STATE PLANNING FOR OFFSHORE ENERGY DEVELOPMENT: STANDARDS FOR PREPAREDNESS (PART 3 OF 3)

OVERSIGHT HEARING

BEFORE THE

SUBCOMMITTEE ON INSULAR AFFAIRS, OCEANS AND WILDLIFE

OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

Thursday, June 24, 2010

Serial No. 111-60

Printed for the use of the Committee on Natural Resources

Available via the World Wide Web: http://www.gpoaccess.gov/congress/index.html
or
Committee address: http://resourcescommittee.house.gov

U.S. GOVERNMENT PRINTING OFFICE
57-093 PDF WASHINGTON : 2010

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON NATURAL RESOURCES

NICK J. RAHALL, II, West Virginia, *Chairman*
DOC HASTINGS, Washington, *Ranking Republican Member*

Dale E. Kildee, Michigan
Eni F.H. Faleomavaega, American Samoa
Frank Pallone, Jr., New Jersey
Grace F. Napolitano, California
Rush D. Holt, New Jersey
Raúl M. Grijalva, Arizona
Madeleine Z. Bordallo, Guam
Jim Costa, California
Dan Boren, Oklahoma
Gregorio Sablan, Northern Marianas
Martin T. Heinrich, New Mexico
Ben Ray Luján, New Mexico
George Miller, California
Edward J. Markey, Massachusetts
Peter A. DeFazio, Oregon
Maurice D. Hinchey, New York
Donna M. Christensen, Virgin Islands
Diana DeGette, Colorado
Ron Kind, Wisconsin
Lois Capps, California
Jay Inslee, Washington
Joe Baca, California
Stephanie Herseth Sandlin, South Dakota
John P. Sarbanes, Maryland
Carol Shea-Porter, New Hampshire
Niki Tsongas, Massachusetts
Frank Kratovil, Jr., Maryland
Pedro R. Pierluisi, Puerto Rico

Don Young, Alaska
Elton Gallegly, California
John J. Duncan, Jr., Tennessee
Jeff Flake, Arizona
Henry E. Brown, Jr., South Carolina
Cathy McMorris Rodgers, Washington
Louie Gohmert, Texas
Rob Bishop, Utah
Bill Shuster, Pennsylvania
Doug Lamborn, Colorado
Adrian Smith, Nebraska
Robert J. Wittman, Virginia
Paul C. Broun, Georgia
John Fleming, Louisiana
Mike Coffman, Colorado
Jason Chaffetz, Utah
Cynthia M. Lummis, Wyoming
Tom McClintock, California
Bill Cassidy, Louisiana

James H. Zoia, *Chief of Staff*
Rick Healy, *Chief Counsel*
Todd Young, *Republican Chief of Staff*
Lisa Pittman, *Republican Chief Counsel*

SUBCOMMITTEE ON INSULAR AFFAIRS, OCEANS AND WILDLIFE

MADELEINE Z. BORDALLO, Guam, *Chairwoman*
HENRY E. BROWN, JR., South Carolina, *Ranking Republican Member*

Dale E. Kildee, Michigan
Eni F.H. Faleomavaega, American Samoa
Frank Pallone, Jr., New Jersey
Gregorio Sablan, Northern Marianas
Donna M. Christensen, Virgin Islands
Diana DeGette, Colorado
Ron Kind, Wisconsin
Lois Capps, California
Carol Shea-Porter, New Hampshire
Frank Kratovil, Jr., Maryland
Pedro R. Pierluisi, Puerto Rico
Ben Ray Luján, New Mexico
Nick J. Rahall, II, West Virginia, *ex officio*

Don Young, Alaska
Jeff Flake, Arizona
Doug Lamborn, Colorado
Robert J. Wittman, Virginia
John Fleming, Louisiana
Jason Chaffetz, Utah
Bill Cassidy, Louisiana
Doc Hastings, Washington, *ex officio*

CONTENTS

OVERSIGHT HEARING ON STATE PLANNING FOR OFFSHORE ENERGY DEVELOPMENT: STANDARDS FOR PREPAREDNESS

Thursday, June 24, 2010
U.S. House of Representatives
Subcommittee on Insular Affairs, Oceans and Wildlife
Committee on Natural Resources
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:11 a.m. in Room 1324, Longworth House Office Building, The Honorable Madeleine Z. Bordallo [Chairwoman of the Subcommittee] presiding.

Present: Representatives Bordallo, Christensen, Kind, Capps, Wittman, Fleming and Cassidy.

Also Present: Representatives Herseth Sandlin and Cao.

Ms. BORDALLO. Good morning, everyone. The oversight hearing by the Subcommittee of Insular Affairs, Oceans and Wildlife will now come to order.

STATEMENT OF THE HON. MADELEINE Z. BORDALLO, A DELEGATE IN CONGRESS FROM THE TERRITORY OF GUAM

Ms. BORDALLO. Today the Subcommittee holds its third hearing on the *Deepwater Horizon* oil spill. While the tragedy continues for both Gulf communities and the environment, we will look ahead and examine whether current planning efforts and requirements under the law are sufficient to ensure a coordinated and effective response to any future spills.

Yesterday, we were again reminded of the difficulties of operating a mile below the sea surface when a remotely operated vehicle accident suspended operations, and the cap was temporarily removed, allowing much more oil to gush into the Gulf—as it has been for the last nine weeks. Nearly 2,000 birds, sea turtles and mammals are known to have died as a result of the spill, while hundreds or possibly thousands more may never be accounted for, and by now we are all familiar with the tragic degradation of the wetlands and beaches in Louisiana, Mississippi, Alabama and also Florida.

While the many hearings and investigations to date have shown that the oversight and regulation of the offshore oil industry is in clear need of reform, we must also look beyond regulatory mechanisms and recognize that informed and thorough preparedness is necessary for effective and coordinated disaster response and to

protect marine environments and coastal communities from the effects of a spill.

Various response plans were in place before the *Deepwater Horizon* incident, including offshore facility local and state plans. In addition to this localized planning area, regional and national contingency plans were mandated by the Oil Pollution Act. Other planning statutes include the Coastal Zone Management Act which requires states to include in their Federally approved coastal management plans a process for anticipating impacts resulting from offshore energy facilities, and the Stafford Act which authorized the President to issue major disaster declarations to enable Federal agencies to provide assistance to state and local governments overwhelmed by catastrophes.

Current response and recovery activities have adhered to existing plans, but as the National Institute Commander Admiral Thad Allen as noted, "The unprecedented complexity and magnitude of this disaster shows us those plans may not have gone far enough."

This spill is a wake up call. Its damages stretching from coral reefs to coastal communities, and we must do our best to prepare for a new worst-case scenario.

I want to thank all the witnesses for being here today, and I look forward to hearing how to improve our preparedness for oil spills amongst all levels of government.

Before I recognize the Acting Ranking Member of the Subcommittee, I would like to ask for unanimous consent that our colleague from Louisiana, Congressman Joseph Cao, be allowed to join the Subcommittee on the dais for this hearing. Hearing no objection, so ordered.

And now at this time I would like to recognize Mr. Cassidy, the Acting Ranking Member of the Subcommittee.

[The prepared statement of Chairwoman Bordallo follows:]

Statement of The Honorable Madeleine Z. Bordallo, Chairwoman, Subcommittee on Insular Affairs, Oceans and Wildlife

Today the Subcommittee holds its third hearing on the Deepwater Horizon oil spill. While the tragedy continues for both Gulf communities and the environment, we will look ahead and examine whether current planning efforts and requirements under the law are sufficient to ensure a coordinated and effective response to future spills.

Yesterday we were again reminded of the difficulties of operating a mile below the sea surface when a remotely operated vehicle accident suspended operations and the cap was temporarily removed allowing much more oil to gush into the Gulf as it has been for the last nine weeks. Nearly 2,000 birds, sea turtles, and mammals are known to have died as a result of the spill while hundreds or possibly thousands more may never be accounted for, and by now we are all familiar with the tragic degradation of wetlands and beaches in Louisiana, Mississippi, Alabama, and Florida.

While the many hearings and investigations to date have shown that the oversight and regulation of the offshore oil industry is in clear need of reform, we must also look beyond regulatory mechanisms and recognize that informed and thorough preparedness is necessary for effective and coordinated disaster response, and to protect marine environments and coastal communities from the effects of a spill.

Various response plans were in place before the Deepwater Horizon incident, including offshore facility, local, and State plans. In addition to this localized planning, area, regional, and national Contingency Plans were mandated by the Oil Pollution Act. Other planning statutes include the Coastal Zone Management Act, which requires States to include in their Federally-approved Coastal Management Plans, a process for anticipating impacts resulting from offshore energy facilities, and the Stafford Act, which authorizes the President to issue major disaster declara-

tions to enable Federal agencies to provide assistance to State and local governments overwhelmed by catastrophes.

Current response and recovery activities have adhered to existing plans, but as the National Incident Commander, Admiral Thad Allen, has noted, the unprecedented complexity and magnitude of this disaster shows us those plans may not have gone far enough. This spill is a wake-up call, its damages stretching from coral reefs to coastal communities, and we must do our best to prepare for a new worst case scenario.

I thank all the witnesses for being here today and look forward to hearing how to improve our preparedness for oil spills amongst all levels of government.

STATEMENT OF THE HON. BILL CASSIDY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA

Mr. CASSIDY. Thank you, Madam Chair. I compliment you for scheduling these series of oversight hearings on the *Deepwater Horizon* incident. During the last two weeks, we have heard from nearly 30 witnesses representing Federal, state, local officials, university professors, conservation and environmental groups, fishermen, tourism experts, and seafood processors and, despite all we have learned, the fact remains that the leak is not yet plugged, our coast not yet protected, and claims for damages not being adequately processed and funded by BP, and there are still many unanswered questions.

We need to get to the bottom of what happened to prevent it from ever happening again. We need to know the facts. A detailed account informed by understanding so that Congress and the Administration can put in place new safety and enforcement measures to make the United States the safest place in the world to drill for the energy resources that power our economy.

Now, as much as I applaud your effort, Madam Chair, I am concerned regarding President Obama's. This fact finding was supposed to be the purpose of a national oil spill commission. Instead the President has created a commission that doesn't appear to be up to the challenge. Instead of appointing independent experts with knowledge and expertise of deepwater drilling, he has packed the commission with people who lack expertise in the issues we are confronting.

For example, there are no petroleum engineers on this commission, nor is there anyone with experience in deepwater drilling.

My concern is that they do not have the members capable of understanding what is needed to be understood. If you are going to have a commission to figure out what went wrong in petroleum engineering circumstances in deepwater drilling, you need petroleum engineers and deepwater drillers. If we don't learn from BP's mistakes and our government's failures, we will not be able to implement reforms needed to prevent another spill, and our energy future will be far less secure.

I will point out this is not the first time the President has rejected science and professional expertise in responding. He recently imposed a moratorium on deepwater drilling that was denounced by his own hand-picked advisors at the National Academy of Engineering. These experts stated that the moratorium, and I quote, "will not measurably reduce risk further and it will have a lasting impact on our nation's economy which may be greater than that of the oil spill."

Now, as a physician and a medical school teacher, I tell my students first do no harm, but the President's six-month moratorium on deepwater exploration and production is doing great harm to our regional economy. The jobs and the livelihoods of thousands of workers and their families are at risk every day this moratorium goes on. We must ensure the safety of our offshore energy production, but there is no scientific basis for this moratorium according to these engineers.

This Administration was touted as one in which science would trump politics. Just over a year ago President Obama said, "Under my Administration, the days of science taking a back seat to ideology are over. To undermine scientific integrity is to undermine our democracy. I want to be sure that facts are driving scientific decisions and not the other way around."

In the case of the deepwater moratorium and the appointments to the oil spill commission, the President has apparently chosen politics over science.

Madam Chair, at stake is our entire way of life along the Gulf Coast—our jobs, energy production, fisheries, wetlands and our dynamic ecosystem, and beyond the Gulf at stake is the ability of our nation to produce affordable energy to heat our home, fuel or vehicles, and power the businesses that provide jobs. In short, this is about America's resources, the environment and jobs.

More than 30 percent of this nation's oil comes from the Gulf of Mexico, and 80 percent of that from deepwater wells. As a result of this moratorium, American job losses will range in tens or even hundreds of thousands. Lost wages could be over $330 million per month, and the amount of oil and gas production from deepwater drilling in the Gulf is reduced by 193,000 barrels in the year 2011, and this is not just a six-month moratorium.

If those mobile rigs leave the Gulf, they may be gone for at least three to five years as they sign contracts to produce in other sites around the world. By the way, these are deepwater sites.

Because of this economic cost and the fact that the moratorium will not increase safety, I introduced H.R. 5519, the Gulf Coast Jobs Preservation Act. The twin goals of this legislation are to terminate the moratorium and direct the Secretary of the Interior to identify additional measures to ensure the safety of deepwater drilling.

Madam Chair, our response to this disaster needs to be guided by facts, not emotion, not political opportunism, but truth. Let us stay focused on the evidence and figure out what measures will ensure that the people, the economies, and the ecosystems of the Gulf can thrive.

Madam Chair, thank you again for holding these hearings, and I yield back.

[The prepared statement of Mr. Cassidy follows:]

Statement of The Honorable Bill Cassidy, a Representative in Congress from the State of Louisiana

Madam Chairwoman, I want to compliment you for scheduling this series of oversight hearings on the Deepwater Horizon incident. During the past two weeks, we will have heard from nearly 30 witnesses representing Federal, state, and local officials, university professors, conservation and environmental groups, fishermen, tourism experts, and seafood processors.

Despite all we have learned, the fact remains that the leak is not yet plugged, our coasts are not yet protected, and claims for damages are not being adequately processed and funded by BP. And there are still *many* unanswered questions.

We must get to the bottom of what happened and prevent it from ever happening again. We need to know the facts—a detailed account informed by understanding—so Congress and the Administration can put in place new safety and enforcement measures to make the United States the safest place in the world to drill for the energy resources that power our economy.

This fact-finding was supposed to be the purpose of a National Oil Spill Commission. Instead, the President created a Commission that is not up to the challenge. Instead of appointing independent experts with knowledge and expertise of deepwater drilling, he packed the Commission with people who lack expertise in the issues we're confronting.

There are no petroleum engineers on this Commission, nor is there anyone with experience in deepwater drilling. My concern is that they do not have the members capable of understanding what is needed to be understood. If you're going to have a commission figure out what went wrong in a petroleum engineering circumstance in deepwater drilling, you need petroleum engineers and deepwater drillers.

If we don't learn from BP's mistakes and our government's failures, we won't be able to implement reforms needed to prevent another spill, and our energy future will be far less secure.

This is not the first time that the President has rejected science and professional expertise in responding to the spill. He recently imposed a moratorium on deepwater drilling that was denounced by his own hand-picked advisers at the National Academy of Engineering. These experts stated that the moratorium, and I quote,—"will not measurably reduce risk further and it will have a lasting impact on the nation's economy which may be greater than that of the oil spill"—unquote.

As a physician and a medical school teacher, I tell my students "First, do no harm." The President's 6-month moratorium on deepwater exploration and production is doing great harm to our regional economy. The jobs and livelihoods of thousands of workers and their families are at risk every day this moratorium goes on. We must ensure the safety of our offshore energy production, but there is no scientific basis for this moratorium.

This Administration was touted as one in which science would trump politics. Just over a year ago, President Obama said quote—"Under my Administration, the days of science taking a back seat to ideology are over...To undermine scientific integrity is to undermine our democracy...I want to be sure that facts are driving scientific decisions, and not the other way around."—unquote. In the case of the deepwater moratorium and the appointments to the Oil Spill Commission, the President has chosen politics over science.

Madam Chairwoman, at stake is our entire way of life along the Gulf Coast—our jobs, our energy production, our fisheries, our wetlands, and our dynamic Gulf ecosystem. And beyond the Gulf, at stake is the ability of our nation to produce affordable energy to heat our homes, fuel our vehicles, and power the businesses that provide jobs. In short, this is about America's resources, the environment, and jobs.

More than 30 percent of this nation's oil comes from the Gulf of Mexico, and 80 percent of that comes from deepwater wells. As a result of this moratorium, American job losses will range in tens or even hundreds of thousands, lost wages could be over $330 million dollars per month, and the amount of oil and gas production from deepwater drilling in the Gulf will be reduced by 193,000 barrels in 2011.

And this is not just a six month moratorium. If these mobile rigs leave the Gulf, they will be gone for at least three to five years to other sites around the world.

Because of these economic costs and the fact that the moratorium will not increase safety, I introduced H. R. 5519, the Gulf Coast Jobs Preservation Act. The twin goals of this legislation are to terminate the moratorium and direct the Secretary of the Interior to identify additional measures to ensure the safety of deepwater drilling.

Madam Chair, our response to this disaster needs to be guided by facts—not emotion, not political opportunism, but truth. Let's stay focused on the evidence and figure out what measures will ensure that the people, the economies, and the ecosystems of the Gulf can thrive.

Madam Chair, thank you for again holding these hearings.

Ms. BORDALLO. I thank the gentleman for his opening statement, the acting Ranking Member of this Subcommittee, and I would now like to recognize our panel of witnesses that are here to testify.

First, let me introduce Dr. William W. Walker, Chair, Gulf of Mexico Alliance, and Executive Director, Mississippi Department of Marine Resources. The second witness is Ms. Kristen Fletcher, Executive Director of the Coastal States Organizations; Mr. Manly Barton, District 1 Supervisor, Jackson County Board of Supervisors; Mr. Matt Menashes, Executive Director of the National Estuarine Research Reserve Association; and Dr. Dennis Takahashi-Kelso, Executive Vice President of The Ocean Conservancy.

We will begin with the testimony from Dr. William Walker.

I would like to mention to the witnesses that we do have a timing process here. The red timing light that is right in front of you on the table will indicate when five minutes have passed, and your time has concluded. So we appreciate your cooperation with keeping with the timing. Your full written statement will be included in the record. Thank you.

STATEMENT OF WILLIAM W. WALKER, CHAIR, GULF OF MEXICO ALLIANCE, BILOXI, MISSISSIPPI

Dr. WALKER. Thank you, Madam Chair.

Within days of the *Deepwater Horizon* oil spill, Mississippi began putting together a plan to protect and, if necessary, clean up coastal Mississippi following the explosion and sinking of the *Deepwater Horizon*. This plan is consistent with the area contingency plan as required by the Oil Pollution Act of 1990. This plan is also consistent with Mississippi's coastal program, a Federally approved coastal management plan as required by the Coastal Zone Management Act of 1972.

Our first priority was protection of the critical marsh habitat that serves as nursery ground and protective refuge for Mississippi's juvenile shrimp, crab, and fish species. Mississippi's plan to combat this oil spill has been provided to you. The plan has several facets and triggers that, when pulled, result in specific actions.

Our preference and first line of defense is to fight this spill offshore at the site of the spill, far from Mississippi's coastline.

Currently, while some relatively small patches of weathered oil and sheen have reached our barrier islands and into the Mississippi Sound, the vast majority of oil—crude and degraded forms—remains offshore. The key to success here is closing off or significantly reducing the introduction of new crude oil into the water. If those efforts are successful, we should be able to deal with most of the oil offshore.

With regard to other funding that might be applied to the activities associated with this event, I am pleased that BP has pledged $500 million to research, monitoring and restoration efforts in the aftermath of this massive oil release. I feel very strongly that a significant portion of these funds should flow through the Gulf of Mexico Governors Alliance, a partnership of the Governors of the five states which border the Gulf of Mexico.

The Gulf of Mexico Alliance is a partnership initiated in 2004 by the States of Alabama, Florida, Louisiana, Mississippi and Texas, with the goal of significantly increasing regional collaboration to enhance the environmental and economic health of the Gulf of Mexico. The alliance is a state-led Federally supported partnership that works closely with a variety of partners. The alliance is fo-

cused on planning, implementation, and management at the regional level, and has identified six priority issue areas that are significant to the Gulf of Mexico region. These areas are: improved water quality for healthy beaches and shell fish beds; habitat conservation and restoration; environmental education; ecosystem integration and assessment; producing nutrient input to coastal ecosystems; and building more resilient coastal communities.

The alliance released its second action plan in June 2009. This plan is aggressive and addresses some of the most processing issues affecting the Gulf of Mexico region. The second action plan has been provided to you as well.

The Gulf of Mexico region is continuing to demonstrate the power of partnership, and other regions of the continental United States are following our example. The Gulf Alliance is working closely with the interagency task force established by President Obama to develop a national plan for ocean governance and coastal and marine special planning. The Gulf Alliance is also working closely with the interagency working group established by the President to assist with recovery and restoration of Mississippi and Louisiana following Hurricane Katrina in 2005.

The Gulf of Mexico Alliance is well positioned to play a significant role in the current oil event in the Gulf. The Gulf Alliance presently has teams of qualified people working together in the Gulf now for almost nine years, and they are in place to respond to the research, monitoring and remediation needs brought on by the *Deepwater Horizon* explosion and resulting continuing oil spill. BP has pledged $500 million to fund a 10-year research program focused on assessing long-term effect of this event. Mississippi Governor Haley Barbour, who presently serves as the gubernatorial lead for the Gulf Alliance, has made it clear to BP that his expectation is that a significant portion of these funds in fact are placed with the Gulf of Mexico Alliance.

To date, two other Governors have joined Governor Barbour and the final two should pledge their support soon. Governor Barbour also discussed his desires with President Obama during the President's recent visit to Mississippi.

In closing, I ask for your consideration and support of using the funds pledged by BP to leverage funding already provided to the Gulf region by NOAA, U.S. EPA, U.S. Army Corps of Engineers, Department of the Interior, USDA, and by congressional action itself to allow the Gulf of Mexico Alliance to continue to make improvements in the Gulf region that will result in improving environmental health, the economy, and the overall quality of life in the Gulf of Mexico region. Thank you.

[The prepared statement of Dr. Walker follows:]

Statement of William W. Walker, Ph.D., Executive Director, Mississippi Department of Marine Resources

Within days of the Deepwater Horizon Oil Spill, the Mississippi Department of Marine Resources, the Mississippi Department of Environmental Quality, Mississippi Emergency Management Agency, and Governor Haley Barbour began putting together a plan to protect and if necessary clean up Coastal Mississippi following the explosion and sinking of the Deepwater Horizon drilling platform and the resultant release of crude oil into the waters of the Gulf of Mexico at a site some 96 miles south southeast of Mississippi's coastline.

This Plan is consistent with the Area Contingency Plan (ACP) developed by the Mobile Sector Area Committee (AC) as required by the Oil Pollution Act of 1990. This Plan is also consistent with Mississippi's Coastal Program, our federally (NOAA)-approved coastal management plan which addresses energy facilities located in or which may affect our coastal zone as required by the Coastal Zone Management Act of 1972.

Regarding protecting Coastal Mississippi, MDMR and MDEQ decided early on that our first priority was protection of the critical marsh habitat that serves as nursery ground and protective refuge for Mississippi's juvenile shrimp, crab, and fish species. These priority areas were communicated to BP, and BP contractors have protected these areas with boom material. Presently, the following areas are protected with boom: Grand Bay, the Pascagoula River, Biloxi Bay, Bay St. Louis, and the marshes west of Bayou Caddy. Additional marsh areas requested by our cities and counties have also been boomed. On Monday of this week we began installing a second layer of larger boom in all of these areas to further fortify and protect our sensitive and critical habitat and nursery areas. We have installed strategic test areas nearly two miles of absorbent silt fencing designed to allow water but not oil to pass supplement the booms. This fencing has worked well, and we have asked BP to approve installation of 30 additional miles.

Mississippi's plan to combat this oil spill is attached. The Plan has several facets and triggers that, when pulled, result in specific actions. Our preference and first line of defense is to fight this spill offshore, at the site of the spill. Our first trigger is pulled when oil material is detected within 30 miles of our barrier islands, some 45 miles offshore from our coastal beaches. This trigger was pulled on May 31 when degraded oil and sheen was detected some 40 miles south of Horn and Petit Bois Islands which are located 12 miles south of Mississippi's coastline. Pulling this trigger resulted in BP contractors deploying collection vessels to the location and removal of all material related to the oil spill.

Our second trigger is activated when oil material is detected on our barrier islands. This trigger was pulled on June 1 when balls or patties degraded oil were reported onshore on Petit Bois Island. Pulling this trigger resulted in BP contractors deploying personnel to Petit Bois Island to pick up this material and place it in plastic bags for analysis and landfill disposal.

Our third trigger is pulled when oil material is reported north of our barrier islands in the Mississippi Sound. This trigger was pulled on June 2 when weathered oil was reported north of Petit Bois Island, and resulted in BP contractors sending vessels to the area to pick up the material. All of these actions were executed in concert with the plan and all were successful. The good news is that these events were relative small portions of weathered oil material that had broken away from the main body of the oil, which remains today some 70 or so miles south of our barrier islands. Degraded oil south of Mobile Bay is only 25 to 30 miles away from our barrier islands, and BP contractors are aggressively skimming that material. Should more significant amounts of oil material enter the Mississippi Sound, we are prepared to skim it, corral it with boom, and where feasible burn it to keep it from reaching our mainland coast.

Our fourth trigger is pulled when oil material reaches our mainland beaches and wetlands, and our fifth trigger is pulled when oil material reaches our bays, rivers, and bayous. Thankfully, these final two triggers have not been pulled, and we continue to work to ensure that we will not have to trigger them. We are, however prepared to do so if necessary.

So, our current situation is that while some relatively small patches of weathered oil and sheen have reached our barrier islands and into the Mississippi Sound, the vast majority of oil, crude and degraded forms, remains offshore. This is in part due to favorable weather conditions. Prevailing winds continue to move the oil away from Mississippi. Current winds are pushing the oil to the east, away from our shores. And, anticipated winds from the north will move the oil farther south. Also, there is a tremendous level of activity going on at the site of the spill to skim, burn, and siphon the oil to reduce the amount of product on the surface of the water. And, the use of dispersants, both sprayed from airplanes at the surface and injected subsurface at the source of the emerging crude, is successfully breaking the crude oil into hundreds and thousand of small droplets with significantly increased surface area available to microorganisms capable of biologically degrading or "eating" the oil. These microorganisms are present in the Gulf because of natural oil seeps that release about 250,000 barrels of oil annually into Gulf of Mexico waters. These bacteria would not be there if not for the oil seepage, and they are quite capable of metabolizing the oil, especially in dispersed form.

Now a word about the subsurface "oil plumes." Dispersants serve to break crude oil into small particles of varying size and buoyancy. When dispersed, these par-

ticles float in the water column and drift with the prevailing current. As these particles drift in the current, the bacteria naturally present in the environment metabolize the oil, reducing it over time ultimately to carbon dioxide and water.

The key to success here is closing off or significantly reducing the introduction of new crude oil into the water. If those efforts are successful, we should be able to deal with most of the oil offshore. If that is the case, Mississippi's short term effects should be minimal. Even if we are successful in dealing with the oil offshore, questions about long term effects remain. Long term effects on populations of marine species whose larval forms are currently present in the area of the spill are unknown and will take years to assess and monitor. Fortunately, Mississippi has talented and qualified scientists who stand at the ready to address these long term concerns and questions.

With regard to other funding that might be applied to the activities associated with this event, I am pleased that BP has pledged $500 million to research, monitoring, and restoration efforts in the aftermath of this massive oil release. I feel very strongly that a significant portion of these funds should flow through the Gulf of Mexico Governors' Alliance, a partnership of the governors of the five states which border the Gulf of Mexico. Contained within the membership of the Gulf Alliance are academic institutions, state agencies, NGOs, and others from all five Gulf states, as well as an outstanding group of federal agencies. I will speak about the Gulf Alliance later in this testimony and provide you with the Alliance's latest Action Plan. I hope you will get a flavor of the overall focus and capability of the Alliance and I hope you will agree that this is the proper mechanism for designing and implementing the BP research, monitoring, and restoration effort.

Let me close by once again stressing that BP has stepped forward as the responsible party and said repeatedly and publically that they will pay all costs associated with damage assessment, mitigation, and compensation. BP has provided Mississippi with $50 million to reimburse cities and counties for lost revenues, for the purchase of equipment necessary to deal with the oil spill, and for other purposes. BP has promised additional funds are available for these purposes if needed. BP has paid $6 million in claims directly to Mississippi citizens and businesses. They have denied no claims to date, although some continue to be under investigation. BP has provided $15 million to Mississippi to promote tourism, and have put 2000 Mississippians to work.

The Gulf of Mexico Alliance

The Gulf of Mexico Alliance is a partnership, initiated in 2004, by the states of Alabama, Florida, Louisiana, Mississippi, and Texas, with the goal of significantly increasing regional collaboration to enhance the environmental and economic health of the Gulf of Mexico. The Alliance is a state led, federally supported partnership that works closely with a variety of partners, including state agencies and academic institutions, the Gulf of Mexico Foundation, the Northern Gulf Institute, the Hart Research Institute, the Nature Conservancy, and the six Mexican states.

The Alliance is focused on planning, implementation, and management at the *regional* level and has identified six priority issues that are significant to the Gulf of Mexico Region and that can be more effectively addressed through collaboration at state, local, and federal levels. Each issue area has a team of scientists and resource managers working to establish priorities and plans to address the most pressing issues. These issue areas are:

- Improved Water Quality for Healthy Beaches and Shellfish Beds
- Habitat Conservation and Restoration
- Environmental Education
- Ecosystem Integration and Assessment
- Reducing Nutrient Impacts to Coastal Ecosystems
- Coastal Community Resilience

The five U.S. Gulf state governors released the 1st Governors' Action Plan for Healthy and Resilient Coasts in March 2006. That first plan challenged the new Alliance partnership to make tangible progress over the next 36 months. Ninety-six specific deliverables were contained in Action Plan I, and 96% of them were accomplished over the 3-year span of the Plan.

Building on the success of the first Plan, the Alliance released the second Governors' Action Plan in June 2009. The 2nd Plan is longer and more aggressive and addresses some of the most pressing issues affecting the Gulf of Mexico Region. The 2nd Action Plan is provided as a handout.

The Gulf of Mexico Region continuing to demonstrate the power of partnership, and other regions of the continental United States is following our example. This national trend of regional ocean partnerships is exemplified by the West Coast Governors' Agreement on Ocean Health, the Great Lakes Regional Collaboration, the

Northeast Regional Ocean Council, the Mid-Atlantic Regional Council on the Ocean, the Governors' South Atlantic Alliance, and the Gulf Alliance. The Gulf Alliance, along with the other U.S. Regional partnerships, is working closely with the Interagency Task Force established by President Obama to develop a national plan for ocean governance and coastal and marine spatial planning. The Gulf Alliance is also working closely with the Interagency Work Group established by the President to assist with the recovery and restoration of Mississippi and Louisiana following Hurricane Katrina in August 2005. With respect to Katrina, in January 2006 Congress directed the Mobile District of the U.S. Army Corps of Engineers to develop a comprehensive plan to restore Mississippi. At the direction of Gov. Haley Barbour and in my position of co-lead of the Gulf Alliance, I worked closely with the Mobile Corps District to ensure that the developed plan, the Mississippi Coastal Improvements Program (MSCIP), was directly aligned with the goals and objectives of the Gulf Alliance. MSCIP is complete, it has been signed by the Secretary of the Army, and it has been presented to Congress. The cost to fully implement MSCIP is $1.2 billion, and you have funded Phase 1of the plan at the level of $439 million focused on restoring our barrier islands and our coastal wetland and wildlife nursery areas. For that I say thank you and I ask that you continue your support of Mississippi's recovery and restoration through MSCIP.

The Gulf of Mexico Alliance is well positioned to play a significant role in the current oil event in the Gulf. The Gulf Alliance presently has teams of qualified people working together in the Gulf working on the projects outlined in Action Plan II. These folks have been working together now for almost nine years, and they are in place to respond to the research, monitoring, and remediation needs brought on by the Deepwater Horizon explosion and resulting continuing oil spill. BP has pledged $500 million dollars to fund 10-year research program focused on assessing long-term effects of this event, putting appropriate remediation and recovery actions in place, and monitoring the recovery of the Gulf Region once the event is over. Mississippi Governor Haley Barbour, who presently serves as gubernatorial lead for the Gulf Alliance, has made it clear to BP that his expectation is that a significant portion of those funds is, in fact, placed with the Gulf of Mexico Alliance. To date, two other Gulf governors have joined to support Gov. Barbour's request. The remaining two should place their support. Gov. Barbour also discussed this situation with President Obama during the President's recent visit to Mississippi. Placing these funds with the Gulf Alliance will ensure that an appropriate, comprehensive, and meaningful research plan is developed, that the region's best and brightest minds are brought to bear on this issue, that the research will be carried out by competent individuals familiar with and working in the region, and that the result will be that the region will be ultimately restored to conditions better than before the event occurred on April 20, 2010.

I ask for your consideration and support of using the support pledged by BP to leverage funding already provided to the region by NOAA, USEPA, USACOE, DOI/MMS, USDA and by Congressional action, to allow the Gulf of Mexico Alliance to continue to make improvements in the Gulf Region that will continue to result in improving the environmental health, the economy, and the overall quality of life in the Gulf of Mexico Region.

www.gulfofmexicoalliance.org

Thank you for the opportunity to provide this testimony today.

Ms. BORDALLO. Thank you, Dr. Walker, for your insight on planning efforts by the State of Mississippi and the Gulf of Mexico Alliance.

Ms. Fletcher, welcome back to the Committee, and please proceed with your testimony.

STATEMENT OF KRISTEN FLETCHER, EXECUTIVE DIRECTOR, COASTAL STATES ORGANIZATION, WASHINGTON, D.C.

Ms. FLETCHER. Thank you. Chairwoman Bordallo, Ranking Member Cassidy, and distinguished members of the Subcommittee, good morning. It is a pleasure to be with you today.

My name is Kristen Fletcher and I am Executive Director of the Coastal States Organization known as CSO. CSO represents the

interests of the Governors of the 35 coastal states and territories on coastal, ocean, and Great Lakes issues. Thank you for the opportunity to testify.

While the *Deepwater Horizon* blowout was not deliberate, it is our obligation to be deliberate in our response to it, to be bold in putting in place the resources, authorities, and plans to reduce the chances for such an environmental disaster in the future. CSO appreciates the leadership of this Subcommittee in ensuring state authority and capacity to address natural resource needs. It is time to renew this commitment to coastal states' ability to plan, prepare, and respond to impacts from energy development.

My testimony will focus on consistency review under the Coastal Zone Management Act, also known as the CZMA, and how that works with the Oil Pollution Act to enable a more thorough planning and response effort. Examples from two oil spill affected states—Alaska and California—will show why these efforts are so critical. I will conclude with recommendations for Federal actions.

The Coastal Zone Management Act consistency review serves as a valuable tool for states to review Federal activities that impact the coastal zone. This authority is even more vital in light of the spill's impacts on coastal resources in the Gulf and potentially beyond. A Gulf of Mexico leak, releasing thousands of barrel of oil per day that may reach the coast of South Carolina within the summer, is a prime example of the interconnectedness of coast and ocean ecosystems and the need for state review. Alaska's consistency review of OCS exploration provides opportunities to prepare for the unique arctic conditions in that state. California's bill response standards were developed during state consistency review of oil and gas activities, and served as a foundation for California's Oil Spill Prevention and Response Act.

States integrate CZMA authority with requirements under the Oil Pollution Act. Alaska has used authority from both statutes in planning for potential blowout. The initial *Deepwater Horizon* flow estimates were 1,000 barrels per day but are now exponentially greater.

In Alaska's review of Shell's Chukchi Sea Exploration Plan, there was not sufficient data to determine historical flow rates from the well in question, so the state required that Shell be able to respond to higher volumes of flow if the actual flow rate increased.

When a spill occurs in California, the state ensures that all affected resources are included in the assessment of natural resource damages. In the past, California has requested assessments for public access impacts, beach closures, and tourism loss, in addition to natural resource damages, such as fishery closures and wildlife losses.

This integration of CZMA and Oil Pollution Act authority enables a more thorough state, Federal, and private response. However, because state capacity is limited, CSO recommends the following Federal actions:

First, because the CZMA plays such a vital role in preparing for coastal emergency, the fact that it has awaited reauthorization for 10 years reveals a crack in the foundation of state preparedness. CSO recommends that Congress reauthorize the CZMA.

Second, the Outer Continental Shelf Lands Act currently provides a 30-day window for the review of OCS exploration plans. States cannot conduct an effective consistency review in 30 days. CSO recommends that Congress extend the review period to allow states to conduct proper reviews.

Finally, most states do not have the capacity to implement their own inspection program of offshore platforms and have relied on MMS inspection reports. CSO recommends that Congress provide funds for states to participate in the MMS inspections to enable a more thorough and objective review.

The *Deepwater Horizon* spill has starkly illustrated the research needs and planning for and responding to spills. CSO recommends that Congress call for enhanced research, including boom technology that enables better environmental protection and evaluation of the impacts of dispersants on natural resources. CSO also recommends that Congress provide NOAA the resources to serve as an oil spill portal for dissemination of key information and lessons learned. A model portal has been created by the Gulf Sea Grant Programs that have identified spill-related research needs to pursue through their Gulf-wide research program.

In closing, as someone who is inspired by the sea and a former resident of both Alabama and Mississippi, it is my honor to testify on how to prevent and prepare for a spill like the one affecting the people, marine life and ecosystem of the Gulf Coast. Thank you again for your leadership on these issues. I welcome any questions you may have.

[The prepared statement of Ms. Fletcher follows:]

Statement of Kristen M. Fletcher, Executive Director, Coastal States Organization

Chairwoman Bordallo, Ranking Member Brown, and distinguished members of the subcommittee, my name is Kristen Fletcher and I am Executive Director of the Coastal States Organization. For the last 40 years, CSO has represented the interests of the Governors of the 35 coastal states and territories in Washington, DC on legislative and policy issues relating to the sound management of coastal, Great Lakes, and ocean resources. Thank you for the opportunity to testify regarding state preparedness for offshore energy development and response. Please include my written testimony in the record.

CSO recognizes the consistent leadership of this subcommittee in ensuring that states have the appropriate authorities and resources to address natural resource needs, especially on the coast. There is no more critical time than now to renew this commitment to coastal states' ability to plan, prepare and respond to impacts from offshore energy development. While the Deepwater Horizon blow-out was not deliberate, it is our obligation as a nation to be deliberate in our response to it, to be bold in looking ahead and putting in place the resources, authorities and plans in order to reduce the chances for such an environmental disaster in the future.

My testimony on behalf of the coastal state and territory governors will focus first on state planning efforts and existing authorities, especially consistency review under the Coastal Zone Management Act and how the CZMA works with the Oil Pollution Act to present a more thorough planning and response effort. Second, I will offer recommendations for federal action to assist the states. Both of these points will be placed in context by examples from Alaska and California showing why these efforts are so critical to state preparedness.

I. Planning Efforts and Existing Authority

While each U.S. coastal state has different planning and response authorities, consistency review under the Coastal Zone Management Act (CZMA) serves as a valuable tool among the nation's 34 states with approved coastal programs. Throughout the history of the CZMA, one of the greatest incentives for states to participate in the nation's coastal management program is the ability to review federal activities in and beyond state waters that have an impact on the coastal zone. This

review indicates whether the project is consistent with the state's coastal program and policies. This authority has become even more vital in light of the spill and its myriad impacts on state coastal resources – in the Gulf and potentially beyond. A Gulf of Mexico oil leak releasing thousands of barrels per day that may reach to the Northeast U.S. within a few months is a prime example of the interconnectedness of coastal and ocean ecosystems and the need for state review even if potential impacts seem unlikely.

CZMA consistency can be employed in a proactive manner to review plans developed by the federal government in preparation for incident response. The coordination role of state CZMA consistency coordinators is also a valuable tool in the development or updating of those plans. State coastal programs, through their partnerships with NOAA, are uniquely set up to facilitate the coordination of government agency technical staff, elected officials, and other stakeholders in preparation for disasters such as these as well as natural disasters. This coordination identifies available resources and potential needs for additional resources for adequate, timely responses to such incidents.

For example, CZMA consistency is a critical part of State of Alaska review of Outer Continental Shelf (OCS) oil and gas project proposals. Within Alaskan waters, the issuance of permits, certifications, approvals, and authorizations of the Alaska Department of Environmental Conservation establishes consistency with the Alaska Coastal Management Program for oil spill planning. In federally administered lands and the OCS, state environmental statutes and regulations serve as the basis to determine consistency of proposed oil and gas activities. The CZMA consistency review process for OCS oil and gas exploration provides public input opportunities in order to fine tune spill contingency plans so that they incorporate appropriate Arctic conditions into response scenarios, and adequately address logistical obstacles that could affect response capabilities.

California's federal consistency authority, as authorized by the CZMA and the federally certified California Coastal Management Program, has been very important for requiring offshore oil and gas development projects to provide for systems safety and oil spill prevention and response measures. The oil spill equipment and response standards developed during the California Coastal Commission's CZMA federal consistency review and approval of the offshore oil and gas platforms during the 1980s provided a foundation for the development of California's Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 and the implementation of its statewide regulations and programs. The Coastal Act Policy 30232 compliments it by requiring: "Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur."

II. Case Studies for Preparedness: OPA and the CZMA

A. Statewide Efforts

Both Alaska and California provide excellent case studies of coordination, capacity, and lessons learned and demonstrate the assistance needed from the federal government in order to better prepare for emergencies related to offshore energy development. Much of the current federal and state law regarding spill response in Alaska is based upon the State of Alaska's experience with the Exxon Valdez oil spill. State and Federal response and preparedness planning is guided by the National Contingency Plan and state law.

As the law that establishes the federal response and supports state responses, the Oil Pollution Act of 1990 (OPA 90) requires the development of Area Contingency Plans. In Alaska, this applies to four main regions. State law divides Alaska into ten separate regions for spill response planning, which addresses the OPA requirements through the publication and regular update of the Unified Plan. In addition, Alaska has developed a number of specific spill response tools to supplement the information provided in the Unified Plan. The Department of Natural Resources is the lead agency for coastal zone management plans and regularly coordinates with state resources agencies, coastal district management plan representatives, cities and boroughs, Native organizations, federal agencies, regional citizen advisory councils, and the public.

Oil spill drills and exercises provide valuable opportunities to identify gaps in response readiness and capability. In a large spill incident Alaska's State On-Scene Coordinator works closely with the U.S. Coast Guard and the Environmental Protection Agency as part of the Unified Command. In incidents where an oil spill is located outside of state waters, but poses an imminent threat to state waters, Alaska is notified by the U.S. Coast Guard and the two agencies work closely to identify priority protection sites by coordinating them with both state and federal agencies.

A prime example of the coordination efforts between state and federal agencies can be seen in the CANUS North Joint Pollution Contingency Plan exercises in the Beaufort Sea north of Alaska which includes state and federal agencies as well as Canadian agencies and regional stakeholders. These exercises are held regularly to improve joint response capabilities.

The California Office of Spill Prevention and Response (OSPR) is the State's lead Trustee agency for natural resource damage assessment (NRDA) and restoration. OSPR uses the federal NOAA NRDA process and calculations developed under OPA 90. OSPR confers with the other state and local agencies within California – e.g., Coastal Commission, State Parks, State Lands Commission, Native American Council, Counties and Cities – to ensure that all resources that may have been impacted by an oil spill have been included in the NRDA. This coordination works well to ensure that CZMA resources issues are adequately addressed in the NRDA process. For example, in a past spill, the Coastal Commission requested the addition of assessments for public access impacts, beach closures, and tourism loss in addition to the already identified NRDA impacts for seafood industry loss, fishery closures, oiled bird and wildlife losses. After the NRDA process has reached litigation or settlement, then the monies go to restoration projects with the federal and state trustee agencies. The Coastal Commission, pursuant to the California Coastal Act and as the CZMA representative for California, is often involved in the development and review/permitting of post-oil spill restoration projects in the coastal zone.

One example of the critical interplay between OPA and the CZMA is the review of flow rates from an offshore well. The initial Deepwater Horizon incident flow rate estimates were 1,000 barrels per day, subsequently increased to 5,000 barrels per day, and now appear to be greater than 25,000 barrels per day, possibly as great as 60,000 barrels per day. In Alaska's consistency review of Shell's Chukchi Sea Exploration Plan, there was not sufficient well data to determine historical well flow rates, so the state made the following requirement a condition for finding Shell's Exploration Plan and C–Plan consistent with Alaska standards: "If the actual flow rate of a well exceeds 5,500 barrels per day, and Shell is to continue drilling, the response planning standard (RPS) volume must be increased for subsequent exploration wells drilled to an RPS volume taking into account the actual flow rate of the well." The CZMA consistency authority complements the requirements under OPA, allowing for a more thorough state, federal, and private response.

B. Building Local Capacity

The CZMA enables effective local response as well. The Local Coastal Program component of California's statewide program gives added strength to the review and oversight of the onshore facilities supporting offshore oil and gas development. The County of Santa Barbara has certified Local Coastal Program policies and ordinances that mirror and expand upon the Coastal Act's policies for resource protection and oil spill prevention and response. The County's coastal development permits for the onshore facilities supporting offshore oil and gas development have explicit conditions for frequent inspections, operation manuals, safety systems requirements, and oil spill prevention and response requirements. As an example, the County's System Safety Program requires monthly inspections of the onshore facilities, and has public meetings for the review of oil and gas facility safety deficiencies. The County also reviews all changes to the oil spill contingency/response plans for the platforms, and all changes to response equipment configurations.

In Alaska, two Regional Citizen's Advisory Councils were created under OPA 1990 and both are quite actively engaged and involved with oil spill response planning efforts in Prince William Sound and Cook Inlet. A new Advisory Council for the Arctic Ocean would presumably benefit planning efforts for that region of Alaska. Good coordination also exists in Alaska among state and federal agencies including the U.S. Coast Guard, the Environmental Protection Agency and the Minerals Management Service. For example, oil spill drills and table-top exercises are routinely coordinated among the state and federal agencies, plan holders and response action contractors to demonstrate competency with the incident command system procedures, communications, planning, logistics, operations, equipment maintenance and tactics.

III. Recommendations for Federal Action

Even though the CZMA and OPA provide adequate authorities for planning and response, the effectiveness of these statutes is limited by limited capacity and resources. CSO recommends that Congress consider updates to these laws along with federal assistance in research and implementation.

A. Legislative Actions and Appropriations

As the CZMA plays such a vital role in planning for management of coastal resources and responses to environmental emergencies such as the Deepwater Horizon Spill, the fact that it has been overdue for reauthorization since 2000 shows a crack in the foundation for state preparedness. With unanimous support from its members, CSO issued a draft bill in 2008 which provides for more thorough planning at the state level, regional collaboration, and management of renewable energy development. While the existing CZMA provides enough flexibility for states to develop effective responses to a spill, the need for reauthorization is evident.

With respect to the Outer Continental Shelf Lands Act, it currently provides a 30-day window for the review and approval of OCS Exploration Plans. It is impossible for the CZMA state agencies to conduct a federal consistency review within a 30-day window. CSO recommends that Congress extend the 30-day review period to allow for CZMA state agencies to conduct federal consistency reviews.

Finally, most states do not have the funds or staff to implement their own inspection program of the offshore oil and gas platforms, and therefore have relied on reports from the MMS inspection of the federal platforms. CSO recommends that Congress provide funds for CZMA state agency and applicable local government agencies to participate in the MMS inspections of the offshore oil and gas operations to enable a more thorough and objective review.

B. Research and Information Dissemination

The Deepwater Horizon spill has starkly illustrated the research needs in the planning and response for oil spills. For example, conventional containment and exclusion booms begin to fail when currents exceed ¾ knots. This limitation makes spill containment and protection of environmentally sensitive areas difficult if not impossible. Many states need a deployable boom that operates effectively in complex, high-velocity currents and high waves that are frequently encountered in coastal environments. CSO recommends that Congress call for enhanced boom technology that can operate in high currents and in high waves.

In light of the heavy dispersant use in the BP Deepwater Horizon oil spill, states and their citizens have concerns about the potential adverse effects of dispersants on the ocean's sensitive ecosystem, especially the deep ocean. CSO recommends that Congress provide for the evaluation of the impacts of dispersants on natural resources in the water column, at depth, offshore, nearshore and along the coast and how it affects different life stages of finfish and shellfish. Such an evaluation should include impacts of dispersants on the persistence of oil in ecosystems due to oil settling and being re-suspended.

Alaska has particular needs in this area as applied research efforts are needed to establish and distribute information about the current best available technology for oil spill response activities under Arctic and sub-arctic conditions. Examples include technology for tracking oil spills under ice, blowout prevention, toxicity and effectiveness of dispersants in cold, marine waters, in-situ burning and other response techniques during broken ice conditions, and improved weather and storm prediction in Arctic waters. Grants could assist communities with spill protection of subsistence resources and with planning, coordination and communication efforts. Federal funding could help the U.S. Coast Guard acquire Arctic-capable assets and could help construct port facilities in Arctic Alaska, which would improve response capabilities and simplify planning logistics.

Finally, CSO recommends that Congress provide NOAA the resources to serve as a Portal for Dissemination of Lessons Learned from BP Oil Spill. As a result of the BP Deepwater Horizon oil spill, the Gulf of Mexico Sea Grant Programs' website (http:/gulfseagrant.tamu.edu/oilspill/GMRP__oil__spill__research.htm) has posted an addendum of research topics that will be added to its Gulf of Mexico Research Program. The research topics include ecosystem impacts, community resilience, fisheries, restoration post-spill, tourism, ecosystem services, impacts from dispersants, displaced people and workers, seafood industry, etc. The lessons learned from this research will be beneficial to the coastal states and territories for oil spill preparedness, response, recovery and restoration. This portal could provide a valuable mechanism for coastal states to review and offer input and could be paired with funding for NOAA or the Gulf States Sea Grant Programs to hold research and policy conferences for the information dissemination to other coastal states and communities.

Closing

In closing, thank you again for your leadership on these issues and for inviting me to testify today. The coastal states and territories look forward to continued work with committee staff, nongovernmental partners, federal agencies and others to ensure healthy oceans in the future. I welcome any questions you may have.

Response to questions submitted for the record by Kristen M. Fletcher, Executive Director, Coastal States Organization

We appreciate the opportunity to elaborate on testimony offered on June 24 on regarding state preparedness for offshore energy development and response and the leadership of the Subcommittee on these issues.

Questions from Chairwoman, Congresswoman Madeline Z. Bordallo (D–GU)

1. Under the Coastal Zone Management Act of 1972, coastal States are required to have included in their Federally-approved coastal management plans, a planning process for energy facilities in the coastal zone, including a process for anticipating the management of the impacts resulting from such facilities. Have these planning efforts been adequate to respond to an oil spill of this size and complexity? Should the Federal government provide additional technical or financial resources to assist coastal States for oil spill planning, logistics, response, and recovery?

Although states use their oil spill and coastal management planning processes to prepare for a catastrophic spill like the complexity and magnitude of the Deepwater Horizon, there is no level of response equipment and emergency preparedness planning that is sufficient to effectively prevent the devastating impacts to the natural, economic, and social ecosystems that will occur from a catastrophic ongoing spill like the BP Deepwater Horizon well-blowout.

CSO does encourage additional financial and technical resources from the federal government to ensure state and federal preparedness. CSO recommends that Congress provide funds for CZMA state agency and applicable local government agencies to participate in the MMS inspections of the offshore oil and gas operations to enable a more thorough and objective review. CSO recommends that Congress call for enhanced boom technology that can operate in high currents and in high waves, provide for the evaluation of the impacts of dispersants on natural resources in the water column, at depth, offshore, nearshore and along the coast and how it affects different life stages of finfish and shellfish. The Arctic has particular needs in this area as applied research efforts are needed to establish and distribute information about the current best available technology for oil spill response activities under Arctic and sub-arctic conditions. Federal funding could help the U.S. Coast Guard acquire Arctic-capable assets and data which would improve response capabilities and simplify planning logistics. Finally, CSO recommends that Congress provide NOAA the resources to serve as a Portal for Dissemination of Lessons Learned from BP Oil Spill. The lessons learned from this research will be beneficial to the coastal states and territories for oil spill preparedness, response, recovery and restoration.

2. Your testimony makes clear that the Coastal Zone Management Act and the Oil Pollution Act are complimentary, but it is not clear how State and Federal contingency planning processes are coordinated with industry planning processes? How are these integrated and where can improvements be made?

Alaska provides a good example of the integration. While the state notes that there is always room for improvement in any government-led coordination effort, Alaska generally has good coordination and participation among various governments and stakeholder groups for planning efforts under both OPA and CZMA. The Department of Natural Resources is the lead agency for coastal zone management plans and regularly coordinates with state resources agencies, coastal district management plan representatives, cities and boroughs, Native organizations, federal agencies, regional citizen advisory councils, and the public. Two Regional Citizen's Advisory Councils (RCACs) were created under OPA 1990 and both are quite actively engaged and involved with oil spill response planning efforts in Prince William Sound and Cook Inlet. Councils like this one provide good examples for future improvements toward integrated processes.

Furthermore, the Oil Spill Pollution Act of 1990 (OPA 90) requires the development of Area Contingency Plans for four main regions in Alaska. State law divides Alaska into ten separate regions for spill response planning, which addresses the OPA requirements through the publication and regular update of the Unified Plan. In addition, ADEC has developed a number of specific spill response tools to supplement the information provided in the Unified Plan including: Spill Tactics for Alaska Responders; Alaska Incident Management System Guide for Response to Oil and Hazardous Substance Releases; Permits Tool; Tundra Treatment Guidelines; Local Response Agreements; Statewide Hazmat Team Program; Geographic Response Strategies and Potential Place of Refuge documents; and Memoranda of Understanding/Memoranda of Agreement between federal and state agencies. These ele-

ments are integrated with other state planning efforts including coastal zone management.

The California Area Committee process is another example of integration and specifically incorporates industry. The process has developed three regional Area Contingency Plans that cover the entire coast of California and all of San Francisco Bay. The process appears to be working well in California for improving oil spill emergency response planning efforts, improving coordination among government, non-government organizations, and industry, and for incorporating lessons learned from past spills. The Area Committees have been actively meeting since the mid 1990s. The Area Committees are co-chaired by the California OSPR and US Coast Guard and include representatives from industry, non-governmental organizations, and local state and federal agencies. Each Area Committee is responsible for working with State and local officials to pre-plan for joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. Federal legislation can provide incentives for this type of collaboration and integrated planning.

Pursuant to California's OSPRA 1990 and OPA 90, California's OSPR and the US Coast Guard have implemented a comprehensive oil spill drills and exercise program in California. Coordination among federal, state, local agencies, environmental groups, and industry during oil spill emergency response is continually being refined and improved as a result of the frequent regional and statewide oil spill drills. Pursuant to the California's OSPRA 1990, California's OSPR also has implemented a comprehensive equipment deployment drills and exercise program that routinely has announced and unannounced drills to test the response capability of the oil spill response organizations ("OSROs") and owner/operator of vessels and marine facilities (e.g. marine terminals, platforms, processing facilities) operating in California). These drills and exercises test the capability for fast on-water containment and recovery by requiring the OSROs and company personnel to deploy oil spill response vessels and equipment (e.g., booms and skimmers) within California's oil spill response timeframes (e.g., 30 minutes, 60 minutes, 2 hours, 6 hours).

California uses the federal US Coast Guard Incident/Unified Command System for oil spill response. The central Unified Command consists of the California Office of Spill Prevention and Response as the lead State On-Scene Commander representing California, the US Coast Guard as the Federal On-Scene Commander, and the Responsible Party. In California, under the ICS there is also the Multi-Agency Coordination group that consists of the other affected state, federal, and local agencies – including the California Coastal Commission, Marine Sanctuaries, and local governments—that is supposed to have a direct dotted line of communication to the Unified Command in order to get their respective agency concerns addressed. After the 2007 Cosco Busan spill – and after much discussion and negotiation from Local Governments—Local Governments may now have a representative directly in the Unified Command to have direct input on response strategies for their local resources. Local Government may now also be tasked deploying boom to protect their local resources and coordinating the volunteer function. The adding of local government representatives to this federal/state/industry structure is also a potential area for improvement.

The coordination role of state CZMA consistency coordinators is also a valuable tool in the development or updating of those plans. State coastal programs, through their partnerships with NOAA, are uniquely set up to facilitate the coordination of government agency technical staff, elected officials, and other stakeholders in preparation for disasters such as these as well as natural disasters. This coordination identifies available resources and potential needs for additional resources for adequate, timely responses to such incidents. The CZMA consistency review process for OCS oil and gas exploration provides public input opportunities in order to fine tune spill contingency plans so that they incorporate appropriate local, state or regional conditions into response scenarios, and adequately address logistical obstacles that could affect response capabilities. The continued support for coastal management programs and reauthorization of the CZMA is vital.

Questions from Ranking Republican Member, Congressman Henry E. Brown, Jr. (R–SC)

1. In your testimony, you state that the 30-day window for the review and approval of OCS exploration plans is insufficient. Why is it impossible for states to conduct a federal consistency review in 30 days? How much time does a state need to review these plans?

Given the complexity of the plans and the importance of a thorough review, states have indicated the preference for at least 90 days or up to 180 days to review the

plans. This is consistent with review requirements at the state and federal level for plans with similar levels of complexity.

2. If the federal government is properly fulfilling its inspection responsibilities, why do states have to have their own inspection of offshore oil and gas platforms that are permitted in federal offshore waters?

CSO supports the states serving as an active partner with the federal agency in its inspections, rather than introducing a separate inspection into the process. CSO's recommendation that Congress provide funds for CZMA state agency and applicable local government agencies to participate in the MMS inspections of the offshore oil and gas operations will enable a more thorough and objective review, including from those most familiar with the local conditions and resources.

3. Do states now inspect platforms on the federal OCS? Why should states inspect federal projects in federal waters?

Because most states do not have the funds or staff to implement their own inspection program of the offshore oil and gas platforms, they have relied completely on reports from the MMS inspection of the federal platforms. Consistent with the rationale in the Coastal Zone Management Act of 1972, because activities in federal waters have impacts in state waters, there is an inherent state interest in those activities. The Deepwater Horizon spill is a keen example of those unintended impacts.

4. In the current fiscal year, the Congress has appropriated $67 million to the 29 states and 5 territories with approved CZMA programs. How much of this money is spent on consistency reviews? Isn't the overwhelming majority of this money spent on the administrative costs of implementing the program?

The amount of federal dollars spent on consistency reviews and program administration will vary with each state and territory depending on how those funds are leveraged. However, facts indicate that the $67 million appropriated to the state grant program is money that is leveraged well and spent on a diverse range of coastal and ocean priorities nationwide.

While a 2:1 match is required, most states match at a higher rate than that, giving the federal government even more for its money. For example, in 2008, states leveraged their federal funding and state match to secure an additional 25% of investment for habitat, water quality, hazards, and public access projects.

In South Carolina in FY '09, over $2.4 million (55% of the total program) was spent on coastal habitat conservation and restoration. In New Hampshire in FY '09, over $630,000 (30% of the total funding) was spent on community and other technical assistance including on-the-ground coastal hazard mitigation. In Virginia in FY '09, just under $1 million (20% of the total program) was spent on coastal water quality protection including education of municipal officials and enhanced nutrient removal technologies.

Finally, compared to the ocean and coastal economy that this program supports, the $67 million appropriation does not match the high value that the coastal states provide to the nation. Considering the three states noted above, South Carolina's Ocean Economy in 2000 was $1.4 billion, New Hampshire's was over $500 million, and Virginia's was $3.89 billion.

5. Does your organization support Governor Bobby Jindal's proposal to build 24 barrier islands to protect 130 miles of Louisiana's fragile marshlands and beaches?

CSO does not have a position on Governor Jindal's proposal but continues to serve as a resource for the coastal state Governors when appropriate.

6. Would you agree that it was a mistake to dump nearly 500,000 gallons of dispersant into the subsurface waters of the Gulf of Mexico without really knowing the short-term or long-term impacts of this action?

CSO does not have a position on the use of dispersants; however, CSO recognizes that states and their citizens have concerns about the potential adverse effects of dispersants and recommends that Congress provide for the evaluation of the impacts of dispersants on natural resources in the water column, at depth, offshore, nearshore and along the coast and how it affects different life stages of finfish and shellfish.

7. Does your organization support the Obama Administration's decision to establish a 6-month moratorium on deepwater exploration in the Gulf of Mexico? What is the rationale for this moratorium?

CSO does not have a position on the moratorium and cannot speak to the Administration's rationale for the moratorium.

8. You mention the importance of lessons learned and state that federal and state laws in Alaska are based on the State's experience with the Exxon Valdez. Did any other state implement changes to their spill response programs based on the Exxon Valdez incident?

While states enacted oil spill legislation at different times, most of the West Coast states (Alaska, Washington, Oregon, and California) established significant oil spill laws and regulations in the early 90s, based on the *Exxon Valdez* oil spill as well as other incidents. They now require oil spill contingency plans, drills, and Certificates of Financial Responsibility, among other things, and those requirements are directed at facilities, tank vessels, and non-tank vessels. The West Coast states also joined with the West Coast Canadian Province of British Columbia in 1989 to form the Pacific States/British Columbia Oil Spill Task Force, which provides a forum for them to coordinate oil spill policies and programs, and to work cooperatively on issues of regional concern.

In California specifically, the Exxon Valdez inspired the California Legislature to enact legislation in 1990 called the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (Act), which covers all aspects of marine oil spill prevention and response in California. In 1991, the California Department of Fish and Game, Office of Spill Prevention and Response (OSPR) was established with the primary authority in California to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in marine waters of the state. The Act established a fee on oil imported into California to fund more than 200 employees dedicated to the prevention of, response to, and recover from oil spills. OSPR is the most robust state level oil spill program in the nation. In addition, following the Cosco Busan oil spill in the San Francisco Bay in November 2007, a number of legislative bills and regulations were enacted to improve oil spill prevention and response in California. The resulting changes/additions included training of local government officials in oil spill response and management; grants to local governments to provide oil spill response equipment; fishery closure protocols; requirements for an Independent Drill Monitor to evaluate certain aspects of out-of-state oil spill drills, shortening of response times for on-water recovery; and adding 2 hour containment requirements for identified Oil Pollution Risk Areas in the San Francisco Bay and Los Angeles/Long Beach Harbors.

9. You state that oil spill drills and exercises provide valuable opportunities to identify gaps in response readiness and capability. To your knowledge, how often do states conduct these drills? If they were conducted in the Gulf of Mexico, did any states find gaps in their response readiness and capability?

California Department of Fish and Game, Office of Spill Prevention and Response (OSPR) conducts over 100 drills a year that test the response readiness of oil spill contingency plan holders. The drills are planned ahead of time for maximum effect and test the plan holder's response structure and its ability to deploy response equipment. OSPR also conducts unannounced drills that put companies 'on the spot' and test their ability to make the proper notifications as well as deploy equipment within a set amount of time. OSPR also conducts annual drills that test oil spill response organizations (OSRO) on their capabilities of responding with equipment necessary to clean specific amounts of spilled product, within required time limits. The OSROs must pass these drills to operate in California. In addition, OSPR tests and evaluates the readiness and effectiveness of oil spill response strategies that protect designated environmentally sensitive resources along California's coast through our Sensitive Site Strategy Exercise Program. These defensive actions are tested by site-specific exercises, which involve the mobilization of an OSRO in a designated area and its deployment of protective and oil recovery equipment. As of the 2nd quarter of 2010, OSPR has evaluated 71 sensitive site strategies as contained within the California Area Contingency Plans.

Coordination among federal, state, local agencies, environmental groups, and industry during oil spill emergency response is continually being refined and improved as a result of the frequent regional and statewide oil spill drills.

CSO cannot respond to the question regarding gaps in the readiness of the Gulf of Mexico state, although it supports a thorough review of the federal, state, and

industry responses to the Deepwater Horizon incident so that all agencies and states may glean important lessons.

10. You stated that the CZMA and OPA provide adequate authorities for planning and response, but the statutes are limited by capacity and resources. What capacity and resources are necessary for full implementation of these laws?

The programs under each of these statutes can benefit from increased federal funding. For example, the Coastal Zone Management Act funding has been level for much of the last decade. Accounting for only inflationary increases, the state grants line would be $88 million this year; it remains at or around $66 million. With the emerging challenges of sea level rise and other climate change impacts, the capacity to respond both day-to-day and in the case of an emergency is eroded.

11. Is it your view that we were victims of our own success, that since we had not had an oil spill of this magnitude that necessary research on dispersant use, boom technology and usage, among other spill response research went unfunded?

Since 2000, there have been no fewer than 6 accidents in the Gulf of Mexico which released oil into the natural environment. Decisions have been made to dedicate funds toward developing technology to drill in deeper and deeper areas. Unfortunately, funds toward research on dispersant use, boom technology and other spill response techniques were not priorities and did not keep pace.

Notably, the California Coastal Commission has not found state-of-the-art systems safety features and oil spill prevention and response measures to be effective in preventing oil spills or effectively containing and cleaning up oil spills to avoid adverse impacts to California's coastal zone resources. Experience in California has shown, and continues to show, that human error and mechanical failures can cause oil spills in spite of the most advanced system safety technologies and programs. Even small oil spills, if close to shore, can have devastating impacts on shoreline resources, even with rapid response using best state-of-the-art booms and skimmers. Despite its approval of 13 offshore OCS oil and gas development platforms, in each case the Coastal Commission explicitly found that the oil spill response measures did not meet the second test of Coastal Act Policy 30232 which requires "Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur."

Ms. BORDALLO. Thank you very much, Ms. Fletcher, for explaining the state's role in oil spill contingency planning.

Now it is my pleasure to introduce Mr. Barton. You can begin your testimony.

STATEMENT OF MANLY BARTON, SUPERVISOR, DISTRICT 1, JACKSON COUNTY BOARD OF SUPERVISORS, PASCAGOULA, MISSISSIPPI

Mr. BARTON. Thank you. I am Manly Barton. I am a District 1 Supervisor at Jackson County, Mississippi, Board of Supervisors.

First, I would like to thank the Committee members for allowing us to be here today and have input into this very important issue.

Living on the Gulf Coast all my life, I have experienced many disasters, mainly hurricanes, and the response and recovery period for each of these has been different. It is difficult to look at our current situation today and not compare the current disaster response to that of Hurricane Katrina five years ago, and we are still dealing almost every week with issues that are still not resolved.

Disaster response today is not the same as the response of 20 years ago. Hurricane Katrina was a good test of the new National Incident Management System, or NIMS, administered by the Department of Homeland Security. This provider provides a framework for Federal, state, and local governments to work together in responding to major disasters. The process worked well after Hurri-

cane Katrina, bringing the resources and the skilled people we needed to our county.

In my opinion, the key to that process working as well as it did was communication from all the partners in the process, the Federal, state, and local. The local partners know their needs and should and do play an important role in that NIMS process.

Because of our location on the Gulf Coast, we have had many disaster events. The planning that was in place at the time of the *Deepwater Horizon* event has provided an effective initial response. But as we move forward, these plans need to evolve to meet the changing needs of our local communities, the state, and the region. We need to continue to emphasize communications, and these are common issues between what I will call our normal natural disasters and this current *Deepwater Horizon* event.

The framework of a NIMS's management at the unified command level appears to be working very well. Our current unified command overseas the response and recovery efforts in Alabama, Florida, and Mississippi. That is a large, very diverse area to effectively manage. We are talking about three different states, three different coastlines. We believe the event has localized enough to warrant the full development of the state area commands. Those area commands could then coordinate their respective response plans under the direction of the unified command, and this would give us a better, or this would better customize the response and recovery efforts to the particular needs of each state, and would improve the communications down to the local level.

As far as the technical and financial resources that the Federal Government might help with, there were two specific things that came to mind.

On the technical side, we need personnel on site at the local level that are trained in oil spill response and recovery. If not on site, at least made available to us on some as-needed basis. For example, as an elected official, I have people almost every day that are coming to me saying that they have the latest product that will solve all of our problems. They will stop the oil, clean up and protect our shoreline. And we are not—we just don't have the expertise to make those calls. We need somebody with some expertise that can help us through those evaluation processes.

Second, most emergency operation centers on the Gulf Coast were designed and built many years ago under a very different disaster response model. Most would be considered functionally obsolete today.

The NIMS' process requires a greater number of personnel involved in the response and recovery effort and the technology needed today is quite different. Hurricane Katrina and the *Deepwater Horizon* event have made us painfully aware that we need to upgrade our facilities to manage these emergencies successfully. We knew this after Katrina, and we certainly know this today.

For communities still recovering from Katrina, several million dollars, perhaps as much as $8 million for a new or upgraded emergency operation center, is difficult to fund. This is something that would help our county, it would help many of our neighbors along the Gulf Coast still struggling to recover from Hurricane Katrina,

responding to the current *Deepwater Horizon* event, and contending with yet another hurricane season. Thank you.

[The prepared statement of Mr. Barton follows:]

Statement of Manly Barton, Supervisor, District 1,
Jackson County Board of Supervisors, Pascagoula, Mississippi

Overview

We have been asked to provide a local government's perspective on coastal State planning for offshore events. Three plans have been identified that should be in place for Mississippi: (1) An Area Contingency Plan (ACP) which includes coastal Mississippi and is implemented in conjunction with the National Contingency Plan (NCP) under the Oil Pollution Act of 1990; (2) an independent State contingency plan which is implemented in coordination with the relevant ACP and the NCP; and (3) a State plan in its coastal management plan required under the Coastal Zone Management Act of 1972.

Dr. William W. Walker will address the Area Contingency Plan in his report. We can confirm specific action BP has taken at the request of Mississippi. BP has installed boom at critical habitats early on and has recently installed absorbent silt fencing at test sites. BP has further hired contractors to deploy collections vessels and to collect and dispose of oil material found on the barrier islands. Finally, Mississippi directed BP to address small incidents of oil material which managed to bypass the barrier islands.

Being from a county on the Gulf Coast, we have been the dubious recipient of years of experience in multi-jurisdictional disaster events. Two issues are common in our responses to these events and are relevant to the success of our response to the current Deepwater Horizon event: (1) the ability to adjust plans to meet the changing needs of the event and (2) effective communication. To that end, the planning in place at the time of the event has provided an effective initial response. We find as we move forward that these plans need to evolve to meet the changing needs of our state and that communication needs to be emphasized.

While we offer some observations on the effectiveness of Mississippi's ACP, we center our comments on the coordination of that planning effort through the NIMS framework. We thought our value to this hearing would be in our ability to compare the NIMS management of this event with the NIMS management during our Katrina response and recovery efforts:

Responses

1. Adequacy of these planning efforts to respond to an oil spill of this complexity and magnitude.

The framework of NIMS management at the Unified Command level appears to be set-up satisfactorily. However, we believe the event has localized enough to warrant the full development and implementation of State Area Commands under the direction of the Unified Command. We discuss that in more detail in Response 2. Also, the lines of communication between the upper level and the lower level of the command structure could be improved. For instance, we are involved in several conference calls throughout the day with several different levels of command and various agencies. Especially early on, the information was inconsistent and, in some cases, inaccurate. For instance, boom deployment location and length differed from conference to conference.

Also, this disconnect is magnified by the fact that the local level coastal facilities are not capable of handling something of the magnitude of the Deepwater Horizon event. Events like Deepwater Horizon and Katrina involve multiple local, State and federal agencies. It is imperative that each local facility has the necessary amount of personnel on site with the necessary skill sets to address the issues specific to that local area. However, many of the local emergency management agencies operate in outdated facilities which do not have sufficient capacity or infrastructure to house the required personnel (NIMS) during a long-term, large-scale event. Thus, communication is hindered because decisions are made elsewhere and local level responders have to rely on "outside" communications for updates and directives. As a corollary, today's agencies take advantage of the latest technology. Many of the local facilities were built decades ago and are not equipped with compatible support systems.

2. The sufficiency of the coordination amongst these planning efforts and between different levels of government.

Again, communication—and coordination—is enhanced when those with decision-making authority and those who are experts in the relevant fields are onsite at the local level. Many general or broad decisions are made at the Unified Command level which necessitates some discretion at the lower level. As noted above, it would be most beneficial if personnel with training specific to the event (e.g., oil shoreline cleanup) were available to assist with the local planning and recovery efforts. Also, we have experienced an improvement in the transfer of some information. But, room for improvement still exists. First, a good system exists for submitting requests. But, getting clear, timely responses to some of those requests have been difficult. Second, the current unified command does not include a branch for local input and our local facilities do not accommodate a fully functional Emergency Support Functions (ESF) set-up.

Irrespective of the current system, it would be more effective at this point if State Area Commands were fully developed. Our current Unified Command oversees the response and recovery efforts in Florida, Alabama and Mississippi. Today, it is too spread out to effectively manage the overall recovery along those three states' coastlines. We recommend that each of the three states have fully implemented Area Commands that can coordinate its respective response plan under the direction of the Unified Command. This will better customize the response and recovery efforts to the particular needs of each state and will improve communications down to the local level.

As to the coordination of funding, the current structure is better than the structure in Katrina. The current decision-making funding process has fewer levels of hierarchy. The FEMA Public Assistance (PA) program necessarily involves the State as the Grantee and the local government as the Sub-Grantee. The PA program also involves reviews by State analysts and the Office of Inspector General. The State plays a significant role in the current event (primarily through MDEQ and MDMR) and other agencies are heavily involved. However, we observe more efficient decision-making and a more efficient funding process in the current event than in the Katrina event.

3. Additional technical or financial resources that might be provided by the Federal Government to assist coastal States for oil spill planning, logistics, response, and recovery.

Two resources discussed above would assist us in the oil spill planning, logistics, response and recovery: (1) personnel on-site at the local level who are trained in oil spill response and recovery; and (2) modern emergency operations centers built to meet FEMA 361 construction standards which can handle today's technology and personnel required to successfully and efficiently manage long-term, large-scale events like hurricanes and oil spills.

Ms. BORDALLO. Thank you very much, Mr. Barton, for informing us about the oil spill planning efforts in Jackson County.

Next, it is my pleasure to introduce Mr. Menashes.

STATEMENT OF MATTHEW MENASHES, EXECUTIVE DIRECTOR, NATIONAL ESTUARINE RESEARCH RESERVE ASSOCIATION, WASHINGTON, D.C.

Mr. MENASHES. Thank you, Chairwoman Bordallo, and members of the Subcommittee for the opportunity to testify on behalf of the state agencies and academic institutions that operate the nation's 27 national estuarine research reserves.

I am Matt Menashes, Executive Director of the National Estuarine Research Reserve Association. NERRA is dedicated to the protection, understanding, and science-based management of our nation's estuaries and coasts.

As you know, the Research Reserve System was authorized in 1972 under the Coastal Zone Management Act. The program is a unique partnership between NOAA and state agencies and universities to protect lands and waters for long-term research and edu-

cation purposes. As part of the CZMA, reserves play a strong role in providing the science needed to effectively manage our estuaries.

The five reserves along the Gulf of Mexico make up nearly 45 percent of the total acreage of the reserve system. With such a significant amount of the system located around the Gulf, we are concerned about the long-term impacts of this spill on natural resources in the reserves and beyond. We have recently seen oil impacts to the Grand Bay Reserve in Mississippi, which is in Mr. Barton's district, and we hope we can avoid damages to the other reserves along the Gulf.

My comments today are intended to highlight what our people are experiencing and how those experiences can inform planning efforts. First, let me talk about preparedness planning.

We have identified two key areas where we believe attention needs to be focused to ensure we are prepared in the future. First, we need to prioritize training for responding to oil spills higher than we have. Our reserve managers and staff have struggled to figure out HAZMAT training requirements and the damage assessment process. Agencies need to ensure that sufficient personnel are trained in HAZMAT procedures to expedite booming and recovery operations, and NOAA needs to invest more effort in resources and to providing training on NRDA sampling prior to a spill. We have the infrastructure to help our partners develop these capacities.

Second, preparedness requires continual improvement in governmental coordination. Our reserves must be integrated into area contingency plans and county emergency operation commands should know where our reserves are. There must be incentives for ACPs and EOCs to integrate coastal protected areas into their planning.

In the area of contingency planning, we know that the cost of restoring marshes and mangroves is exorbitant. The Coast Guard needs the best information to develop contingencies that protect these critical habitats. We need to ensure high resolution special data about critical reserve habitats is provided to the Coast Guard, and that boom deployment strategies reflect that data. This will reduce costs and increase restoration success rates by minimizing damage to critical resources.

Because reserves are managed by state institutions, we don't have the ability to mobilize personnel of the Federal Government like our colleagues in marine sanctuaries and wildlife refuges. NOAA should work with the states to identify ways to deploy adequate personnel to reserves in times of emergency.

I would also like to point out that the CZMA requires that NOAA give priority consideration to research that uses the reserves. We hope to work with NOAA to ensure that the agency's post-spill research plans use the reserves for baseline and applied research.

With regard to damage assessment planning, we are concerned that personnel limits and a lack of funding will have a negative effect on our ability to fully assess the damages to reserve resources. This will affect NOAA's and the state's ability to recoup the total value of damages for those resources.

It is also our understanding that the NRDA biological monitoring protocols were not sufficient for this spill, and that there were duplicative Federal reporting requirements. NOAA and the states

need to collaborate ahead of time to establish effective biological monitoring protocols, and the Federal agencies need to develop one database for reporting. We also need to do a better job of integrating existing data sets into the damage assessment process.

Our experience to this point shows that our use of baseline data are not being used. And in consideration of the scale of this event, it incumbent upon Federal programs to reconsider their long-term monitoring priorities. Congress should require the reserve system, and the Integrated Ocean Observing System for that matter, to consider adding hydrocarbon testing to their current monitoring protocols.

On restoration planning, we believe that the Gulf of Mexico Alliance could be the coordinating body for state restoration efforts in the Gulf. The alliance has the established networks and relationships and the experience to ensure interstate coordination is carried out effectively.

On the Federal side, NOAA should align its Gulf of Mexico regional efforts to recover from this spill. NOAA needs dedicated staff on the ground in the region bringing together their assets, like the reserves, the sanctuaries' Sea Grant Coastal Programs more to create efficiencies and avoid duplication.

I would also like to reiterate Kristen Fletcher's point. CZMA has been overdue for reauthorization for 10 years. We must reauthorize the CZMA and improve the reserve system. We will work with the Subcommittee to explore areas to improve the legislation.

Chairwoman Bordallo, we wish to express our condolences to the families of the *Deepwater Horizon* workers who lost their lives, and acknowledge that the livelihoods and quality of life of many in the Gulf region are in jeopardy. Our efforts to help restore the environment will draw inspiration from the strength of the families who lost loved ones and the resiliency of the people of the Gulf region.

I will be happy to answer any questions you have.

[The prepared statement of Mr. Menashes follows:]

Statement of Matthew E. Menashes, Executive Director, National Estuarine Research Reserve Association

Thank you Chairwoman Bordallo, Ranking Member Brown, and Members of the Subcommittee for the opportunity to testify on behalf of the state agencies and academic institutions that operate the nation's 27 National Estuarine Research Reserves (reserves) about planning standards for offshore energy development in the context of the oil spill disaster in the Gulf of Mexico.

I am Matt Menashes, Executive Director of the National Estuarine Research Reserve Association (NERRA). Our association was founded in 1987 by the state and academic institutions that operate the reserves. NERRA is dedicated to the protection, understanding, and science-based management of our nation's estuaries and coasts.

I appreciate the opportunity to testify, and on behalf of NERRA's members, want to express our appreciation to the committee for focusing this hearing on planning issues. While we know that Americans right now really just want someone to stop the oil spill, the reality is that what was needed, and what is still needed, is to have effective plans in place before disasters like this happen. Planning is what we do in order to reduce risks in the first place. Planning is what we need to ensure effective response when something happens. Effective planning is an obligation we owe to our communities so we can recover quickly when disaster strikes. Planning is absolutely required in order for us to execute our responsibility, and the trust we hold, to protect and restore the environment.

As you know, the National Estuarine Research Reserve System (reserve system) was authorized in 1972 under the Coastal Zone Management Act (CZMA). The program is a unique federal-state partnership which brings the National Oceanic and

Atmospheric Administration (NOAA) together with state agencies and universities to protect lands and waters for long-term research and education purposes. NOAA and reserve staffers collaborate to provide education, training, and stewardship programs that ensure the protection of these wonderful places while advancing our collective understanding of how estuaries function. As part of the CZMA, the reserves play a strong role in providing the science needed by coastal managers at the local, state, and federal levels to effectively manage our estuarine and coastal resources.

The five reserves in the Gulf of Mexico make up nearly 45 percent of the total acreage of the reserve system. The Rookery Bay reserve in Florida, designated in 1978, has over 110,000 acres. The Apalachicola reserve in Florida, designated in 1979, has over 246,000 acres. The Weeks Bay reserve in Alabama, designated in 1986, has just over 6500 acres. The Grand Bay reserve in Mississippi, designated in 1999, has over 18,400 acres, and the newest reserve, Mission-Aransas in Texas, designated in 2006, has over 186,000 acres. With such a significant amount of the total system located in the Gulf of Mexico, we are obviously concerned about the long-term impacts of this spill on natural resources in the reserves and beyond.

Perhaps the best way to put our concerns into context is this; staffs at our two Florida Gulf coast reserves have been working for over 30 years to improve the condition of their estuaries. They conduct research, educate citizens, and provide science-based information to decision-makers at all levels of government. They work on some of the most pressing long-term environmental questions in the Gulf region, from freshwater requirements for Gulf coast oysters to restoration of the Everglades. In just over 60 days, though, 30 years of effort could be lost from one short-term event with highly destructive, long-term consequences.

My comments today are intended to highlight what our people on the ground in the Gulf of Mexico region are experiencing and how those experiences can inform planning efforts so that we are more efficient, and respond faster in a coordinated way, in response to future events.

I want to assure the committee that our members will continue to work with their federal, state, and local partners to ensure that the research we conduct, and the training and education we provide, are integrated into preparedness and contingency plans at all levels of government and across the country. I also want to let you know that we recognize that what is happening in the Gulf now will most likely change our program's emphasis in the Gulf of Mexico for years to come. We will conduct careful assessments, we will secure the necessary resources, we will do the research, and we will restore the reserves while helping others in region restore the Gulf.

Our recommendations are included in this testimony and are summarized at the end.

Preparedness Planning

Nobody was prepared for an incident of this magnitude, including our members and their federal partners. While there were gaps in planning and issues of coordination have arisen and will continue to arise, our members are extremely grateful for the support they have received from federal partners at NOAA, the U.S. Coast Guard (USCG), and the Department of the Interior in particular. In a time of crisis, the level of professionalism that has been shown time and time again by our federal partners is testimony to efforts undertaken at all levels of government to improve coordination and efficiency. In particular, our members in the Gulf and I want to commend our partners at NOAA's Estuarine Reserves Division for their efforts to coordinate the reserves' response to the spill.

We have identified two key areas where we believe attention needs to be focused to ensure adequate preparedness planning is in place. First, it is clear that we need to prioritize outreach and training for responding to oil spills higher than we have. The severity of oil spills in the coastal and marine environment requires us to rethink our training priorities. This is particularly clear when weighing the severity of spills against the short time periods during which oil spills cause damage. The risks are too great not to prioritize oil spill training.

A couple of recent examples speak to the reserves' abilities to facilitate training and outreach. The Rookery Bay reserve in Florida held a workshop with the USCG for over 70 organizations and agencies working on the spill to facilitate increased coordination and training. The Rookery Bay staff was able to pull the workshop together within 48 hours because of their connections to networks of coastal resource managers in the state. In addition, our Weeks Bay, Alabama, and Grand Bay, Mississippi, reserves collaborated with the Sea Grant institutions in the region on outreach workshops for local communities. Our people know the players and their communities, and can assist agencies at all levels in training and outreach.

We need to think about opportunities for NOAA and the USCG to provide training to local and state level officials, including senior level officials, on larger scale events like this one. There are planning lessons from Department of Defense-style "all hands" drills that should become part of the way we do business in coastal management, particularly as we look more and more at the ocean and our coastal areas as ways to meet our energy needs.

Our experiences during this crisis highlight several areas where we believe better coordination between federal agencies and our staff for training can have a significant impact in the short-term:

1. *Hazardous materials (hazmat) and hazardous waste operations (hazwoper) training.* It is clear that the availability of trained hazmat and hazwoper workers has been an issue facing incident commanders. While we recognize that all spill responses are unique, some standardization will allow workers to be better prepared. The states have been struggling to figure out hazmat training requirements. It is my understanding that there is a lot of misinformation about the requirements for who needs training and for how long it has to be. It is also my understanding that this information is changing on a week-to-week or sometimes daily basis. Congress and the federal agencies need to ensure that sufficient personnel are trained—or available to provide training—on short notice in order to quickly ramp-up booming and oil recovery operations. We have the infrastructure to help our partners develop this capacity. From classrooms and auditoriums to other site-based infrastructure like storage areas and hazmat labs, many of our facilities make ideal locations for this type of training. Technical staff at the reserves already provide training programs for coastal managers, local decision-makers, and the public on a regular basis and can easily gear up for a focus on hazardous materials. Strong networks of potential clients for such training and excellent outreach capabilities exist at our reserves. We believe Congress could require that NOAA and other federal agencies take advantage of the investments already made in the reserve system and quickly generate new capacity for such training.
2. *Natural resource damage assessment (NRDA) training.* Nothing delays governmental response more than the confusion that results from a steep learning curve. As we have seen with this spill, reserve staffers and agency managers were temporarily hamstrung while they learned how the NRDA process worked. In addition to basic, recurring training on how NRDA works, NOAA needs to invest more effort and resources into providing training on NRDA sampling before a spill occurs. With limited resources and personnel, it is more efficient for such training to be done before a spill occurs, so that in the thick of a disaster, staff can be *doing* the assessments rather than *learning* how to do the assessments. Standardization of basic NRDA sampling protocols would allow sampling to begin immediately after an incident. Each day of delay in assessing resources puts information useful to the restitution process at risk. I do want to point out that an excellent web-based seminar, given each day, was developed by NOAA to guide sampling teams through data entry formats, photo and global positioning system (GPS) documentation. Due to the rapidity of the response in the early days, however, some of our first sampling crews were not able to participate in this training prior to sampling.
3. *Incident Command System (ICS) training.* Many reserve managers and staff have been deployed to the incident command center. This training would be extremely valuable to explain the incident command process and the role of each team member. There is a free online course from FEMA that should be recommended to all natural resource managers.
4. *Shoreline Cleanup and Assessment Team (SCAT) protocol training.* While some of our reserves and states are now trained for shoreline cleanup and assessment, we recognize that reserve staff and other natural resource managers should be trained in these protocols before a spill occurs.

Second, we believe preparedness requires continual improvements in coordination between all levels of government. The people who work in the reserve system understand the importance of maintaining relationships with different levels and agencies of government. Our unique model, the federal-state partnership with NOAA, requires us to coordinate with the federal government on an almost daily basis. Our role in our communities is to support local decision-making with scientific information, and we work with our county government and town councils regularly. We cannot, however, claim that we maintain relationships with every federal and local official involved in preparedness planning. For instance, Area Contingency Plans (ACPs) are developed by the USCG in coordination with county-level Emergency Op-

erations Commands (EOCs). We are not confident that each of our reserves is integrated into ACPs or known to county EOCs. We do not believe that county level EOCs regularly engage with the resource managers in coastal areas. There must be some type of incentive, or mandate, for ACPs and EOCs to integrate coastal protected areas into their planning efforts. While some of our reserves were involved to varying degrees with ACP efforts, it has become obvious that many local entities were not. This causes some local efforts to be fragmented.

Training and inter-governmental coordination are just two areas for Congress to examine as we look to improve our preparedness planning. We believe these are areas where small investments or minor policy changes can lead to significant change in a short time frame.

Contingency Planning

What we have learned from this event is that even the best processes and planning can sometimes marginalize good information. While we fully support the centralized response planning model, we recognize that the model has its limits. Plugging our people, our program, and our data into this model can be difficult.

As an example we do not believe that our principal federal partner, NOAA, is recognized for their expertise in some state-level contingency plans. The reserves are a unique natural resource. While these sites are owned and operated by the states and sometimes local governments in a networked model, NOAA has significant natural resource trust authority for reserve resources. If state plans do not account for NOAA's role in the reserves, and if contingency plans for protecting reserve resources are not well established, we believe both the federal and state partners will be limited in successfully preventing injury to reserve resources or in negotiating effective settlements with responsible parties.

Contingency planning requires the ability to anticipate what could happen and develop plans for multiple scenarios. It also requires the ability to adapt to changing conditions on the ground. Primarily, however, contingency planning requires excellent information. We now recognize that reserve management and staff have not been sufficiently plugged in to the USCG's ACPs.

As an example, reserves now generally have high resolution spatial data about critical habitats that is a significant advancement over the data we had just five or 10 years ago. We need to ensure this information is provided to the USCG and that boom deployment strategies reflect it. As the USCG makes decisions about where to deploy boom, their highest priority must be on protecting fragile coastal wetlands including marshes and mangroves. We don't think anyone will argue that the cost of restoring marshes and mangroves is exorbitant, and that such restoration is not often highly effective. By using booms to push oil to less fragile areas, incident commanders can more effectively deploy a limited number of skimmers and help ensure oil does not get into sensitive areas in the first place. Having the best scientific information available for contingency plans will reduce costs and increase success rates for restoration.

NOAA and the state agencies that manage the reserves need to ensure that the USCG regularly updates boom deployment strategies in ACPs based on the latest scientific information about our reserve resources, and also do so in consultation with local communities. We know, for example, that our reserves in Florida were actively involved in creating ACPs for the resources they manage. Staff identified and mapped boom placement locations, sensitive resources, and oil recovery locations. We cannot say with certainty, however, that all 27 reserves have had this level of involvement in ACP development. We encourage the USCG to be clearer with federal and state partners about the process for updating ACPs. We encourage these agencies to consider an annual updating process that reaches out to coastal resource managers in the reserve system and other programs. We also request that the USCG engage the right people in these tasks by working with existing networks of coastal managers and marine protected area managers to deliver information in a timely fashion. We believe there is an opportunity through the reserve managing agencies and NOAA to regularly update incident command centers regarding reserve resources to ensure that effective planning is in place before a spill happens. We recommend that NOAA develop guidelines for reserve managing agencies to coordinate with the USCG. We also recommend that NOAA and the USCG report to Congress their progress on this issue.

We believe county-level EOCs must be incentivized to engage with the coastal management community on contingency planning. We don't believe there is currently an effective mechanism to ensure this happens. Oftentimes, EOCs do not have connections with the marine protected area and coastal management networks. We believe our reserve staff can assist county EOCs in building these relationships.

Earlier I noted that contingency planning requires the ability to adapt to changing conditions. While we do have some concerns about improved coordination with the USCG, we have found that they are willing to make adjustments based on new information we develop and provide. We would like to commend them on their flexibility during this difficult time.

For short-term, highly destructive events, whether an oil spill or a hurricane, we need federal policy to strengthen our ability to react and protect the resources we have been entrusted with. As research reserves, we also need the ability to study and understand what is happening to our resources so that we can inform future scenarios and planning. Our capacity is highly limited by the lack of immediate access to contingency funds and staff. NOAA currently does not have the ability to provide significant resources to reserves to undertake contingency efforts for staffing, response, research, or restoration. We believe that Congress should consider establishing a method for NOAA to provide contingency funds and staffing to its state agency partners who manage the reserves. Several examples are described below.

With regards to this spill, we are finding that some funding for contingencies is available but that some of our financial needs are not being met. While our reserves are getting what they need to conduct NRDA hydrocarbon sampling, we believe there are funding gaps with regard to biological inventory needs. NERRA has advocated for an additional $2.5 million for wildlife assessments at the reserves. To date we have not received this funding. We recognize that the federal government or the states will ultimately be reimbursed by the responsible party, yet without dedicated funding right now to conduct the work we cannot even get these studies underway. This is particularly exacerbated by state budget crises. We are concerned that the damages assessed on the reserves will be undervalued if we do not have the funding necessary to conduct the additional survey work needed.

In addition, because these sites are managed by state governments, or in some cases by state universities, we don't have the ability to mobilize the personnel resources of the federal government like our colleagues in the National Marine Sanctuaries or National Wildlife Refuges. Reserves are among the few site-based programs within NOAA's portfolio. The agency should work with states to deploy adequate resources to these special places in time of emergency. We have no real option for bringing in colleagues with experience in oil spills from reserves in other states to assist in our efforts. There is also no current option for NOAA to assign people to our reserves to assist during events like this. We believe Congress should require NOAA to develop the interagency personnel agreements that would allow the agency to facilitate additional staffing for reserves facing large-scale events. We need this type of procedure in place as part of our contingency planning efforts.

Additionally, there are currently no resources available to our reserves for research on the oil spill, nor when significant research opportunities present themselves from other anomalous events. We believe this is a significant problem for a network of sites established specifically for research purposes. To give you an example, after Hurricane Andrew in 1993, we were presented with an excellent research opportunity to understand the impact of the storm on mangroves. Yet we had an extremely difficult time accessing funding following the event. Many research opportunities were lost that could have advanced contingency planning for future storm events. While BP has provided millions of dollars to academic research institutions in the Gulf, and will provide more, there is no current funding for research reserve staff to access for monitoring and impact research. I would also like to point out that the CZMA requires that NOAA, in conducting or supporting estuarine research, give priority consideration to research that uses the reserve system. Even if no direct funding is available to reserve staff to conduct research, we believe the CZMA requires NOAA to prioritize the use of the five Gulf coast reserves for research on this spill. We hope to work with NOAA to ensure that the agency's post-spill research plan gives that priority consideration to the reserves.

We believe there needs to be a way for NOAA to get resources to the reserves for the important contingency and research work needed in the face of dramatic events like a spill or a storm. We urge Congress to consider establishing a contingency funding mechanism for the reserve system.

Damage Assessment Planning

While the natural resource damage assessment process appears to be advancing, there are some areas where we have concerns. Our concerns should be considered in the context that this spill is, hopefully, anomalous.

Twenty years of NRDA experience following the *Exxon Valdez* oil spill has provided the states and NOAA with many of the tools to effectively assess damages to marine and coastal resources. We support a process of continual, iterative improvement so that we can generate excellent information while finding program effi-

ciencies. Right now we do not have the luxury to change course in mid-spill. But there are some initial lessons that we believe could help improve the process later.

We must recognize that NOAA does not have enough personnel to effectively manage a spill of this size. This is not a criticism of NOAA; it is just the reality of federal spending priorities developed over many years. Our people report that they have had little interaction with NOAA's office that is responsible for damage assessments. We are concerned that this will have a negative effect in the future on NOAA's and the states' ability to recoup damages from the responsible party for all reserve resources. Reserves are NOAA trust resources and the agency has a responsibility to the states to ensure that the settlement from this spill reflects the full extent of damages to these resources. We believe NOAA should be prioritizing reserves for additional attention and study.

We also must recognize that sampling is expensive. While it is convenient to think that the responsible party will pay for sampling and other assessments, the reality is that we cannot recover the lost time, the program delays, and other direct and indirect costs associated with shifting labor away from our principal activities to NRDA sampling. These are costs we will never recover. Federal policy needs to address the costs incurred by agencies during catastrophic events as part of the restitution process.

Sampling is also highly complex. NRDA protocols were established following the *Exxon Valdez* spill, but it is our understanding that they have not been thoroughly updated in about 20 years. The protocols that were originally provided for sampling were generally relevant to the biogeography of the Gulf of Mexico, but some were not. For instance, biological monitoring protocols were not sufficient for this spill. I have been told that there were no approved protocols beyond benthic invertebrate and tissue sampling. NOAA and the states need to collaborate ahead of time to establish effective biological monitoring protocols. We are concerned that the efforts now underway to refine biological monitoring and sampling protocols were not done before the spill happened; this should take place as part of the preparedness process.

Conducting proper assessments requires good information on what protocols to use, quick access to trained people and equipment, and most importantly sufficient laboratory capacity. Immediately after the spill, reserve managers and staff were asked whether they could quickly begin NRDA sampling. At that time our people had no sampling kits, no training, and were expecting oil to wash ashore within hours. We did the best we could in these conditions. It is my understanding that sampling protocols, though available on the web, were password protected. Sampling protocols made their way into our people's hands via email chains. As protocols changed, our people were left guessing whether they had the latest information on how to do the work. If our goal is to get people up and sampling in short time frames, sampling protocols must be made widely available so that state and county personnel can get the right information in a timely manner.

The lack of access to equipment also likely delayed sampling by a few days. Luckily, weather patterns minimized oil washing ashore, granting us sufficient time to get sampling underway.

Another concern is that some of the early sampling we conducted was lost due to the lack of analysis capacity at laboratories. We know that one of our reserves has had to resample some areas due to this problem. The laboratory backlog has apparently eased, but plans should have been in place to prepare laboratories much sooner. A network of third-party labs that can be immediately engaged for damage assessment analyses should be established.

Database management and quality assurance protocols should be developed and should be in place on the first day of a spill. These protocols should be designed and properly staffed for rapid implementation and deployment. While the sampling is happening and is now highly coordinated, we believe there are duplicative requirements being placed on reserve staff by having to report monitoring and sampling data to two different federal agencies through two different reporting systems. The Environmental Protection Agency (EPA) and NOAA have different responsibilities for damages arising from the spill and personnel are being asked to provide data through EPA's SCRIBE site and to a NOAA FTP site. We should do our best to create efficiencies and eliminate this additional burden on them, especially given the already long hours that are being worked in response to the spill. We are concerned that the agencies had coordinated on one data network and that this might result in some data being in one location and not the other. I have received recent information, though, that these issues are being resolved.

We also need to do a better job of integrating existing data sets into the damage assessment process. In a time of limited resources, existing data, particularly data that is acquired in a consistent manner over long-time periods, can and should be

used in NRDA. Our experience with the NRDA process to this point shows that years of baseline data we have developed are not being used. Whether it is data collected by the reserve system's long-term monitoring program or the detailed spatial data we have collected, these data needs to be integrated into damage assessments. This will require NOAA and the states to develop a plan for using and sharing these data. It will also require NOAA to update their ESI maps on a more frequent basis with data collected by the reserves and others in the coastal management community.

Finally, in consideration of the scale of this event, it is incumbent upon programs to reconsider their long-term monitoring priorities. While it may be hard for us to currently envision hydrocarbon testing as a key protocol for the reserve system's long-term monitoring program, or for the Integrated Ocean Observing System (IOOS) network for that matter, we need to consider this as an option. Congress should require both of these programs to consider adding hydrocarbon testing to their current monitoring programs. By establishing long-term trend data for hydrocarbons in the coastal and marine environment through the reserve system and IOOS, we can help reduce the burden on hydrocarbon sampling in the future. NOAA should be required to weigh the costs of these additional sampling regimes against the risks associated with major spills and the assessment process. At minimum, however, we need to be better prepared to conduct hydrocarbon testing in the event of a spill regardless of its magnitude.

Restoration Planning

Restoring the Gulf will happen, but it will take many years. As we prepare for what many are calling the largest environmental restoration effort in history, we believe there are actions that can be taken now to improve the ability of states and the federal government to ensure restoration happens in a coordinated and efficient manner.

NOAA and the administration have spent significant time over the past 18 months focused on regional ocean governance. We support this effort and believe the Gulf of Mexico Alliance could be the coordinating body for efforts in the Gulf. The alliance has the established networks and relationships, and the experience to ensure this process is carried out effectively. It will also provide the best opportunity to highlight the value of regional ocean and coastal governance, a direction that we support.

In support of regional governance, we now believe that NOAA should realign its efforts for Gulf of Mexico regional issues with a primary emphasis on spill recovery. We believe the agency needs a dedicated staff, on the ground in the region, focused on bringing together NOAA resources for the long-term recovery of the Gulf. This group needs to bring together NOAA assets like the reserves, the National Marine Sanctuaries, Sea Grant institutions, state coastal management programs, the Coastal Services Center, the Restoration Center, the National Weather Service, and more and focus on finding efficiencies and avoiding duplication. They should be given direct access to the NOAA administrator or a senior designee, have significant budgetary authority, and a clear mandate to leverage all of NOAA's resources for restoring the Gulf. The team should be focusing NOAA resources on coordinated education and training, research and monitoring, and direct restoration activities. It is our understanding that NOAA is currently coordinating regional oil spill activities through a regional fisheries service official. This will not work for Gulf recovery. Fisheries service staffers have full-time, highly visible jobs to begin with. We cannot expect them to take on this type of additional task. There needs to be a dedicated leader with a dedicated regional staff.

We also believe that the federal interagency Estuary Restoration Council, currently led by NOAA, should be charged with coordinating the interagency restoration activities that will occur in the Gulf. The council, established under the Estuary Restoration Act, can be a model for interagency collaboration and coordination on restoration efforts.

We need to ensure that all habitat restoration projects are planned to take into account the need to advance restoration science. Restoration plans must include community input and outreach, incorporate long-term monitoring, and many of the other principles identified in the report *Principles of Estuarine Habitat Restoration* by Restore America's Estuaries and the Coastal and Estuarine Research Federation. Our research reserves can provide reference sites, long-term monitoring protocols, and training for community leaders on restoration activities.

Coastal Zone Management Act

The National Estuarine Research Reserve System is authorized under Section 315 of the CZMA, which as you know, has been overdue for reauthorization since 2000.

NERRA believes this spill underscores the importance of reauthorizing the Coastal Zone Management Act and improving the reserve system. We will work with the Subcommittee to explore areas to improve the legislation so that in the event of another catastrophe, the reserve system is prepared.

Summary of our Recommendations

1. All levels of government need to place higher priority on oil spill training. Our reserves can assist in providing training through the Coastal Training Program and also provide infrastructure for other trainers.
2. Federal policy should provide incentives for, or mandate, ACPs and EOCs to integrate coastal protected areas into their planning efforts.
3. NOAA should collaborate with the reserve managing agencies/universities to develop guidelines for coordination with the USCG. NOAA and the USCG report to Congress their progress on this issue.
4. Congress should consider establishing a method for NOAA to provide contingency funds and staffing to its state agency partners who manage the reserves. Congress should require NOAA to develop the interagency personnel agreements that would allow the agency to facilitate additional staffing for reserves facing events like this.
5. NOAA should prioritize reserves for additional attention and study during and after oil spills by NOAA scientists and other researchers.
6. Federal policy needs to address the costs incurred by agencies during catastrophic events as part of the restitution process.
7. NOAA and EPA should coordinate and use one data network for NRDA sampling.
8. NOAA and the states must develop a plan for using and sharing reserve baseline data prior to spill and during the NRDA process. This will require NOAA to update ESI maps on a more frequent basis with data collected by the reserves and others in the coastal management community.
9. NOAA should be required to weigh the costs of additional hydrocarbon sampling for existing long-term monitoring programs against the risks associated with major spills and the costs of the assessment process. At a minimum, we need to be better prepared to conduct hydrocarbon testing in the event of a spill regardless of its magnitude.
10. The Gulf of Mexico Alliance should play an active role for Gulf restoration by coordinating state and local activities and working with federal partners.
11. NOAA should develop a regional office for the Gulf of Mexico charged with coordinating the agency's role and assets, including the reserves, in the oil spill recovery and restoration process.
12. The interagency Estuary Restoration Council should be given a mandate to improve federal interagency coordination on Gulf oil spill restoration.
13. Restoration plans must include community input and outreach, incorporate long-term monitoring, and many of the other principles identified in the report *Principles of Estuarine Habitat Restoration* by Restore America's Estuaries and the Coastal and Estuarine Research Federation.
14. The CZMA must be reauthorized. NERRA will work with the Subcommittee to ensure that the reserve system is strengthened, particularly in the area of preparedness and planning related to large-scale incidents like this.

Finally, Chairwoman Bordallo, Ranking Member Brown, and Members of the Subcommittee, on behalf of the more than 400 people who work at the National Estuarine Research Reserves and our many not-for-profit partners, we wish to express our condolences to the families of the Deepwater Horizon workers who lost their lives in this incident. We also want to recognize the impacts to the people of the Gulf region whose livelihoods and quality of life are in jeopardy. Our efforts to help restore the environment will draw inspiration from the strength of the families who lost loved ones and the resiliency of the people of the Gulf region. I will be happy to answer any questions you may have.

Response to questions submitted for the record by Matthew Menashes, Executive Director, National Estuarine Research Reserve Association (NERRA)

Questions from Chairwoman, Congresswoman Madeline Z. Bordallo (D–GU)

1. In addition to including reserve managers in an annual updating process of the area contingency plans, what else could be included in NOAA guidelines to ensure that reserve managers are part of the planning process?

The National Oceanic and Atmospheric Administration (NOAA) should develop spill response guidelines for the National Estuarine Research Reserve System (reserve system) that:

- Provides an understanding of the role of both the state and NOAA in spill response at a reserve, and outlining how the state and NOAA will coordinate on damage assessments, training, and restitution.
- Ensure that each reserve has a spill response plan that identifies priority or key land and water areas for protection. This requires an understanding of estuarine dynamics in each reserve and high-resolution maps, imagery and information on land use/land cover.
- Ensure reserve managers and selected staff members receive Incident Command System (ICS) training on a regular basis. This will help ensure that reserve personnel are aware of response procedures and protocols for regional catastrophic events.
- Ensure reserve managers are included as members of state-based or regional response teams.
- Require NOAA to develop capacity within the reserve system for Occupational Safety and Health Administration (OSHA) certified hazardous materials trainers who can be deployed in the event of a catastrophe. This will also require NOAA to provide the resources and personnel agreements to allow rapid deployment.
- Ensure US Coast Guard (USCG) Sector Commands have updated information (e.g. boundary and habitat maps, facilities, staffing and response capabilities) regarding reserves within their regions, similar to information provided for national parks, national wildlife refuges, and national marine sanctuaries.
- Facilitate regional networks of national estuarine research reserves, national parks, national wildlife refuges, and national marine sanctuaries to improve communication and response during catastrophic incidents. These collaborative networks can participate in regional response planning much more effectively than each agency working alone.

2. In your testimony, you state that the NRDA process has not incorporated long-term baseline data from the reserves. Can you explain why that may be and why it is important to do so?

We believe there are two primary reasons for ensuring reserve long-term data is incorporated into the natural resource damage assessment (NRDA) process. First, we believe our long-term data can help ensure that spill-affected reserves are fairly compensated for the value of losses. Second, we believe our long-term data can also help to establish baselines against which damages to nearby estuarine and coastal areas can be judged and compensation set.

The Coastal Zone Management Act established the reserve system, in part, to ensure that the nation protected biogeographically *representative* estuaries. The protections required for estuaries to gain reserve designation are intended to ensure the reserve is a stable environment for long-term research purposes to improve our understanding of estuarine functions. To support the role of reserves in improving that understanding, the federal government and its state partners have made key public investments in long-term baseline monitoring. Reserves collect a wide range of data including physical, chemical, and biological parameters designed to help define conditions required to sustain the long-term ecological integrity of estuaries. The data also increases our understanding of local anthropogenic disturbances that can result in degradation of these ecosystems. The results of reserve baseline monitoring efforts are primarily used by local and state coastal managers and researchers to inform local management and restoration actions. But they can also be used to understand regional impacts in a large scale event such as the Gulf spill.

The monitoring data we collect, plus much other detailed scientific information about reserves, provides critical information for assessing not only damages to reserve resources but also for understanding damages to other estuarine resources in a region.

Long-term data collected by reserves generally is not incorporated into NRDA efforts or planning. While there may be legal reasons, such as establishing a clear chain of custody, to conduct new sampling as an incident occurs, this should not obviate the use of the best available scientific information about reserves. The baseline data we collect at reserves is perhaps the nation's best source of long-term information about trends in our estuarine environments.

NOAA's NRDA processes could be refined to ensure that reserve science becomes an integral part of the damage assessment process. The Gulf spill has illustrated that the NRDA process should plan for spills that have a regional impact. Since we will never be able to afford long-term hydrocarbon monitoring along the entire coast, strategic investments in such sampling at reserves could provide valuable information for comparative NRDA purposes. Sensors could be pre-stationed at reserves and deployed when a spill happens, or could possibly be permanently deployed to monitor long-term hydrocarbon trends. In either case, NRDA protocols could then be developed to use the hydrocarbon data from the reserves to establish baselines for restitution and restoration.

While we are now learning that some reserve data was useful in the NRDA process and protocol development, there is no comprehensive plan for using reserve data. In addition, we are concerned that failing to use the full suite of data available at reserves may result in not having a full picture of the damage done to reserve resources, or nearby estuaries, limiting what will be recovered in the restitution process.

3. In your testimony, you advocate for reauthorization of the Coastal Zone Management Act (CZMA). What specific recommendations is your association making for a reauthorized CZMA? How will your recommendations better prepare the reserves for an oil spill of this size and complexity?

The Gulf spill has demonstrated that reserves can, and do, play vital roles in responding to catastrophic events. We must, however, increase the capacity of the reserves to support response planning and implementation.

NERRA drafted a reauthorization bill (enclosed for your information) earlier this year. Our draft includes sections that could enhance the capacity of the reserves to support planning for and response to catastrophic events. These include:

- **Development of regional networks of coastal and marine protected areas (Sec. 11).** These networks could provide incentives for coastal states and federal agencies to work collaboratively to support regional science, restoration, training and education. These networks should participate in area contingency planning and ICS training with the USCG, share site specific data through direct participation on NRDA planning teams, and facilitate HAZMAT training for reserve personnel as needed. An effective investment in regional planning includes establishing full-time regional coordinators that do not have other full-time jobs.
- **Increase the capacity of the reserves' baseline monitoring program (Sec. 5).** We now believe this should include sampling for hydrocarbons in water and sediments within regions at risk of oil spills (i.e. local or large scale).
- **Increase the capacity of the reserves' training programs (Sec. 6).** Reserve coastal training programs should have HAZMAT training capabilities, including OSHA certified HAZMAT trainers on staff. These trainers would facilitate training for federal, state, and local government agencies involved in event response.

We will be happy to work with the subcommittee to further refine these sections to ensure that the language addresses oil-spill preparedness and planning.

In addition, we now recognize two additional areas we believe a revised CZMA should address.

- **Establish a catastrophic event contingency fund for reserves and state coastal management programs.** This fund, administered by NOAA, would provide necessary funding to reserves and state coastal programs faced with immediate response needs. This fund should cover the costs of meeting demands for training, equipment and safety requirements, regional coordination, and science-based monitoring. Funds not used during a fiscal year should rollover to the next year.
- **Require reserves to incorporate better planning for hazardous oil spills into their management plans.** In addition, each state coastal management program should incorporate better oil spill planning that also includes coordination with any reserves in the state.

Ms. BORDALLO. Thank you very much, Mr. Menashes, for explaining the role that the National Estuarine Research plan in preparedness planning.

And now for our last witness this morning, Dr. Takahashi-Kelso. You can begin your testimony.

STATEMENT OF DENNIS TAKAHASHI-KELSO, EXECUTIVE VICE PRESIDENT, THE OCEAN CONSERVANCY, SANTA CRUZ, CALIFORNIA

Dr. TAKAHASHI-KELSO. Thank you. Good morning, and thank you for the invitation to participate in this hearing. I would like to thank Chairwoman Bordallo, Ranking Member Cassidy, and other members of the Subcommittee for the important work you are undertaking in response to the BP *Deepwater Horizon* disaster. The hearings you are conducting and the legislative responses you are considering are a vital part of ensuring that this human and environmental tragedy is never repeated.

My name is Dennis Takahashi-Kelso, and I am the Executive Vice President of The Ocean Conservancy. Just yesterday, I walked the oiled beaches of the Florida Panhandle with Governor Crist, and it was a haunted reminder of my time as Alaska Commissioner of Environmental Conservation in the late 1980s. Instead of a beach, I stood on the bridge of the *Exxon Valdez* mere hours after the tanker ran aground on Bly Reef. For me, that began two years of work and oversight on the spill and its aftermath, including policy reform at the state and Federal level.

As a precondition of the right to ship oil from the Valdez Marine Terminal, Exxon was required by Alaska law to formulate an oil spill contingency plan. The plan, which I approved for the State of Alaska, required sufficient response capacity for specific scenarios, included detailed maps and incorporated knowledge from fishermen and other local experts. During the real spill, however, Exxon failed to follow the approved plan.

At that time the state and Federal governments did not have the authority to wrest control from Exxon. When the company's initial response proved ineffective, state agency staff, fishermen and other local volunteers took it upon themselves to mount a separate spill response in the high priority areas identified by the approved contingency plan.

My point in telling this story is that spill response plans must not be just paper exercises. They are critical to effective recovery. Had the contingency plan been followed the response might have turned out very differently.

The question today is: How can we make sure adequate site-specific planning with balanced input from state and Federal governments is a valuable part of any future spill response? The Valdez Exxon spill provided five clear lessons about how to strengthen oil spill contingency planning.

First, to be effective planning must be linked to immediately available equipment and personnel. Major spills happen, and we must be ready for them. We need to increase minimum response capacity, require that equipment be held on site or at nearby depots, provide training for local teams, and substantially increase funding for response efforts.

Second, we must plan for true worst-case scenarios. Prior to the *Exxon Valdez*, the company resisted planning for a spill in excess of 100,000 barrels, saying it was unnecessary. The spill totaled more than twice that amount. The corner cutting that preceded the BP blowout showed a profound unwillingness to plan for a major spill.

Third, states should have a meaningful role in reviewing and approving spill response plans. These plans should be available for public review and input. Affected communities should participate in the decisions about risks that impact them.

Fourth, the Federal Government should establish regional citizens advisory councils to perform watchdog research and monitoring functions in areas that might be harmed by oil spills.

My last point relates to my first. Major spills are a certainty, even though the probability of any single event may be low. In order to respond adequately, we need better baseline scientific information. We must ensure state and Federal agencies have the resources necessary to collect the data that will provide a foundation for natural resource damage assessments and the restoration steps to follow.

Let us not forget, however, that while planning for spills is important, prevention is the real solution and, in the final analysis, the tragedy in the Gulf of Mexico highlights, all too poignantly, the need to reform how we manage our ocean and to abandon our current piecemeal approach. We need multi-objective planning that boosts interagency coordination and transparency in the trade-offs we are making between oil and gas production and other activities like fisheries, and we need to protect the overall heath of the ocean.

The President's Ocean Policy Task Force has produced a compelling blueprint for moving forward, and the Consolidated Land, Energy, and Aquatic Resources Act of 2010, released in discussion draft form this week, also includes many excellent reforms. I look forward to working with the Committee as the bill moves through markup.

Thank you again for the opportunity to testify.

[The prepared statement of Dr. Takahashi-Kelso follows:]

Statement of Dennis Takahashi-Kelso, Ph.D., Executive Vice President, The Ocean Conservancy, Santa Cruz, California

Good morning, and thank you for the invitation to participate in this hearing. My name is Dennis Takahashi-Kelso, and I am the Executive Vice President of Ocean Conservancy. My career includes diverse roles in natural resources management and environmental protection over several decades, much of it in Alaska. As Alaska Commissioner of Environmental Conservation when the tanker *Exxon Valdez* ran aground, I was the governor's cabinet officer responsible for enforcing the state's oil spill clean-up standards. For two years, I worked on the spill and its aftermath, including policy reform, in both the Alaska Legislature and in Congress.

What we are currently witnessing in the Gulf is a human and environmental tragedy. I would like to thank your subcommittee, Chairwoman Bordallo, for the important work you are undertaking in response to the BP *Deepwater Horizon* disaster. The hearings you are convening, and the legislative responses you are considering, are a vital part of ensuring that a disaster of this magnitude is never repeated.

This subcommittee has requested testimony on coastal state planning for offshore energy development and whether current planning efforts are adequate to ensure an effective, coordinated spill response. In particular, you requested consideration of whether planning efforts are adequate for large, complex spills, such as the BP *Deepwater Horizon* disaster; whether these planning efforts are sufficiently well-co-

ordinated among governmental agencies and levels; and what resources might improve oil spill planning, logistics, response, and recovery.

In addressing those questions, I will first discuss my own experience in Alaska during and after the *Exxon Valdez* spill and review some of the lessons learned from that disaster. The *Exxon Valdez* spill underscored that it is essential for states to ensure adequate planning for spill response, and I will discuss ways in which this planning and response process can be improved. Finally, the BP *Deepwater Horizon* disaster has made it even clearer that prevention is absolutely critical. I will explain how the current ground rules governing oil and gas development need comprehensive reassessment and revision, within a context of improved ocean governance, and how those changes would improve the ability of states to reduce the risks of major oil spills and ensure better response preparedness.

Lessons learned from *Exxon Valdez*

When the *Exxon Valdez* grounded and ripped open in Alaska's Prince William Sound, it spilled 11 million gallons of crude oil, about 20 percent of the tanker's cargo. As a precondition of shipping oil from the Valdez Marine Terminal, state law required a site-specific oil spill "contingency plan," and Exxon's approved plan addressed a hypothetical event that turned out to be of the same order of magnitude as the actual spill. The plan laid out the response capacity required of the shipper along with detailed maps, as well as other specific information drawn from fishermen and other local experts. When the spill occurred, however, Exxon's designated spill response agent, Alyeska Pipeline Service Company, did not carry out the actions described in the response plan. After about 24 hours, Exxon mobilized its own spill response, but without many of the site-specific features and other requirements of the state-approved plan. Under the applicable law—prior to passage by Congress of the Oil Pollution Act of 1990—the spiller had the right to maintain control over the spill response and the US Coast Guard had only limited authority to displace the company's control. Because the spill was in waters subject to federal jurisdiction, the state was not in a position to direct Exxon to implement the requirements of the approved plan. When Exxon had difficulty carrying out an effective response during the first several days of the spill, state agency staff, fishermen, and other local volunteers, mobilized our own spill response that targeted high priority areas identified by the approved oil spill contingency plan.

Ultimately, the spill oiled at least parts of more than 1200 miles of shoreline—roughly equivalent to the distance from Massachusetts to North Carolina—and resulted in closures of salmon and herring fisheries, as well as economic losses to the tourism industry and other severe community impacts. Although most intensive during the first summer after the accident, the spill response extended over three years; and the damage assessment and restoration efforts continued for several more years. Now, 21 years later, recovery is well underway but not yet complete.

Lessons learned from *Exxon Valdez* include:

- **Prevention must be paramount**. Once a large amount of oil is in the water, damage is inevitable and removal of the spilled oil is difficult. Consequently, prevention must be our top priority. To achieve prevention, statutory and regulatory standards must be high, application and enforcement of those standards by government agencies must be diligent, and incentives must be aligned with prevention. In the case of oil transport, states have some, but limited, authority; the primary responsibility lies with the US Coast Guard. The Oil Pollution Act of 1990 made substantial improvements in some prevention measures, such as requirements for double-hulled tankers. While tankers still pose a sizable threat, we need to ensure oil spill response plans and states can both address current threats and adapt as new technologies and techniques pose different challenges and risks.
- **In a major spill, the spiller should not be in control of the response**. At the time of the *Exxon Valdez* spill, the spiller had the legal right to direct and maintain control of the spill response. As a result, Exxon could simply substitute its judgment for that of government officials who had first-hand knowledge of local conditions; there was no effective recourse under the law as it then existed. The federal Oil Pollution Act of 1990 improved the situation by enabling the government to federalize spill response efforts, direct the responsible party's spill response efforts, or merely monitor the responsible party's spill response efforts.
- **The Natural Resource Damage Assessment and Restoration phases are crucial**. The assessment of natural resources damage and associated injuries as articulated by the Oil Pollution Act of 1990 is not only a key element in establishing the spiller's liability, but also in laying ground for long-term restoration. In the *Exxon Valdez* spill, little baseline information existed on

which to assess damages. Even in the Gulf of Mexico, the baseline is limited. It is essential that studies begin immediately, even as the emergency response is proceeding, in order to provide that key foundation for a full assessment of injuries. The spiller should pay all costs of the Natural Resource Damage Assessment, including the costs of gathering and synthesizing baseline data; and it should not fall upon the government agencies to "front" those costs from their budgets, even if the expenditures are later reimbursed. Restoration efforts will necessarily take years, and monitoring should be ongoing for decades.

Policy changes following the Exxon Valdez spill

The *Exxon Valdez* spill spurred changes in both state and federal legislation governing oil spill prevention, preparedness, and response as they began to address some of the lessons learned from the spill. During the year following the *Exxon Valdez* spill, the Alaska Legislature began to strengthen the requirements for oil spill contingency planning. In many ways, the new legislation was a model of how a state can protect its citizens through better spill response preparedness. These changes substantially increased minimum response capacity, required equipment to be available on-site or in nearby equipment depots, called for training of local response teams, increased the size of the oil and hazardous substance response fund, and made other significant improvements. The situation in Alaska illustrates how important it is to have a stable triangle of protection: state response and preparedness standards; federal regulation of activities beyond state jurisdiction, for prevention and response; and strong watchdog functions carried out by residents who know the area and are exposed to the risks. In this way, the affected public and the ocean ecosystems on which communities depend are more likely to be protected than if they rely solely on state or federal authorities.

The most important federal legislative change was passage of the Oil Pollution Act of 1990 (OPA 90), which introduced several critical reforms, including technical standards, improved response planning, funding for research and development, and liability and compensation requirements. Under OPA 90's amendments to the Clean Water Act, the federal government may respond to a spill event by "federalizing" the spill and engaging directly in the cleanup, monitoring the responsible party's cleanup efforts, or directing the responsible party in implementation of the response. 33 U.S.C. § 1321(c)(1)(B). These changes have made it more likely that the relevant contingency plans would be properly carried out during a major spill. The state's role is limited, however, because the federal government retains authority to decide when cleanup is complete.

OPA 90 also expanded the role and breadth of the National Contingency Plan (NCP) and linked the NCP to area and regional plans—a multi-layered planning and response system intended to improve spill preparedness and response effectiveness by combining the site-specificity of plans formulated by Area Committees and states with the consistency of the NCP and regional plans. OPA 90 also includes a requirement for establishing procedures and standards for responding to worst case oil spill scenarios. 33 U.S.C. § 1321(d)(2)(J).

While OPA 90 made several significant improvements and addressed critical gaps in spill response plans, it did not resolve all the issues related to exploration and development of oil and gas resources, nor to planning for, response to, and remediation of spills. Three problems undercut the effectiveness of this approach. First, the adequacy of planning efforts and other legal requirements depends substantially on the ability to mobilize and sustain an emergency response. That is, the nested plans in the NCP array, no matter how thoughtfully conceived, can be effective only if equipment and personnel are deployed immediately in response. The actual location of these resources, not the contractual arrangements to get them, is crucial and may be a weak link. Second, a "worst case" is often difficult to pursue when the key government agency— Minerals Management Service, in the case of offshore drilling—insists that the risk is "insignificant." In another example, Exxon resisted Alaska's efforts to require contingency plan scenarios for spills in excess of 100,000 barrels; the company said that such a scenario was unnecessary because its modeling indicated that a spill of that magnitude would happen only once in 241 years. The *Exxon Valdez* spill exceeded 250,000 barrels. Achieving a meaningful "worst case" spill planning scenario will always be difficult, and planning only for less severe spills will leave residual risk that is not addressed. Third, for a state to be effective, it needs to have the capacity to enforce its plan and participate simultaneously in the Natural Resources Damage Assessment, which must start almost as soon as the emergency response begins. This level of engagement, immediate and long-term, is both expensive and technically demanding. Few states have the staffing and technical support to sustain it without external funding and other resources.

In the intervening decades, as both the complacency of the public and the political influence of the oil and gas industry have grown, these standards have been repealed or severely weakened. There are a number of areas in which OPA 90 can and should be improved in order to help coastal states address potential impacts of oil spills on their shores.

Oil spill response plans must address spill events of very large size, must be site-specific, and must be tailored to local conditions. The federal government should provide both funding and logistical assistance to states to ensure their plans include improved baseline data to better understand potential impacts, a clearer role for public review and better standards to ensure response plans can be fully executed in the event of a spill.

Improved baseline data

Increased funding for science and response efforts is needed for states to fully understand the potential impacts on the local ecosystem from a large-scale spill and how best to respond to a spill given these ecological conditions. Baseline scientific data are critical to ensure that the response and clean up are appropriate, and are also an important foundation for a Natural Resource Damage Assessment. This information can and should guide the type of response efforts the states should require in clean up plans. Annual funding is needed to support a comprehensive program of research, monitoring, and documentation of local and traditional knowledge. That work would assess and monitor populations of principal species in the ecosystem and the biological and physical factors that affect their abundance and distribution; construct and maintain an updated quantitative food web model; identify sensitive species and important ecological areas; and enhance understanding of temporal and spatial variability within ecosystems.

It may be possible to provide funding to fill these needs with minor changes to OPA 90, 33 U.S.C. § 2701, *et seq.* OPA 90 authorizes certain uses of the Oil Spill Liability Trust Fund, which holds revenue from a per-barrel tax on oil production. 33 U.S.C. § 2712. With minor changes, OPA 90 could provide funds to the National Oceanic and Atmospheric Administration (NOAA) and U.S. Fish and Wildlife Service or other agencies to conduct the necessary science and to the US Coast Guard to identify and implement the necessary precautions. It is important to provide the public with access to data and other information. Congress should guarantee public access to information gathered after a spill and as part of the research and planning process.

Strong Standards for Response

In the case of the *Exxon Valdez* spill, unlike the BP *Deepwater Horizon* disaster, the size of the maximum possible spill was clear: it could not exceed the total cargo carried by the vessel. As a result, planning for a "worst case" spill was more straightforward. Although a site-specific plan—as required by state law—was pre-approved and in place, the failure to carry out the plan resulted in the loss of valuable time and a less effective response. In order to be deployed quickly, equipment and personnel must be either pre-positioned near potential spill sites or quickly mobilized from nearby locations that actually have those resources on site. Spill response plans, of which Exxon's plan is an example, rely upon contracts with spill response companies or regional consortia. Delays in mobilization of an effective spill response may result from the lack of actual capacity in the area of the spill. To be effective in an emergency, response capability must be mobilized immediately, and if the response plan calls for contractors to provide the equipment and workers for the response, actual capacity needs to be demonstrated ahead of time. Equipment must be based in the near vicinity of potential accidents, and trained teams of responders must be available in-region to operate the equipment in accordance with the pre-approved plan.

We need to ensure that companies have considered the worst case scenario and have the resources and infrastructure to fully execute their response plans. The plans may be very good, but they are blueprints for response, not actual spill response capacity. Plans must link with other providers of response equipment and personnel. The amount of equipment and its location is crucial to whether the plans can actually make a difference if a spill actually occurs.

Public Review and Participation

In addition, spill response plans, as part of exploration or development plans, are intended to be available for public review—a key way in which affected communities can participate in the decisions about risks that affect them. States should develop a specific process to ensure the public has access and input to the plan. Exploration and development plans are generally approved "conditionally," pending development of a spill response plan subsequent to the approval. There is no specific public re-

view process for the plan. Consideration should be given to developing such a process, or, more broadly, to avoiding conditional approvals. Any public process around spill response plans should also require that MMS respond to public comments, questions, and input specifically, rather than simply issuing an approval with standard, vague language stating that the agency concluded the plan met statutory and regulatory requirements.

Lastly, the federal government should establish Regional Citizens' Advisory Councils (RCAC) for regions that could be impacted by oil spills. One area of OPA 90 that has proven to be particularly useful is the establishment of RCACs specifically for terminal and tanker oversight and monitoring in Alaska. Essentially, RCACs offer the opportunity for local residents to perform a watchdog, research, and monitoring function. Duties of the RCACs include providing advice and recommendations on policies, permits, and regulations; monitoring environmental impacts and operations and maintenance of facilities; and reviewing adequacy of spill prevention and contingency plans. The RCACs are also allowed to review scientific research and to conduct their own studies. According to Boston College Law Professor Zygmunt Plater, an expert in oil and gas regulatory policy, the original OPA 90 language proposed RCACs for areas of oil and gas development outside of Alaska, but this language was removed from the bill due to political pressure from the oil and gas industry (National Public Radio interview, June 17, 2010). Establishing one or more RCACs in the Gulf of Mexico could help Gulf states and local communities maintain ongoing oversight of oil and gas operations in the Gulf. It would be important to ensure that the membership of RCAC included persons who in a position to play a watchdog role.

Policy Reforms to Focus on Prevention and Minimization of Risk

As we saw with the *Exxon Valdez,* where no more than 10 percent of the spilled oil was actually cleaned up—and as we are now seeing with the tragedy in the Gulf—prevention is far more effective than is response. The BP *Deepwater Horizon* disaster demonstrates vividly that our nation's approach to oil and gas activities on the Outer Continental Shelf (OCS) is fundamentally flawed. In the case of oil and gas drilling, the primary government authority lies with the Minerals Management Service (MMS); and substantial changes to federal laws are needed to establish new standards for its decisions. The standards and procedures applicable to these government agencies must define effective roles for the states to play in preventing spills. Beyond changes to OPA 90, other regulatory reforms are needed to prevent or address disasters like the BP *Deepwater Horizon* blowout. The federal agency responsible for oil and gas activities on the OCS, the Department of the Interior's MMS, has proved incapable of effective planning, regulation, and oversight. Federal statutes governing oil and gas activities on the OCS do too little to ensure that coastal and ocean ecosystems—including living coastal and marine resources and habitats—receive adequate protection. As Congress acts to develop a legislative response to the events of this disaster, we urge you to act on the following five priorities to reform OCS legislation.

- **Reform the Outer Continental Shelf Lands Act (OCSLA) by adding substantive standards to adequately protect ocean health and coastal economies.** In planning and administering OCS oil and gas activities, existing law requires MMS to balance oil and gas development with protection of human, marine, and coastal environments. In practice, however, MMS prioritizes resource extraction, often at the expense of these other concerns, as demonstrated by the current spill. Congress should change the statute's mission to place a greater emphasis on protecting ocean health. OCSLA should allow oil and gas activities only when it is proven such activities pose minimal environmental risk. In addition, Congress should add substantive standards to OCSLA to ensure protection. For example, before an area is opened to oil and gas leasing, there must be a threshold level of baseline science to inform decision-making. Similarly, OCS planning efforts must identify and protect important ecological areas to minimize the potential for environmental harm. Congress should prohibit the sale of oil and gas leases in an area unless and until operators have demonstrated their ability to respond effectively to an oil spill in real-world conditions in that area. Congress should also impose more rigorous standards to ensure that OCS facilities are equipped with the best available technology and safety equipment.
- **Fix the planning and leasing process to ensure robust environmental review, enhance transparency, and allow for community input.** MMS must no longer be allowed to use the segmented nature of the OCSLA process to avoid rigorous analysis under the National Environmental Policy Act (NEPA) and other laws. OCSLA should be amended to impose specific re-

quirements for environmental analysis at each stage in the process and require full, site-specific analyses of exploration and production as early as possible. Planning and leasing activities for oil and gas development need to proceed at scales that allow for meaningful environmental review with ample opportunity for community input and inclusion of local and traditional knowledge. Congress should require five-year leasing programs to be more precise in identifying the portions of planning areas that will be open to oil and gas leasing by, for example, placing an upper limit on the percentage of a planning area that may be included in any one five-year leasing program. Alternatively, Congress could require MMS to focus individual lease sales on specific lease tracts, rather than offering enormous portions of planning areas. In order to facilitate more rigorous NEPA analysis, Congress should also eliminate the 30-day deadline under which MMS must approve a "submitted" exploration plan. Furthermore, natural resource and environmental agencies should have a greater role in providing baseline science and influencing decision-making about oil and gas activities off our coasts. In particular, NOAA and Interior agencies, such as the US Fish and Wildlife Service, should play key roles in deciding which areas will be available for leasing, and in preparing environmental analyses in support of oil and gas leasing decisions.

- **Restructure the agency responsibilities for oil and gas planning, leasing, and oversight**. MMS lacks the expertise and institutional interest in broad ocean issues and has proven to be unable to assess objectively and accurately the potential risks of OCS drilling. Restructuring MMS should fully address conflicts between the revenue generating, planning, and environmental and safety enforcement responsibilities of the agency. In addition, expert agencies beyond MMS, such as NOAA and the US Fish and Wildlife Service, should have a much greater role in decisions about OCS oil and gas activities and preparation of environmental analyses surrounding them.
- **Hold oil companies and other responsible parties accountable for paying for clean up and damages associated with oil spills.** The current $75 million cap on liability should be removed in order to hold companies like BP responsible for their actions and ensure that oil companies, not taxpayers, are forced to clean up after their mistakes.
- **Direct funding from oil and gas activities to protect and restore ocean and coastal resources, increase our ocean knowledge, and develop our capacity to respond to and recover from oil spills.** Oil companies make billions of dollars while putting our ocean ecosystems and coastal economies at risk. A portion of the revenue from these activities should be permanently available to protect, restore, and maintain our ocean and coastal resources and be provided in such a way that it does not incentivize new drilling activity. In addition, as efforts over the last two months have demonstrated, our ability to respond to oil spills and reduce environmental harm is limited by the state of our ocean and coastal science and technology. Additional resources should be provided to better understand our coastal and marine environment and improve our ability to safely and sustainably operate there. Last year this committee held hearings on H.R. 3534 the Consolidated Land, Energy, and Aquatic Resources Act of 2009, which would establish an Ocean Resources Conservation and Assistance Fund. We strongly support the establishment of this type of permanent funding for ocean conservation, science, and planning.

The Bigger Picture: Healthy Oceans Matter

More broadly, this disaster is only the most dramatic example of the threats facing our ocean. Habitat destruction, ocean acidification, marine debris and coastal runoff are among the many threats to the health of ocean ecosystems. The tragedy in the Gulf of Mexico highlights poignantly why healthy oceans matter – not only for fish and marine wildlife, but for coastal economies that rely on healthy fisheries and clean beaches. In addition to enacting specific reforms to the statutes that govern oil and gas development, we must reform our overall approach to managing our oceans.

In part, the threatened state of our ocean is due to the sector-by-sector management of diverse uses. Sector-by-sector management has led to serious conflicts among users. In the case of the *Deepwater Horizon* disaster, a single-minded focus on natural resource extraction with only cursory consideration of potential impacts to ecosystem health or other ocean uses created conditions in which safety, environmental reviews, preparation, safeguards, monitoring and oversight, and response capabilities were all inadequate.

We rely on our ocean and coasts to provide much more than just oil and gas. Decision-making based on a detailed review of only one sector, or only one use, is insufficient. As we increasingly look to our oceans to provide food, energy, transportation, and recreation, we need better coordination and a more complete approach to planning and risk management. We also need to prioritize ecosystem health, because we cannot afford to lose the critical ecosystem services that only healthy ecosystems provide. Many of these recommendations are incorporated in the presidentially established Interagency Ocean Policy Task Force's (IOPTF) draft recommendations on National Ocean Policy (NOP) and coastal and marine spatial planning (CMSP).

A strong NOP that implements ecosystem-based management and establishes protection, maintenance, and restoration of ocean and coastal ecosystems as the foundation for federal management—if mandatory and properly implemented—would protect ocean wildlife and habitat from harmful development, reduce impacts on sensitive and special areas, and help to build ecosystem resilience. It would also help balance resource extraction and ecosystem protection, ensuring careful consideration of the potential impacts of oil and gas activities on the marine and coastal environment, other ocean uses, and ecosystem health and resilience. Protecting important ecological areas and limiting hazardous activities would safeguard wildlife populations, promote healthier estuaries and watersheds, and reduce the likelihood and cumulative impacts of catastrophes like the disaster in the Gulf of Mexico.

Coastal and marine spatial planning, used to implement a strong NOP, could provide several key benefits that could prevent the conditions that led to the BP *Deepwater Horizon* disaster. CMSP would facilitate interagency coordination and decision-making and would allow other expert agencies to have increased input on, or authority over, decisions about oil and gas activities. This process would result in a foundation of baseline scientific data that facilitates science-based management, help identify future use or management problems, and promote smarter, more sustainable uses. Implementation of the IOPTF recommendations would also provide for increased public input into decision-making, including from local communities, other ocean users, and non-governmental organizations.

Additionally, having in place a multi-objective plan and an established agreement on management goals can help when emergencies such as oil disasters or hurricanes occur. Preparing for and working to prevent impacts from extreme weather events, commercial use and development, or industrial disasters is an integral part of CMSP. Better oversight and enforcement can help prevent disasters; better planning, preparation, and coordination can help minimize the impacts of those that do occur. While a national ocean policy using CMSP has not yet been finalized, Congress can craft new legislation or amend existing statutes in ways that would both set the stage for and align with CMSP processes.

While none of these changes could guarantee that we will never have another oil spill disaster, taken together they could ensure that we will not have one of this magnitude and complexity before we have fully understood and accounted for the risks involved.

Ms. BORDALLO. Thank you very much, Dr. Takahashi-Kelso, for your valuable input on this subject matter, and I will now be recognizing members of the Subcommittee for any questions that they have to ask those that have testified, and I will begin with myself. I have a couple of questions here for Dr. Walker.

BP has pledged $500 million to fund the Gulf of Mexico research initiative. How much of this funding would the alliance like to receive, and how would you prioritize it?

Dr. WALKER. Thank you, Madam Chair.

Our Governor has been clear that he would like for the alliance to receive as much of that as possible. About 25 million has been given out already to the States of Florida, Mississippi and Louisiana. We would suggest that the bulk of the remaining funds be provided to the Gulf Alliance so that those funds can be controlled by the Governors of the states that are most affected by this event.

What we would do is pull together a select group of scientists from universities, from Federal agencies, from NGO's, from the Coastal States Organization, from folks that are knowledgeable

about this and have been working in the Gulf for years and years, ask them to help us develop the scope of the research, remediation and restoration program that needs to take place, and then help us determine the actual process of an RFP or some other ways to actually select and provide support to the teams of scientists that would actually do the work.

Ms. BORDALLO. Another question, does the alliance's network of scientists have the expertise and capacity to conduct research to understand the fate and the impacts of the oil and dispersants on the environment and the resource-dependent industries?

Dr. WALKER. Yes, ma'am. Absolutely we do. Many of the research teams that are out in the Gulf even now looking at the oil spill and the dispersed cloud of oil that is below the surface are Mississippi scientists. They are from places like the Stennis Space Center, LUMCON, and the southern South Florida Research Institute, but we are not suggesting that no expertise outside of the Gulf states would be sought. Certainly there is expertise at many other places in this country of outstanding scientific minds that we would certainly bring to the table to respond to this situation. Thank you.

Ms. BORDALLO. Very good. Ms. Fletcher, you recommend that Congress extend the 30-day review period to allow for CZMA state agencies to conduct Federal consistency reviews. Now, what would be an adequate review period and why? And should this apply to all proposed actions or apply to just proposals for offshore energy?

Ms. FLETCHER. Thank you, Chairwoman.

The review period right now at 30 days is simply not adequate. In reaching out to the states in preparation for this testimony, many states weighed in at a six-month mark, that that would give the states the ability to go through a consistency review that would give them the information that they need. Also, the tool of consistency is one that allows communication both ways, and so there is communication back and forth, and that is really what consistency is about.

Ms. BORDALLO. Thank you, and I have one last question for Mr. Barton. Do you think that the Jackson County emergency operations command has fully engaged with the managers at the Grand Bay National Estuarine Research Reserve with regard to oil spill contingency planning, and has the environmental information gathered by the Grand Bay Reserve as part of the systemwide monitoring program been utilized for this purpose?

Mr. BARTON. I am not sure that I know that total answer. I know that there is communication that has been going on. They have a great relationship between the folks at the Grand Bay and our emergency operations folks, and so there is a good relationship there. Exactly how much of that data is being passed back and forth? I couldn't really answer that question.

Ms. BORDALLO. Thank you. Would there be any way that you could get some information on that and provide it for the Committee?

Mr. BARTON. We actually have our emergency operations guy here with us today, he is sitting behind me. He says the data is being made available both ways.

Ms. BORDALLO. Very good. Mr. Menashes, in your testimony, you make recommendations for improved training for oil spills. If there

is one area where you would improve training right now, where would that be? And is such training within the mission and purposes of the National Estuarine Research Reserve System?

Mr. MENASHES. Thank you, Chairwoman.

Yes, the training is within our mission. This is also an area where we are hoping to see as part of the reauthorization of the Coastal Zone Management Act additional emphasis placed on training within the reserve system. We believe the area where we can provide the most immediate impact on oil spills is within our DA training and working with our partners at NOAA and the offices at the agency to develop tools for our people, whether they be in the Gulf of Mexico or on the Atlantic or Pacific coasts, to be able to gear up very quickly and provide training where NOAA staff cannot because they are involved in other activities. So we think NRDA training is probably an area where we can provide quick impact.

Ms. BORDALLO. Thank you very much, and now I would like to recognize the gentleman from Louisiana, Mr. Cassidy, our acting Ranking Member of the Subcommittee.

Mr. CASSIDY. Thanks to all the witnesses because I feel like each of your comments illuminated my understanding.

Mr. Barton.

Mr. BARTON. Yes.

Mr. CASSIDY. This is obviously about—you mentioned communication. I have found that the absence of communication is the root of the fights in my marriage, so I can imagine that it has a role here too. Clearly, the folks along coastal Louisiana, the local officials have been frustrated about the absence of coordination, the absence of a decision chain where they could find one person that would say "Yea" or "Nay" to a proposal. But it appears your experience is different. Can you give me a sense of why that difference might be there?

Mr. BARTON. Well, we have certainly had some frustrations as we have worked our way through this ourselves. You know, as I said earlier, we have had many hurricanes, the last one certainly being Katrina, and working through that process we—of course, working through the Stafford Act and there are some specific things there, but the process actually worked fairly well there in terms of the NIMS process and the command process, incident command, unified command, and so forth. That is not to say that communications was always real good from the top to the bottom or the bottom to the top.

Now, the communications issue has been an issue with us even through this event, and part of the problem has been through no fault of any one specific person or group, it is just that, as I said in my written testimony, the unified command has a fairly large area that they are trying to coordinate all the activities in, and so when it is that spread out, and we are getting bits and pieces, for instance, if there is oil coming up south of the islands, as it is today, we know that there is a tripping point, we know there is a point at which there is going to be a response.

The local folks though, the local elected officials, many times may not know and may not hear exactly when something is going to happen, so there is a little bit of a disconnect there, and sometimes

it takes longer to get specific things, and that is why I say this communication is so important because the local people, they expect the people they believe they have elected to manage those things locally are supposed to know the answer, and that is very difficult thing to get.

Mr. CASSIDY. Well, there seems to be a disconnect between the knowledge base, which I think is stronger among the locals, and the power to deploy assets, which is Federal. Now obviously communication, communication, communication. What would be a specific example of how we could say, heck, like Billy Nungesser, go to Plaquemines Parish. We saw oil going past a rig. We called and said oil is going past a rig on Tuesday. Thursday morning somebody was sent out there to look at the oil going past the rig.

Mr. BARTON. Right.

Mr. CASSIDY. By that time it is approaching the beach. So there seems to be a lag time. Is there anything more than——

Mr. BARTON. The one thing I would say, in our particular case, we had a lot of experience with hurricanes, and so a lot of the people that are at the table have been at the table many times. They all know each other. They have dealt with each other.

Mr. CASSIDY. So relationships.

Mr. BARTON. There are a lot of good relationships there.

Mr. CASSIDY. And that helps.

Mr. BARTON. And if I have a question, I will pick up the phone and call Bill Walker.

Mr. CASSIDY. Right.

Mr. BARTON. OK. I mean, if it is that important that I get an answer right now, then that is what I would do, and so those relationships are there.

Mr. CASSIDY. So several of the folks have suggested that there needs to be kind of an infrastructure of response, if you will, but part of that infrastructure is to allow those kind of informal relationships to allow an expeditious response, kind of?

Mr. BARTON. Yes.

Mr. CASSIDY. And let me move on because I am about to lose time.

Ms. Fletcher or Mr. Kelso, I am sorry, I cannot take a crack at your middle name, I apologize.

Ms. BORDALLO. Takahashi.

Mr. CASSIDY. Takahashi, I apologize. It seems like education. I mean, a spill of national significance exercises should address this lack of coordination that both of you decry. If it really works, then everything the two of you suggested seems like it would be brought to bear. Does that make sense?

Dr. TAKAHASHI-KELSO. Thank you, Mr. Cassidy.

The structure that exists now does, in theory, build in local knowledge and the relationships that will allow a spill of national significance to have a response that is grounded in real information, as Mr. Barton was just describing, and also has the kind of command structure that allows a major spill to have a response. So here is what I would suggest. I think this is directly responsive to your point.

It is really important for the area committees at the local level to have a spill response plan that builds into it those plans that

are specific to facilities; that is, you need something that is really site-specific. The time to build in local knowledge is right at the outset. And then the regional response team and its regional plan, the national contingency plan, you need to incorporate those, and the reason for that is that when there is a spill you don't have time to invent that piece. You have to have it ready to go, and assuming that it is a spill of national significance, as in this case, then the Coast Guard commander can implement directly the spill response that already has that local and state input. So the communication, the relationships, the on-the-ground content need to be built in right from the outset.

The reason I emphasize that is the facility-specific plans should have direct information about what is on site, what can be mobilized within two hours, what takes half a day, what can be there the next day. That kind of specificity you don't find in the larger nested plans, and that is why you have to have it at the beginning, and you have to have it built in so that the national plan actually carries it out.

Mr. CASSIDY. Ms. Fletcher, would you add anything? Actually, can you hold because I am out of time, and the Madam Chair is being very indulgent. I am sorry, go ahead.

Ms. FLETCHER. I don't have a lot to add to that, but I would agree that the information does have to go in at the outset, and we have other authorities, and the Coastal Zone Management Act is one of those that allows for the gathering of that information and allows for both the states as well as the communities to be putting in that information.

I think the other example is our Chair is actually here in town this week from New Hampshire, and New Hampshire has been doing these type of cooperative arrangements in terms of bringing the industry, as well as the state agencies, together and they actually have a Canadian input into that as well. So there are opportunities there for some industry and state cooperative arrangements that can help to develop those relationships that Mr. Barton was discussing as well.

Mr. CASSIDY. Thank you. I yield back.

Ms. BORDALLO. I thank the acting Ranking Member of the Subcommittee, and now I would like to recognize the gentlelady from California, Ms. Capps.

Ms. CAPPS. Thank you, Madam Chair, and thank you for your testimony, each of you.

It is clear that an oil spill of this volume, scale and duration was never fully contemplated by state or regional responders. The complexity and magnitude of this ongoing spill has highlighted the need for extensive ocean observing network that can be immediately activated in the event of a spill. This ocean observing network, including satellites, buoys and underwater gliders, should be coordinated at the state and regional levels to provide pre-spill assessments and real time forecasts that guide the work of responders. That is the impression I am getting from you all as well.

Dr. Walker, this first question will be to you. I am advocating for more money for the Integrated Ocean Observing System—I guess it is called IOOS—and calling attention to the utility of a fully operated ocean observing system throughout the nation. Dr. Walker,

do you feel that having a robust IUs or an ocean observing system in place is important in situations like this one in the Gulf for providing data on things like oil concentration and transport with ocean currents?

Dr. WALKER. Absolutely. We are working with the State of Mississippi as well as the Gulf of Mexico Alliance is working very hard with Dr. Nolans out of Texas that sort of chairs the IOOS group. We have membership from all of the Gulf states are involved with that group. They are active in the Gulf of Mexico Alliance organization and activities, and they are a critical part of our habitat integration and assessment team within the Gulf Alliance.

So, any help you can provide to help provide support for IOOS and the other IOOSs around the country would be greatly appreciated. Thank you.

Ms. CAPPS. Thank you. I appreciate that you are highlighting both the state's responsibility but also a regional network that you have.

Ms. Fletcher, the Coastal States Organization is the topic now. In your testimony, you suggest that states should review and provide oversight of offshore oil and gas operations. This makes sense. In California, the Coastal Commission has not had the funds or the staff to implement its own inspection program of offshore drilling. Therefore it relies on MMS inspections. Can you provide the Subcommittee specific recommendations to provide for state and local agency participation in such inspections?

Again, I am honing in on the ability of local and even state input but sometimes the funding is not there to have the adequate staff.

Ms. FLETCHER. Yes. We actually had a conversation with the California Coastal Commission before testifying today, and they indicated that was one of their greatest challenges. The ability to rely on firsthand knowledge as opposed to the Federal agency reports is going to be critical in bringing to bear the state knowledge, the county's knowledge. They were giving me examples of the expertise at the Santa Barbara County level as a result of the oil spill that they deal with——

Ms. CAPPS. Yes.

Ms. FLETCHER. So to be able to bring that kind of knowledge into the forefront will also help that Federal report to be more thorough. It can be more of a partner-created format, and that report ultimately will be more effective.

Ms. CAPPS. Thank you. Now, Manly Barton, would you offer your perspective? Do you have recommendations to provide for local participation in inspections?

Mr. BARTON. On the inspection side?

Ms. CAPPS. Or participation in general.

Mr. BARTON. Well, participation in general, and that is one of the reasons we talked about in this response in the NIMS process. It kind of brings that back to the state level where the local input, as has been mentioned here today, is very important because they know what their needs are, they know what is there.

Ms. CAPPS. Right.

Mr. BARTON. They know how to protect what needs to be protected, and that was one of the reasons we had indicated that we would like to see that because we believe if it is brought back to

a state level, then the local community would be more involved in the entire process.

Ms. CAPPS. Thank you. Dr. Kelso, in California following the 2007 COSCO Busan spill, NOAA used data regarding currents to create oil spill trajectories using real time conditions. From your perspective as a scientist, why is it important to provide Federal funding for the integration and continued operation of IOOSs?

Dr. TAKAHASHI-KELSO. Thank you. It is crucial that the response be tailored as tightly as possible to what is actually happening and what is going to happen in the near term and, for that to be effective, it requires a fair amount of good science ahead of time and the kind of modeling that predicts the trajectory. That way you can move equipment and personnel into place. You can do other data gathering that you are going to need later in order to assess damage, and without it, without the input, the science input and the good modeling to make the trajectories realistic, you are simply going to be at the wrong place at the wrong time. So I think it is absolutely essential.

There are several layers in which the information and modeling can be improved, but I think the overall goal of doing that is fundamental to improving our response capability.

Ms. CAPPS. So it is clear—I know I am out of time—the Federal Government has a role, the regional coalitions or alliances, the state has a clear role to play, but it all depends on what the local knowledge has yielded as well, and I had another question for Mr. Menashes.

Ms. BORDALLO. We will have a second round.

Ms. CAPPS. Thank you very much. I yield back.

Ms. BORDALLO. I thank the gentlelady from California. I would now like to recognize Mr. Wittman, the gentleman from Virginia.

Mr. WITTMAN. Thank you, Madam Chairwoman, and I would like to thank the witnesses for joining us today.

Dr. Walker, let me begin with you. In your testimony, you talk about Mississippi's effort in planning. It appears as though the planning effort coincided with the area contingency plan or the Mississippi Coastal Program, so there was some coordination there in understanding at the state level. Apparently that led to better decisionmaking between the state and BP in coordination and, of course, that is the central crux, I think, of a lot of concerns here is how do those pieces of the decisionmaking come together. So I want to get your thoughts on that and how you believe the Mississippi planning efforts to protect the coastal zones came together based on previous efforts, and then how that is put in place right now, and how successful that is, and then I have a follow-up question about some of the other areas of contingency, but if you could give us your thoughts and ideas about that.

Dr. WALKER. Thank you, Congressman.

We work with the Federal Government and with organizations like Kristen's all the time in updating our coastal program so that we can better understand and better plan for what kind of energy type industries we want in our general area and where we want them, and that has worked out very well. We review all of the permit applications. We make recommendations for siting in different places, and I think that is helpful.

In an after-the-fact sort of pulling together a plan, we always think in terms of trying to pull together a good team. After this event happened, we immediately opened up our building in Biloxi, Mississippi. We brought in BP there in our building; we brought in the Department of Environmental Quality there in our building; and we brought in NOAA, the Coast Guard, and the National Guard. So all of those folks are physically located in our building.

Every morning we get together and talk about what happened the day before, what needs to happen in the current day. And these are not people who have to go four or five levels up in their perspective organizations to get an answer to a question. These are people who can say "Yes" or "No," right then, on the spot, with a fair level of confidence.

So I feel that, more than anything else, has helped us, I think, be a little bit ahead in this process of dealing with the aftermath of this event.

Mr. WITTMAN. Great. I think that is an important point, that flattened hierarchy where you, as you said, where somebody can make a decision now, there doesn't need to be another step or another delay in that decisionmaking.

Let me ask this. As you look at the idea of contingency planning, obviously you have laid out about how you make decisions from day to day in addressing the threats from the oil. How do you take that next step and then look at the effects on the economy from that? And I speak specifically of the seafood industry there and what the effects are going to be there. And as you know that is many fold, not just on the areas that have to be closed for shell fishing, but also the effects on the processors, on the harvesters, and in the secondary effects, their markets that they sell to, and the effects, you know, extend all the way up to places like Virginia who our processors buy seafood from Mississippi and now those markets are interrupted. So the economic effects shutter throughout the United States.

Can you give me a little more information about how Mississippi looks at that and what you do as far as contingency planning both on the effect on the industry there, and then how you try to counteract that to make sure people are aware of not only the safety of the seafood but how processors and harvesters can be prepared for that?

Dr. WALKER. Well, let me say first, Congressman, that if you walk down the beaches of Mississippi now from the Louisiana line to the Alabama line, you would see beaches that look today just like they looked two years ago. And if you got in a boat and went out to our barrier islands, you would see islands that look just like they did five years ago. Some of them have small amounts of tar balls on there but, other than that, the impact to Mississippi has been minimal so far.

If you watch the national media, however, you would be convinced that the Mississippi beaches are ankle-deep in oil, and the effect of that has been disastrous, not only to our state, but also the states that surround us—all of the states in the Gulf. You have heard all of their Governors singing that same song, including ours. And what that has done is keep the tourists from coming to Mississippi. The charter boats don't have charters anymore. The res-

taurant trade is down, product is down and more expensive, so the economic damage to Mississippi had been great.

What we have done to try to counter that is we have joined with the Department of Environmental Quality and the Mississippi Health Department to collect samples, to analyze those samples, to provide the results of those analyses to the public and show them that seafood in Mississippi is safe to eat, that Mississippi is still open. We would like for you to come down and visit.

We are developing a—we should have completed development of a poster now that restaurants, seafood houses can place in their windows saying that Department of Marine Resources, Department of Environmental Quality and the Health Department of the State of Mississippi have together declared that Mississippi seafood is safe to eat.

Mr. WITTMAN. Thank you, Dr. Walker. I yield back my time, Madam Chair.

Ms. BORDALLO. I thank the gentleman, and how I would like to recognize the gentlelady from the Virgin Islands, Ms. Christensen.

Mrs. CHRISTENSEN. Thank you, Madam Chair, and thank you for the series of hearings that you have been holding on the oil spill and its impact on the natural resources of the Gulf area, and thank you to the witnesses for being here and for your testimony and recommendations that you have made.

I understand that there have been a series of exercises centered around a major spill in the Gulf as a subject of the exercise over the last eight or so years, the last one perhaps being a month or so before April.

Dr. Walker and Mr. Barton, do you have any knowledge of that exercise? Was the alliance a participant in any way or any of the state or local officials participating in an exercise in the Gulf around March of this year?

Mr. BARTON. No.

Dr. WALKER. I will add to that just a bit to say that scientists through the Gulf of Mexico Alliance process are in the Gulf all the time. It just so happened by happenstance that one of the scientific vessels that was supported by this particular crew who was supported by NOAA, I believe, was actually out there doing normal operations when the explosion and the resulting fire occurred, so they were on scene, they were able to capture data that would not have been available, had they not been out there doing routine science. So that goes on relatively commonly in the northern Gulf of Mexico, and the State of Mississippi and the Gulf of Mexico Alliance is intimately involved in those activities. Thank you.

Mrs. CHRISTENSEN. Thank you. Dr. Takahashi-Kelso, one of the challenges of preparing any—I think you speak to this somewhat in your testimony—preparing better managing and especially preventing these kinds of incidences, that the responsibilities are siloed in different agencies.

Can they be better coordinated, do you think, through something like a fusion center where each agency has someone there all the time, or do we need, as some people are suggesting, a single entity, a new agency to oversee the oil drilling, regulating, managing, preventing?

Dr. TAKAHASHI-KELSO. Thank you; a very important question, I think.

My view is that the response and the agency coordination and communication can be accomplished in the existing incident command structure, but I would begin that process far back. That is, when Kristen Fletcher talked about the importance of Coastal Zone Management Act, and building in a state role very early in decisions about what kinds of activities are going to take place and under what conditions, that is very important.

When a Federal agency like the Minerals Management Service has authority to make decisions about moving forward with activities like oil and gas development, it is crucial to have the agencies manage other parts of the ecosystems, activities, and resources which people make use of—fishing, tourism, other kinds of important economic issues—and that those be built in early and taken quite seriously.

We just have not done that very well at all. We have segmented the decisions so that the units of analysis are so small that they are meaningless, with respect to any serious worst-case scenario. Even in the case of decisions about oil and gas leasing, the Minerals Management Service has simply written them off as insignificant risks and have not analyzed them at all.

So, I think your point is a very important one, and we need to build in those levels of coordination and take seriously the science, the local knowledge, the inputs from states right at the beginning when the decisions about the activities are made, and then when the decisions about spill response preparedness.

There is not currently a provision in the Coastal Zone Management Act that expressly recognizes the roles of states in the contingency planning process. Section 307 consistency determinations to recognize the role for the state in making recommendations about consistency determinations with respect to things like oil and gas leasing and facilities, but not about contingency planning. I think that is an area that could be strengthened and would help address the point that you raise.

Mrs. CHRISTENSEN. I guess my time is up. Thank you. Thank you for your answers.

Ms. BORDALLO. I thank the gentlelady from the Virgin Islands. I have a few more questions. Dr. Takahashi-Kelso, I have a couple for you.

In your testimony, you mentioned the states' role in NRDA process. How does the NRDA process intersect with the response and the clean-up effort, and what are the key elements to ensure long-term restoration and recovery?

Dr. TAKAHASHI-KELSO. Thank you, Madam Chair.

The NRDA process is the Natural Resources Damage Assessment, and that is a process required by Federal law that includes not only the Federal agencies that have natural resource management authority primarily in the Department of the Interior and the Department of Commerce, NOAA, but also state agencies that have similar responsibilities in their areas of jurisdiction.

The Natural Resources Damage Assessment is crucial for two things: First, it is the basis for an important part of the liability that the spiller ultimately will bear, and the reason for that, of

course, is that resources, as well as the people who depend upon them, have been hurt. When Mr. Wittman was asking earlier about impacts on the seafood industry and the supply chain there, he raised, I think, an important piece of what the Natural Resources Damage Assessment actually addresses, and under Federal law those impacts, including lost profits, are properly part of the liability assessment. So, the Natural Resources Damage Assessment does that as one piece of its important mission.

The second piece, equally important and fundamental to the long-term recovery from a spill, is that the science and the gathering of information from other sources, not just scientists, lays the groundwork for restoration, and the restoration steps need to go on for years.

So the way I would lay it out, Madam Chair, is the emergency response happens right away, and it is ongoing, at least it is ongoing right now and will be for some time. In the *Exxon Valdez* case, it took three years. Overlapping with that, and essentially beginning immediately, there needs to be the gathering of the science, the initiating of baseline work, the start of longer term science that will not only help us understand the impacts, but also lay the groundwork for restoration. Then, overlapping with the Natural Resources Damage Assessment, the restoration steps will begin before all of that Natural Resources Damage Assessment work is completed. Basically, running throughout, there should be a monitoring element that continues well beyond the restoration phase as well, to see how effective we have been.

Ms. BORDALLO. Along the same lines, you testified that few states have the staffing and the technical support to sustain the level of engagement necessary to respond to the worst-case scenarios, but that we must improve our ability to do so. Who should be responsible for the cost of pre-training personnel and prepositioning infrastructure to respond to future oil spills?

Dr. TAKAHASHI-KELSO. The costs of preparing for response in particular areas should largely be borne by the industry that is undertaking the activities that contain the risk, and I would be happy to say more about that.

Clearly, in some areas there are multiple individual businesses at work or corporations at work, but often the kind of activity that is being undertaken, the source of the risk, is in an industry sector and they should be responsible largely for footing the bill for the preparations necessary to make sure that safety is in place.

The Federal Government and the state governments, of course, are appropriately paying the costs of their own agency staff and the capacity to be involved effectively at the agency level, but with respect to these particular plans and the preparedness to be really effective in worst-case scenarios, that cost should be borne by the industry.

Ms. BORDALLO. So that is very clear then in your mind, and so I guess we are on the right track here.

Dr. TAKAHASHI-KELSO. Yes.

Ms. BORDALLO. And although the Federal agencies are assisting, we are being reimbursed by the industry.

Dr. TAKAHASHI-KELSO. Exactly right. I would say that with something like the Natural Resources Damage Assessment, it is

important for BP in this case to pay those costs up front, and the reason is that otherwise the Federal and state agencies and the independent scientists or university scientists who work with them will simply not have the resources necessarily to do what needs to be done at the beginning of that process. It is not sufficient to take resources from your existing budget because you just don't have enough to do that, even if it is reimbursed later, so there is kind of a front-loading issue that ought to be undertaken there.

There are also some clear examples that I would be happy to identify for the Committee——

Ms. BORDALLO. Very good.

Dr. TAKAHASHI-KELSO.—in which both Federal and state funds that came from industry serve as a pool in order to support planning and preparation for potential spill response.

Ms. BORDALLO. Good, if you would provide us with that we would be grateful.

Ms. Fletcher, would your organization be supportive of grants to states, through the Coastal Zone Management Act, to increase planning for oil spill response?

Ms. FLETCHER. Yes, Chairwoman, absolutely. The Coastal Zone Management Act is actually a perfect statute for—it is already set up for grants to states. It has been effectively managed. CZMA will celebrate 40 years in 2012. Actually, in New Hampshire, coastal zone program funds initially sponsored some oil spill response activities. That led to the creation of the cooperative, the agency/industry cooperative that I mentioned earlier.

Ms. BORDALLO. Yes.

Ms. FLETCHER. So, again, that granting of capacity and authority is already there, and I think the CZMA is a good place to make that connection between what is going on with the oil spill response as well as coastal management authority.

Ms. BORDALLO. Thank you, and I have one follow up. Please tell us about the Coastal Impact Assistance Program. Is the program effectively managed by the Minerals Management Service, and if not, what solutions does CSO propose to help the states implement the program?

Ms. FLETCHER. Well, the CIAP program is quite a valuable resource for coastal states. It provides funding to support activities that address the impacts of energy production within coastal and marine areas. Since it was established in the Energy Policy Act of 2005, $250 million in funding was intended to be distributed to the energy-producing coastal states for each fiscal year from 2007 to 2011. Unfortunately, to date, MMS has distributed less than 20 percent of that funding due to a complex in changing grants process.

So, we would recommend that there be some clear language about spending those dollars; making sure that congressional intent is carried through, and getting those dollars in the hands of the states where that work can be done.

Ms. BORDALLO. Excellent. Thank you. And now I would like to recognize the Ranking Member Mr. Cassidy.

Mr. CASSIDY. Another name I am going to have a difficult time with although I shouldn't. Mr. Menashes?

Mr. MENASHES. That is right.

Mr. CASSIDY. Man, I was just like so into what you were saying, I felt like I couldn't find a question because I am totally in agreement. It has been part of my frustration, for example, at LSU School of Fireman Training who have all that HAZMAT training, but initially there was no ability to—the people didn't have HAZMAT training. I am thinking, 80 miles up the river, you have all these guys who do nothing but all day teach people how to do HAZMAT, and I kind of gather from—just as I review your testimony, it is just like having local resources present on an as-needed basis, knowing that the folks who are locally engaged are, if you will, most prepared. So first let me just thank you for that testimony, and hopefully you will be appointed as the next director of something or other.

Something you said is a little different from what Dr. Walker said, so I just want the two of you to kind of have a knife fight. He mentioned, I think, very plausibly that the use of dispersants will break up the oil. I have heard this from other experts, allowing the microorganisms to destroy. You suggest that it will take three to four years for the estuaries to respond.

Now the Ixtoc spill, I am told, within three years the Gulf just recovered. Now granted Ixtoc was not marshland as it is in Louisiana. I gather marshlands and estuaries are more vulnerable. Nonetheless, we have two different kinds of scenarios on how this plays out. So could I ask you both to comment upon your prognosis of how these estuaries and how the Gulf will heal? This is not so much about your testimony because I am in total agreement with it—I am going to ask my staff to find something, some legislation we can come up with.

Mr. MENASHES. I probably should defer to Dr. Walker's expertise on how the estuaries will heal, but I think what I can say is that, with marshes and mangroves in particular, the risks to those resources are extremely high. So, our efforts at this point need to be focused on moving oil away from those resources and toward areas where it is going to be easier to clean, and that is what is happening.

The Coast Guard is working with scientists and working with natural resource managers in the Gulf to do exactly that, and that is where we need to be focused right now.

For the long term restoration is obviously going to take quite some time. For our program, for the Research Reserve System I think what is important for us——

Mr. CASSIDY. Why do you say—I am going to challenge you a little bit.

Mr. MENASHES. Sure.

Mr. CASSIDY. Because someone came from NOAA, an acting director of some sort, and he said he was cautiously optimistic that recovery will take place sooner as opposed to later because, again, the hope that the microorganisms would disperse, it would be weathered. Even the folks from Mississippi have told us that it was washing up as tar balls, which are easily removed. So continue.

Mr. MENASHES. Well, I think the risks for clean up in marshes is that because of the fragility as we are in the marshes themselves and working on the marsh restoration, we have the impacts not

only from the oil itself but from the restoration recovery activities as well.

Mr. CASSIDY. So the folks at LSU who have been studying this forever say the restoration could do more damage than the spill itself, and I guess that is why I continue to come back to should there be this huge—I don't want to say they are fatalistic, but they are denialistic, but rather they just are, like, it may be benign neglect is the better policy because our efforts may be more destructive than the original oil.

Mr. MENASHES. I cannot comment on whether they will be more destructive or not. What I can say is we need to study it further, and that is what the Research Reserves are there for. I think to work with Dr. Walker's department or folks from NGO's like the Ocean Conservancy and our Research Reserves and state and Federal partners are going to be able to address some of these questions in the long term. We are going to be able to take some of the information——

Mr. CASSIDY. Let me interrupt you——

Mr. MENASHES. Sure.

Mr. CASSIDY.—because I am on my yellow light, and Dr. Walker, any comments on what we have been speaking of?

Dr. WALKER. Sure. Matt mentioned the reserve system in Mississippi, and that reserve system is almost completely very vulnerable pristine marsh areas. After Katrina, that area had anything from houses to automobiles to whatever else washed up in it, and we got the bulk of the material out of there, but some of the biodegradable material that was in there, we made the decision to leave it there and it was a good decision. That stuff biologically degraded and the marshes came back in that system in the next growing cycle, and after two growing cycles you really couldn't tell that there ever had been an impact.

Similar to this oil spill, there was a rig that leaked, an on-land rig that leaked a lot of oil into marsh areas in Louisiana. Louisiana chose to burn those marshes, and those marshes came back the very next year. So critical wetland marshes are very resilient places.

Mr. CASSIDY. So what I am also hearing from you, in the spirit of this testimony, is that the local experience and expertise is irreplaceable in understanding how to manage damaged resources in that area.

Mr. MENASHES. Absolutely. You know, we had proposals to purchase large equipment to come in and dig up marsh that had oil in it, and you know, there are a lot of different ways to get oil out of places, but most of the time if this is weathered oil, and I want to say something about dispersing in just a minute, but if it is in fact weathered oil oftentimes it is better to leave it where it is and let the natural microflora take control of it.

With regard to dispersants, I would like to think of dispersants in terms of a bar of soap that is floating in the bathtub. If the bar of soap is intact, it is going to go away but it is going to take a long time. But if you could break that bar of soap into thousands of small pieces, it will go away a lot quicker, and that is what dispersants are designed to do, and that is what they are doing in this spill. The dispersants that are injected subsea at the source of

the leak are breaking that oil into literally thousands of very small pieces of oil surrounded by water. In that water is contained natural microorganisms that are there because the Gulf floor naturally seeps something like 250,000 barrels of oil a year. Those organisms are capable of——

Mr. CASSIDY. Now let me interrupt you, I am allowed to ask one more question. Are the bacteria—now this has intrigued me. When we are talking about 5,000 feet below sea level at 40 degrees Fahrenheit and great pressures, do the bacteria exist there, and if they do not, how do they enter the water column? Bacteria just don't appear. Are they just so diffuse throughout the Gulf of Mexico that when hydrocarbon floats by, despite entropy, they are going to nonetheless coincide?

Mr. MENASHES. Well, first, not only microorganisms, but an awful lot of sealife, is at the seafloor, and they are active. They are different kinds of creatures as you can imagine. But the bacteria that I am talking about are present at the seafloor, and they are only present there because of the oil seeps. They are there because food is there for them. They have adapted to be able to utilize this crude material as a food source. So they have the enzymes and the other materials that they need to degrade this material. So what you want to do is provide them as much surface area as they can to get at this oil, so that is what dispersants do.

There has been a lot of concern about dispersants themselves and where they are. From what I can tell from the report that NOAA released yesterday, the area of dispersed oil is pretty much all in the area of the spill, and the dispersants are working as they should to break down the oil so it can degrade faster.

The concentration of oily material in that plume below the surface of the water is somewhere in the one to two part per million level, which is relatively low.

Mr. CASSIDY. OK, thank you very much for illuminating. I yield back.

Ms. BORDALLO. I thank the gentleman. I would like now to recognize the gentlelady from California, Mrs. Capps.

Ms. CAPPS. Thank you again, Madam Chair.

I want to continue Mr. Cassidy's line of questioning and pick up on something that you said, Ms. Fletcher, and all of you seem to have supported, but I would like to get it on the record. More local input, the question is this—and I will go down the row—you can answer "Yes" or "No."

Do each of you think providing a local public forum for the discussion of deficiencies found in inspections and recommended solutions as well as preparing oil spill response is a good idea? So Dr. Walker, I will start with you.

Dr. WALKER. Yes, absolutely.

Ms. CAPPS. Good. It was your idea so I assume you would agree.

Ms. FLETCHER. Brilliant.

Ms. CAPPS. Brilliant. Yes.

Ms. FLETCHER. And I do think that there is room for creativity in terms of having a local forum, but also some other mechanisms for the local information to get into the system.

Mr. BARTON. I certainly agree with that, and that was part of my testimony. I would say that Dr. Walker and I actually attended an

open-house-type forum for local input just so people could come, ask questions, and participate in the process, put their ideas on the table, just this past week.

Ms. CAPPS. Yes.

Mr. MENASHES. I think if there is anything we have learned from having research reserves in local communities, it is that local people care and provide excellent information. I think our research reserves have been helping out with sea grant institutions in the Gulf and putting on some of those public forums, so yes, we would support that as well.

Dr. TAKAHASHI-KELSO. And I agree. It is absolutely essential. I would suggest that there is an appropriate role both for the Federal Government and for state——

Ms. CAPPS. Yes.

Dr. TAKAHASHI-KELSO.—and local government, and that you need both of them operating together.

Ms. CAPPS. And so hopefully there will be some Federal representation at one of these local public forums, and I bring this up a little bit tongue-in-cheek because, as some of you know, I represent Santa Barbara where we had a big spill in 1969, and for years our local community has been sort of chomping at the bit to have a say because, as you just said, Doctor, they care so much about their local community and what happens to it, so thank you, all of you.

Dr. Menashes, I agree that this is it—I wanted to get to you in the last round, but this has to do with the baseline data which my researchers at UC-Santa Barbara tell me is so critical. The collection of baseline data is critical to preparing damage assessments. That is a given. But what other benefits could we expect to see with better baseline data collection?

And I am just thinking of this. We have such technology now that we did not have before. I have a company in my district that it is mainly geared—that do underwater observing, and it kind of is a natural for our defense departments, and so that is where they have gone, and they are ready to have these be deployed in our coastal areas as well so that we would have in place the structure for plugging something in so that you could start this observing and you could collect this baseline data, Mr. Menashes.

Mr. MENASHES. Well, I think it is important to recognize the difference between using the baseline data for the Natural Resources Damage Protection process, which is currently going on, and the long-term recovery and restoration efforts. I think it is wise to look at the NRDA process and baseline data as somewhat having long-term baseline data as part of the NRDA process could be valuable, but it is more important to get information very quickly before the spill hits the land.

Ms. CAPPS. Right.

Mr. MENASHES. We have time series that are relatively recent.

Ms. CAPPS. But it could start prior to that if you have——

Mr. MENASHES. It could.

Ms. CAPPS.—invasive drilling or some other activity in the area.

Mr. MENASHES. And I think that is important, particularly when it comes to looking at efficiencies for use of Federal dollars. Our systemwide monitoring program, which has been in place for about 15 years in the reserve system and is part of the Integrated Ocean

Observing System. If we were sampling for hydrocarbons over the past 15 years, we could use that information to show long-term trends in the Gulf or along any of the coasts.

We don't have the resources to do hydrocarbon testing, let alone some of the other testing and monitoring that we would like to be doing in the long term; for instance, biological monitoring or changes——

Ms. CAPPS. Maybe that is something we should look at. I want to get to one more topic with your indulgence, Madam Chair.

California has been a leader for the rest of the Nation, in many respects, in the development of training and use of oiled wildlife care volunteers during an oil spill response. Oil spill birds have been the image that has come out of the Gulf that has touched, I think, people more dramatically than anything else, and if you have oil offshore, you have situations that occur from time to time. So oiled bird response is something that the volunteers have cared very much about in our area.

California has also partnered with the National Marine Sanctuaries to create a beach monitoring network that can be activated in the event of an oil spill, and even in pre-spill planning, and we have these sanctuaries now in very many of our protected areas everywhere we have oceans.

My question, and I will put this to Mr. Menashes and Dr. Kelso, but anyone can respond, begging the time. Do you have any recommendations for the Subcommittee to better utilize, and some language we might want to promote in terms of some legislation, to better utilize volunteers' expertise for oiled wildlife care and recovery?

Mr. MENASHES. I will answer real quickly that it is important in dealing with the oiled wildlife that we—as we were talking about with Mr. Cassidy—that hazardous materials training is in place for these folks. So from a legislative standpoint——

Ms. CAPPS. Yes.

Mr. MENASHES.—the first thing we need to make sure is——

Ms. CAPPS. That they are safe.

Mr. MENASHES. That they are safe, and I will turn you over to Dr. Kelso for anything additional.

Dr. TAKAHASHI-KELSO. I will be quick. California has been a leader and the center at the University of California—Davis, is really a superb source of expertise.

I think the keys are to have a framework in which volunteers can be useful, do some pre-training so that they are a trained corps that is ready to go; make sure that they have enough equipment to be effective; and also to build a network among the different wildlife facilities, say along the West Coast, not just in California. And I think that, regionally, those wildlife facilities and experts can be more effective if, prior to any spill, those relationships are established and the depots of equipment and training are already in place.

Ms. CAPPS. Do mind if I ask Mr. Barton and Dr. Walker because you represent different coastal areas. Does this seem of value to you?

Dr. WALKER. Well, in the State of Mississippi, we have an Audubon Institute, we have a Wildlife Rehabilitation Institute and we

have an Institute on Marine Mammal Studies, and it focuses on marine mammals and turtles. All of those places, if they had funding, could train this workforce of volunteers that Dennis was talking about and that you are referring to. So I think it is an outstanding idea. We simply need to get additional support to these folks so that they can provide this critical training.

Mr. BARTON. And there is a big part of our county set aside for marine protection. We have the Audubon presence there, and we have the National Grand Bay Estuarine Reserve there. We have the Sandia National Laboratory, and the U.S. Fish and Wildlife Service is there. So, we have a lot of expertise in the county that would certainly help with this, and it would certainly be something we would like to participate in. It would be very important, and I think we have a lot of local expertise in those areas.

Ms. CAPPS. I am over my time. Thank you, Madam Chair.

Ms. BORDALLO. I thank the gentlelady, and now I would like to recognize Mr. Wittman, the gentleman from Virginia.

Mr. WITTMAN. Thank you, Madam Chairwoman.

I want to go to Mr. Barton and get your perspective. I thought it was interesting about your ideas about how this affects localities, and having served on the Board of Supervisors in Virginia for a number of years it is near and dear to my heart about how localities have to deal with this, and obviously this is not just an issue for you now, but down the road.

You talk about there being not as much capacity in your local coastal facilities to really be able to deal with this particular spill. I would be interested to know how many people are actually at those facilities and, if you were to look into the future and ask what kind of capacity do we need in those facilities for a spill such as we are experiencing now, what do you think the future need would be to be properly prepared?

Then, I like your idea of this regionalism, these area commands which are really what states are looking at, to make sure resources are being leveraged in an immediate way. Obviously, one county may not have it by itself but you could leverage those regionally. So tell me what exists now. What do you think a locality needs in the future, and how do you see that being leveraged as far as these area commands are doing regionally?

Mr. BARTON. OK. Well, let me try to do that in two answers. First, responding to the facilities themselves. As I said in the written testimony and in my oral comments, most of the facilities along the entire Gulf Coast—Louisiana, Alabama, Mississippi, Florida, probably in Texas also—most of these facilities were built a number of years ago when the responses were just different. We had a different response model. We didn't have near the people, and really, as I said earlier, Katrina taught us a lot of lessons, but one of the things that came in with Katrina was the current NIMS model, and that was our first really broad experience with that, and it actually was a pretty good model. I mean, it brought a lot of the right people to the table, but it also brought a larger presence, and it required that there be a Federal presence, that there be a state presence, that there be a local presence, and then you had these incident command teams and so forth.

So, when you got everybody together, you had all the right people. We just didn't have any place big enough to put them, and it was a large number of people over a fairly long period of time, and so immediately after that storm, we started looking at the future and said, if this is the future type of response, then what do we need in place to be able to manage those emergencies successfully locally? I mean, what do we need in place?

Well, we went out and we looked at some other facilities here and there, just a few, not very many that really are designed with this process in mind. Actually the one in Escambia County, Florida, is a real good one. It's just been fairly recently built. And so we started looking at these footprints and the footprint, I think, can be easily defined to do everything you need to be able to do and do it locally, but the problem you get into and the problem we are certainly in, in most of the coastal regions that I know of, you know, it might cost as little as maybe a couple hundred thousand dollars up to maybe a million dollars to do maybe some upgrades or something, but if you had to build a new facility, you might spend $6-8 million.

Well, that is a pretty tough hill to climb for a lot of local communities, and especially communities that, like where we are, we are still within five years of the storm, I mean, we are still rebuilding, you know, and we are not at a point right now where we could borrow that kind of money to build that kind of building. We know it is a priority, and it is on our list of things to do, and one day hopefully the county will do that.

But then the second question, if you don't mind repeating the second question.

Mr. WITTMAN. Sure. The second question is sort of extended from what you are talking about, about those command centers. How do you——

Mr. BARTON. Oh, the command centers.

Mr. WITTMAN. Area commands.

Mr. BARTON. What I was going to say, and I will do this as quickly as I can, and I will go back to the Katrina model in that sense. In that particular time, we had very similar to where we are now. We had damage in Alabama, we had damage in Mississippi, we had damage in Louisiana. But the way the area commands were set up, they were really more set up by state, and in that particular case it was under the Stafford Act, which is slightly different, but the states kind of coordinated the local communities and then it was up to a unified type command structure.

And where that worked well, and without going into a lot of details, but where you have got such a regional approach to something like this, and if you have sat on a Board of Supervisors you will know where I am headed here, many times, you know, what I can do in Mississippi, or maybe turn that around. Maybe something they can do in Mobile, Alabama, because they have the statutory authority to do it, in Mississippi, I may not have that statutory authority.

So, if that coordination is done through a state area command, and if it is Dr. Bill Walker, he understands the limitations that we may have that maybe somebody in Alabama doesn't have or somebody in Florida doesn't have, and maybe there are a lot of similar-

ities, but when you cross the state lines, there are always differences, and so in trying to pull that area command back into a state level, in our opinion, it would just make it work a lot better, and the relationships are much closer at the state levels than they are across a regional basis.

Mr. WITTMAN. If I can ask just one additional question.

Ms. BORDALLO. All right.

Mr. WITTMAN. I just want to, Mr. Barton, get your perspective. Obviously we are dealing with the here and now. How do we respond to this? How do we make sure we deal with the impacts of this? Give me your perspective on how you think we best deal with it, and you have been through it with Katrina. How do we best deal with the economic impacts of this event, down the road, to make sure that those economies can rebound from this?

Mr. BARTON. That is a much more difficult question to answer, and you know, I will be honest with you. We have kind of worked our way through this trying to visualize what the impacts are going to be. I mean, the impact could be for many, many, many years, and property values go down, tax revenue goes down, that is at the governmental level, and then the services that you are trying to provide. Obviously, in this particular case, local governments would not have the luxury, I don't think, of raising taxes because you are raising taxes on people whose economy has gone south. So, those things are going to be problematic long term.

But then you get into the small businesses, and I will give you a perfect example. I had someone in my office earlier this week—a boat business—primarily saltwater boats. He is going out of business. Eleven employees who have now lost their jobs.

So how do you frame something to make the owner of the business whole, the eleven employees who no longer have a job, and that business may never come back?

So, it kind of goes across a very broad spectrum of all of our businesses are being hit. I think someone said awhile about the seafood industry and the restaurants and those kinds of things. Well, that is something you can quantify. I mean, you can go back and say, well, how well did you do last year, how well are you doing this year, and there is a delta, but it is not always easy to measure what that is going to be or how long the impact is going to last. But there is no question that it is going to be a significant impact, and I think it is going to impact us for quite sometime.

Ms. BORDALLO. I thank the gentleman. We do have votes in a few minutes, so I would like to thank the panel for their participation in the hearing this morning, and members of the Subcommittee may have some additional questions for our witness, and we will ask you to respond to these in writing. In addition, the hearing record will be held open for 10 days for anyone who would like to submit additional information for the record.

If there is no further business before the Subcommittee, the Chairwoman thanks the members for their participation here this morning, and the Subcommittee now stands adjourned.

[Whereupon, at 11:52 a.m., the Subcommittee was adjourned.]

[Additional material submitted for the record follows:]

Supplemental Written Statement of the
National Estuarine Research Reserve Association

Thank you Chairwoman Bordallo and Members of the Subcommittee for the opportunity to provide this additional written statement on behalf of the state agencies and academic institutions that operate the nation's National Estuarine Research Reserves (reserves) about efforts to improve standards for preparedness for offshore energy development.

As we noted in the written testimony we submitted earlier for this hearing, the National Estuarine Research Reserve System (reserve system) was authorized in 1972 under the Coastal Zone Management Act (CZMA). The program is a unique federal-state partnership which brings the National Oceanic and Atmospheric Administration (NOAA) together with state agencies and universities to protect lands and waters for long-term research and education purposes. NOAA and reserve staffers collaborate to provide education, training, and stewardship programs that ensure the protection of these wonderful places while advancing our collective understanding of how estuaries function. As part of the CZMA, the reserves also play a strong role in assisting coastal managers in reaching out to the public on critical coastal issues.

We all know that the impact in the Gulf of Mexico is not just to natural resources, but also to the people of the region. We want to expand on our earlier comments by drawing some attention to the need to better prepare to respond to—and support—citizens in the local communities affected by oil spills.

Planners need to focus more effort on getting accurate, locally specific information to communities and businesses about the true impacts to natural resources, how commercial and recreational activities are impacted, and what limitations communities and businesses may face and for how long. As an example, Gulf coast reserve staff hear repeatedly from residents in their communities that people want to understand the characteristics of spilled oil and chemical dispersants, and want to know what can be expected if people come into contact with either. Because of the number of questions we are receiving on this topic, we believe the public may not be getting information in the most effective manner. Agencies can always do a better job of communicating with the public. By addressing public outreach needs in advance, contingency planners can ensure well-established networks like the reserve system can be used to quickly reach out to the public to relay critical information in times of crisis. With our long tenure in many coastal communities, research reserve staff members are trusted experts that are counted on to provide timely and accurate information.

We also would like to encourage the committee to explore the necessary social science research and related public outreach that should be included in spill contingency plans. Contingency plans should include ways to immediately begin the research and outreach necessary to understand the impacts of a spill on people's lives and livelihood. For instance, with the prevalence of fishing and tourism related businesses along America's coasts, a common set of social science research and public outreach programs focused on these areas could be developed. Universities and other research institutions could be pre-positioned to begin studies immediately after a spill to determine the economic impacts to tourism or fishing businesses for example. Other efforts could focus on ensuring that outreach materials are presented to diverse communities with appropriate tools and language.

We believe there are many opportunities to strengthen planning to address the social impacts of spills and other disasters. We appreciate the opportunity to provide this supplemental statement to our original testimony as a way to draw attention to some of these opportunities.