

TESTIMONY OF JANE LYDER, DEPUTY ASSISTANT SECRETARY FOR FISH AND WILDLIFE AND PARKS, DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE NATURAL RESOURCES SUBCOMMITTEE ON INSULAR AFFAIRS, OCEANS AND WILDLIFE, REGARDING “OUR NATURAL RESOURCES AT RISK: THE SHORT AND LONG TERM IMPACTS OF THE DEEPWATER HORIZON OIL SPILL”

June 10, 2010

Chairwoman Bordallo and Members of the Subcommittee, thank you for the opportunity to be here today to discuss the impacts of the Deepwater Horizon Oil Spill on fish and wildlife and their habitat in the Gulf of Mexico, and the Administration’s ongoing response. Before I begin, I would like to take a moment to express my condolences to the families of those who lost their lives, to those who were injured in the explosion and sinking of the Deepwater Horizon, and to those whose livelihoods are being devastated by this oil spill.

It has been more than 50 days since BP’s *Deepwater Horizon* offshore oil drilling platform exploded and sank 40 miles southeast of the Louisiana coast, releasing millions of gallons of crude oil into the Gulf of Mexico. The volume of escaped oil continues to grow, expanding the area of impact and increasing the impacts to precious natural resources throughout the Gulf region.

Federal authorities have been on scene from the very beginning—since the first hours of this disaster when it began as a search and rescue mission. Our highest priority is stopping the ongoing leak and preventing more oil from being released.

An equally important priority is protecting the resources that are or may be affected by this spill. To that end, the U.S. Fish and Wildlife Service (FWS), the National Park Service (NPS), and other federal agencies are working tirelessly to protect fish and wildlife, safeguard vital habitat, and public lands and resources that belong to the American people. These professionals are also documenting impacts and working to understand the long-term effects of the spill, so that we can hold the responsible parties accountable.

The scope and impacts of this spill are extraordinary. We do not know at this time the extent of the impacts, but we believe that in all likelihood, they will affect fish and wildlife and plant resources in the Gulf – and across the country – for years, if not more likely decades, to come.

The Administration’s Response

The Deepwater Horizon incident is being managed under a Unified Command System, located in Houma, LA. Operational activities are being directed from Incident Commands in Houma, LA, Mobile, AL, St. Petersburg, FL, and Houston/Galveston, TX. An additional Command Center is being established in Miami, FL. The U.S. Fish and Wildlife Service is the lead federal agency for Wildlife Operations, under the command of the Incident Commander. A Joint Information Center (JIC) has been established in Robert, LA to provide informational support and serve as a conduit for ensuring that information is forwarded to the public.

In addition, Secretary Salazar dispatched me and others from the Department's natural resources and science team to Incident Command centers, including the Assistant Secretary for Fish and Wildlife and Parks, Tom Strickland; the Director of the National Park Service, Jon Jarvis; the Acting Director of the U.S. Fish and Wildlife Service, Rowan Gould; and the Director of the Bureau of Land Management, Bob Abbey and Dr. Marcia McNutt, Director of the U.S. Geological Survey and Science Advisor to the Secretary. In total, more than 24,000 federal and private personnel are responding to the incident.

The National Incident Commander and the Federal On Scene Coordinator are directing efforts and are accountable for the Administration's response. They will ensure that BP, one of the responsible parties, is meeting its obligations and pursuing all possible contingencies and bringing the right resources to respond to this spill. The Administration is working to ensure that all necessary and available federal resources are being directed to this crisis.

All of these leaders, along with personnel from bureaus and offices within the Department, work with other federal, state, and local officials to monitor and respond to immediate threats to fragile habitat; assess and address long-term damage to impacted resources; and develop and provide data and information for use by the Unified Command in responding to the incident.

This is the most complex and challenging oil spill our country has ever encountered. The source of the spill is 5,000 feet beneath the ocean surface where there is no human access and almost all the work is being done with remotely operated vehicles. The damaged well is continuously discharging large volumes of hydrocarbons into the water column. Access to the discharge site is controlled by the technology that was used for the drilling, which is owned by the private sector. Due to its technical expertise, specialized equipment, and on-site presence, BP's involvement in the efforts to stop the leak is vital to reaching a solution. The responsible parties are also responsible for the cleanup and environmental damage, and BP, one of the responsible parties, has assured the Administration that it will pay for the response and subsequent restoration efforts.

As of June 8, 377 FWS personnel, 97 NPS personnel, 45 U.S. Geological Survey personnel and the following DOI personnel are stationed on the frontlines at National Wildlife Refuges and National Park units, involved in key decisions at command centers, and participating in air, sea and beach operations to respond to reports of injured wildlife and impacted coastal habitat:

Department of the Interior Deployed Resources – Deepwater Horizon

Source: Department of the Interior Bureau and Office Reports – June 8, 2010

Bureau/Office	Personnel	Locations
DOI Office of the Secretary	38	Washington and Gulf Area
Fish and Wildlife Service	377	Refuges and Incident Command Posts
Minerals Management Service	170	Response Centers. Others at District, Regional, and Headquarters. Oversight Support Teams.
National Park Service	97	Parks and Incident Command Posts
USGS	45	Regional Offices and Incident Command Posts
TOTALS	727	

In addition, there is a FWS All Hazard Team located at the Regional Spill Response Center, in the FWS Southeast Regional Office in Atlanta, GA, providing support. Finally, many more Department of the Interior employees are working on the spill from their home duty stations.

Examples of field operations directly involving FWS, NPS, and USGS staff include:

- Helping deploy and maintain almost 2 million feet of containment boom, with the goal of protecting the most sensitive areas of marsh and other vital habitats along the Gulf coast.
- Conducting beach surveys to monitor sea turtle nests and developing protocols for cleanup crews should we discover oiled nests.
- Engaging in multiple over flights to survey for birds, manatees and other wildlife along the coasts of Louisiana, Mississippi, Alabama, and western Florida. These over flights aid in establishing a baseline that will help us document and quantify impacts as they occur and quantify impacts and predict effects into the future.
- Conducting Natural Resource Damage pre-assessments that will help us hold BP and other parties responsible for natural resource damage, and help fund restoration of the vital ecosystems of the Gulf once this spill has been contained.

Impacts to Wildlife and Habitat

The Gulf of Mexico is one of the world's most ecologically rich areas and provides habitat for a great diversity of fish, birds, mammals, reptiles and other wildlife. Many species of wildlife, including some that are threatened or endangered, live along the Gulf Coast and are being affected by the oil spill. The Department of the Interior and its bureaus have responsibility for a spectrum of natural resources in the Gulf that will be impacted by the oil spill, including National Wildlife Refuges, National Park units, migratory birds, and threatened and endangered species, such as manatees, and sea turtles.

Short-Term Impacts

Oil spills affect wildlife and their habitats in many ways. The severity of the damage depends on the:

- Type and quantity of oil spilled;

- Condition of the oil on and below the surface, including the length of time it is in the water before it hits land or wildlife encounters it;
- Season and prevailing weather;
- Type of shoreline; and
- Type of waves and tidal energy in the area of the spill.
- Presence of dispersants

Hundreds of miles of Louisiana shoreline have been directly impacted by oil, and last week oil came ashore in neighboring states. Many acres of marsh have been impacted by the spill, while additional acres have been impacted by sheening, a process whereby oil spreads out on the surface of the water. Over 300,000 acres of Louisiana marshland are currently being monitored.

We believe 35 National Wildlife Refuges located in the Gulf are potentially at risk from the oil spill. So far, two have been directly impacted by oil – Breton (LA) and Bon Secour (AL). Only Breton NWR has been closed to the public. Low-level over flights are prohibited there to protect nesting brown pelicans and terns. Last week, we also saw impacts to the Gulf Shore National Seashore. There are ten National Park System units that are potentially at risk from the oil spill. Petit Bois Island and Horn Island at Gulf Islands National Seashore were the first National Park units to be impacted, with tar balls and oil sheen washing up along a two-mile stretch of beach, but the island remains open to the public. Teams have been evaluating and responding to the situation, but cleanup efforts have been hampered by inclement weather. A light scattering of oil appeared this past Monday at Peridio Key that clean-up crews addressed and the Fort Pickens and Santa Rosa areas continue to receive light oiling, which are being cleaned-up. Tar balls have also been observed in Dry Tortugas National Park, but these were determined to not be affiliated with the Deepwater Horizon oil spill. The affected areas were cleaned over Memorial Day weekend. There has been no oil from the Deepwater Horizon incident at other national parks in the Gulf, and monitoring continues at all park coastal areas.

Additionally, coastal habitat associated with projects funded by millions of dollars of the North American Wetlands Conservation Act (NAWCA) grants are potentially threatened by the oil spill. Significant NAWCA grant and partner match dollars have been or are being invested in coastal areas of Texas, Louisiana, Mississippi, Alabama and Florida Gulf to protect, restore, and enhance wetlands and wetland-associated uplands for migratory birds and other wildlife. We are also concerned about Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) projects. CWPPRA provides for targeted funds to be used for planning and implementing projects that create, protect, restore and enhance wetlands in coastal Louisiana and other Gulf states. The CWPPRA program receives millions of dollars in federal funding each year to fund projects.

This spill occurred at the peak of the breeding or spawning periods of a large number of species in the Gulf, including sea turtles, many local bird species such as brown pelicans and least terns, as well as various fish and invertebrates that are critical species at the base of the ecosystem. As these birds and other wildlife ingest oil, inhale fumes, become covered with oil, and consume marine resources that are affected by oil, the entire Gulf ecosystem will be impacted throughout the food chain, from marine plankton, fish, and shellfish, to birds, mammals and other wildlife.

Direct mortality will occur. We also expect wildlife impacts to be subtle and chronic and persist for years and could possibly have population-level impacts.

Oil causes harm to wildlife through physical contact, ingestion, inhalation and absorption. Floating oil can contaminate plankton, which includes algae, fish eggs and the larvae of various invertebrates. Fish and some seabirds can become contaminated by feeding on these organisms as prey, or by direct toxic effects of oil. Larger animals in the food chain can consume contaminated organisms as they feed on these fish and other prey and die, thus impacting entire ecosystems through a cascading effect.

We share the public's frustrations that BP has been unable to protect the Gulf coastline from oil coming ashore. For this reason, we are redoubling our efforts to pressure BP to deploy more resources where they are needed most.

Long-Term Impacts

The long-term impacts from the Deepwater Horizon release cannot be determined at this point. There are still unanswered questions about the amount of oil released and remaining in the Gulf, the effects of dispersants used at the surface and at depth, and how this particular oil will degrade in the environment. An Environmental Incident Science Team, led by the USGS and with personnel from FWS, NPS, and MMS representing their bureaus' science and resource-management needs, is developing a long-term science plan designed to address these needs as we move from the immediate response phase into the longer-term response and recovery phase. Even before completion of this plan, we can make reasonable inferences based on scientific literature, prior experience, and expert judgment.

We expect to see a high degree of mortality in microscopic and macroscopic life (e.g. zooplankton, larval fish and crustaceans) that encounter oil and other toxins in the water. We also fully expect secondary, tertiary, and top consumers/predators in the food web, such as invertebrates, fish, birds, turtles, and mammals, to be negatively impacted directly or through cascading effects in the ecosystem.

We are particularly concerned about the health of birds in the Gulf of Mexico, including the millions of migratory birds that range across the Western Hemisphere but ultimately winter in or migrate through the estuaries, marshes and other coastal areas of the Gulf as they move through the central flyway. Birds are a key indicator species of the health of the Gulf environment and we have begun the numerous investigations necessary to understand the extent and magnitude of the impact to bird species in the region.

Many of the migratory birds that winter along the Gulf Coast are currently farther north on their breeding grounds in Canada and the northern prairies of the United States. However, we expect the oil to persist long-term in the food chain. When these migratory birds return to the Gulf Coast in the fall, they will likely be exposed to oil as they forage, or possibly face starvation as a result of depleted insect, marine and plant life due to oil incursion. These coastal areas are also the key stopover sites for hundreds of millions of neotropical migratory songbirds that rest and

feed in these habitats during both their spring and fall migrations. With the likely persistence of this oil and its impacts for years to come, myriad bird species will potentially be affected.

Assuming substantial quantities of oil enter the coastal marshes of Louisiana, Mississippi, Alabama and Florida, we can expect very significant impact to the entire coastal ecosystem of these areas. In addition to the severe, and likely long-term, impact to marsh vegetation, various invertebrates such as crabs and shrimp and many vertebrates including fish, birds, turtles, and some mammals could be significantly affected. The injury suffered by water and wading birds such as the brown pelican, mottled duck, egrets, ibises, and herons will be potentially dramatic. We have all already seen the terrible photographs of fully oiled pelicans either dead or struggling to survive.

Health effects to birds of exposure to oil include death, poisoning, skin irritation, matting of feathers leading to loss of flight and poor temperature regulation. Longer-term effects of oil on birds and marine mammals are less understood than are short-term impacts, but oil ingestion has been shown to cause suppression of the immune system, organ damage, as well as reproductive changes such as embryo death in eggs and behavioral changes leading to reproductive impairment. Damage to the immune system can lead to secondary infections that cause death and behavioral changes may affect an animal's ability to find food or avoid predators. Long-term consequences can include impaired fitness and reproduction, potentially impacting population levels.

Oil has the potential to endure in the environment long after a spill event and has been detected in sediment 30 years after a spill. In tidal flats and salt marshes, oil may seep into muddy bottoms and persist for an extended period of time, remaining toxic and preventing the germination and growth of coastal and marine plants. The effects of oil on the vegetation and invertebrates in these systems will undoubtedly have long-term impacts on fish and wildlife populations. These plants are important to the buffering capacity of marshes and wetlands from storm events and provide habitat for birds and other animals. Impacts associated with the conversion of wetlands to open water, subsidence, and sea level rise will serve to only weaken the ability of the coastal wetlands to withstand and recovery from the impacts of future storm or spill events.

Furthermore, any projection of damages may be impacted by the use of dispersants in response to this spill. This spill has resulted in the use of dispersants in quantities unprecedented in the United States (over 1,100,000 gallons), and the first use of dispersants at significant depth (over 300,000 gallons). EPA Administrator Lisa Jackson has pointed out the following:

- We know that dispersants are less toxic than oil.
- We know that surface use of dispersants decreases the risks to shorelines and organisms at the surface. And we know that dispersants breakdown over weeks rather than remaining for several years as untreated oil might.
- After testing and authorizing dispersant use underwater, we also remain optimistic that we are achieving similar results with the use of less chemicals.

The dispersants are meant to help breakdown the oil and decrease the resulting damage. As the dispersant is used underwater, EPA is requiring BP to do constant, scientifically rigorous monitoring so that EPA scientists can determine the dispersants' effectiveness and impact on the environment, water and air quality, and human health. The Administration will continue to closely scrutinize the monitoring results and reserve the right to stop the use of subsea dispersants if the science indicates that this method has negative impacts on the environment that outweighs its benefits.

The preliminary assessment of wildlife and habitat impacts to date from the Deepwater Horizon Oil Spill is only a precursor of major and long-lasting ecological impacts to the Gulf of Mexico, and beyond, should the Loop Current carry the oil toward the Florida Straits.

Engaging the Public

The Administration is undertaking a variety of activities to engage the general public and local communities and to disseminate and receive information about the environmental impacts of the Deepwater Horizon oil spill.

Secretary of the Interior Salazar, as well as other Administration leaders, is meeting regularly with national, state and locally elected officials to share information and receive input. In addition, Administration representatives are meeting with communities at town hall meetings and in other forums. For example, this week, representatives from the U.S. Coast Guard, U.S. Fish & Wildlife Service, the Environmental Protection Agency and other state and partner agencies responding to the Deepwater Horizon incident, will host two Open House Expos in Plaquemines Parish, Louisiana. The Open House Expos will offer Plaquemines residents the opportunity to engage one-on-one with experts about the techniques, strategies and materials being used in the spill response. Officials have also participated in teleconference briefings for congressional staff, frequently held press announcements and briefings for the media, and provided other periodic briefings for nongovernmental organizations and other partners.

The Administration is utilizing new media to reach interested members of the public. As of June 9, there were: 32,148 Facebook followers, 7,218 Twitter followers, 2.3 million views on YouTube of more than 55 posted videos, 136,682 views of the photographs posted on Flickr, and over 78 million hits on the primary website set-up for the incident, www.deepwaterhorizonresponse.com/. All information is being coordinated through the JIC, which is staffed with representatives from federal agencies and others.

A number of incident "hotlines" were established early in the Administration's response to the oil spill to encourage information sharing directly with the public. For example, there is an environmental hotline with community information (866-448-5816), an assistance hotline to make requests for booms and offering vessels of opportunity (281-366-5511), a wildlife distress hotline (866-557-1401), a claims hotline (800-440-0858) and a volunteering hotline (866-647-2338). Contacts have also been set-up to receive technical response suggestions and forward them to the Unified Command if they are useful.

Looking forward, the Department of the Interior, in conjunction with the Department of Homeland Security, has launched an investigation into the causes of the *Deepwater Horizon* offshore oil drilling platform explosion, and is holding public hearings, calling witnesses, and taking any other steps needed to determine the cause of the spill. In addition, the 30-day safety review that President Obama ordered the Department of the Interior to undertake has been presented to the President and has helped us understand what safety measures should be immediately implemented.

In mid-May, the National Academy of Engineering agreed to the Secretary of the Interior's request to review the Deepwater Horizon spill. This highly respected organization is a part of the National Academy of Sciences (NAS), and will bring a fresh set of eyes to this tragedy. The National Academy of Engineering will conduct a rigorous, independent, science-based analysis of the causes of this oil spill. The NAS has carried out similar independent investigations into events like the space shuttle Challenger accident.

Restoring Natural Resources

In order to restore natural resources in the Gulf of Mexico injured by the Deepwater Horizon oil spill, the Administration's efforts must initially focus on stopping the release of oil from the well and containing the oil to mitigate impacts to trust resources along our fragile coastline. We must also direct our efforts towards determining the magnitude of the injuries to natural resources so that BP and other responsible parties can be held accountable for restoring them.

Preparation for determining the extent of the injuries to natural and cultural resources is already underway, as natural and cultural resource experts in the FWS, NPS and other federal agencies are actively collecting baseline sediment, water and photographic data, conducting beach surveys on public lands, surveying the coasts for injured birds, manatees and other wildlife, and conducting Natural Resource Damage pre-assessments. FWS and NPS, along with other Interior, state, tribal and federal partners, will act as "trustees" for natural resources injured by the oil spill. FWS has responsibility for National Wildlife Refuges, threatened and endangered species, migratory birds, anadromous fish, and other natural resources that fall under the jurisdiction of FWS. NPS has responsibility for National Park units and the natural and cultural resources and habitats protected within their boundaries including wildlife, seagrass beds, coral reefs, mangroves, salt marshes and shipwrecks and other historic features. As trustees, we will identify the natural and cultural resources injured, determine the extent of the injuries, recover damages from the responsible parties, and plan and carry out natural resource restoration activities. Even though some assessment work has begun, natural resource trustee agencies will not be able to determine the magnitude of the resource injuries until the oil spill is stopped and the effects are understood.

Once the magnitude of the resource damage is determined, the trustees will pursue a claim against BP and other responsible parties of the Government's conclusions as to the full costs of the restoration, for the loss of natural resources and natural resource services to the general public, and for the cost of the response and assessment activities. In testimony before the House Energy and Commerce Committee on May 25, the Department of Justice reiterated the

Administration's commitment to explore all legal avenues to ensure that those responsible for this disaster pay for *all* of the devastation that they have caused.

The Oil Pollution Act of 1990 (OPA) was passed in the wake of the Exxon Valdez disaster to provide specific legal authority for dealing with the consequences of oil spills. OPA assigns responsibility for cleaning up such spills. It also provides a liability scheme for payment of damages, ranging from the immediate and ongoing economic harm that individuals and communities suffer to the potentially devastating and long-term harm done to precious natural resources.

Although OPA is the primary federal vehicle for addressing liability for response costs and damages resulting from oil spills, it is not the only legal vehicle for seeking compensation for incidents such as those now unfolding in the Gulf. OPA expressly preserves state and other federal mechanisms for pursuing damages for injuries caused by such incidents and for assessing penalties for the underlying conduct that may cause such disasters. For example, the National Park System Resource Protection Act (16 U.S.C.19jj) establishes additional authority for addressing natural and cultural resources for which the National Park Service is trustee.

After the claim is resolved, whether by settlement or litigation, the trustees will develop a final restoration plan with public input that specifies the actions necessary to restore the injured resources. The trustees will then monitor the restoration projects to gauge progress, performance and success of the restoration actions as well as the need for any interim corrective action.

The Secretary of the Interior has made absolutely clear in meetings with BP executives that BP, as a responsible party, will be held fully accountable for paying costs associated with this spill. In a letter to Secretary Salazar and Homeland Security Secretary Janet Napolitano, BP has confirmed that it will pay all damages regardless of whether the statutory liability cap contained in the OPA applies. While the investigations into the cause of this disaster are still underway, the Administration will ensure that those found responsible will be held accountable for their actions.

Looking Forward

The Administration believes the visible natural resource impacts to date, particularly to fisheries and wildlife, are only the start of what will be a major and long-lasting ecological disaster. Science underpins everything we do in conserving fish and wildlife and other natural resources. It broadens and deepens our understanding of natural processes and ecosystems, and in so doing it enables us to be more effective, judiciously allocate our budget and assets, make sound decisions, and better meet our stewardship responsibilities in serving the American people.

For the past 18 months, the Department of the Interior has focused most of our new capacities in landscape planning and science to build what we call Landscape Conservation Cooperatives, or LCCs. These LCCs are designed to help us and our conservation partners develop and apply up-to-date scientific theory and practical approaches to helping fish and wildlife adapt to the adverse effects of large-scale ecological disruptions, such as climate change and now the Deepwater Horizon oil spill.

In addition, other areas within FWS such as the migratory bird and habitat conservation programs have a significant role in assessing the oil spill's impacts and developing monitoring programs and protocols. Our National Wildlife Refuge System has moved forward to develop unified, integrated systems to monitor resources on refuges, inventory those resources, and make that information available for analysis by our own scientists and their counterparts in other agencies, nongovernmental organizations, universities, and the public. Inventory and vital signs monitoring programs currently in place in National Park units will contribute to analyses and assessment of impacts as well. Additional efforts by the Department are currently underway to develop long-term integrated science plans for the marine and coastal ecosystems of the Gulf of Mexico.

Addressing the environmental impacts of this oil spill is going to be very challenging. Fortunately, we are in a better position now that we have begun to bring partners together to develop science capacity through the LCCs surrounding the Gulf Coast. As with our work on climate change, the BP Deepwater Horizon oil spill disaster will require the cooperation and shared resources of many partners to come together, bring ideas, and analyze, address, and mitigate impacts to fish and wildlife and other natural resources using science. When it comes to the long-term restoration efforts, the LCCs now being established will play a key role in helping us determine when and how that restoration will occur along the Gulf Coast.

Through these conservation partnerships we plan to bring together the scientific capabilities, ideas, resources, and the ability to leverage resources to address challenges posed by the oil spill and reduce its effects on fish and wildlife, National Wildlife Refuges, National Park units, commercial fishing, ecosystem functions, and other important resources in the Gulf.

Dealing with the more immediate challenges presented by BP's offshore platform disaster will require better coordination of science, planning, and operations to address the ongoing impacts to the Gulf of Mexico and the likely broader effects that may occur outside this area.

Conclusion

The Deepwater Horizon Oil Spill is the latest in the series of events graphically illustrating our Nation's need to understand, value, and nurture the Gulf of Mexico ecosystem. The spill has illuminated the need for additional information about wildlife, fisheries, and habitats as we try to quantify the damage, and understand the cumulative effects of the catastrophic stressors acting on the Gulf Coast system. The immediate impacts of the spill are graphic, obvious, and tragic to our natural resources and the people who cherish and make their livelihood from the Gulf. The deepwater location of this spill, in combination with the volume of oil discharged and oceanographic and weather influences introduce major uncertainty into defining the full range of foreseeable impacts.

We must bring to bear our best scientists and our best science, to understand the Gulf's resources at risk, the impact of oil on the health of those resources, and the future trajectories of critically important resources to Gulf Coast communities and our nation as a whole. We must better

understand, and predict the future paths of the fisheries, the migratory birds, the endangered species, and the local and national economies associated with these resources.

This Administration is committed to helping the people and communities of the Gulf Coast region persevere through this disaster, to protecting our important places, and to learning valuable lessons that will help prevent similar spills in the future.