-term.

Health-related claims will need continued access to the claims process if long-term health effects are identified and any emerging healthcare burden is realized. The improved access to care necessary to address uninsured and underserved who have oil-related health effects will depend on additional funding. Any additional oil exposure-related burdens realized by

emergency departments, definitive care facilities, and specialty care providers will also require reliable, efficient, and timely reimbursement.

Recommended Recovery Actions:

Providing improved access to local healthcare systems that are recovering from previous hurricanes will be challenging. HHS has identified the following recovery activity needs. Recovery needs may evolve as we learn more from surveillance and research efforts.

- **Increase access points to medical care.**

On August 9, 2010, HHS Secretary Kathleen Sebelius announced the availability of up to $250 million in grants to support approximately 350 New Access Points for the delivery of primary health care services for underserved and vulnerable populations under the Health Center Program in FY 2011.[54] The funds, made available by the Affordable Care Act, will be awarded by HHS's Health Resources and Services Administration (HRSA) through a competitive grant process. A new access point is a new full-time service delivery site that provides comprehensive primary and preventive health care services. New access points have the potential to improve the health status and decrease health disparities of the medically underserved populations to be served. Competitive applications will demonstrate a high level of need in the community, present a sound proposal to meet this need by ensuring the availability and accessibility of essential primary and preventative health services, and show that the organization is ready to quickly put its proposal to work. Organizations eligible to compete include public or nonprofit private entities, including tribal, faith-based, and community-based organizations that meet health center funding requirements. Current HRSA grantees may apply, as well as organizations that are applying for the first time. In addition, unsuccessful applicants from prior year competitive grant announcements may also apply.

Locally managed networks of mobile health clinics can provide additional access and outreach to healthcare in areas with poor access, low population densities, and/or uninsured populations.[55] Support of existing networks should provide expansion into underserved areas, assist in building sustained access to primary care, improve surveillance of oil and dispersant-related disease, and assist in addressing any related surge in medical demand.

Community organizations that meet Federally Qualified Health Center (FQHC) requirements but do not receive a competitive grant can apply to the FQHC "Look-Alike" Program. HRSA may recommend to HHS' Centers for Medicare and Medicaid Services (CMS) that entities meeting qualifying criteria be designated as FQHC Look-Alikes, which allows the entities to receive many FQHC benefits, including enhanced Medicare and Medicaid reimbursement. HRSA and CMS work closely together to administer the FQHC Look-Alike Program, which helps expand services to those who lack access to them and to retaining health care professionals.

- **Improve access to care at existing local healthcare systems.**

Federally qualified health centers funded by HRSA, rural health clinics, and other sites that care for low-income and uninsured people can become National Health Service Corps (NHSC)

approved sites. At such sites, dentists, dental hygienists, primary care physicians, nurse practitioners, certified nurse midwives, physician assistants, and mental health professionals, who are eligible for loan repayment funding or have received scholarships, can fulfill their service obligations. The Affordable Care Act included $1.5 billion for NHSC over the next 5 years to expand scholarships and loan repayments for eligible clinicians to work in underserved areas. Some of this new funding can be used to expand access to health care and attract providers to the Gulf Coast region.

The Centers for Medicare & Medicaid Services (CMS) will continue to work with states and stakeholders to monitor health needs or gaps in care where either Medicare or Medicaid could be of assistance. To the extent gaps in coverage, care, or enrollment are identified, CMS will work with the Gulf Coast states to develop solutions that will provide assistance for beneficiaries, and tools and resources for the states to assist in this effort. In addition, CMS has begun working and will continue working on the expansion of Medicaid that is a result of the Affordable Care Act. This could provide additional access to people in the Gulf Coast states.

- **Strengthen healthcare systems' ability to identify and treat exposure-related illness**.

Training and technical assistance can be provided in detection, surveillance, prevention, and treatment of oil spill-related illnesses (both physical and behavioral health), to health care practitioners practicing in the Gulf Coast area, HRSA-funded FQHCs, and look-alikes. Additional research and practice efforts could provide the evidence base needed to transform mental health care access and delivery. These training and technical assistance activities can be accomplished by collaborating with grantee educational institutions and/or stakeholder associations, such as the National Association of Community Health Centers, Gulf Coast area primary care associations, and state primary care offices.

In addition, HRSA-funded area health education centers, geriatric education centers, and public health training centers can assist by developing and disseminating curricula and information relating to the surveillance, recognition, and treatment of health problems that may result from the oil spill. Other methods of disseminating curricula and information may include HHS websites, promulgation through the three Veterans Affairs medical centers in the region and their primary care centers, as well as Department of Defense medical treatment facilities.

D. Human Services

In the aftermath of a disaster, most human service needs result from loss of jobs and income; reduced family, public, and nonprofit support; and increased acute stressors. The reduction in resources caused by the Deepwater Horizon oil spill will likely increase demand for human and social services designed to assist low-income populations, and those with limited English proficiency.[56] Job training, child care assistance, early childhood education programs, senior services, and cash assistance programs are all examples of services that may see increased demand.

In addition to programs designed to support those with economic needs, human services also encompass programs designed to address acute stressors that often increase after disasters. These programs address domestic violence, the abuse/neglect of children and elders, the needs of vulnerable youth, and other emergent concerns.

The level and timing of needs tend to vary across the two types, thus increasing the importance of monitoring key indicators of well-being. In the immediate aftermath of the oil spill, there has already been an increase in the need for programs addressing acute stressors such as domestic violence. Research on the economic determinants of domestic violence indicates that couples under severe financial strain have elevated rates of violence. Similarly, expectations are that rates of child and elder abuse will increase in difficult economic times.

Early evidence from the area is consistent with research predictions. As economic uncertainty grew between April and June, calls from the Gulf States to the National Domestic Violence Hotline increased by 13%. In the state of Louisiana alone, domestic violence hotline calls from two local communities increased by 81% (New Orleans) and 116% (Lafayette) respectively over the same period.[57] Exacerbating the problem is the fact that earnings and tax revenues from the oil and fishing industries are significant sources of financial support for domestic violence programs in the Gulf Coast states. In the aftermath of the spill, programs are reporting significant cuts in funding from states, localities, the United Way, and corporate and individual donors.

By contrast, programs focused on economic dislocation or income loss do not typically see a large initial spike. Instead, demand for these services is expected to increase as the long-term consequences of the oil spill are felt and as individuals exhaust their savings, credit, and available support from family and friends. If oil and fishing related jobs remain scarce, or if other industries experience downturns, then the demand for economic assistance will further increase. The resources being provided by BP and also by philanthropic organizations will soften the impact of a prolonged economic decline in the affected areas. Yet, as it is too early to predict how much those resources will provide, there may also be an increased demand for federal and state services.

Recommended Recovery Actions:

Identifying specific recovery activities in the human services area is a significant challenge. It is extremely difficult to predict what the needs will be over the coming years. There is uncertainty about how quickly local industries such as fishing, tourism, and oil drilling will recover. The longer it takes industries to recover, the greater the economic and stress-related needs of local populations. Although some of the human service needs associated with the Deepwater Horizon oil spill will be addressed by BP and other responsible parties through legal processes, there may be some unmet needs.

As a result, the human services recovery plan must necessarily be less precise than anyone would like it to be. Nevertheless, it is clear that federal efforts in the area will consist of three components: monitoring, making the best use of existing programs and funding, and providing new programs and new money if it is appropriated.

- **Monitoring**

Given the uncertainty about needs, it will be critical that key human services indicators are systematically monitored. The surveillance section of this chapter details a plan for monitoring quantitative indicators of well-being for the affected areas. In addition, local needs must be monitored through less formal methods, such as town halls, reading local newspapers, and engaging state and local leaders. Efforts should continue to be sensitive to the cultural diversity of the affected areas and to encourage all residents to share their experiences and perspectives.

Utilizing multiple methods will provide overlapping opportunities to observe the pace and nature of recovery on the Gulf Coast. If there is evidence of persistent joblessness and other economic challenges, particularly after final claims by responsible parties have been paid to individuals and businesses, then additional action will need to be taken to address poverty and economic hardship, as well as domestic violence and other stress-related problems.

- **Making the best use of current programs and resources**

Local governments lead and implement most human services programs for individuals and communities, with funding and guidance from the federal government. If there are sustained economic challenges in the Gulf Coast region that are not addressed through available means, then HHS will capitalize upon existing partnerships with state, tribal, local, and nongovernmental social service delivery networks to maximize Gulf residents' participation in existing programs.[58] Moreover, HHS will use these partnerships to identify ways to better tailor existing discretionary funding streams to local needs.

In 2005, ACF issued a program instruction that illustrated opportunities to use existing federal funding in the TANF program to address significant local needs related to Hurricane Katrina.[59] The instruction included using short-term, non-recurring benefits, and implementing new benefits and services that are consistent with current needs of local residents. This effort serves as an excellent model for any future Gulf Coast region needs.

- **New programs and resources**

Of course, there are limits to what can be achieved by making better use of existing programs and resources. States and tribes will be faced with simultaneous increases in the numbers of residents meeting eligibility criteria for human services programs, and reductions in tax revenues required to pay for services. New targeted programs and funding may be needed to help residents cope with unmet economic needs and stress-induced problems.

One example of targeted support is to provide funding to states or organizations to create subsidized jobs. This has been done successfully in the American Recovery and Reinvestment

Act (ARRA) through the TANF Emergency Fund.[60] A survey of state officials running these programs suggests that, by September 2010, more than 240,000 unemployed individuals will have work in subsidized jobs funded in whole or in part by the TANF Emergency Fund. Nearly half of these jobs are targeted at youth. However, the TANF Emergency Fund has reached its capacity, and cannot fund new projects unless Congress acts upon pending requests for additional funding.

Another example is the recent announcement of BP support for expanded state and HHS behavioral health programs and activities.[61] BP pledged "$52 million to help address the immense behavioral health (substance abuse and mental health) needs of Gulf Coast area residents and workers struggling to recover their livelihood in the aftermath of the Deepwater Horizon oil spill." Some of these new funds will be used to implement programming designed to reduce rising levels of domestic violence in the affected areas.

Whether or not these funding needs are met by responsible parties, there are many programs that we expect will experience new funding needs. Needs and programs fall into the following categories:

Direct Benefits:

- Temporary Assistance for Needy Families (TANF): Also known as welfare, TANF is a block grant program with funds dispensed by states to needy families in the form of direct payments, support services, education and training, referrals, employment services, job training, subsidized employment, and child care assistance.
- Low-Income Home Energy Assistance Program (LIHEAP): Assists low-income households in meeting their immediate home energy needs. This will be an important resource if unmet needs extend into the 2011 cooling season.
- Medicaid: Medicaid pays health care providers for the health needs of certain low-income individuals and families who fit into an eligibility group that is recognized by federal and state law.
- Children's Health Insurance Program (CHIP): CHIP encourages states to provide health insurance coverage for uninsured children in families whose income is too high to qualify for Medicaid but too low to afford private insurance.
- Supplemental Nutrition Assistance Program (SNAP): Formerly known as "food stamps," SNAP provides low-income households with electronic benefits they can use like cash to purchase food at most grocery stores.[62] SNAP is the cornerstone of the federal food assistance programs, and provides crucial support to needy households and to those making the transition from welfare to work. State agencies administer the program at state and local levels, including determination of eligibility and allotments, and distribution of benefits.
- Unemployment Insurance (UI): Federal-State Unemployment Insurance Program provides unemployment benefits to eligible workers who are unemployed through no fault of their own (as determined under state law), and meet other eligibility requirements of state law. Unemployment insurance payments (benefits) are intended to provide temporary financial assistance to unemployed workers who meet the

requirements of state law. Each state administers a separate unemployment insurance program within guidelines established by federal law. Eligibility for unemployment insurance, benefit amounts, and the length of time benefits are available are determined by state law.

- Women, Infants and Children (WIC): WIC provides federal grants to states for supplemental foods; health care referrals; nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women; and to infants and children up to age five who are found to be at nutritional risk.
- National School Lunch Program: The National School Lunch Program (NSLP) is a federally assisted meal program operating in public and nonprofit private schools and residential child care institutions. It provides nutritionally balanced, low-cost or free lunches to children each school day.

Services for Children:

- Head Start: Provides grants to local agencies to provide comprehensive child development services to economically disadvantaged children and families, with a special focus on helping preschoolers develop the early reading and math skills they need to be successful in school.
- Child Care and Development Fund (CCDF): Offers subsidized child care services to eligible families through contracts with providers or with vouchers. This program is critical for many families that are engaged in job search and other efforts to stabilize their lives.

Addressing Abuse and Neglect:

- Family Violence Prevention & Services (FVPSA): Funding to the states, territories, and tribes provides core support to more than 1,675 community-based domestic violence programs.
- Child Abuse and Neglect: Supports activities to build networks of community-based, prevention-focused family resource and support programs through the Community-Based Family Resource and Support Program. Activities also support improvement in the systems that handle child abuse and neglect cases, and improvement in the investigation and prosecution of these cases through the Children's Justice Act.

General Social Services Support:

- Social Services Block Grant Program (SSBG): Provides social services funding to states that is used to assist individuals and families in achieving economic self-support or self-sufficiency.

E. Seafood Safety

The capabilities of state and federal laboratories to receive, analyze, confirm, and report the presence of toxic agents in food, as well as clinical and environmental samples, are essential. Laboratories must have the ability to quickly analyze samples and specimens so that the public health, health care, and environmental health systems can prevent, detect, intervene,

diagnose, and mitigate the impacts of the disease, agent, product contamination, or condition. Based on the oil's complex composition and necessary testing to date, there will continue to be a prolonged strain on laboratory capacity for longer-term seafood safety monitoring, including surveillance through laboratory results.

There are public health concerns regarding products regulated by FDA, all of which must be inspected and investigated at an accelerated schedule or as a higher priority than other non-statutory workloads as a direct result of a the oil spill. Delays in these inspections negatively affect the availability of safe food, the reopening of waters, public confidence in the seafood supply, and the return of businesses, their workforces, and contributions to the local economy. A prolonged surge of disaster-specific activities correlates with a demand in labor and overtime at both the state and federal level.

Recommended Recovery Actions:

Understandably, the economic recovery and restoration of confidence in the safety of seafood will be a long-term effort. The federal government is committed to this effort and has identified several recovery activities such as long-term surveillance and inspection assignments to ensure that seafood harvested from the Gulf waters is safe. These recovery needs require additional funding support:

- Performing seafood processing inspections and analyzing inspection data to identify seafood safety risks. FDA activities would include developing, coordinating, and monitoring targeted inspection assignments, performing compliance support to review findings, and taking regulatory actions to ensure seafood safety, and providing oversight of firm recalls.

- Continuing to collect seafood samples and analyzing them for the presence of oil spill-related contaminants through coordinated and targeted sampling assignments. FDA would also provide surveillance and compliance support to review findings for regulatory actions to ensure the safety of the seafood supply.

- Continuing to perform diagnostic support, sample collection, and laboratory training for seafood sampling. Amounts include salary and benefits of employees deployed with mobile laboratories. FDA would provide diagnostic support and capacity (including training) through mobile laboratories, and conduct seafood testing at state and federal levels. FDA would also support development of rapid analytical methods for detecting oil contamination in seafood. In addition, the mobile operations will coordinate the participation of leadership and staff in decision making and oversight of incident management.

- Acquiring the necessary equipment, instruments and supplies to develop methods to assure seafood safety, and to develop and enhance protocols for reopening waters currently closed for fish and shellfish operations. These acquisitions would bolster FDA laboratory

capacity as well as the capacity and capabilities of the Food Emergency Response Network, which is comprised of both state and federal laboratories.

F. Research

Although there have been 38 major spills involving oil supertankers in the past five decades, including widely publicized disasters involving the *Exxon Valdez, Sea Empress, Braer, Prestige* and others, there are surprisingly few studies on the effects of oil spills on human health. Most studies to date have focused on short-term (acute) effects such as skin, eye, nose and throat irritations, and psychological symptoms. These studies used cross-sectional designs without control groups, making it difficult to interpret the findings. These studies are also limited in that they have been restricted to the relatively healthy oil worker population.

With regard to seafood safety, it is known that the crude oil is a mixture of many different chemicals, a number of which are well established as being harmful to people if ingested in contaminated food or water. Polycyclic aromatic hydrocarbons (PAHs) are toxic components of crude oil that are of high concern if ingested, and the FDA has set limits at a level that is protective of public health. Current science indicates a low risk that dispersants will bioconcentrate in seafood, and a non-sensory method to detect their presence in seafood is in the final stages of development. Research is needed to enhance the capabilities of detecting PAHs and other potential contaminants, including dispersants, associated with the Deepwater Horizon oil spill.

A small number of lab-based studies in animals and cell systems, including seafood (mussels) contaminated with oil mixtures and extracts such as PAHs, demonstrate DNA damage, changes in metabolic and DNA repair enzymes, and hormonal disruption.[63,64] Available data from toxicological and biological studies are grossly inadequate to predict potential health consequences from the Gulf Coast oil spill. Most studies involve dosing with single compounds (crude oil or oil extract) as opposed to the oil/dispersant mixtures that are present in the Gulf, which may have synergistic effects when combined. This is particularly true for oil contaminants that could be absorbed and may bioaccumulate in aquatic life. Just as important, the potential long-term bioconcentration or bioaccumulation of heavy metals are of concern. Validation of methods to detect heavy metals, sampling strategies, and research of how these metals may accumulate will be conducted.

The capability of state and federal laboratories to provide long-term monitoring of seafood safety depends on their ability to develop and deploy more rapid and portable analytical methods to detect oil contamination in the field. Recent technological advances in molecular analysis of genes, proteins, and other small molecules in biological samples also provide a unique opportunity to develop sensitive and informative biomarkers of exposure and early effects in lab-based and human studies.

Recommenced Recovery Actions:

There are significant research efforts that can be undertaken to address community health concerns and fill gaps in knowledge about the health consequences of clean-up activities. The research efforts span study of response workers and volunteer populations, as well as study of the general population and at-risk groups including children and pregnant women. Some of the research has initial financial support from HHS and BP, but few can be fully implemented without additional funding. They include:

- Implementing the GuLF Workers Study (Gulf Long-term Follow-up of Workers Study), a large population (cohort) follow-up study of the physical and psychological effects on clean-up workers and volunteers. GuLF, which has some initial funding support from the NIH, will be a prospective health study that will focus on exposure to oil and dispersant products and potential health consequences, such as respiratory, neurobehavioral, immune disorders, and cancer. The study will also evaluate mental health concerns and other oil spill-related stressors such as job loss, family disruption, and financial uncertainties. Workers with varying levels of exposure to oil and dispersants who were involved in oil burning, skimming and booming, equipment decontamination, wildlife clean-up, and shore-line clean-up will be enrolled to evaluate whether exposure levels and certain types of clean-up activities correlate with adverse health effects. The study is being planned and implemented in coordination with other agencies and local Gulf Coast communities. The IOM will plan and convene periodic meetings to provide scientific and community input on the design, implementation, and progress of the workers' cohort study.

- Testing important toxicological endpoints and biological activities and tissue targets for crude oil, dispersant chemicals, and related mixtures that are appearing in the Gulf and may be harmful to humans if inhaled, absorbed through the skin, or ingested in contaminated seafood or water. HHS agencies, which have some initial funding support, will conduct studies to include a mixture of literature evaluations, analytical chemistry activities, and biological, toxicological and toxicity pathway screens to inform and extend our understanding of the hazards presented by these complex materials. The findings of these studies will help to identify hazards posed by oil and dispersant chemicals from the Gulf that could be addressed in surveillance or long-term research studies.[65]

- Establishing one or more university-community research consortia in the region to assess health effects of the oil spill on local communities. In these consortia, multi-disciplinary teams of scientists would come together to design and implement a series of interrelated studies related to the health effects of the oil spill. Each consortium would be led by a researcher(s) based in a Gulf Coast state impacted by the spill. Community-based participatory research methods would be used to ensure community involvement in all phases of the program, from planning and implementation, to analysis and communication of findings. The program is envisioned as a trans-NIH effort led by the NIEHS and involving multiple NIH Institutes as research partners. The scientific priorities addressed through the program would not be dictated; consortia partners would identify specific scientific

questions and topics related to the effects of the oil spill that they would pursue. Possible topics could include physical, chemical, and psychosocial effects and their interactions; maternal and child health; adolescent, child, and adult behavioral health issues; health disparities; human studies that assess exposure to contaminated air, water, and dietary sources of chemical mixtures; adverse effects on the skin and immune function; and toxicologic studies of environmental samples. Studies could involve collection and analysis of human biospecimens, as appropriate. The IOM will plan and conduct a consensus meeting to develop advice on research priorities for studies involving workers and the affected community.

- Addressing health consequences from chronic exposure to environmental chemicals in individuals with specific vulnerabilities due to age, developmental stage, co-morbidities, and immune compromise such as the frail elderly and chronically ill. These projects could be funded as part of the NIH university-community consortia or via a separate funding mechanism.

- Beginning toxicological and biological research on the dermal and respiratory pathways of exposures from oil mixtures, dispersants, and combustion products. Projects could be conducted as part of the university-community research consortia or via a separate funding announcement. Analysis of effects on skin would build on and expand the findings from the workers' study and toxicological analyses. Studies could be initiated to address specific adverse skin manifestations resulting from clean-up or primary exposure to oil or oil dispersants, and include autoimmune diseases such as scleroderma and lupus that are known to have environmental triggers.

- Conducting research to develop more rapid and portable methods to detect petroleum contamination in seafood and to develop methods to detect other potential contaminants associated with the Gulf Coast oil spill. The FDA has begun this research activity with current resources.

In order to fully assess the long-term implications, we would recommend that a committee of experts be convened to provide periodic independent review of the federal response to the oil spill as it relates to the surveillance and monitoring of acute and long-term physical and behavioral health effects of workers and affected communities. The IOM will provide information and advice to HHS on issues such as feedback on the design and progress of the NIH Gulf Workers Study; research priorities such as investigator-initiated research beyond the Gulf Workers Study, including the assessment of children and pregnant women; and on emerging concerns identified by HHS. IOM conclusions and recommendations on research priorities for studies on the health effects of the oil spill on both workers and the public will inform funding decisions by the Gulf Coast Recovery Council.

V. Conclusion

In order to optimize the conditions for a resilient restoration and lasting recovery from the oil spill, a robust federal, state, and local partnership must incorporate health and human services into the larger matrix of human needs that includes economic and ecological safeguards. The strategic framework for health and human services in this report provides a mechanism for the interrelated elements of surveillance, behavioral health, medical needs, human services, food safety, and research. Each area will inform the others in order to identify and address the evolving health risks brought about by this complex disaster.

The recurrent hurricanes and tropical storms in the region have highlighted the remarkable resilience of the people of the Gulf Coast, but have also resulted in damages to its health and social services infrastructure. A well-coordinated approach, based on careful surveillance and reliable research, is essential to move beyond overlapping cycles of disaster response. In this way, effective recovery promotes health security. Strategic recovery activities—with a focus on prevention—will meet the goal of restoring the health and well-being damaged by the oil spill. They will also provide a solid framework for preparedness, response, and recovery to guard against the health consequences of future disasters.

Economic Recovery

I. Introduction

The Deepwater Horizon oil spill was one of the worst man-made environmental disasters in American history and resulted in severe economic dislocations across the Gulf Coast. It shares features with prior major oil spills like the Exxon *Valdez*, but is singular in its scope, scale, and effect upon the human and environmental health of the region. It poses similar economic challenges as a natural disaster, yet is distinct in both the absence of extensive infrastructure damage, and the breadth of its geographic impact. Simply stated, the Deepwater Horizon oil spill presents a unique set of economic challenges for the Gulf Coast, and the response must be calibrated to address the region's needs. But importantly, as the recovery effort progresses, the Gulf Coast will be presented with a unique set of economic opportunities as available recovery funds are dedicated to local economies and provide focused economic activity.

This chapter presents the economic concerns expressed by individuals, businesses and communities across the Gulf Coast, and identifies steps to support a resilient economic recovery. Some of these challenges are immediate and urgent, such as provision of direct compensation and income support. Others are linked to longer-term forces that were present before the spill, including chronic under employment and wage stagnation in the region. Addressing the region's overreliance on certain natural resources, the need to diversify the economy, and the need to build support for clean energy, will require the involvement of numerous stakeholders and persist long into the future.

Plans to restore the Gulf must come from the people of the Gulf. It is absolutely critical that the economic response reflects local priorities, incorporates local input, and builds from local visions for economic restoration. Indeed, the spill occurred at a moment when communities across the region were actively engaged in planning new economic development. Those visions and plans cannot be lost – they must form the basis for all federal, state, local, and private economic development.

II. Background Information

In considering economic recovery needs on the Gulf Coast following the Deepwater Horizon oil spill, it is important to recognize that there is no uniform economic impact of the spill; communities across the Gulf will continue to feel its impact in different ways. These communities face a diversity of challenges, and will require distinct but overlapping solutions. For example, more heavily oiled areas will need to maintain focus on the speed of the clean-up process to ensure the safety of beaches and water. In areas facing less severe physical impacts, challenges may have more to do with protecting the community's image, so that beaches do not become stigmatized in the public eye.

A. Pre-Existing Economic Challenges in the Region

Several pre-existing challenges will affect the economic recovery efforts in the region, including:

- **Ecosystem conditions:** The economy and the environment of the Gulf Coast are inextricably linked. A variety of ecosystem services contribute to the region's economy. The Gulf of Mexico is one of America's most important fisheries, it contributes to water and air quality, its barrier islands protect against the harmful effects of storms, and it is a recreational destination for millions of Americans. As described previously in the Ecosystems chapter, the Gulf's environment faces numerous underlying challenges that need to be factored into the response to this crisis.

- **Damages resulting from Hurricanes:** Communities across the Gulf routinely suffer the effects of multiple storms with significant economic impact. The residual damage from hurricanes Katrina, Rita, Gustav, Ike, Dennis, Charlie, and Ivan continue to affect Gulf communities. While many on the Gulf Coast consider dealing with hurricanes part of life, the most recent storms have been particularly severe, degrading the region's economic resilience, and impacting the ability of individuals to rebound due to these prior strains on their resources.

- **Recession impacts:** While hurricane damage and recovery has framed the recent experience of many Louisiana and Mississippi communities, other areas affected by the spill suffered disproportionately in the recent recession and financial crisis. One Florida stakeholder referred to this as a "perfect storm" of bad economic news, with "the closing of businesses, the oil spill, housing, infrastructure, and the economy."

B. Baseline

In 2008, the economies of the five Gulf States supported more than 19 million jobs and accounted for nearly $2.5 trillion, or about 17 percent, of the United States' GDP.[66] Coastal counties in the Gulf States represented approximately 6.9 million total jobs or 36 percent of the region's total employment.[67] Evidence shows that jobs are more concentrated along the coast in some states than in others. For example, nearly 80 percent of the jobs reported in Louisiana are located along the coast, while the portion is less than 20 percent in Mississippi and Alabama. In Texas and Florida, the coast is home to about 35 percent of total state employment. Early indications suggest that among all these jobs, those in travel and tourism, commercial fishing, and oil and gas drilling are particularly affected by the spill.

Travel and Tourism

According to the United States Travel Association, domestic and international travelers to the five Gulf States spent about $145 billion in 2008, and approximately 1.7 million people were employed in travel and tourism.[68] Roughly a third, or approximately 587,000 people, were employed in the coastal counties of the five Gulf States representing almost 9 percent of total

employment in these areas.[69] Texas, with 40 percent, and Florida, with 36 percent, accounted for over three quarters of these 587,000 workers. Louisiana, with 18 percent, accounted for most of the rest.[70] In 2008, annual wages for these 587,000 workers amounted to $17.6 billion.[71] Based on the number of people employed in the travel and tourism industry, approximately one third of total tourism dollars, or about $51 billion, were spent in the coastal counties.

Many of those who work in the tourism industry, however, are either underemployed, work for hourly wages, or both. This portion of the population suffers greatly when the industry is impacted. Many small businesses rely upon tourists to survive. Small businesses—those that employ fewer than 500 people—made up all but 15,000 of the over 500,000 businesses in those states. These businesses have been strained by the hurricanes of 2004 and 2005, as well as the economic downturn, which has tapped out their reserves and made them less able to withstand this most recent crisis.

Commercial & Recreational Fishing

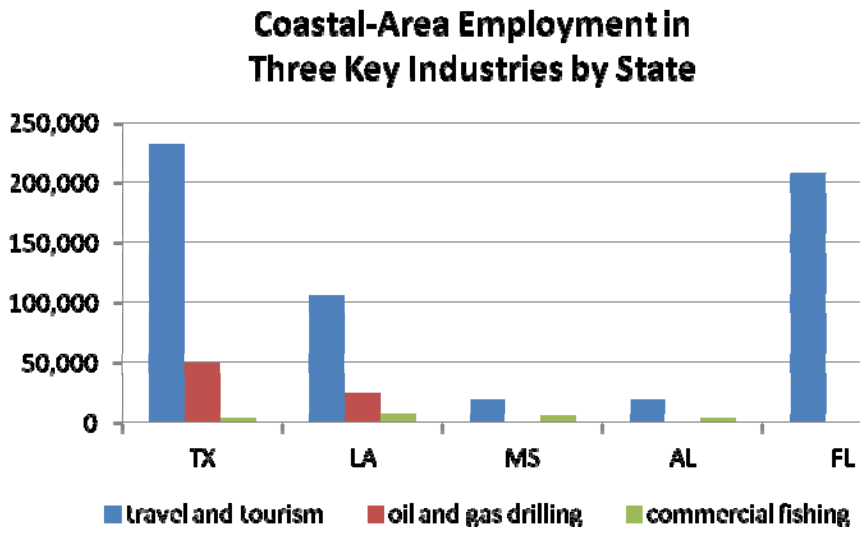
In 2008, the dockside value of commercial fishing landings in the Gulf of Mexico was $659 million. More than two-fifths, or $273 million, were recorded in Louisiana and another fifth, or $122 million, was recorded in West Florida. In 2008, between 7,100 and 17,000 people worked as part or full-time workers in commercial fishing or aquaculture. Furthermore, in 2008, total trip expenditures for recreational fishing in the Gulf were nearly $1.5 billion. There were 3.2 million recreational fishermen who took a fishing trip in the Gulf of Mexico region. An additional 8,700 workers were employed in commercial seafood-product preparation and packaging. Taken together, as many as 25,700 people were directly employed in commercial fishing in the Gulf.[72] Annual average wages across the Gulf in 2008 were approximately $23,500 for harvesting, $28,700 for aquaculture and $26,000 for seafood product preparation and packaging.[73]

Oil and Gas Drilling

In 2008, the oil and gas drilling industry employed approximately 180,000 workers in the five Gulf Coast states.[74] The vast majority of these workers were employed with firms located in Texas and Louisiana. More specifically, 74 percent were located in Texas, 23 percent in Louisiana, and less than 2 percent in each of Mississippi, Alabama and Florida. Less than half of the total workers, or about 75,000 workers, were employed by firms located in the coastal counties of the Gulf Coast. According to the Department of the Interior, there are about 80,000 offshore oil and gas production, construction, and drilling workers in the Gulf of Mexico, less than 10,000 of who work on drilling rigs.[75] Average annual wages were approximately $89,000 for drilling oil and gas wells and $77,000 for support activities supplemental to oil and gas operations.

Summary

In summary, as of 2008, along the Gulf Coast there were approximately 587,000 jobs in travel and tourism, between 16,000 and 26,000 in commercial fishing, and 75,000 in oil and gas drilling. Combined, these three industries account for approximately 10 percent of total private employment along the Gulf Coast. The following chart, which summarizes the data presented above, shows the employment in these three key industries by state.



Because so many workers depend on these three key industries, the livelihood of a significant number of Gulf residents has potentially been impacted by the fallout from the oil spill; and because so much of the consumer base in the region is made up of these workers, there have been second and third order impacts on other industries. However, the infusion of funds going toward recovery operations may mitigate some of these impacts as well.

C. How the Deepwater Horizon Oil Spill Further Impacts the Region

Two distinct analytical approaches have helped shed light on the impacts of the spill: an analysis of claims data, and qualitative analysis gathered from numerous visits to Gulf communities have each contributed to a basic understanding of the problems and needs of local Gulf economies.

Claims Data

Until claims processing was transferred to the independent Gulf Coast Claims Facility (GCCF) on August 23, 2010, BP administered its claims process. As they did so, they collected information about claimants, and the justifications that they provided to explain individual claims. The data collected provides insight into the efficacy of the claims process, as well as into the geographic and industrial makeup of claimants. Importantly, the focus here is on claims *filed*, not claims resolved.

Approximately 250,000 justifications were provided by claimants in support of their claims. Given that a claimant could seek compensation for more than one reason, there is not necessarily a one-to-one ratio between claims and justifications offered. Each justification is illustrative of different sources of damage. [76]

As of, August 20, 2010, the last business day before the GCCF took over the claims process, over 150,000 claims had been filed. Individuals and businesses in Florida filed the largest share of claims (26 percent), followed closely by Louisiana (23 percent) and Alabama (20 percent).

Individual and Business Claims Filed				
State	Total Claims Filed	Share of Claims Filed	Total Claim Factors	Share of Claim Factors Filed
LA	35,053	23%	72,411	29%
AL	31,210	20%	55,063	22%
FL	39,366	26%	54,883	22%
MS	26,159	17%	38,947	16%
Other	17,119	11%	21,903	9%
TX	5,067	3%	7,596	3%
TOTAL	153,974	100%	250,803	100%

Within the four affected states, data on claims shows a concentration of claims in a small number of geographic areas (see Appendix Table X). Specifically, 14 counties accounted for over 60 percent of total justifications. This concentration of activity provides some indication of where the perceived economic impact of the spill has been particularly severe.

Also, the claims data provides some indication of the primary reasons why individuals and businesses lost income or commercial profit. In particular, the data suggest a disproportionate impact on the seafood, tourism and hospitality industries (see Appendix Table X).

Past Oil Spills Impact on Local Economies

Deepwater Horizon was more than an order of magnitude greater than any other oil spill the nation has faced to date. Because of this, data regarding past oil spills is unlikely to be useful in analyzing the expected extent or duration of its impact on local economies. Other factors, such as the location of the spill, also make the Deepwater Horizon oil spill unique. However, looking to past oil spills, particularly ones occurring in or near coastal areas, may shed some light on the types of industries that are typically impacted and some of the other factors attendant to oil spills. This section provides a brief summary of some of the research conducted on a handful of coastal oil spills including the Union Oil Platform A, the Amoco *Cadiz*, the Pemex *Ixtoc I*, the Exxon *Valdez,* and the *Prestige* (research and conclusions from sources outside of the United States have not been independently verified).

Historically, tourism and commercial fishing have experienced substantial negative direct economic impacts from coastal oil spills.

In most cases, tourism spending in areas affected by coastal spills declines sharply. It is the duration of the decline that varies by spill. According to one study, normal levels of tourism in Alaska after the *Valdez* spill recovered the following year and "no permanent damage to the tourism industry appears to have occurred."[77] In the Amoco *Cadiz* case, by autumn of the following year there was almost no trace of oil on the local beaches and tourists appeared to return as usual.[78]

Similarly, commercial fishing in the wake of coastal oil spills is typically brought to a standstill in affected areas as fisheries are temporarily closed. Again, the duration of the impact varies. In the case of the Amoco *Cadiz*, most open-sea fishermen were idle for less than two months and commercial fishing levels in 1978, the year of the spill, did not appear to be significantly lower in affected areas.[79] Data on the total fresh fish catch from the Santa Barbara area showed no discernable decrease in 1969.[80] In the case of the *Prestige* oil spill, while landings decreased dramatically in the year of the spill, in each of the following two years overall landings appeared to return to normal levels.[81] In the case of the Exxon *Valdez*, one study suggests the majority of the effects on commercial fishing disappeared after the 1990 season.[82]

Past spills also demonstrate that duration of impacts on commercial fishing can vary by species. For example, aquaculture oysters took longer than a year to fully recover in the case of the *Cadiz* spill. However, in the case of Exxon *Valdez*, effects lasted for over a decade. In the aftermath of the Exxon *Valdez* spill, the recreational fishing and tourism industries bounced back relatively quickly, but the Prince William Sound herring fishery has been closed for 15 of the 21 years since the spill.[83]

Due to many unique factors, the Deepwater Horizon oil spill is expected to present different patterns of recovery than in prior spills. Review of the impact of past oil spills therefore is of limited value. Instead, it is important assessing the potential impacts on the region to look closely at what is happening in specific communities in the region. And whatever the ultimate economic impacts, a critical step in minimizing those effects is to continue efforts and plans to mitigate damage to the tourism and commercial fishing industries.

Community Economic Assessments

First-hand experiences from affected communities can provide some of the most direct insights into the situation on the ground. Insight gained from first-hand experiences and observations came from meetings and conversations with fishermen, health officials, environmental workers, industry leaders, scientists, members of the business community, local leaders, elected officials, and thousands of Gulf Coast residents.

Agencies across the federal government have also reached out to local communities. In particular, an interagency Economic Solutions Team comprised of the Departments of

Commerce, Labor, Homeland Security, Agriculture, the Small Business Administration, and others undertook significant efforts to seek out and listen to local concerns. This included sending 21 teams, comprised of economic recovery specialists from within and without the federal government, to parishes and counties across the Gulf to help guide economic recovery. These and other conversations with local communities helped to identify key needs and concerns, as well as identify a vision for economic recovery. The results of these assessment teams will be released as they are completed.

III. Principles for Economic Recovery

With the goal of helping all Gulf residents, and particularly, those hardest hit by the spill – from low income and traditionally underprivileged communities, to Non-English speaking immigrant populations, to disadvantaged small businesses – economic response and recovery efforts should address these five principles of recovery:

- **Principle 1**: Compensation and income support for affected individuals and businesses are critical to helping communities weather disasters and recover quickly. In the case of the Deepwater Horizon oil spill, direct compensation is in many instances providing the primary form of income replacement. However, the federal government has an important role to play in providing more traditional forms of income support through safety-net programs and by ensuring integrated access to assistance so that there is no "wrong door" for those in need.

- **Principle 2**: Affected communities can benefit greatly from economic assessment, technical assistance, and capacity building. Specifically, analytical capacity and assistance with navigating federal and state programs and non-governmental resources can help recovering communities.

- **Principle 3**: Addressing public perception concerns and mitigating long-term reputational damage in the wake of this spill will be central to economic restoration.

- **Principle 4**: The pace of small business recovery will be central to the recovery of communities across the Gulf Coast. Support for small businesses is a vital component of recovery. Small businesses are critical to the long-term health and economic recovery of the Gulf Coast. As outlined below, small business is one of the drivers of local economies and one of the first catalysts of economic recovery. Small businesses tend to be more vulnerable to shocks than big firms but, with the right tools, small businesses can adapt and benefit from recovery and restoration, too.

- **Principle 5**: Recovering regions should use the opportunities presented by the recovery effort to address longstanding economic and environmental challenges.

The following section describes recent strategies and ongoing activities that fall within these core areas, and outlines recommendations for moving forward.

IV. Recovery Strategy

A. Compensation and Income Support for Affected Individuals and Businesses

Direct compensation and income support obtained through the claims process are critical short-term responses necessary for economic health in the wake of the oil spill. These tools help bridge lost income and avoid further harm to state and local economies.

Yet, across the Gulf Coast, communities have expressed significant concern about the efficiency of the claims system and about their own capacities to use the process. Individual and small business claimants reported that they lacked certain information (e.g., business receipts, sales documentation, etc.) to help them present their claims. Claimants conveyed their belief that these issues complicated the claims process. In response, some communities have requested technical assistance to ensure that individuals and small businesses are able to file claims.

From the earliest days of the spill, the federal government has made it a top priority to ensure that affected individuals and small businesses have "one stop" access to the support services they need. This support has taken the form of assistance with claims or applications for government programs such as unemployment insurance or the Supplemental Nutrition Assistance Program (SNAP or food stamps).

The Integrated Services Team
Early in the response efforts, the National Incident Command (NIC) established the Integrated Services Team (IST), devoted to developing and overseeing a unified approach for the coordination of support to individuals and small businesses impacted by the oil spill. During the early weeks and months of the response, this effort included several key components, including:

- **Working with BP to ensure that claims facilities also provided information about federal benefit programs:** The government presence at claims facilities included federal and state personnel, as well as access to program applications. As a matter of course, claimants could access materials regarding benefit programs, including unemployment insurance, Supplemental Nutrition Assistance Program (SNAP), and Medicaid. The Small Business Administration also had an active presence at claims facilities, offering information about disaster loan programs for qualifying businesses affected by the spill.

- **Facilitating multi-lingual access to assistance:** Early on in the response, the IST recognized that non-native speakers were having difficulty obtaining support. In particular, the Vietnamese community was struggling to access information and gain assistance. The team immediately developed a sub-group to focus on issues of language access. Multi-lingual

materials became commonplace at claims facilities and the newly established GCCF has continued that same commitment to language access.

- **Reforming the federal government's one-stop web portal for disaster victims:** As part of the Administration's commitment to streamlining access to assistance, the IST worked to create a digital "one-stop" presence, in addition to a network of in-person facilities and phone hotlines. Shortly after the spill began, the IST worked with the Department of Homeland Security to enhance www.disasterassistance.gov, the federal government's digital platform for disaster victims, which provides information about how to access relevant federal programs. The portal now consolidates access to information on the claims process with access to information on federal and state resources. This new content is available in English, Spanish, and Vietnamese.

- **Easing the transition to the independent Gulf Coast Claims Facility:** Members of the IST served as the primary federal liaisons during the transition to the GCCF—sharing lessons learned from months of experience on the ground.

The Gulf Coast Claims Facility

While the Integrated Services Team initially played a crucial role in coordinating with responsible parties, its role evolved with the development of the independent claims process. On June 16, 2010, the President announced a commitment made by BP to contribute $20 billion into a trust to cover spill-related costs, including compensation and damages resulting from lost economic activity as a result of the spill. BP also agreed to turn over control of the claims process to Kenneth Feinberg, who established the Gulf Coast Claims Facility (GCCF) on August 23, 2010.

The GCCF is an independent claims facility responsible for the collection and resolution of individual and business claims. Individuals and businesses may submit a claim to the GCCF for clean-up and removal costs, damage to real or personal property, lost earnings or profits, loss of subsistence use of natural resources, or physical injury or death.

Recommended Recovery Actions:

- **Continue efforts to integrate services and facilitate access to government programs:** The integration of services for disaster victims should and will remain a priority for the Administration. While the GCCF is separate and independently run, the federal government will play an ongoing role in ensuring that, through that process, claimants are aware of and have access to federal programs. As individuals, families, small businesses, and communities progress in their economic recovery, a different and more diverse suite of government program materials should be distributed at GCCF facilities and integrated into the www.disasterassistance.gov platform. This would begin with the distribution of materials compiled as appendices to this report. In addition, under this recommendation federal agencies would continue to provide relevant program materials and related information in appropriate languages.

- **Offer resources for tax guidance to those affected by the spill and/or receiving compensation from the GCCF:** The IRS has taken a number of steps to assist taxpayers impacted by the oil spill. To help with questions and issues, the IRS has posted the answers to frequently asked questions on its website and has established a dedicated phone line to deal with taxation questions arising from the oil spill. In addition, the IRS has announced a number of options available to assist taxpayers experiencing hardship due to the spill. Options include postponement of collection actions or added flexibility to coordinate installment agreements. The IRS has also worked with the Gulf Coast Claims Facility to establish voluntary procedures by which taxes could be withheld, as appropriate. Going forward, the IRS is planning additional outreach to taxpayers during the 2011 tax filing season, which will present particularly complex and challenging issues for many Gulf residents and small businesses. Every effort should be made to provide appropriate educational materials and access to technical assistance, to ensure that taxpayers know of all their options if they are facing financial hardship.

- **Address the financial education and financial access needs of affected communities:** Households affected by the spill might require assistance obtaining financial education resources and accessing financial services that meet their needs, including managing any compensation payments. In addition, small business owners affected by the spill might need specialized credit and counseling support to help them adapt to the changed business environment. Treasury's Community Development Financial Institutions Fund (CDFI Fund) has long supported community development financial institutions (CDFIs) in the region. Treasury-certified CDFIs in the region are already assisting those affected by the spill. Going forward, the CDFI Fund should conduct outreach to local CDFIs to help them expand their impact by increasing awareness of their services. Members of the 21-member Financial Literacy and Education Commission (FLEC), some of which are already working to address financial education needs in the region, should continue to coordinate their efforts so that affected households have streamlined access to available federal financial education resources, including the FLEC's national financial education hotline and website. Finally, Treasury, the CDFI Fund, and the FLEC members should continue the dialog they have already begun with local stakeholders, such as nonprofits, financial counselors, and CDFIs, to explore further opportunities to jointly address community needs. Financial education services should be coordinated with emergency, behavioral, and physical health services, such as such as emergency food assistance.

- **Provide funding to states or organizations to create subsidized jobs:** If Congress acts and provides new dedicated resources, Gulf Coast states could establish subsidized employment programs that would promote job creation and help those displaced by the spill attain new job skills. Four of the five Gulf states – Alabama, Mississippi, Texas, and Florida – implemented subsidized employment programs using TANF Emergency Funds over the past year to provide out-of-work parents (and, in some cases, disadvantaged youth) with the income, dignity, and training that comes with a job.[84] While the new funding could be modeled broadly on the successful TANF Emergency Fund, some changes would be needed to reflect the unique situation of the Gulf Coast. In particular,

while subsidized jobs funded though the Emergency Fund were limited to low income parents and youth, a subsidized employment effort to address joblessness in the Gulf region could be broadened to other individuals as well.

- **Increase federal efforts to drive local hiring in response and recovery work:** Already, response efforts have been important drivers of employment in the Gulf. For example, through the Vessels of Opportunity program (VOO), the federal government worked closely with BP to ensure that priority was placed on local commercial assets, and their owners who make their living from the Gulf of Mexico in finding vessels to join the response. VOO employed over 3,200 vessels at its peak. Economic Assessment and Evaluation teams heard from communities that they perceived VOO to have generated substantial local employment.

  The federal government has also encouraged BP to hire locally. To that end, Secretary of Labor Hilda Solis wrote a letter to BP in which she called on the company to have its contractors and subcontractors post all job orders with the states' public workforce systems through each state's One-Stop Centers. Preliminary data indicate that the majority of response contractors – whether hired directly by BP or through federal agencies – are either working within their home states or come from other states affected by the oil spill.

  While federal law generally does not permit the federal government to favor organizations, firms, or individuals in particular geographic areas when awarding federal contracts, there is an exception where another statute authorizes or requires that an acquisition be made from a specified source.

  To that end, Congress should pass legislation that would allow greater flexibility to prioritize organizations, firms, and individuals residing in areas affected by the spill for federal contracts directly related to the response and recovery efforts. This provision would be modeled after similar provisions in the Stafford Disaster Relief and Emergency Assistance Act, which allows for the prioritizing of local hiring in the event of a presidentially declared disaster. Legislation should specify that such prioritization be permitted for clean-up activities and for longer-term restoration and recovery work—so that these ongoing efforts continue to drive employment and economic prosperity in the Gulf. This would, when combined with efforts to help local small businesses procure contracting opportunities (discussed later), maximize the extent to which the recovery is driven locally.

B. Economic Assessment, Technical Assistance and Capacity Building for Affected Communities

Communities impacted by disasters often benefit from organized community recovery planning. To develop these plans effectively, communities must immediately begin to take stock of their situations and seek to understand both the scope of damage and the desired path to recovery. However, communities often lack the capacity to do this effectively – particularly

in the wake of a disaster, when already-limited resources and human capital are often stretched thin. The administrative capacity of local governments is frequently challenged by the additional burdens associated with economic dislocation and recovery.

Meetings with communities and local governments point to multiple challenges associated with insufficient local capacity. For example, there are serious concerns from local government organizations, including special districts, about loss of sales and tax revenues as a result of the spill. Those impacts will be felt for months as receipts come in at rates lower than projected. In addition, some communities expressed a lack of capability to undertake comprehensive data collection efforts that are needed to assess their economic situations. Local governments have also asked for assistance navigating existing federal programs—noting, in particular, that they would benefit from assistance with grant application processes.

The federal government can play an important role in helping to mitigate local challenges and provide additional capacity to disaster-impacted communities, as well as to state and local governments. Federal efforts can support assessment, analysis, and technical assistance in planning and executing economic recovery efforts. Since the spill, the federal government has done this through the deployment of 21 teams of economic recovery specialists to communities across the Gulf. Each team deployed with the mission of helping local communities orient to their situation and develop steps toward economic recovery.

The deployment of these teams was an initiative of the National Incident Command's Economic Solutions Team, in partnership with the International Economic Development Council. The teams included federal agency representatives who, working in cooperation with experienced economic development and disaster recovery specialists, provided vital capacity and technical assistance to local communities. A targeted location for each team's deployment was developed through Geographic Information System (GIS) spatial analysis, and took into consideration demographic, socio-economic, Shoreline Cleanup Assessment Technique (SCAT), and current BP claims data. Ultimately, communities in all five Gulf States will benefit from these assessments.

Before the teams arrived on site, they engaged with community stakeholders to define the problems faced by each community. When deployed, the teams worked with local leadership from state governments, local schools, workforce development organizations, chambers of commerce, economic development organizations, and business representatives from key industries. The teams discussed issues ranging from infrastructure challenges to business recovery needs and concerns about credit and financing. They conducted meetings focused specifically on the status of oil and gas production, commercial and recreational fishing, and tourism. Further discussions were focused on identifying proactive steps to address the specific challenges of individual communities.

Recommended Recovery Actions:

- **Build economic development strategies around community needs.** After the initial visits, assessment teams are developing reports to share with the communities. The completion of the reports should and will be intended as further technical assistance in support of communities' individual recovery planning efforts. The reports will stress the importance of empowering communities so that they can take responsibility and guide their own recoveries. At the same time, the reports are expected to encourage communities to coordinate with each other and to develop regional, rather than purely localized solutions.

- **Develop a "toolkit" to help communities understand and access federal programs:** Assessment teams have heard a variety of concerns about access to federal programs, ranging from questions about grant application processes to uncertainty about which federal programs can be utilized. In order to meet these concerns, the federal government has begun developing a recovery "toolkit" that identifies federal programs that may be relevant to communities in different aspects of recovery. The toolkit has been included as an appendix to this report. The information will also be distributed in hard copy across the Gulf, integrated into the www.disasterassistance.gov platform, and publicized through a series of technical assistance workshops and webinars in which federal program representatives will provide local governments and other stakeholders an overview of the contents of the toolkit. Representatives should be available to answer specific questions about different programs and program application processes.

- **Develop Gulf Coast Regional Economic Assets and Economic Clusters:** The President's FY 2011 Budget request supported enhancement for regional economic competitiveness—stating that high-performing regional economies are essential to national growth. The budget supported growth strategies based on stronger regional clusters of economic activity through funding across many agencies. This strategy has significant implications for the Gulf.

  The Gulf Coast is connected to a tremendous range of interrelated economic assets that can serve as the foundation for building economic growth and resiliency. The region should build on its Regional Innovation Clusters (RICs) — geographic concentrations of firms and industries that do business with each other and have common needs for talent, technology, and infrastructure. Several agencies are developing models for using RICs in the region, and their combined efforts will be an important part of the region's economic recovery.

  The Economic Development Administration (EDA) is funding a Regional Innovation Acceleration Network that is expected to develop strategies to complement existing technology-based economic development initiatives. These should build on existing academic and industrial research strengths, and economic priorities in key technology sectors – possibly including coastal restoration technologies, energy production, biomedical technology, and renewable and biomass energies.

  SBA's Regional Clusters Initiative focuses on accelerating small business opportunities in existing regional clusters across the country. SBA is supporting technical assistance,

business training, counseling, mentoring and other services that will support job growth and competitiveness of small businesses. SBA's Regional Clusters Initiative harnesses the potential of regional clusters to drive economic growth and strengthen American competitiveness.

Recently, the SBA announced support for 10 regional economic development and job creation efforts through a new pilot program, "Innovative Economies." This included the Enterprise for Innovative Geospatial Solutions in Mississippi and Louisiana. This effort organizes complimentary geospatial businesses, government agencies, and educational institutions in Mississippi and the Louisiana Gulf Coast to help create a trained workforce, transfer geospatial technology from public institutions into the market, and foster new business growth.

Going forward, strategies might include: establishing regional innovation organizations to streamline and coordinate technology entrepreneurship, service delivery and management of area incubators, research parks and technology transfer activities, and providing proof of concept funding and early state seed capital to start-up technology firms in the targeted clusters.

C. Rebuilding Public Support for Affected Industries

Both natural and man-made disasters can affect an entire region's image, as well as the image of its states, communities, and core industries. Disasters inevitably dissuade some tourists for some period of time depending on the duration and severity of the crisis, thereby compounding the economic and environmental damage caused by the event itself.

As described earlier in this section, communities in the Gulf are already reporting that perceptions of the Gulf, its beaches, and the seafood industry are having a negative effect on tourism and recreational activities. "We're losing vacationers because of the perception and may lose them permanently," said one stakeholder in Escambia County, Florida. Communities worry both about negative perceptions and simultaneously about real damage being marginalized – "we actually had oil on our beaches, this is not just perception," said another stakeholder in Santa Rosa County, Florida.

While communities remain concerned about seafood and water safety issues, the cleanliness of beaches, and the need for continued testing and monitoring, they are looking for ways to balance these safety concerns with efforts to market core industries and restore the image of the Gulf as a desirable place to live, visit, vacation, and do business.

To date, there have been a number of efforts to bolster the image of the Gulf and its core industries—and some funding has been provided to meet this important goal. At the federal level, efforts have focused on showing support for these industries, and on educating the public about safety information. Senior officials have spoken publicly about seafood safety issues and have addressed public concerns and perceptions.[85] NOAA, EPA, FDA and the Office of the

Surgeon General conducted a Seafood Safety Road Show from August 24 through August 28. Commercial fishermen, recreational fishermen, charter boat operators, and local leaders attended stops in Louisiana, Mississippi, Alabama and Florida. To further support the tourism industry, the National Incident Command's Economic Solutions Team worked with states to develop a travel and tourism page on www.restorethegulf.gov to help disseminate appropriate information about open beaches and tourist attractions to the public.[86]

According to its most recent reports, BP has contributed nearly $90 million to support tourism in four Gulf states: Florida, Louisiana, Mississippi, and Alabama – as summarized below:

	BP tourism grant funding by state (millions)
AL	$22
FL	$32
LA	$15
MS	$18

[87]

Most of this funding was provided directly to states, to use or allocate at their discretion—"for the Governors to distribute as they see fit to promote tourism."[88] Florida, for example, has recently announced a "Back to the Beach" tourism advertising campaign.[89]

A minority of the funding was provided directly to communities – including a $7 million grant to seven coastal counties in northwest Florida.[90] Some recipients have used funds to provide financial incentives to tourists. For example, Santa Rosa County, Florida provided partial reimbursement to travelers who rented hotel rooms or condominiums.[91]

This funding – combined with federal efforts described above – was an important step toward repairing the image of affected industries. However, communities expressed concerns to assessment and evaluation teams that it was insufficient, overly weighted toward the interests of states rather than localities, and that their ability to make use of available funds was curtailed by near-term deadlines.[92] Further, the concerns that communities shared with assessment and evaluation teams suggested uneven capacity for developing and implementing strategic programs on short order.[93]

Recommended Recovery Actions:

- **Grants for seafood marketing:** The supplemental bill provided $15 million for fishery disaster assistance under the Magnuson Stevens Fishery Management and Conservation Act. NOAA is working closely with the Gulf States Marine Fisheries Commission (GSMFC) – along with their state representatives from Louisiana, Mississippi, Alabama, and Florida – on plans that are intended to help the local seafood industry and the sport fishing community restore national confidence in Gulf fishery products.

The funding will support three areas to rebuild demand for Gulf products: 1) developing a national Gulf fishery education, outreach, and marketing and advertising campaign; 2) establishing a means to trace fishery products from the point of harvest all the way to the market; and 3) working with conservation organizations on getting sustainability certifications for Gulf harvested fishery products. Together, these three activities should help rebuild confidence in the safety, and increase the demand for Gulf fishery products and sport fishing. This would, in turn, help fishermen, processors, services and marine suppliers, restaurateurs, recreational fishermen, charter boat operators, and sellers of Gulf fish products.

- **Fishery disaster assistance:** The state of fisheries and fishery-dependent businesses should continue to be monitored in order to identify and address potential challenges as they evolve. Fisheries and fishery-dependent businesses with valid claims should continue to present them to the responsible parties. The recently passed supplemental will make it possible to provide additional support to mitigate the economic impact on fishermen and fishery-dependent businesses affected by the Deepwater Horizon oil spill in the event that other funding sources prove insufficient. While the hope is that this funding will not be needed, as it represents an important contingency option, its inclusion in the recent supplemental was still an important step in helping to assure the continuance of a robust Gulf fishing industry.

- **Tourism and marketing should remain priorities if future funds become available:** This report encourages the dedication of a significant amount of any Clean Water Act penalties that are obtained to support the region's recovery. In the event that Congress acts on this recommendation or other funding becomes available, tourism and marketing should be priority investment areas. Moreover, future funds should adhere to lessons learned from assessment and evaluation teams and other reports about the effectiveness of tourism and marketing efforts to date. Specifically, future funds should support efforts that:

  Place greater priority on the needs, interests, and limitations of localities and communities. Funding guidelines should specify the importance of community-based efforts—such that communities receive both funds and guidance about best practices for efficient program implementation. Recipient communities should be encouraged to work together both to share best practices and to undertake efforts that are complementary.

  Establish greater transparency about the availability and use of funds. This should begin with clear and publicly known standards for the distribution of funds.

  Recognize that tourism and marketing needs will not end with this summer's tourism season. The funds provided to date by BP came with specified deadlines for use of funds that were established in memoranda of understanding between BP and recipients. These

deadlines stipulated that funds had to be used by mid-to-late September. Communities have expressed significant concern about the longer-term fate of their core industries, and funding guidelines should be structured to account for a timeframe that extends beyond this immediate summer season.

D. Targeted Small Business Support

Communities report that small businesses are challenged by the uncertainty of current circumstances. In particular, concerns about the future are contributing to a general wariness about whether or not to take on loans and invest in future business opportunities on the Gulf Coast. Local business leaders have said that small businesses are reluctant to hire additional employees or extend significant resources to acquire inventory for the next season. They are also concerned that economic uncertainty is dissuading investment from outside the region. Finally, local banks report difficulty extending operating credit to businesses for payroll and working expenses.

As one of the drivers of local economies and one of the first catalysts of economic recovery, small businesses are critical to the long-term health and economic recovery of the Gulf Coast. There are 3 million small businesses in the Gulf, making up 97.6 percent of all employers and employing 49.4 percent of all workers. As of 2006, small businesses accounted for 54.1 percent of private sector employment in Louisiana, 50.1 percent in Mississippi, 49.7 percent in Alabama, and 44 percent in Florida. To this end, the Small Business Administration (SBA) has fielded three types of assistance programs to small businesses in the Gulf region.

First, SBA has been offering Economic Injury Disaster Loans (EIDLs) for impacted small businesses in parishes in Louisiana since May 6, and counties in Alabama, Mississippi and Florida since May 14. EIDLs offer up to $2 million to assist with ongoing operating expenses at a 4 percent interest rate with a term of up to 30 years and deferment of the first payment for 11 months. The loans may be used to pay fixed debts, payroll, accounts payable, and other bills that can't be paid because of the oil spill. As of September 15th, 311 EIDLs worth $27.1 million had been provided (Alabama $5.1 million; Florida $7.8 million; Louisiana $12.1 million; Mississippi $2.2 million).

Second, many small businesses and their employees in the Gulf region have existing disaster loans following Hurricane Katrina and the other storms that have impacted the Gulf area over the past few years. As a result, SBA is also offering deferments on these existing disaster loans for eligible small businesses and their employees impacted by the spill. These deferments allow small business owners, as well as their workers with disaster home loans, to keep more cash in their hands while dealing with the financial crisis caused by the oil spill. As of September 15th, $113.9 million in homeowner and business disaster loans, and $5.2 million in monthly payments, had been deferred.

Third, following the spill, the SBA established 31 Business Recovery Centers in Louisiana, Mississippi, Alabama, and Florida staffed by 95 SBA Disaster Assistance employees and 30 Small Business Development Center staff.[94] At the centers, online, and on the phone, staff provides counseling and technical assistance to small businesses on the SBA loan application process, the claims process, and other options open to small businesses for assistance.[95] Additionally, the staff assists with translating SBA and claims forms into a number of different languages, including Spanish, French and Vietnamese. To date, SBA and SBDC staff have completed more than 3,939 field interviews and taken more than 1,935 calls at the Disaster Assistance Call Center.

In addition, USDA has provided capital to small farms, aquaculture, rural infrastructure (Electric, Telecommunications/Broadband, Water and Environmental Programs); as well as a diverse portfolio of small businesses, community facilities, housing and other targeted sectors like bioenergy and renewable energy through its Farm Service Administration and Rural Development Programs.

In response to the sustained damage to the Gulf Coast economy, the Administration has already spent nearly $144 million in contracts to respond and recover from the oil spill, coming from 11 federal agencies. Of this, close to $41 million in contracts have gone to small businesses (~29% of contracts), which exceeds the federal small business contracting goal of 23%.[96]

Recommended Recovery Actions:

- **On-site small business counseling**: Across the five Gulf States, SBA has established five Small Business Development Centers, 15 Women's Business Centers, and 25 SCORE chapters with a total of more than 950 counselors operating on the ground.[97] Beginning in Q1 FY2011, SBA's partners will conduct in-person, on-site training in many of the affected communities, and assist small businesses with financial matters, business filings, and business planning needs, including new market opportunities. SBA should coordinate access to, and leverage business and trade promotion opportunities being put together by, other federal agencies.

- **Small business federal procurement opportunities**: Beginning in Q1 FY 2011, SBA is planning to work with the General Services Administration (GSA) and other federal agencies to identify federal procurement opportunities for small businesses in the five state region. A special webpage will link small businesses to opportunities in their regions. SBA should work closely with GSA to identify opportunities on the GSA schedule that could be available to small businesses located on the Gulf Coast. This will also help facilitate local hiring as discussed earlier. In addition, SBA should work closely with state governments and nonprofit organizations to market these opportunities to small businesses.

  Throughout FY 2011, SBA, GSA, DOD, and DHS are expected to conduct special outreach and training sessions – both in person and via webinar – on how to do business with the federal

government, in order to increase the capacity of small businesses seeking federal contracting opportunities. For those small businesses already doing business with the federal government, SBA plans to conduct matchmaking conferences that would bring together federal prime contractors looking to hire subcontractors. These conferences should be held throughout FY 2011.

- **Assuring access to capital:** The Section 108 Loan Guarantee Program is the loan guarantee provision of the Community Development Block Grant (CDBG) program, administered by HUD. Section 108 provides communities with a source of financing for economic development, housing rehabilitation, public facilities, and large-scale physical development projects. This particularly flexible form of federal funding allows communities to transform a small portion of their CDBG funds into federally guaranteed loans large enough ($5 dollars for every $1 in CDBG funds) to pursue physical and economic revitalization projects that can renew entire neighborhoods. Local governments borrowing funds guaranteed by Section 108 must pledge their current and future CDBG allocations to cover the loan amount as security for the loan.

  Gulf Coast states can make applications to HUD now for Section 108 Loans for small business assistance such as: working capital loans, real estate acquisition/development/expansion, and/or equipment purchase loans. Funding is non-competitive and is available throughout the year subject only to annual congressional approval of loan guarantee authority.

Potential Section 108 Loan Guarantee Authority for Gulf Coast States

NAME	CDBG10	5 X CDBG Allocation
ALABAMA STATE PROGRAM	$ 28,171,248	$ 140,856,240
FLORIDA STATE PROGRAM	$ 29,565,984	$ 147,829,920
LOUISIANA STATE PROGRAM	$ 30,533,587	$ 152,667,935
MISSISSIPPI STATE PROG	$ 32,946,330	$ 164,731,650
TEXAS STATE PROGRAM	$ 79,264,729	$ 396,323,645
Total	**$ 200,481,878**	**$ 1,002,409,390**

E. Long-Term Economic Diversification/Resilience

While the immediate efforts in response to the spill have centered on compensation, assessment, marketing and other near-term priorities, a central component of the economic vision for the Gulf Coast involves diversifying the economic drivers that create jobs and wealth in the region. This is important, not only to avoid volatility in the event of future disasters, but also to increase job growth and prosperity across the region.

Communities across the Gulf Coast have almost uniformly articulated a strong desire to diversify, oftentimes noting that the spill revealed the fact that their economies are too narrowly concentrated. Many communities had plans to diversify before the spill occurred (and they expressed frustration that recent progress toward realizing projects such as airports and shipping docks might be stymied by the spill). Moreover, communities articulated the need for workforce retraining to support economic diversification.

Disasters can provide opportunities to address long standing challenges and to reconsider fundamental questions about a community's or a region's economy and future direction. By incorporating preexisting ideas about diversification into the long-term economic response, the Gulf can use its valuable assets to move toward a 21st century economy and workforce.

The challenge in this area is to balance short-term spill responses with preexisting long-term goals. The vision of a healthy, diverse, 21st century Gulf economy has great potential in several key areas that are vital to the Gulf Coast's long-term success. But, ultimately, the decision of whether and how to diversify an economy must be the decision of, and driven by, the local community.

Recommended Recovery Actions:

- **Invest in export potential**: Exports are a key piece of America's economic recovery. This is especially true for the Gulf Coast. In increasing exports, the Gulf Coast can diversify sources of capital and income and reduce reliance on the traditional Gulf industries. Furthermore, diversification of exports means a more diverse and better trained workforce, with more income to bring back to the region.

  In the short-term, programs like the ongoing ExporTech Initiative have been designed to assist participating companies in developing an international growth plan. The initiative provides experts to vet the plans, and connects companies with coaching and access to organizations that can help them move quickly beyond planning to export sales. Based on the program's experience in 19 states, companies in the initiative generally realize sales overseas very rapidly, often within three to six months.

  In the long-term, the Gulf region can play a vital role in the broader National Export Initiative and its goal to double exports in the next five years. Businesses across the region can take advantage of new trade opportunities in a broad range of industries at export.gov.

- **Support development of a 21st century workforce:** A second measure to ensure a diversified gulf economy is job training efforts that will enable workers to enter new and potentially lucrative careers in a clean energy economy. In the short-term, the Department of Labor awarded $27 million in National Emergency Grants (NEGs) to workforce agencies in Alabama, Florida, Louisiana, and Mississippi to fund retraining and employment services. NEGs are used to temporarily expand service capacity at the state and local levels in response to significant dislocation events. They can support workforce redevelopment

needs that emerge from a wide range of shocks—helping displaced workers gain new skills so that they can compete in thriving and emerging industries. NEGs can provide the additional resources necessary to assist states and communities with developing retraining opportunities in partnership with institutions like community colleges and technical schools. The Economic Assessment Teams routinely heard from communities about how much they relied on the NEG program to help support job training—and how much they think they could benefit from additional NEG funding and greater flexibility in the program.

In May 2010, the Administration requested supplemental funding to support additional workforce retraining through the National Emergency Grant program. Though the request has not yet been enacted by Congress, the Administration supports passage and should work in partnership with affected communities to promote this important measure and ensure its importance is widely recognized. The Administration's request also proposed authorization language that would allow for additional program flexibility typically available only in the event of a Stafford Act disaster declaration, but that has not been available for NEGs issued in response to the oil spill. Once again, this request for additional flexibility resonates with what communities want.

- **Promote a clean energy economy:** Residents of the Gulf Coast have expressed a desire to transition to a clean energy economy. Some areas of the Gulf are well positioned to foster clean energy investments. The Gulf has tremendous wind resources, and pilot projects utilizing the power of the Mississippi River to generate power hold promise.[98] On the other hand, some Gulf Coast states have not positioned themselves well for a transition to clean energy. For instance, Louisiana, Mississippi and Alabama all rank in the bottom 10 among the 50 states in their adoption and implementation of energy efficiency policies.[99] The success of pursuing a clean energy economy will depend, in large part, on the dedication of state and local communities to invest in the necessary infrastructure for the industry to grow and to tailor it to the unique assets of the region.

  One area for potential growth is energy efficiency retrofitting, which has the advantage of requiring relatively modest investments in equipment or expertise. A number of efforts from both the public and private sectors have helped prime the pump for additional investments in this area. For instance, the Department of Energy recently awarded the Southeast Energy Efficiency Alliance $20 million to implement energy efficiency programs in 13 southern cities including New Orleans, Louisiana; Huntsville, Alabama; and Jacksonville, Florida. Alabama received $3 million in grants for energy efficiency retrofits in homes, Texas and Mississippi each received $500,000 for state energy efficiency projects and tens of millions of dollars were awarded to Gulf Coast states for industrial energy efficiency projects also by the DOE.

  Alabama will also use its $22 million in American Recovery and Reinvestment Act (ARRA) State Energy Program funding to promote energy efficiency of businesses, schools, and correctional facilities, and to develop renewable energy resources in the state. In addition, by the end of September, CenterPoint Energy – headquartered in Houston and serving all

Gulf States – will soon hit full speed on the smart meter deployment project, achieving 900,000 units installed by the end of September, with a goal to reach 2.2 million in 2012. It is now ramping up its Intelligent Grid initiative that will upgrade its substations and power lines to sense problems in seconds, dispatch crews with great precision, and re-route power around problem areas. These changes will not just make meters more accurate; they will improve grid performance throughout the Gulf and save 294 jobs. These programs are underway and are scheduled to scale-up over a period of two to three years.

Building on these efforts, the President has called on Congress to pass a new 'Homestar' program of rebates for consumers who undertake energy efficiency renovations in their homes. This $6 billion program has the potential to save consumers in the Gulf and across the country hundreds of dollars per year on their electricity bills, while both putting people back to work in the hard hit construction and manufacturing industries and also reducing energy consumption.

Biofuels and biomaterials production also represents a promising area of growth for the Gulf Coast region. Gulf Coast states have an established biofuel production industry that could be expanded, as well as opportunities to develop advanced biofuel and biomaterials industries. In particular, Gulf Coast states are relatively well positioned to become leaders in algal biofuels, which are considered a promising source of biofuels by science and industry leaders. These fuels require refining processes similar to those used for petroleum after they are produced and harvested.[100] The Gulf Coast region is home to the largest US industry base in petroleum refining (Gulf Coast states represented 48 percent of US refining capacity in 2009),[101] and is therefore in a unique position to leverage its existing infrastructure and expertise to become a leader in the production and processing of algal biofuels.

The federal government and private industry are investing heavily in this area with long-term growth in mind,[102] including the Department of Energy, which has heavily emphasized investments in the development of biofuel production technologies. Some investments in this area that have already reached the Gulf Coast include: a DOE award of $2 million for biomass feedstock cultivation with project sites in Mississippi and Alabama; $4.5 million awarded by the DOE to Auburn University in Alabama for design and demonstration of systems that harvest, handle and transport woody biomass for cellulosic biofuels; an American Recovery and Reinvestment Act award of up to $1.6 million for expanding fueling infrastructure for ethanol blends to Florida and Texas, among other states; and a DOE award of $18 million to Novemer, Inc., for advanced production of materials from CO2 with a site commitment secured in Baton Rouge, Louisiana.[103]

Shipping ports in the Gulf Coast offer an opportunity to introduce and expand clean energy technology as well. Shipping ports are a major source of air pollution and greenhouse gases as a result of their high energy intensity. Implementation of clean energy technologies to upgrade and retrofit conventional port equipment creates jobs and is highly effective at improving economic efficiency and reducing harmful air emissions. Port handling

equipment runs mostly on conventional diesel, but can be replaced or retrofitted to operate on biofuels or cleaner burning natural gas. The Environmental Protection Agency (EPA) has made ARRA awards of over $11 million to the ports of Houston and Corpus Christi to improve emissions of both on- and off-road diesel engines operating at the ports.[104] There are also opportunities to add electrical infrastructure at ports that allow for cargo ship hotel services to be powered by shore side electricity (a process known as cold ironing), rather than by on-board diesel engines. Seven of the 10 largest shipping ports (on a tonnage basis) in the US are located in the Gulf Coast region,[105] and this is an area in which state and local governments should consider investing.

The ARRA has provided the Gulf Coast with the initial seed money needed to make sure that clean technology and clean jobs are an integral part of the 21st century Gulf economy. Examples include: the Texas Gulf Coast area has received $386.3 Million for wind projects, including $178 million to Texas Gulf Wind, LLC in Armstrong, Texas.[106] Louisiana Tank, Inc., in Sweet Lake, Louisiana received a clean energy manufacturing tax credit of $5 million for Geothermal Demonstrations to show the feasibility of a geo-pressured power plant in Cameron Parish.[107] Jabil Circuit in St. Petersburg, Florida was awarded a clean energy manufacturing tax credit for $20.4 million to retrofit an existing plant; to offer solar photovoltaic panel assembly, logistics, procurement, and certification services for mono- and multi-crystalline photovoltaic cell manufacturers.[108] Twelve different companies along Florida's Gulf Coast received a combined $410,000 for solar electricity projects.[109] Shaw Modular Solutions, LLC, in Lake Charles, Louisiana received a clean energy manufacturing tax credit of $10.8 million to fabricate modules used in advanced, passively safe nuclear stations. These stations avoid greenhouse gas emissions and the resulting product aids the domestic nuclear energy industry.[110]

To reinforce and grow this foundation in manufacturing, the federal government has also helped create a clean energy market through incentives for deployment of advanced power generation technologies and energy efficiency improvements. ARRA established programs such as the 1603 Grant in Lieu of Tax Credit program; and expanded the renewable electricity production tax credit (PTC) and the federal business energy investment tax credit (ITC) to encourage the deployment of photovoltaics, stationary fuel cells, wind turbines, and microturbine generators. All of these technologies have a US manufacturing base, including manufacturing in the Gulf Coast.

It also accelerated energy efficiency programs such as the State Energy Program and the Energy Efficiency and Conservation Block Grant Program that help individuals and communities lower energy costs, conserve energy and create jobs. The Gulf states could consider implementing or expanding programs such as state Renewable Portfolio Standards, state incentives for deployment of clean energy and energy efficiency, aligning utility incentives with energy efficiency goals, and engaging utilities to institute net metering to compliment federal incentives. This would further establish and grow a clean energy market in the Gulf Coast, and therefore support and expand a manufacturing base for these technologies.

- **If enacted, utilize Gulf Coast restoration funds to support Gulf Coast economic development:** As outlined earlier in this report, we propose that the President ask Congress to designate a portion of any civil CWA penalties collected as a result of the Deepwater Horizon oil spill for Gulf Coast restoration. As part of this overall recommendation, any such funds should focus on areas like those raised in this report that support the region's long-term economic prospects, and that address issues in historically depressed, economically disadvantaged, and distressed communities. Specifically, exports, job training, and clean energy should be prioritized in the funding process.

V. Conclusion

The Gulf Coast has weathered a number of recent economic challenges. In many communities across the Gulf, the Deepwater Horizon oil spill exacerbated pre-existing conditions associated with natural disasters, the recession, a fragile ecosystem, and other factors.

No single solution will drive this complex region's economic recovery. Rather, a successful recovery will require balancing immediate, day-to-day needs with long-term, visionary goals; community-driven solutions with the perspective of regional economic drivers and global markets.

In the short-term, this will involve making sure eligible businesses and households are made whole through various compensation efforts. It will mean helping local governments and communities lead the recovery effort by providing coordination and access to the resources the federal government can provide. It also means helping the industries that were the foundation of the gulf economy to rebound through a variety of public and private efforts.

All of this needs to be done with an eye to the future. In the long-term the Gulf is well positioned to take advantage of its location and resources to fuel exports, retrain its workforce, and help lead the way in new clean energy technologies.

Nonprofit Sector Recovery

I. Introduction

As described in the previous chapters, the nonprofit sector plays a critical role in the Gulf Coast's recovery from the Deepwater Horizon oil spill. While the capacity of nonprofit organizations[111] on the Gulf Coast has been impacted by the spill, there still exists tremendous potential for nonprofits to affect and influence the recovery effort.

Nonprofits are critical in addressing community needs across the country; they know what is happening at the local level and are able to identify local communities' most pressing concerns, available resources, and potential limitations. On the Gulf Coast, in the wake of storms, the economic recession, and the oil spill, there is evidence of great resiliency in nonprofit operations, but also fragility in meeting future obligations. The success of the restoration effort on the Gulf Coast will depend on the infrastructure of nonprofits and a focus on nonprofit organizations that have demonstrated success.[112]

This chapter details the state of the nonprofit sector prior to the oil spill disaster, the affect that the disaster has had on the nonprofit sector, how nonprofit organizations are responding to local needs, and recommendations for actions and initiatives that will ensure the continued strength of the nonprofit sector and its ability to impact the Gulf communities that are most distressed.

II. Background Information

The nonprofit sector plays a vital role in the recovery of impacted communities and can impact every aspect of ecosystem restoration, economic recovery, and the post-disaster health and human services efforts, particularly of those with the greatest need.

The nonprofit sector is composed of a wide variety of organizations ranging from small, locally based nonprofits to national organizations with extensive experience in disaster recovery and provision of environmental services, community response, and basic human needs. With the help of funders and partners, including the government, nonprofits help jumpstart and sustain recovery efforts and help build enduring capacity by continuing work in an area after other organizations have departed. They play a particularly critical role in the transition between immediate recovery efforts led by federal and state agencies and long-term recovery managed by local governments and communities.

Governments at all levels (federal, state and local) are strong partners of the nonprofit sector, providing approximately 30 percent of the sector's annual revenue.[113] The remainder of nonprofit funding is provided by fees for services and goods from private sources, investment income, private contributions, and other sources.

Nonprofit organizations are critical for ensuring inclusion of all members of the impacted communities, especially those from historically disadvantaged communities; they act as advocates for a wide range of members in the community, such as individuals with disabilities and others who often have heightened access and functional needs such as children, seniors, and other underserved populations. It is crucial that these individuals as well as families receive timely recovery information; participate and understand the recovery process; and have access to adequate resources.

A. Pre-Existing Nonprofit Challenges in the Region

Nationally, the economic recession is having an impact on the nonprofit sector. According to the Nonprofit Finance Fund only 18 percent of nonprofits expect to have an operating surplus in 2010.[114] Many nonprofits have experienced and are expecting continued cuts in revenue. This economic climate compounds the difficulty of the recovery process for the Gulf region, and introduces significant challenges for nonprofits operations.

Hurricanes Katrina and Rita, combined with the economic recession, have strongly affected the nonprofit infrastructure across the region. In the aftermath of the storms, there was an immediate drop in the number of nonprofit organizations, followed by significant growth in the number of organizations between 2008 and 2010.[115] Accordingly, in the period after Katrina, total revenues for the region's nonprofit sector grew at a faster rate than the nation as a whole. Following national trends, the region's nonprofits experienced a decline in revenue during the recession, albeit less severe than the national average. In addition, most nonprofits operating on the Gulf Coast are relatively small entities with less than $1 million in annual revenue.[116]

B. How the Deepwater Horizon Oil Spill Further Impacts the Region

In the past five years, the nonprofit sector in the Gulf region has increased in size, at a rate equaling or exceeding growth elsewhere in the country. However, this does not necessarily mean that nonprofits on the Gulf Coast now have a greater capacity to serve those communities experiencing increased need. Nonprofits in the Gulf Coast region report a significant resource gap – financial and human – that affects their ability to meet community needs now and into the future.

Nonprofits Challenged by Increased Demand for Services

Based on surveys conducted in Louisiana, Mississippi, and Alabama after the oil spill, between 30-50 percent of Gulf Coast nonprofits surveyed are reporting greater need among clients and a corresponding increase in the amount of services provided.[117] Nonprofits have also observed decreased fundraising, increased stress among residents, and an increased rate of job and income loss among the populations served.

These trends compel nonprofit organizations to provide emergency response and the provision of basic services such as food and unemployment assistance instead of focusing on long-term

recovery. While some organizations are thinking about long-term recovery, many nonprofit and community organizations continue to grapple with the day to day needs of increased demands for food, job training, and mental health services– needs that existed prior to the spill, but were also exacerbated by it. As a result, nonprofits have been unable to conduct formal assessments to determine long-term needs and formulate recovery plans. These organizations acknowledged that more information about community needs would be beneficial, but to date they have only been able to focus on providing immediate response services.

Nonprofits Challenged by Limited Philanthropic Support

One of the biggest challenges facing some nonprofits in the Gulf is a lack of monetary donations; adequate resources are not available to cover assistance costs. Unlike other recent natural disasters in the U.S. and abroad, nonprofit and philanthropic leaders are reporting that the oil spill did not generate an outpouring of donations from the American public.

At a conference held August 24, 2010 by the Corporation for National Community Service, nonprofits and other stakeholders gathered in New Orleans to discuss "Transitioning to New Opportunities." Leaders stated that while some nonprofits were receiving enough donations to support assistance efforts, others were not receiving enough to meet demand.

Nonprofits are Challenged by Shortages of Specialized Staff

Another constraint in meeting the increased demand for services is limited staff, specifically skilled workers required for managing immediate and longer-term recovery. Given the nature of the oil spill's impact, nonprofits need individuals with specialized skills and expertise – social workers and case managers, financial experts, and claims lawyers.

C. Initial and Current Responses to the Oil Spill

Since the Deepwater Horizon oil spill, the nonprofit sector has responded to environmental, economic, and public health and human needs all along the Gulf Coast.

The Role of Nonprofits in the Environmental, Economic and Health Response and Recovery

As noted in the ecosystem chapter, nonprofits have been working alongside government and private industry partners on restoration and recovery efforts. Nonprofit organizations have provided supplemental services in the form of beach patrols, wildlife rescue and university research teams, and have assisted in supporting the clean-up effort. As the disaster moves into the long-term recovery stage, nonprofits will continue to be community partners in ecosystem restoration efforts.

Community development organizations and social service nonprofits have also been engaged in the economic response. They help displaced workers find new pathways to employment;

provide community-level support for emerging industries such as "green" rehab and construction; and support small business development. For example, the Blue Cross Blue Shield Foundation, with support from Louisiana Serve and the Corporation for National and Community Service (CNCS), hosted Coastal Career Fairs in seven coastal parishes in Louisiana from June through late-August.

From a health and human service standpoint, nonprofit organizations have been providing emergency services to those individuals who have fundamental needs for food, clothing and shelter. For example, Catholic Charities, with financial support from BP, has opened five emergency relief centers where fishers and their families can go for food and housing assistance, counseling, and case-management services. So far, the centers have served more than 5,000 people.

The Role of Volunteers and Community Service in the Response and Recovery

More than 5,000 volunteers and community service participants have been involved in the oil spill response and recovery effort. While volunteers have been engaged in a range of activities, the complex nature of oil cleanup, coupled with health and safety concerns, has limited their role. The Deepwater Unified Area Command, under the direction of Coast Guard Admiral Thad Allen, specified early-on that volunteers and unpaid individuals will be restricted from hands-on hazardous waste remediation efforts.

Despite this limitation, local community organizations and state service commissions report receiving an outpouring of volunteers interested in helping the Gulf Coast.

State service commissions across the region have been leading and coordinating the local volunteer response. Service commissions in Florida, Mississippi, Alabama and Louisiana have been actively involved with the Unified Command Centers and have facilitated the flow of information between the government response and community organizations on the ground. Also, they coordinated efforts that extended beyond volunteer engagement and management. For example, the state commission in Alabama is partnering with the Substance Abuse and Mental Health Services Administration (SAMSHA) in directing and managing grants to local behavioral health programs.

The Philanthropic Response

The ability of nonprofits to respond successfully to the urgent needs in the Gulf will not depend simply on their current capacity, or on their partnerships with and support from the federal government and Congress. It will also require continued commitments from the philanthropic sector, which has mobilized and responded to the region's needs. For example:

- The **Louisiana Disaster Recovery Foundation** has awarded emergency grants totaling $117,500 to nine local nonprofit groups that are providing assistance to communities affected by the spill.

- The **Gulf Coast Fund for Community Renewal and Ecological Health**, a project started by Rockefeller Philanthropy Advisors after Hurricane Katrina, has awarded $200,000 in emergency grants to 32 grass-roots environmental groups in the region (as of June 2010). The Gulf Coast Fund is also organizing tours that allow potential donors to see the work and meet the leaders of the groups the fund supports. [118]

- The **Gulf Oil Spill Fund**, created by the Greater New Orleans Foundation on April 30, supports organizations on the ground providing critical services to fishermen and their families. The foundation has been getting daily phone calls and e-mail messages from people around the world who want to help.

- **GlobalGiving** has created a fund on behalf of National Geographic to support the efforts of partner organizations to reduce the impacts of the oil spill. Nonprofit organizations including the Waterkeeper Alliance, National Park Foundation, American Bird Conservancy, and America's Wetland Foundation are mobilizing to reduce and repair damage to fragile coastal habitats caused by the spill.

III. Recovery Strategy

While previous sections of the report highlight the recovery strategies that respond directly to the environmental, economic, and public health and human needs of the Gulf region, this section identifies strategies to ensure a strong and agile nonprofit sector that will continue to be an effective partner in the long-term recovery effort.

A. Enhanced Coordination

Nonprofits, local communities, and the federal government have been in close communication through local incident command centers. The nature of the oil spill forced traditional first-responder organizations, such as the Red Cross and United Way, to collaborate and coordinate across sector silos. For example, environmental health, domestic violence prevention, and financial education programs and organizations are all serving the same constituency.

A comprehensive network of support for vulnerable communities is critically important. Specifically, there are three significant needs:

- **Data and information sharing**: Information on constituent needs and access to services is crucial. As a part of the Hurricane Katrina recovery effort, several databases were established to track individuals receiving services as well as to inventory program and services available to the community. The Coordinated Assistance Network (CAN) is a consortium of disaster response organizations funded by private foundations that provides an online database. CAN results in shared, secure, current information about disaster victims, their needs, and the timely delivery of services – without duplication of effort. For a variety of reasons, this network has not been fully utilized in the oil spill response. A

resource like CAN is needed to provide information to government and nonprofit leaders, within and outside traditional disaster response networks, who are seeking to direct resources to those most in need. The response effort requires information sharing that crosses state lines, a need not met by traditional communication networks.

- **Inclusion of state and local entities:** State and local entities do not feel engaged in the process that determines resource allocation and use. Mechanisms and processes for state and local entities to articulate needs, request assistance and participate in the decision making process about funding and recovery strategies and plans need to be in place.

- **Inclusion of community-based and faith-based organizations:** Community-based organizations have a deep understanding of the specific cultural and ethnic communities impacted by the spill; as a result they must be part of the coordinated response. Often these organizations provide a multitude of response efforts including environmental, economic, and public health and human service needs. Coordination efforts should explicitly incorporate these community and faith-based organizations to ensure that programs and services are reaching all who are in need.

B. Increase Public Awareness of the Need

The public can play an important role in addressing the financial resource gap experienced by nonprofit organizations. Anecdotally, nonprofit leaders express concern that the general public does not understand the deep human needs of the region. Public understanding of the region's needs is a precursor to fundraising efforts. While individual organizations play a role to compel prospective donors, coordinating bodies and infrastructure organizations such as state nonprofit associations can also communicate nonprofit needs to the media and public without diminishing the importance for responsible parties to also do their part.

C. Leverage Volunteers and Community Service Assets

The public can address the resource gap through self-organized community service and formal volunteering. As reported previously, volunteers and community service participants are making a difference every day. Neighboring models and skills-based volunteering are powerful solutions that have amplified the human resource capacity of nonprofit organizations. CNCS is providing $1 million in federal grants to the Gulf States to support growth in volunteerism and increase impact. In addition, the agency is committing additional VISTA volunteers (Volunteers in Service to America) to meet the immediate and long-term needs of low income individuals and families in the region. These activities are part of the agency's broader effort to support the long-term recovery by investing in community capacity to identify and respond to pressing issues.

D. Synthesize additional needs assessment

There is a need for comprehensive research about the impact of the Deepwater Horizon oil spill on the region and the opportunities for nonprofits to lead in the recovery. Nonprofit leaders must receive the impact assessments of the economic, environmental, and health and human needs in an easily understood format to effectively inform their actions. Nonprofit participation in the federal and state led recovery effort will be essential. In addition, CNCS should continue to monitor and synthesize impact assessments that are relevant to the nonprofit infrastructure.

E. Enhance fundraising capacity

The biggest challenges in helping nonprofits secure necessary funding are gaining information about funding opportunities and building staff capacity to pursue those opportunities. As part of the broader response and recovery effort, state service commissions have played a coordinating role and have the potential to serve as an information hub and connector between nonprofits, funding sources, government agencies, and capacity building resources such as nonprofit management support organizations. In addition, CNCS is making additional VISTA volunteers available on the Gulf Coast. VISTAs are dedicated to building capacity and often undertake projects that augment the nonprofit sponsor's fundraising capability and capacity. Additional capacity and better communication amongst stakeholders can help nonprofits secure the necessary financial resources to conduct their work.

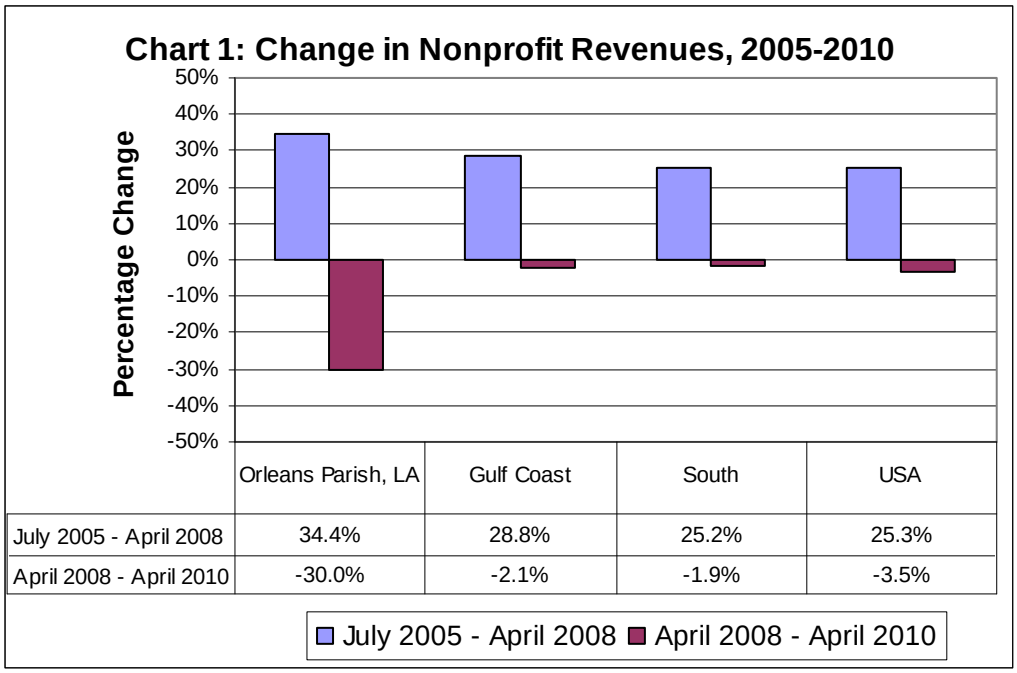
IV. Conclusion

The nonprofit sector is an important component of the long-term restoration and recovery effort on the Gulf Coast. Since the Deepwater Horizon oil spill, nonprofits have been on the front lines of the environmental, economic, and public health and human needs response. Although the sector is resilient, the recent impact of multiple hurricanes and the economic recession has adversely affected the sector's capacity, potentially limiting its ability to maximize its role in recovery. In supporting local solutions for recovery, it is critical to support the nonprofit infrastructure and direct investment to nonprofit organizations that are effective in meeting community needs.

Appendix A: Nonprofit Sector Recovery Effort

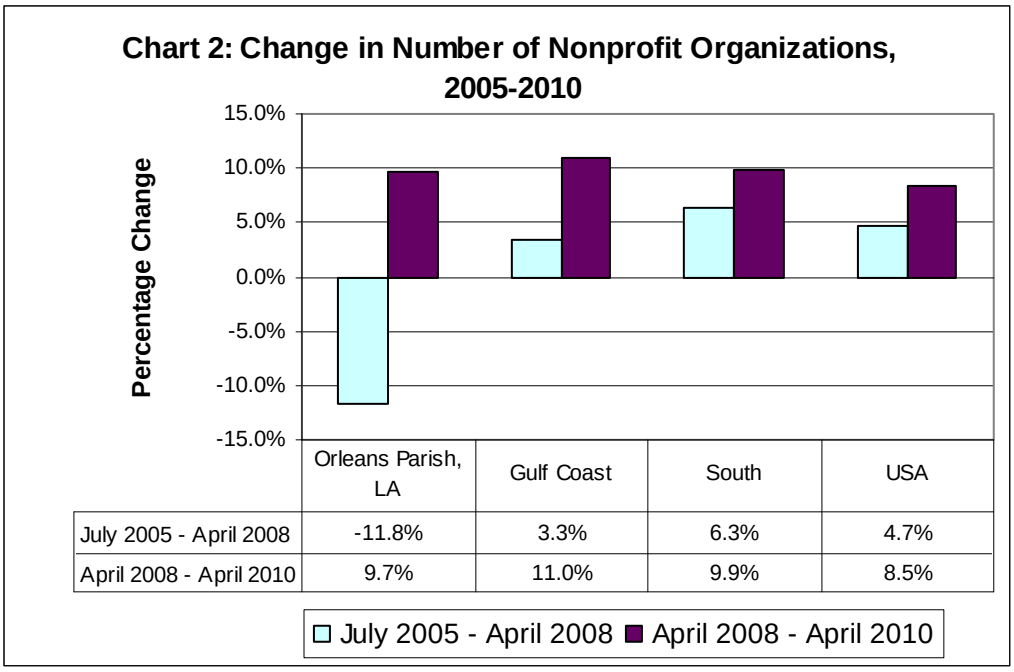
To get a snapshot about the state of nonprofits in the Gulf Coast region that have been affected by these events, this report highlights data from three time periods: July 2005, immediately before Katrina; April 2008, during the post-Katrina recovery period but before the economic downturn; and April 2010, during the economic downturn but before the oil spill.[119] Although the data does not specifically offer a snapshot for pre- and post oil spill, they help us to understand what happens to nonprofits in the Gulf after a devastating event. We focus on data gathered from the Gulf Coast counties affected by the oil spill, including coastal areas.[120] For all three time periods, we also report data specifically for Orleans Parish, Louisiana, where New Orleans is located, as well as data from the South Census region (the South)[121], and data for the nation as a whole.

Nonprofit revenues have been on the decline since the recession.
Since Katrina but before the economic downturn, there was an increase in revenues to nonprofits across the U.S. (25.3 percent), in the Gulf (28.8 percent) and in Orleans Parish, LA (a noteworthy 34.4. percent increase). Nevertheless, since the economic downturn, the entire country experienced a loss of revenue (a 3.5 percent loss for the nation). This loss did not escape the Gulf region, as it also saw a 2.1 percent loss. However, nonprofits in Orleans Parish, Louisiana experienced a staggering 30.0 percent decline in revenue within that two-year period. The data suggests, perhaps surprisingly, that the economic recession has already had a larger-than-expected negative impact on the Gulf region and Orleans Parish area nonprofits that cannot be attributed solely to the devastation of Katrina. Alternatively, the results could indicate that the longer-term effects of Katrina, layered on top of the rising effects of the recession, are having a profound impact on nonprofits in the Gulf, as opposed to just the recession having such an impact.[122] Regardless of the reason for the decline in revenue, responding to increased demand for services due to the oil spill in light of declining revenues is a steep challenge.



Yet, the nonprofit infrastructure shows signs of resilience.

There is some good news, offering some hope for potential recovery of the Gulf Coast non-profit sector. Despite Katrina and the state of the national economy, the number of nonprofit organizations in the Gulf Coast region has grown steadily since July 2005. First, the number of nonprofits in the region grew slowly and then more quickly, from 17,275 organizations in July 2005 to 17,848 organizations in April 2008, and then to 19,809 organizations in April 2010. This rate of growth (14.7 percent between 2005 and 2010) was almost as large as that seen in the South overall (16.8 percent increase) but larger than the national growth rate (13.6 percent). Although Orleans Parish, Louisiana, lost over 350 nonprofits between 2005 and 2008, the sector has grown in numbers since then, and is now less than 100 organizations smaller than it was in July 2005.



In addition, even given the economic downturn, total organizational assets (including, but not limited to cash assets) among Gulf Coast nonprofits have grown substantially since 2005, at an even larger rate than in the South and in the U.S. overall. Asset growth was much larger among Gulf Coast nonprofits between 2005 and 2008 (44.8%) than between 2008 and 2010 (6.7%), but the overall growth rate over this time period was larger for the area (54.4%) than it was for the South (48.7%) and the U.S. (51.9%). The five-year asset growth rate for nonprofits in Orleans Parish was even larger, at 57.9 percent. Statistics on total revenues also suggest that nonprofits on the Gulf Coast have grown at a faster rate (26.0%) than Southern or national nonprofits (22.9% and 20.9%, respectively).

Status of Nonprofits that Address Environmental, Health and Human Needs, and Economic Opportunity

A. Nonprofits Whose Services Will Likely Be Most Needed in the Gulf for Recovery

Data from the BMFs[123] show nationally, nearly 40 percent (over 593,000) nonprofits (out of almost 1.6 million total) are categorized as having a main focus that arguably aligns with the types of services needed in the Gulf after the oil spill[124], as of April 2010. Over 7,700 of these nonprofits are located in the Gulf Coast area and 1,245 are in Orleans Parish, Louisiana. The number of these nonprofits has seen a steady increase in the U.S. and the Gulf since 2005, but a decline and then rebound in Orleans Parish since Katrina. The decline was larger between 2005 and 2008 than it was between 2005 and 2010, signaling that perhaps the devastation of Katrina had a stronger influence on the number of nonprofits than that of the recession.

Assets for nonprofits with these same NTEE codes in the Gulf and U.S. declined after Katrina, but began to climb after the recession. In Orleans Parish, they declined after the economy turned. Revenues, on the other hand, increased between 2005 and 2008 for the Gulf, Orleans Parish and the U.S., but then fell again in 2008.

B. Nonprofits with Mental Health Focus

As discussed in previous sections of this report, given what we have learned from the aftermath of Exxon Valdez and Hurricane Katrina, there may be significant need for mental health services in the region.

According to data from the BMFs, there are over 19,000 Mental Health and Crisis Intervention organization. 230 of these are located in the Gulf Coast area, and 39 in Orleans Parish[125]. The number of mental health nonprofits has grown slightly in the Gulf Coast overall (219 in 2005, 231 in 2010) but has decreased in Orleans Parish, from 46 to 39. Growth rates in both areas lag behind the national and Southern regional rates.

However, while Gulf Coast mental health nonprofits have not grown much in numbers since 2005, they have grown in overall capacity. Assets for Gulf Coast mental health nonprofits increased by 50.4 percent between 2005 and 2010, and revenues increased by 23.6 percent; both rates were much larger than those seen in the South and the U.S.

Table 1a: Mental Health Focus - Number of Nonprofits

				Percent Change		
	JUL 05	APR 08	APR 10	JUL 05-APR 08	APR 08 - APR 10	JUL 05 - APR 10
Orleans Parish, LA	46	36	39	-21.7%	8.3%	-15.2%
Gulf Coast	219	217	231	-0.9%	6.5%	5.5%
South	5,572	5,960	6,429	7.0%	7.9%	15.4%
USA	17,146	18,029	19,012	5.1%	5.5%	10.9%

Table 1b: Mental Health Focus - Total Revenues (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$22.7	$25.8	$27.1	13.8%	5.0%	19.5%
Gulf Coast	$245.6	$292.7	$303.2	19.2%	3.6%	23.4%
South	$5,854.6	$6,598.0	$6,709.6	12.7%	1.7%	14.6%
USA	$24,261.1	$27,936.3	$29,085.3	15.1%	4.1%	19.9%

Table 1c: Mental Health Focus - Total Assets (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$39.4	$41.8	$52.8	6.0%	26.6%	34.1%
Gulf Coast	$167.0	$201.9	$251.2	20.9%	24.4%	50.4%
South	$5,489.5	$6,641.4	$6,620.8	21.0%	-0.3%	20.6%
USA	$17,222.1	$20,996.8	$22,656.0	21.9%	7.9%	31.6%

C. Nonprofits with Environmental Focus

Four hundred and twenty three environmental organizations are located in the Gulf Coast area and 42 in Orleans Parish[126]. The number of environmental nonprofits has grown since 2005, both in Orleans Parish and in the Gulf Coast overall, over the 2005-2010 time period. In fact, Gulf Coast environmental nonprofits have grown at a faster rate than both national and southern environmental nonprofits, according to all three measures: number of organizations, in total assets, and gross revenues.

Table 2a: Environmental Focus - Number of Nonprofits

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	35	36	42	2.9%	16.7%	20.0%
Gulf Coast	354	378	423	6.8%	11.9%	19.5%
South	14,175	15,243	15,992	7.5%	4.9%	12.8%
USA	31,329	33,655	35,805	7.4%	6.4%	14.3%

Table 2b: Environmental Focus - Total Revenues (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$7.7	$9.5	$10.1	23.6%	7.0%	32.3%
Gulf Coast	$80.5	$94.7	$86.2	17.8%	-9.0%	7.2%
South	$2,750.5	$3,526.1	$3,627.1	28.2%	2.9%	31.9%
USA	$7,578.8	$10,061.0	$10,319.9	32.8%	2.6%	36.2%

Table 2c: Environment Focus - Total Assets (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$35.6	$45.5	$48.7	27.8%	7.0%	36.8%
Gulf Coast	$135.9	$186.8	$229.6	37.4%	22.9%	68.9%
South	$5,008.0	$6,456.1	$7,250.3	28.9%	12.3%	44.8%
USA	$18,695.6	$25,221.8	$26,694.7	34.9%	5.8%	42.8%

D. Nonprofits with Employment Focus

Four hundred and thirteen organizations with an employment focus are located in the Gulf Coast area, with 71 in Orleans Parish[127]. In the Gulf as well as nationally, the number of employment nonprofits decreased between 2005 and 2008, but has increased since then, though there are still fewer nonprofits in this category in April 2010 than there were in July 2005. Employment nonprofits in the Gulf Coast area saw their assets grow by 56.1% over the 2005-2010 period, which is much faster than the rates seen in the South (30.3%) and the nation (26.0%). However, revenue growth rates for the Gulf and for Orleans Parish lagged behind growth rates for the region and the country for 2005-2010.

Table 3a: Employment Focus - Number of Nonprofits

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	83	61	71	-26.5%	16.4%	-14.5%
Gulf Coast	419	399	413	-4.8%	3.5%	-1.4%
South	11,029	10,808	10,846	-2.0%	0.4%	-1.7%
USA	39,688	38,620	39,520	-2.7%	2.3%	-0.4%

Table 3b: Employment Focus - Total Revenues (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$45.3	$14.9	$45.8	-67.2%	207.9%	1.1%
Gulf Coast	$171.3	$186.3	$183.5	8.7%	-1.5%	7.1%
South	$8,861.3	$10,440.1	$10,254.8	17.8%	-1.8%	15.7%
USA	$28,977.7	$33,394.5	$32,886.7	15.2%	-1.5%	13.5%

Table 3c: Employment Focus - Total Assets (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$30.1	$14.3	$38.5	-52.5%	169.2%	27.9%
Gulf Coast	$109.7	$138.5	$171.2	26.2%	23.6%	56.1%
South	$9,595.9	$11,927.9	$12,508.0	24.3%	4.9%	30.3%
USA	$30,583.7	$35,945.0	$38,527.4	17.5%	7.2%	26.0%

E. Nonprofits with Financial Counseling Focus

There are a small number of nonprofit organizations whose primary focus is listed as financial counseling – only 772 nationwide, as of April 2010, and only 11 in the Gulf Coast area. One of the three nonprofits in Orleans Parish that specialized in financial counseling apparently ceased operations between April 2008 and April 2010. It was by far the largest of the three organizations with reported assets of almost $3 billion, and appears to have experienced a sharp decrease in its revenues between 2005 and 2008.

It is unclear how much the absence of this organization may have reduced the capacity of nonprofits in the area to provide financial counseling services.

Table 4a: Financial Counseling Focus – Number of Nonprofits

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	5	3	2	-40.0%	-33.3%	-60.0%
Gulf Coast	12	12	11	0.0%	-8.3%	-8.3%
South	283	290	314	2.5%	8.3%	11.0%
USA	708	755	772	6.6%	2.3%	9.0%

Table 4b: Financial Counseling Focus - Total Revenues (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$2.4	$1.4	$0.03	-43.3%	-97.6%	-98.7%
Gulf Coast	$3.4	$2.2	$0.79	-37.0%	-63.3%	-76.9%
South	$431.3	$269.4	$334.9	-37.5%	24.3%	-22.4%
USA	$857.6	$913.3	$732.4	6.5%	-19.8%	-14.6%

Table 4c: Financial Counseling Focus - Total Assets (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$3.31	$3.10	$0.14	-6.3%	-95.4%	-95.7%
Gulf Coast	$4.38	$4.02	$1.19	-8.2%	-70.3%	-72.7%
South	$387.38	$341.30	$430.19	-11.9%	26.0%	11.1%
USA	$2,322.83	$2,120.36	$1,824.08	-8.7%	-14.0%	-21.5%

F. Nonprofits with Community Improvement and Capacity-Building Focus

Nonprofit organizations whose primary focus is listed as Community Improvement and Capacity-Building are essential to communities as they develop and implement local, cross-cutting self-help strategies for economic and community recovery. There are approximately 143,000 nonprofits in this category nationwide, as of April 2010, and only 1,928 in the Gulf Coast area. The number of nonprofits with these focus areas have remained relatively unchanged between 2005 and 2008, but showed an increase between 2008 and 2010. Orleans Parish is the exception, with the number of nonprofits decreasing after Katrina, but not since the recession.

Assets for nonprofits in Orleans Parish, the Gulf and the U.S. have increased noticeably since 2005, although the nationwide increase (76% between 2005 and 2010) outpaced that of the Gulf (41.8%) and Orleans Parish (34.7%). Revenues show a similar trend, in that there were notable increases between 2005 and 2010, except for the U.S., which remained relatively unchanged between 2008 and 2010. The Gulf Coast and Orleans Parish's growth in nonprofit revenue outpaced that of the U.S. between 2005 and 2010

and even between 2008 and 2010; in fact, the revenues for community improvement nonprofits nationwide had a negative percent change between 2008 and 2010. These factors together perhaps demonstrate the particular importance of nonprofits that focus on community development and capacity-building and the role they can play in the recovery effort. Their increased revenue in the Gulf could have been a result of donations and grants given to those types of organizations as they focused their services on post-Katrina activity in particular.

Table 5a: Community Improvement and Capacity Building Focus - Number of Nonprofits

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	303	265	290	-12.5%	9.4%	-4.3%
Gulf Coast	1,728	1,727	1,928	-0.1%	11.6%	11.6%
South	44,921	44,625	47,480	-0.7%	6.4%	5.7%
USA	138,537	136,630	143,159	-1.4%	4.8%	3.3%

Table 5b: Community Improvement and Capacity Building Focus - Total Revenues (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$61.07	$68.92	$85.26	12.8%	23.7%	39.6%
Gulf Coast	$235.77	$306.68	$366.69	30.1%	19.6%	55.5%
South	$11,521.9	$15,016.3	$15,330.4	30.3%	2.1%	33.1%
USA	$33,114.1	$41,183.4	$40,035.7	24.4%	-2.8%	20.9%

Table 5c: Community Improvement and Capacity Building Focus - Total Assets (in millions)

				Percent Change		
	Jul 05	Apr 08	Apr 10	Jul 05 - Apr 08	Apr 08 - Apr 10	Jul 05 - Apr 10
Orleans Parish, LA	$120.49	$130.90	$162.25	8.6%	23.9%	34.7%
Gulf Coast	$356.44	$441.96	$505.26	24.0%	14.3%	41.8%
South	$25,7701	$35,785.8	$58,699.7	38.9%	64.0%	127.8%
USA	$79,715.2	$119,443.7	$140,304	49.8%	17.5%	76.0%

Summary of the Nonprofit Sector Context

Similar to nonprofit organizations across the U.S., Gulf coast nonprofits have experienced declining revenues since the recession, however, Orleans Parish, Louisiana has experienced a much greater decline in revenues comparatively. The numbers of nonprofit organizations have steadily grown across the Gulf region, again, with the exception of Orleans Parish, LA which experienced a growth in numbers during the recession but not to the point of recovering the numbers that existed prior to Katrina. This pattern continues when analyzing the impact on the number of organizations with a focus on service mental health, employment, and community improvement and capacity building needs. Revenues for these kinds of organizations as well as

organizations with an environmental focus have increased during the recession, possible a reflection of the continued support for recovery efforts.

When considering the number of nonprofits in each category relative to total revenue, it appears that on average, the organizations are small entities with less than $1 million in annual revenue. This is additional evidence that the capacity of the nonprofit sector in the region is limited.

Appendix B: Summary of Gulf Coast Town Halls

The Deepwater Horizon oil spill was one of the worst manmade environmental disasters ever experienced by the United States. Tens of thousands of people mobilized in the Gulf of Mexico and along the Gulf Coast to combat the spill, plug the well, and mitigate the spill's immediate effects. Early on in the response, President Obama recognized that short-term efforts would not be sufficient to address the spill's enduring effects. In an address to the nation on June 15, 2010, the President appointed Secretary of the Navy Ray Mabus to examine the question of what comes after the well has been sealed and the oil is no longer flowing.

Primary Themes

For the past several months, Secretary Mabus has worked to answer that question. In numerous conversations and trips to the Gulf Coast he has met with thousands of residents, including fishermen, health officials, environmental workers, industry leaders, scientists, members of the business community, local leaders, all five state governors, 10 U.S. senators, and every congressman whose district touches the Gulf. During one of his trips, the Secretary convened nine town halls across all five Gulf States during which thousands of residents expressed their opinions on long term recovery.

Though the five states of the Gulf Coast are unique and are affected by Deepwater Horizon in different ways, several common themes and ideas emerged at each of the nine town halls conducted across the Coast:

- The time for action is now. Residents of the Gulf Coast have seen numerous plans for development and environmental recovery fall short of their promised effects. What is needed in the wake of Deepwater Horizon is dedicated restoration funding and rapid deployment of projects geared toward environmental restoration and economic development.

- It is in the Gulf where much of the nation's oil is produced, it is in the Gulf where the damage from the spill occurred, and it is to the Gulf where recovery funds must be dedicated.

- Plans to restore the Gulf Coast must come from the people of the Gulf Coast.

- Recovery plans must be based on good science and research. Colleges and universities across the Gulf Coast have studied the unique ecosystems and economic conditions of the Gulf for years. They have expertise, and are trusted most by Gulf residents, in recommending measures for recovery.

- Gulf residents have high expectations for the restoration effort. However, they also fear that with the spill stopped, the American public will once again forget about the region and

the urgent needs it still has. In the wake of devastating hurricanes and two years of acute economic uncertainty, many business owners are concerned they may not make it to next year if help does not arrive soon.

- It was clear to residents that what happens to the ecosystem of the Gulf affects the economy and the welfare of the entire region.

- The Gulf needs to rebuild its image as a place to vacation and as the main source of America's seafood.

- The effect of dispersants on seafood safety, water safety, and beach ecosystems must be openly studied, preferably by Gulf scientists and academic institutions, and the results must be rapidly released to the general public.

- The Gulf economy must be diversified – specifically into clean energy.

- The Gulf needs long-term monitoring to examine enduring effects of the spill on physical and mental health.

What follows is not an exhaustive summary of the town halls, but rather highlights of some of the specific concerns and recommendations expressed by Gulf residents at each of the town halls. These ideas have helped shape Secretary Mabus's report.

Theodore, Alabama: August 2, 2010

In Theodore, the connection between the environment and the economy was of primary concern. As one gentleman said, "Everything that revolves around the coastal areas comes right back to the environment and the health of the environment. But to me, what's first and foremost as to where we go as a region is based on the health of the environment. That's both whether it's tourism, whether it's the fishing industry, you name it. Everything kind of revolves around that."

There was also concern over the lack of information about long-term health impacts associated with a major oil spill. One participant said: "I and my colleagues along the coast have been a bit surprised that when you look at the literature, we really know very little about long-term health effects from an oil well."

Many in the audience expressed a desire for local involvement in restoration planning, as well as an interest in clean energy. Finally, a theme arose that would be a common feature throughout the town hall meetings: the paramount importance of dedicated funds for long-term Gulf restoration. "I've seen so many starts, but then, because there wasn't a dedicated funding source, nothing happened," said one resident. "And so I would urge you to really give that some serious thought."

Robertsdale, Alabama: August 2, 2010

In Robertsdale many people discussed the need for assistance in rebuilding the Gulf Coast seafood and tourism brand. "We are going to need lots of help rebranding the Gulf, if you will," said one participant, "And the seafood is part of our tourism brand, so we need a lot of help in tourism marketing, awareness, education about seafood, all of that type of thing."

Residents also requested support to small businesses, along with an interest in clean energy. "We ought to be able to attract those research and development companies to come here that are going to look at alternative fuel energies," said one participant.

Panama City, Florida: August 3, 2010

In Panama City, the need to restore the Gulf Coast's brand and the importance of small businesses were the primary themes. "Probably our biggest issue right now is not the impact of oil; it's the perception of impact that has really killed tourism for us," said one resident. Another said, "I am looking at these small businesses that are trying to hang on, [and we need to do] anything we can do to help them get from point A to point B."

Participants also mentioned an interest in the clean-energy sector and in the value of community colleges in supporting job retraining.

St. Petersburg, Florida: August 3, 2010

The need for dedicated funds was a major theme in St. Petersburg. "We need a strong funding mechanism to support the many aspects of a Gulf restoration plan," said one resident.

The importance of inclusive restoration planning was also paramount. "We need strong mechanisms and guidelines for an inclusive decision-making process. And not just agencies and not just governors' offices, but we need a clear way for something like a regional citizens' advisory board to provide input and monitor and participate," said another participant.

Additionally, residents expressed concern over the health impacts of dispersants – and over the region's ability to support energy jobs outside the traditional oil-and-gas industries. "We'd like to hear how any kind of long-term restoration plan includes support for other offshore energy projects, not just in the petroleum sector," said one attendee.

Houma, Louisiana: August 5, 2010

In Houma, one woman articulated what the restoration effort must encompass: "Recovery and sustainability for the Gulf Coast depends on three critical resources: the people, the environment and commerce. And we need a Gulf Coast recovery plan that brings the coast back into balance and makes us whole again."

It was made clear that the key to bringing the coast back into balance was the environment, as one woman said: "Our tourism product is our environment and the resources that we pull from that environment, the wonderful fishing, the wonderful birding and the wonderful people, the cultures that live within our environment."

Participants stressed the importance of capitalizing on pre-existing projects for environmental restoration. As one man put it, "Please, let's not reinvent the wheel."

Many attendees mentioned the impact of the spill on Louisiana's seafood brand, and expressed concern over the health impacts of dispersants. Mental health was also a key issue in Houma. Said one participant, "You've heard some of these individuals speak today about the emotional issues that they are dealing with. The fact [is] that some of them have lost their job. They have lost their way of life."

Buras, Louisiana: August 5, 2010

In Buras, the importance of ecosystem restoration was a main concern. Another was the need to coordinate the many disparate programs already in place: "One thing I wanted [to] describe to you is that right now, we have a collection of small programs. It seems to me that's a way to begin to take a lot of the inefficiency out of this. And pulling these programs together, working with existing authorities, and even existing appropriations. Pull these things together."

The importance of local input in recovery planning was on the minds of many, and the damage to the Louisiana seafood brand was a primary concern. Several participants expressed fear that dispersants and oil would keep people from being able to safely fish for years to come.

Galveston, Texas: August 6, 2010

In Galveston, residents emphasized the connection between the Gulf's environment and economy. "We've seen that there's an inextricable link between the health and the environment here in the Gulf and the economy. A healthy Gulf is a vibrant and an economically successful place for the nation," said one.

Participants stated repeatedly that restoring the Gulf's ecosystem is a national issue, and therefore requires dedicated funding from Congress that is not annually appropriated. One man also discussed the importance of the private sector's engagement in restoration: "There really isn't a component for the business community as it relates to economic recovery."

Bay St. Louis, Mississippi: August 7, 2010

In Bay St. Louis, multiple people focused on the need for supporting new business. One woman suggested "incubating new businesses, building new training and innovation centers, and expanding community-college programs."

Job retraining, local hiring for restoration projects, and the opportunity to move people into green jobs was also a top priority: "In terms of short-term economic needs, there are plenty of green-jobs training opportunities out there, getting people with very little training needed to go out and weatherize public buildings, schools."

There was also concern about the impacts of the spill on mental health, and strong interest in citizen engagement in recovery planning.

Ocean Springs, Mississippi: August 7, 2010

In Ocean Springs, a strong case was made for the need to dedicate Clean Water Act Penalties to the Gulf Coast: "I think one of the things that appears at least to be some low-hanging fruit, and it hopefully will be more available and at a quicker level, would be the Clean Water Act violation fines that BP will be responsible for paying."

Another woman built upon this by saying, "We do need the funding to implement a plan. A plan is useless, we've got tons of plans, but we need the funding and the teeth to implement it."

The themes of local involvement; long-term seafood and health monitoring; and transparency were as also raised multiple times, as was interest in clean energy: "Of course we're very interested in renewable energy and less dependence on oil," said one participant.

Appendix C: Tool Kit for Access to Federal Programs

The Economic Assessment teams heard a variety of concerns about access to federal programs, ranging from questions about grant application processes to uncertainty about which federal programs can be utilized. In order to meet these concerns, the federal government has begun developing a recovery "toolkit" which identifies federal programs that may be relevant to communities in different aspects of recovery. The information will be distributed in hard copy across the Gulf**,** integrated into the disasterrecovery.gov platform, and publicized through a series of technical assistance workshops and webinars in which federal program representatives will provide local governments and other stakeholders an overview of the contents of the tool-kit. Representatives must be available to answer specific questions about different programs and program application processes.

The Contents of the Toolkit will include the following:

I. For Communities and Local Governments

a. Guide to BP Claims
b. Guide to NRDA
c. Recovery Planning Checklist
d. Guide to Grant Writing
e. Resource Guide

II. For Fishermen and Consumers

a. Federal Fisheries Re-opening Decisions and Other Information
b. State Fisheries Re-opening Information and Seafood Safety
c. Ensuring the Safety of Your Seafood
d. Fishery Closure Frequently Asked Questions

III. For Individuals

a. Guide to GCCF Claims
b. Guide to Private Lands Remediation
c. Shoreline and Habitat Fact Sheet

IV. For NGOs

a. Guide to GCCF Claims

End Notes

[1] See http://www.ustravel.org/sites/default/files/page/2009/11/Gulf_Oil_Spill_Analysis_Oxford_Economics_710.pdf
[2] See http://www.eia.doe.gov/special/gulf_of_mexico/index.cfm
[3] Bureau of Ocean Energy Management, Regulation and Enforcement Chart, "Total Federal Offshore Reported Royalty Revenues," http://www.mrm.boemre.gov/MRMWebStats/FedOffReportedRoyaltyRevenues.aspx?yeartype=FY&year=2009&dateType=AY.
[4] State of Louisiana Press Release, "Governor Jindal Announces Funding for Fishery Resource Monitoring Program, Calls on BP to Fund Long-Term Seafood Plan, August 19, 2010, www.emergency.louisiana.gov
[5] This report is not meant to suggest that any particular funds are available for any particular project but again, is meant to identify the needs in the Gulf, provide some possible restoration solutions and to propose a structure that will coordinate and enhance ongoing efforts.
[6] U.S. Scientific Teams Refine Estimates of Oil Flow from BP's Well Prior to Capping." Restore the Gulf.Gov: Deepwater Horizon Incident Joint Information Center. 2 August 2010. http://app.restorethegulf.gov/go/doc/2931/840475/.
[7] Ibid.
[8] NOAA Administrator Jane Lubchenco, transcript of August 27, 2010 teleconference ("NOAA Administrator Briefing to Discuss the Reopening of Federal Waters Along Western Louisiana," www.restorethegulf.gov)
[9] The daily official "Operations and Ongoing Response" briefing document at www.restorethegulf.gov
[10] "At the height of the Deepwater Horizon Response, nearly four million feet of boom, response-wide, was deployed. ..." Source: Press Release, Deepwater Horizon Incident Joint Information Center, "More Than 1.5 Million Feet of Hard Boom Recovered from Coastal Waters," August 23, 2010. http://www.deepwaterhorizonresponse.com/go/doc/2931/872245/
[11] "BP Deepwater Horizon Oil Budget: What Happened to the Oil?", Jane Lubchenco, Marcia McNutt et al., August 4, 2010, http://www.noaanews.noaa.gov/stories2010/20100804_oil.html.
[12] Unless otherwise indicated, the data and conclusions cited throughout this report from state and other non-federal research studies or sources have not been separately verified or adopted by the federal government.
[13] "Hypoxia in the Gulf of Mexico: Progress towards the completion of an Integrated Assessment," National Oceanic and Atmospheric Administration, Retrieved September 21, 2010, http://oceanservice.noaa.gov/products/pubs_hypox.html
[14] ""NOAA's Gulf of Mexico Region," Retrieved September 23, 2010, http://www.ppi.noaa.gov/Regional_Collaboration/Regional_Overviews/GulfofMexicoRegionOverview_042407.pdf
[15] John Tibbetts, Louisiana's Wetlands: A Lesson in Nature Appreciation," Environ Health Perspect., January 2006; 114(1): A40–A43, National Institute of Environmental Health Sciences, Retrieved September 21, 2010, http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1332684/
[16] "Species Listed in the Fishery Management Plans of the Gulf of Mexico Fishery Management Council," Gulf of Mexico Fishery Management Council, Retrieved September 21, 2010, http://www.gulfcouncil.org/Beta/GMFMCWeb/downloads/species%20managed.pdf
[17] "Hypoxia," Mississippi River Gulf of Mexico Watershed Nutrient Task Force, Retrieved, September 21, 2010, http://water.epa.gov/type/watersheds/named/msbasin/gulfnews.cfm
[18] "U.S. Scientific Teams Refine Estimates of Oil Flow from BP's Well Prior to Capping," RestoretheGulf.gov, Deepwater Horizon Incident Joint Information Center, Retrieved, September 21, 2010, http://app.restorethegulf.gov/go/doc/2931/840475/
[19] "Deepwater Horizon/BP Oil Spill: Size and Percent Coverage of Fishing Area Closures Due to BP Oil Spill," http://sero.nmfs.noaa.gov/ClosureSizeandPercentCoverage.htm
[20] "Mobile Bay National Estuary Program," Retrieved, September 21, 2010, http://www.mobilebaynep.com/site/estuary/description.htm.
[21] Alabama Department of Conservation and Natural Resources, "The Forever Wild Land Trust – An Interim Report to the Citizens of Alabama, 1992-2009."

[22] News Release, September 3, 2009, Texas Parks and Wildlife Department, Retrieved September 21, 2010, http://www.tpwd.state.tx.us/newsmedia/releases/?req=20090903a

[23] National Marine Fisheries Service, 2010, "Fisheries Economics of the United States," 2008. U.S. Dept. Commerce, NOAA Tech. Memo. NMFS-F/SPO-109, Retrieved September 21, 2010, See http://www.st.nmfs.noaa.gov/st5/publication/index.html

[24] U.S. Army Corps of Engineers, 2010, "Coastal Wetlands Planning, Protection, and Restoration Act," Retrieved September 21, 2010, http://www.mvn.usace.army.mil/pd/cwppra_mission.htm.

[25] "Coastal Wetlands Planning, Protection, and Restoration Act," USGS National Wetlands Research Center, Louisiana Coastal Wetlands Planning Protection and Restoration Act Program Website, Retrieved September 21, 2010, http://www.lacoast.gov/new/About/Default.aspx

[26] When the term "health" is used, it is defined as a state of complete physical, mental and social well-being, and thus includes behavioral health in all instances.

[27] Public health surveillance is the ongoing and systematic collection, analysis, interpretation, and dissemination of data about a health-related event for use in public health actions to reduce morbidity and mortality, improve health, and provide necessary financial and social support to individuals and families in need.

[28] Resources to track Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas/Populations (MUA/P) can be found at the HHS Health Resources and Services Administration website: http://www.hrsa.gov/data-statistics/index.html.

[29] See http://www.iom.edu/Reports/2010/Assessing-the-Effects-of-the-Gulf-of-Mexico-Oil-Spill-on-Human-Health.aspx.

[30] Resources to track Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas/Populations (MUA/P) can be found at the HHS Health Resources and Services Administration website: http://www.hrsa.gov/data-statistics/index.html.

[31] See http://www.iom.edu/Reports/2010/Assessing-the-Effects-of-the-Gulf-of-Mexico-Oil-Spill-on-Human-Health.aspx.

[32] Dyer, CL, Gill, DA and Picou, S. (1992). *Social disruption and the Valdez oil spill: Alaskan natives in a natural resource community.* Sociological Spectrum, 12, 105-126.

[33] McNally, TS (1997) *Technological disaster and chronic psychological stress: An evaluation of the conservation of resources stress model.* Sociological Spectrum, 17, 87-92.

[34] See http://www.iom.edu/Reports/2010/Assessing-the-Effects-of-the-Gulf-of-Mexico-Oil-Spill-on-Human-Health.aspx.

[35] Fothergill, A., Maestas, E., and Darlington, J. D. (1999), Race, ethnicity and disasters in the United States: A review of the literature, *Disasters 23*(2), 156-173; Miller, K. S. and Simile, C. (1992), *"They Could See Stars From Their Beds": The plight of the rural poor in the aftermath of Hurricane Hugo.* Boulder, CO: Westview Press; Peacock, W.G., Morrow, B.H., and Gladwin, M. (1997), *Hurricane Andrew: Ethnicity, gender, and the sociology of disasters.* New York: Routledge; Phillips, B.D. (1993), Cultural diversity in disasters: Sheltering, housing, and long term recovery. *International Journal of Mass Emergencies and Disasters 11* (1): 99-110; Rovai, E. (1994), The Social geography of disaster response: Differential community response to the North Coast Earthquakes. *Association of Pacific Coast Geographers Yearbook* 56; The White House (2006), *Federal Response to Hurricane Katrina: Lessons Learned* (p.59).

[36] See http://www.iom.edu/Reports/2010/Assessing-the-Effects-of-the-Gulf-of-Mexico-Oil-Spill-on-Human-Health.aspx.

[37] Before, during, and after an incident, members of at-risk populations may have additional needs in one or more of the following functional areas: communication, medical care, maintaining independence, supervision, and transportation. In addition to children, senior citizens, and pregnant women, individuals who may need additional response assistance include those who have disabilities, live in institutionalized settings, are from diverse cultures, have limited English proficiency or are non-English speaking, are transportation disadvantaged, have chronic medical disorders, and have pharmacological dependency.

[38] See http://www.samhsa.gov/Disaster/traumaticevents.aspx.

[39] Monthly reports April-June 2010 from the National Domestic Violence Hotline to the Family Violence Prevention and Services Program, ACF.

[40] See http://www.cdc.gov/niosh/topics/oilspillresponse/gulfspillhhe.html.
[41] Health security, as envisioned in the National Health Security Strategy, is a state where people and communities are prepared for, protected from, and resilient in the face of health threats or incidents with negative health consequences.
[42] The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. More than 350,000 adults are interviewed each year, making the BRFSS the largest telephone health survey in the world. States use BRFSS data to identify emerging health problems, establish and track health objectives, and develop and evaluate public health policies and programs.
[43] Picu, SJ, and Arata, CM (1999) Chronic psychological impacts of the Exxon Valdez oil spill: resource Loss and Commercial Fishers. Sociological Spectrum, 23, 12-19.
[44] Institute of Medicine, *Preventing Mental, Emotional, and Behavioral Disorders Among Young People: Progress and Possibilities*, 2009.
[45] Norris, FH, Friedman, MJ, Watson, PJ, Bryne< CM, Diaz, E., and Kaniasty, K (2002). 6000 Disaster victims speak: Part 1. An empirical review of the empirical literature, 1981-2001. Psychiatry, 65(3), 2007-226.
[46] Watson, P., Thim, K., Santiago, P. CCP Model Analysis: Informing the Program through Evidence and Expert Consensus; An Interdisciplinary Task Force White Paper. Publication pending.
[47] Uninsured rates in the region are as follows: Texas (ranks #1 in the country) at 25.2% of the state's population; Florida (#3) at 20.2%; Louisiana (#5) at 19.3%; Mississippi (#8) at 18.4%; Alabama (32) at 12%.
[48] Chronic Disease Prevalence (Diabetes, Cardiovascular Disease, Disability) and Health Care Coverage- Behavioral Risk Factor Surveillance System 2009; Resources to track Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas/Populations (MUA/P) can be found at the HHS Health Resources and Services Administration website: http://www.hrsa.gov/data-statistics/index.html
[49] EPA Technical Product Bulletins #D-4 (COREXIT EC9500A), D#1 (COREXIT EC9527A);
ATSDR, Toxicological Profile for Total Petroleum Hydrocarbons (TPH) DHHS, Editor. 1999: Atlanta GA; CDC-emergency.cdc.gov/gulfoilspill2010/light_crude_health_professionals.asp.
[50] See http://www.iom.edu/Reports/2010/Assessing-the-Effects-of-the-Gulf-of-Mexico-Oil-Spill-on-Human-Health.aspx.
[51] See http://www.iom.edu/Reports/2010/Assessing-the-Effects-of-the-Gulf-of-Mexico-Oil-Spill-on-Human-Health.aspx.
[52] Rodriguez-Trigo G, et al. *Health Changes in Fishermen 2 Years After Clean-up of the* Prestige *Oil Spill,* Ann Int Med. 2010; 153(6); Solomon GM Janssen S *Health Effects of the Gulf Oil Spill*. JAMA. 2010; 304(10):1118-1119.
[53] Solomon GM Janssen S *Health Effects of the Gulf Oil Spill*. JAMA. 2010; 304(10):1118-1119.
[54] Information on this grant opportunity can be found at the following website: https://grants.hrsa.gov/webExternal/FundingOppDetails.asp?FundingCycleId=450970E7-563E-4D2D-A021-5C775F7F614E&ViewMode=EU&GoBack=&PrintMode=&OnlineAvailabilityFlag=&pageNumber=&version=&NC=&Popup=.
[55] See http://www.mobilehealthclinicsnetwork.org/partners.html for a listing of a Healthcare Partners Collaborative to the Mobile Health Clinics Network organization and the related *2010 Sixth Annual Forum- Mobile Healthcare: At the Crossroads of Opportunity* scheduled in New Orleans September 25 – 28.
[56] Fothergill, A., Maestas, E., and Darlington, J. D. (1999), Race, ethnicity and disasters in the United States: A review of the literature, *Disasters 23*(2), 156-173; Miller, K. S. and Simile, C. (1992), *"They Could See Stars From Their Beds": The plight of the rural poor in the aftermath of Hurricane Hugo.* Boulder, CO: Westview Press; Peacock, W.G., Morrow, B.H., and Gladwin, M. (1997), Hurricane *Andrew: Ethnicity, gender, and the sociology of disasters.* New York: Routledge; Phillips, B.D. (1993), Cultural diversity in disasters: Sheltering, housing, and long term recovery. *International Journal of Mass Emergencies and Disasters 11* (1): 99-110; Rovai, E. (1994), The Social geography of disaster response: Differential community response to the North Coast Earthquakes. *Association of Pacific Coast Geographers Yearbook* 56; The White House (2006), *Federal Response to Hurricane Katrina: Lessons Learned* (p.59).
[57] Report from Louisiana State Domestic Violence Coalition to the Family Violence Prevention and Services Program, ACF.

[58] Any expenditures under such programs must be consistent with the program's underlying statute and any relevant administrative documents such as funding and award announcements.
[59] See http://www.acf.hhs.gov/programs/ofa/policy/pi-ofa/2005/pi2005-6.htm.
[60] See http://www.acf.hhs.gov/programs/ofa/recovery/tanf-faq.htm.
[61] http://www.hhs.gov/gulfoilspill/bpfundinglevels.html.
[62] http://www.fns.usda.gov/snap/ebt/default.htm.
[63] http://www.iom.edu/Reports/2010/Assessing-the-Effects-of-the-Gulf-of-Mexico-Oil-Spill-on-Human-Health.aspx.
[64] Aguilera et al., Review of the health effects of exposure to spilled oils on human health, Appl Toxicol. 2010, 30:291-301.
[65] Collection and analysis of biospecimens, such as urine and blood, could be useful for deriving biomarkers of exposure and early adverse response, identifying highly susceptible individuals and subgroups, and informing treatment, prevention, and future surveillance activities following oil spills. A pool of banked specimens could be established for future analysis. Parallel lab-based toxicological studies in animals and cell systems should be conducted to identify potential hazards posed by oil and dispersant chemicals from the Gulf that could be addressed in surveillance or long-term research studies.
[66] GDP data from Bureau of Economic Analysis, http://www.bea.gov/regional/gsp/. Employment data based on Quarterly Census of Employment and Wages, http://www.bls.gov/cew/. Much data such as state GDP data, travel and tourism spending and employment data, and commercial fishing landings data were only available through 2008. For consistency, 2008 data are also used for other statistics appearing in this section.
[67] NOAA-defined coastal counties are the coastal counties that NOAA recommends for the Bureau of the Census' *Statistical Abstract* publication series. There are 139 Gulf of Mexico coastal counties (not including GA). See http://www.census.gov/geo/landview/lv6help/coastal_cty.pdf.
[68] Tourism employment is difficult to measure because many of the businesses that sell goods and services to visitors do the same to non-visitors. The Bureau of Economic Analysis attempts to isolate employment directly related to visitors with their Travel and Tourism Satellite Account data, which is the data we rely on here.
[69] This includes more counties than just those adjacent to the Gulf of Mexico. The employment figure would drop to about 301,000 focusing on only those counties directly adjacent to the Gulf of Mexico.
[70] State specific totals are LA (107,000), MS (20,000), AL (20,000), FL (209,000) and TX (232,000).
[71] The average tourism worker in these coastal counties earned about $30,000 in 2008.
[72] For more detail on these estimates, please see the Appendix.[72] This total does not include people employed within the retail and wholesale seafood sectors of the economy.
[73] Average annual wages represent weighted averages across the five Gulf Coast states. State annual wage data obtained from Quarterly Census of Employment and Wages. Weighting is based on state employment within each industry. QCEW does not report an annual wage for harvesting for the state of Mississippi, so the average across Louisiana and Alabama was used instead.
[74] Quarterly Census of Employment and Wages, including NAICS code 213111 Drilling Oil and Gas Wells and NAICS code 213112 Support Activities for Oil and Gas Operations.
[75] The data does not allow distinction between offshore and onshore oil and gas drilling. A recent report released by the Administration conducted a detailed analysis of the impact of the moratorium imposed after the Spill. For more information please see: http://www.esa.doc.gov/drilling_moratorium.pdf
[76] Throughout the initial claims process, the Administration consistently advocated for greater transparency into claims data. On June 8, 2010, for example, National Incident Commander Thad Allen wrote a letter to BP CEO Tony Hayward stating, "we need additional information [on claims processing] to assess how well the process is meeting the critical needs of individuals, families, and businesses whose livelihoods are being impacted by the spill." http://www.deepwaterhorizonresponse.com/posted/2931/NIC_Letter_to_BP_CEO.621247.pdf.
[77] Advanced Resources International, Inc. *Economic Impact of Oil Spill: Spill Unit Costs for Tankers, Pipelines, Refineries, and Offshore Facilities*. Prepared for the United States Department of Energy, 1993. See also, "An Assessment of the Impact of the Exxon Valdez Oil Spill on the Alaska Tourism Industry," McDowell Group, August 1990.

[78] Cedre: Amoco Cadiz, A Year Later, First Consequences. http://www.cedre.fr/en/spill/amoco/amoco_1year.php (accessed August 20, 2010). See also, National Oceanic and Atmospheric Administration, "Assessing the Social Costs of Oil Spills: The *Amoco Cadiz* Case Study," July 1983.
[79] Grigalunas, Thomas A., et al., "Estimating the Cost of Oil Spills: Lessons from the Amoco Cadiz Incident," *Marine Resource Economics*, Vol. 2, No. 3, 1986: 239-262 and National Oceanic and Atmospheric Administration, "Assessing the Social Costs of Oil Spills: The *Amoco Cadiz* Case Study," July 1983.
[80] Mead, W.J. and P.E. Sorensen, "The Economic Cost of the Santa Barbara Oil Spill," *Santa Barbara Oil Spill Symposium: An Environmental Inquiry*. United States Geological Survey, 1970.
[81] Garcia Negro, M.C., et al., "Estimating the Economic Impact of the Prestige Oil Spill on the Death Coast (NW Spain) Fisheries," *Marine Policy*, Vol. 33, 2009: 8-23.
[82] Cohen, M.J., "Technological Disasters and Natural Resource Damage Assessment: An Evaluation of the Exxon *Valdez* Oil Spill.
[83] Exxon *Valdez* Oil Spill Trustee Council, Commercial Fishing. http://www.evostc.state.ak.us/recovery/lingeringoil.cfm (accessed August 20, 2010).
[84] See http://www.acf.hhs.gov/programs/ofa/tanf/apprTANFemerfund.html.
[85] See http://www.whitehouse.gov/blog/2010/08/17/what-you-missed-open-questions-gulf-seafood-safety-with-dr-lubchenco.
[86] See http://www.restorethegulf.gov/travel.shtm.
[87] Recent sources describe between $87 million and $89.5 million in tourism grants for the affected states. Data provided to the House Energy and Commerce Committee cites the latter figure (http://energycommerce.house.gov/documents/20100901/Castor.BPAdvertising.2010.9.1.pdf**),** while a recent public report from BP reflects $87 billion to the four states.
[88] See http://www.bp.com/genericarticle.do?categoryId=2012968&contentId=7062187.
[89] See http://www.dep.state.fl.us/deepwaterhorizon/files/091510_back_to_beach.pdf.
[90] See http://www.floridagulfresponse.com/go/doc/3059/897671/.
[91] See http://www.floridagulfresponse.com/go/doc/3059/897671/.
[92] In Florida, a September 30 deadline was established in a Memorandum of Understanding between the participating state tourism entities and BP: http://www.myfloridahouse.com/FileStores/Web/HouseContent/Approved/Announcements/uploads/documents/responseworkgroup/final/Workgroup%202%20-%20Final%20Report%20(with%20attachments).pdf, 2.
[93] For example, Escambia County, FL reported to its Assessment and Evaluation team that it was having difficulty spending funds that it had received, while neighboring Santa Rosa reported the opposite experience, as described above.
[94] AL 9; FL 20; LA 12; MS 15.
[95] This assistance was in the context of immediate disaster relief and will not continue throughout the claims process. Moving forward, the recommendations in this section will be critical to helping small businesses navigate the claims process.
[96] See Federal Procurement Data System Gulf Oil Spill Report available at https://www.fpds.gov/fpdsng_cms/.
[97] SCORE stands for Service Corps Of Retired Executives.
[98] According to the 2009 State Energy Efficiency Scorecard from the American Council for an Energy Efficient Economy.
[99] See http://www.aceee.org/ sector/state-policy/scorecard.
[100] See http://www1.eere.energy.gov/biomass/pdfs/algal_biofuels_roadmap.pdf.
[101] See http://www.eia.gov/dnav/pet/pet_pnp_cap1_a_(na)_8D0_BpCD_a.htm.
[102] See http://www.dailyfinance.com/story/federal-grant-algae-fuel-research/19534858/.
[103] See http://www1.eere.energy.gov/biomass/news_detail.html?news_id=16311.
See http://www.energy.gov/news2009/8519.htm.
[104] See http://www.epa.gov/diesel/newsroom.htm.
[105] See http://www.aapa-ports.org/Industry/content.cfm?ItemNumber=900&navItemNumber=551.

[106] In addition Penascal Wind Power, LLC, in Sarita, TX received $114.1 million and Inadale Wind Farm, LLC, in Roscoe received $94.2 million for wind projects. See http://energy.gov/recovery/documents/Recovery_Act_Memo_Texas.pdf.
[107] See http://energy.gov/recovery/documents/Recovery_Act_Memo_Louisiana.pdf.
[108] See http://energy.gov/recovery/documents/Recovery_Act_Memo_Florida.pdf.
[109] See http://energy.gov/recovery/documents/Recovery_Act_Memo_Florida.pdf.
[110] See http://energy.gov/recovery/documents/Recovery_Act_Memo_Louisiana.pdf.
[111] Nonprofit organizations are defined as tax exempt, charitable organizations and include voluntary, faith-based and community organizations, charities, foundations and philanthropic groups as well as professional associations and academic institutions.
[112] In order to determine the needs and planning for a coordinated response to community issues emerging from the oil spill, the Corporation for National and Community Service (CNCS) analyzed information to evaluate the state of nonprofits on the Gulf Coast. The resulting conclusions provide valuable insight into the nonprofit sector's potential capacity and likely limitations in responding to the oil spill and recovery effort, as well as recommendations for actions and initiatives that will allow the nonprofit sector to fill gaps not met by government services.
[113] Wing, Kennard T., Katie L. Roeger, and Thomas H. Pollak. 2009. "The Nonprofit Sector in Brief: Public Charities, Giving, and Volunteering, 2009." The Urban Institute: Washington, DC. Available at http://www.urban.org/UploadedPDF/412085-nonprofit-sector-brief.pdf. As seen in Figure 2, page 3, government accounts for 29.8 percent of revenues across all reporting charities.
[114] Based on March 2010 survey of 1,300 nonprofit leaders conducted by the Nonprofit Finance Fund. Summary of results accessed at: http://nonprofitfinancefund.org/announcements/2010/nonprofit-finance-fund-survey-americas-nonprofits-brace-tough-2010
[115] The Urban Institute's National Center for Charitable Statistics reports data from nonprofit tax returns in their IRS Business Master Files (BMFs). The BMFs from July 2005, April 2008, and April 2010 are the source for this statistic, as well as the detailed statistics reported in Appendix B.
[116] According to the April 2010 BMF, 55.2 percent of all Gulf Coast reporting nonprofits have revenues less than $1 million.
[117] Each of the states conducted a survey asking nonprofit organizations to indicate if they had seen an increase in need for services or the provision of services since the oil spill.
[118] http://gulfcoastfund.org/bp-oil-disaster.html
[119] Since the most recent BMF contains data that were submitted on or before April 2010, it allows us to characterize the nonprofit sector in the Gulf Coast region during the year-long period immediately before the oil spill. The April 2010 data on Gulf Coast nonprofits also reflects the lingering effects of two earlier crises: Hurricane Katrina, which struck in August 2005, and the national economic downturn of the last few years.
[120] The coastal areas include counties that are declared by the Small Business Administration to be economic injury areas. The Gulf Coast regional statistics are based on data reported by nonprofits headquartered in the following counties: Baldwin and Mobile counties in Alabama; Bay, Collier, Escambia, Gulf, Lee, Monroe, Santa Rosa, Okaloosa, Wakulla, and Walton counties in Florida; Cameron, Iberia, Jefferson, LaFourche, Orleans, Plaquemines, Saint Bernard, Saint Mary, Saint Tammany, Terrebonne, and Vermilion parishes in Louisiana; and George, Hancock, Harrison, Jackson, Pearl River, and Stone counties in Mississippi.
[121] The South Region, as defined by the Census Bureau, consists of Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
[122] These results, while suggestive, do not allow us to isolate the impacts of Katrina,and the national economic downturn on revenues for Gulf Coast-area or even Orleans Parish nonprofits.
[123] The financial data from the BMFs do not contain information about the types of requests for assistance that nonprofits receive, nor how much assistance they provide. The BMF data does, however, categorize nonprofits based on their main activities, based on the NTEE For details on the NTEE (National Taxonomy of Exempt Entities) codes, please see http://nccs.urban.org/classification/index.cfm.

[124] For this section, we focused on organizations who identified as being one of the following types of organizations using the NTEE (National Taxonomy of Exempt Entities) codes: Animal Related; Mental Health; Crime, Legal Related; Employment, Job Related; Food, Agriculture, Nutrition; Housing, Shelter; Public Safety, Disaster Preparedness; Youth Development; Human Services, Multipurpose and Other; Civil Rights/Advocacy; Community Improvement; Philanthropy, Voluntarism; and Science and Technology. For details on the NTEE codes, please see http://nccs.urban.org/classification/index.cfm.

[125] Based on 2010 data, there are 19,000 Mental Health and Crisis Intervention organizations nationally.

[126] Based on 2010 data, there are 36,000 environmental organizations nationally.

[127] Almost 40,000 nonprofit organizations (out of almost 1.6 million) are categorized as having a main focus of employment, as of April 2010.

PO3 Mendenhall, USCG

Front Cover

Cover (Background)		
1	3	4
2		

C: PO2 Gina Ruoti, USCG
1: Unnamed, USCG
2: Patrick Nichols, USN
3: PO3 Patrick Kelley, USCG
4: PO3 Nick Ameen, USCG