

# Deepwater Horizon Natural Resource Damage Assessment (NRDA) Update



Photo Credit: NOAA

**Governor's Advisory Commission  
March 10, 2011**



# Deepwater Horizon Overview

- April 20, 2010-Deepwater Horizon drilling rig exploded, caught fire, and sank
- Largest oil spill in the country
- Louisiana heavily impacted
- Clean-up from spill continues
- NRDA underway



# NRDA Overview

- **Goal:** to make the environment and public whole for injuries to natural resources and services resulting from an incident involving a discharge or substantial threat of a discharge of oil
- **Trustees:** Manage process, represent public interest and ensure restoration of injured natural resources



# NRDA Legal Framework

- **Oil Pollution Act of 1990 (OPA)**
- **Louisiana Oil Spill Prevention and Response Act of 1991 (LOSPRA)**



# Trustees

- **Federal Trustees**
  - Department of Commerce (NOAA)
  - Department of the Interior (FWS, BLM, NPS, BIA)
- **State Trustees**
  - Louisiana, Mississippi, Alabama, Florida, Texas
- **Louisiana Trustees**
  - Lead: Coastal Protection and Restoration Authority (CPRA)
  - Oil Spill Coordinator's Office/DPS
  - Department of Environmental Quality
  - Department of Wildlife and Fisheries
  - Department of Natural Resources



# Louisiana's NRDA Team

- **LOSCO/DPS and CPRA staff**
  - Oversight by Governor's office
  - Includes in-house technical, legal and administrative staff
- **Trustee agencies provide technical staff for assessment**
- **Additional outside contractor assistance for assessment, data management, and case strategy**



# Cooperative Process

- **Trustee Council**
  - State and Federal Trustees work together to assess injuries to resources and develop legal case
  - Executive Committee of state and federal trustees meet regularly to coordinate high level decisions
- **Responsible Parties (RPs) are invited to participate in a cooperative process for assessing injured resources**
- **RPs fund assessment activities**
- **Trustees may exit the cooperative process**



# Public Outreach

- **Public meetings**
  - NRDA 101 and opportunities for public input (Fall 2010)
  - Scoping for restoration types (Spring 2011)
  - Additional meetings to be scheduled
- **Coordination with Parish officials**
- **Governor's Oyster Advisory Committee and Oyster Task Force**



# Stages of NRDA

- **Pre-Assessment/Assessment**
- **Restoration Planning**
- **Restoration Implementation**



# Pre-Assessment

- **Collection of ephemeral data**
- **Gain an understanding of potential injury that will aid in development of legal case**
- **Work plans are developed to assess injury**
  - **set data collection/sampling techniques**
  - **Arrange logistics for data collection**
  - **identify data collection objectives**



# Formal Assessment

- Invite letter sent to RPs and Notice of Intent to Conduct Restoration Planning (NOI) published in the federal and state registers
- NOI triggers formal assessment
  - <http://losco-dwh.com/>
  - Approved work plans are available for review
- Pre-assessment activities continue to capture time-sensitive data



# Restoration Planning

- **Coordination with State Master Plan**
- **Sustainable projects**
- **Landscape scale approach**
- **Restoration of Ecosystem Services**
- **Consistent with National Oceanic and Atmospheric Administration (NOAA) restoration criteria**



# Restoration Implementation

- **Implement Projects**
- **Monitor performance of projects**
- **Corrective actions as appropriate**



# Emergency Restoration

- **Purpose: to mitigate continuing harm to natural resources from direct oiling or response activities**
- **Not eligible for NRDA credit**
- **Trustee Council Proposed Projects**
  - **Shoreline re-vegetation (submitted)**
  - **Submerged aquatic vegetation injured by response actions (submitted)**
  - **Migratory bird habitat (funded by BP)**
  - **Sea Turtle project (submitted)**

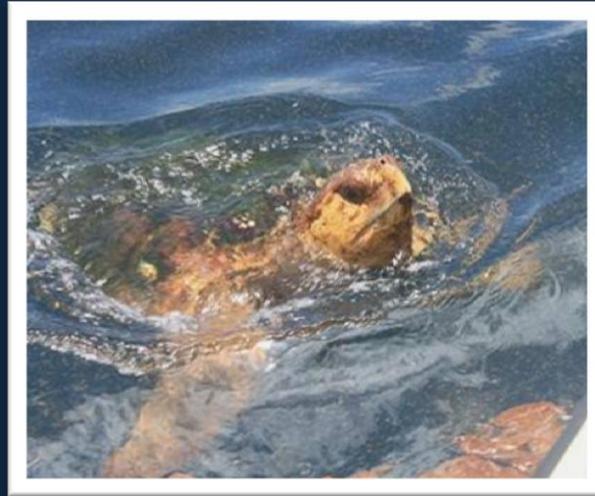


# Early Restoration

- Trustees seeking a down payment from BP to begin restoration while long-term assessment is underway
- Projects must be shovel-ready and meet NRDA criteria
- Negotiations between Executive Committee and BP



# Technical Overview



# Resource Groups

- Habitat
- Aquatic
- Wildlife
- Human Use
- Cultural



# Habitat Resource Group

- Shoreline
- Submerged aquatic vegetation
- Nearshore sediment & water sampling
- Oyster habitat
- Benthic habitat
- Sargassum



# Aquatic Resource Group

- Water Column
- Fish
- Shellfish
- Marine Mammals & Turtles

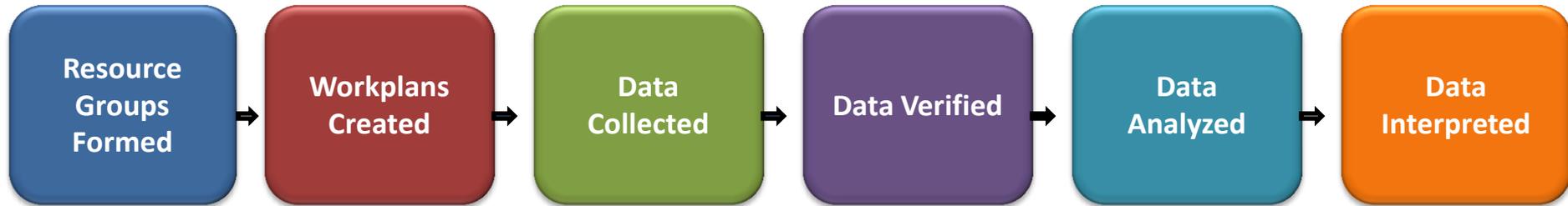


# Wildlife Resource Group

- Birds
- Terrestrial and Aquatic Organisms



# DWH Data Flow



# Louisiana Workplan Overview

- **23 Habitat Workplans**
  - 10 finalized
  - 13 under review
- Approximately 17,000 habitat data records collected to date
  
- **60 Aquatic Workplans**
  - 27 finalized
  - 33 under review
- Approximately 1,800 aquatic data records collected to date
  
- **22 Wildlife Workplans**
  - 11 finalized
  - 11 under review



# Pre-Assessment Workplans: Habitat Example

## “Deepwater Horizon/MC252/BP Shoreline/Vegetation NRDA Pre-Assessment Plan”

### **Purpose:**

- Determine shoreline areas exposed to oil
- Characterize exposed shorelines (habitat, vegetation and fauna)
- Identify monitoring stations for injury assessment

### **Data Collection:**

- Delineate spatial extent and degree of oiling
- Describe observed impacts to vegetation and biota
- Oil sample collection



# Pre-Assessment Workplans: Wildlife Example

## “Work Plan for Estimating Secretive Marsh Bird Mortality Deepwater Horizon (MSC 252) Oil Spill NRDA Bird Study #3”

### Purpose:

- Quantify abundance & density of secretive marsh bird species in un-oiled representative habitats
- Quantify proportion of live oiled & live un-oiled birds in representative habitats through active capture of live individual birds
- Estimate representative marsh bird mortality rates using radio telemetry
- Quantify fiddler crab burrow densities to supplement our understanding of marsh-specific rail densities

### Data Collection:

- Point counts & playback surveys
- Fiddler crab densities
- Radio Telemetry of adult rails and seaside sparrows



# Pre-Assessment Workplans: Oysters

## Pre-assessment Oyster Sampling Plans:

- Phase 1 Plan & Transition Plan

## Purpose:

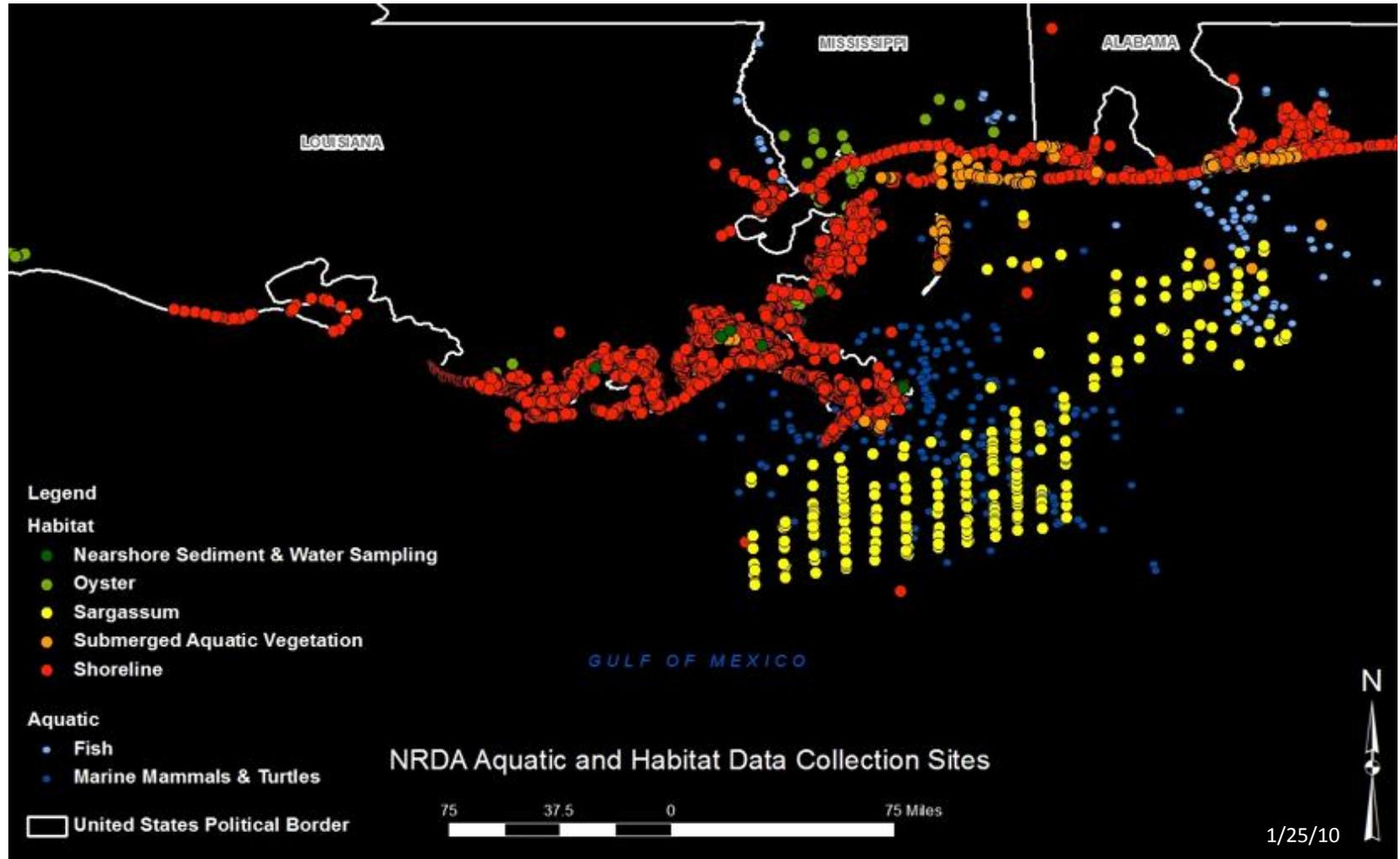
- Determine exposure from oil and response activities
- Estimate mortality rates
- Examine long-term impacts on reproductive ability

## Data Collection:

- Oyster density (population)
- Larval supply
- Contaminant data in tissue samples and sediments



# Data Collection Points



# Informative Websites

## **Public Workplans:**

<http://losco-dwh.com/viewWorkPlans.aspx>

## **Environmental Response Management Application (ERMA):**

<http://www.geoplatform.gov/gulfresponse/index.html>

[http://www.geoplatform.gov/gulfresponse/ERMA\\_Data\\_Summary.pdf](http://www.geoplatform.gov/gulfresponse/ERMA_Data_Summary.pdf)

## **Public NRDA Data:**

<http://www.noaa.gov/sciencemissions/bpoilspill.html>

## **Bird Impact Data:**

<http://www.fws.gov/home/dhoilspill/collectionreports.html>

## **NOAA Deepwater Horizon Archive:**

<http://www.noaa.gov/deepwaterhorizon/>