

**It's Not The Steel, It's the Paper!**

**(Or How We Spent Our Summer Vacation!)**

**Louisiana Oil Berm Construction  
2010**





DEEPWATER HORIZON EXPLOSION 20 APRIL 2010

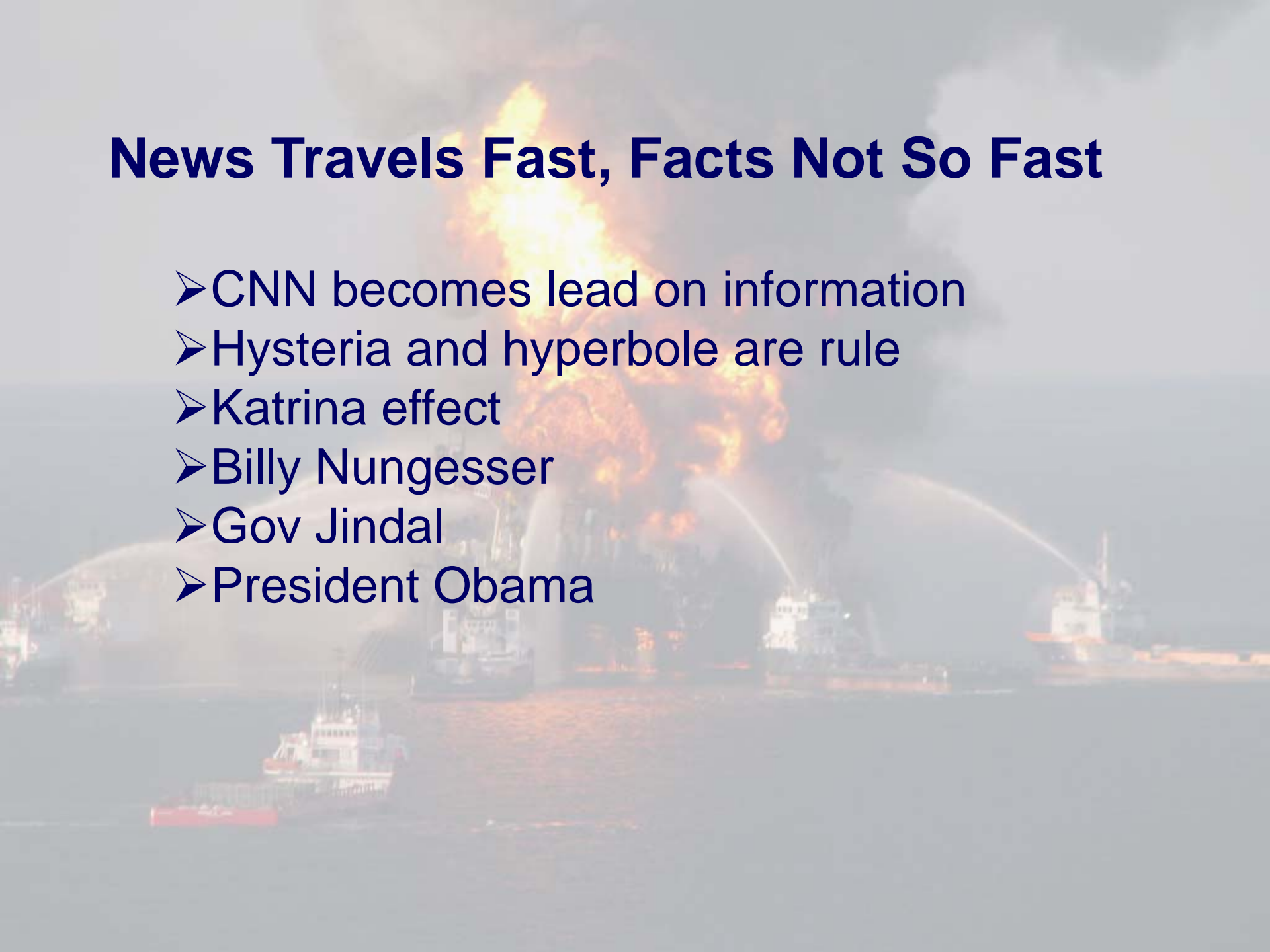
# Horrible Accident

- 11 men lost lives
- ?? Barrels a day
- Initial reports vague
- Response vague



# News Travels Fast, Facts Not So Fast

- CNN becomes lead on information
- Hysteria and hyperbole are rule
- Katrina effect
- Billy Nungesser
- Gov Jindal
- President Obama







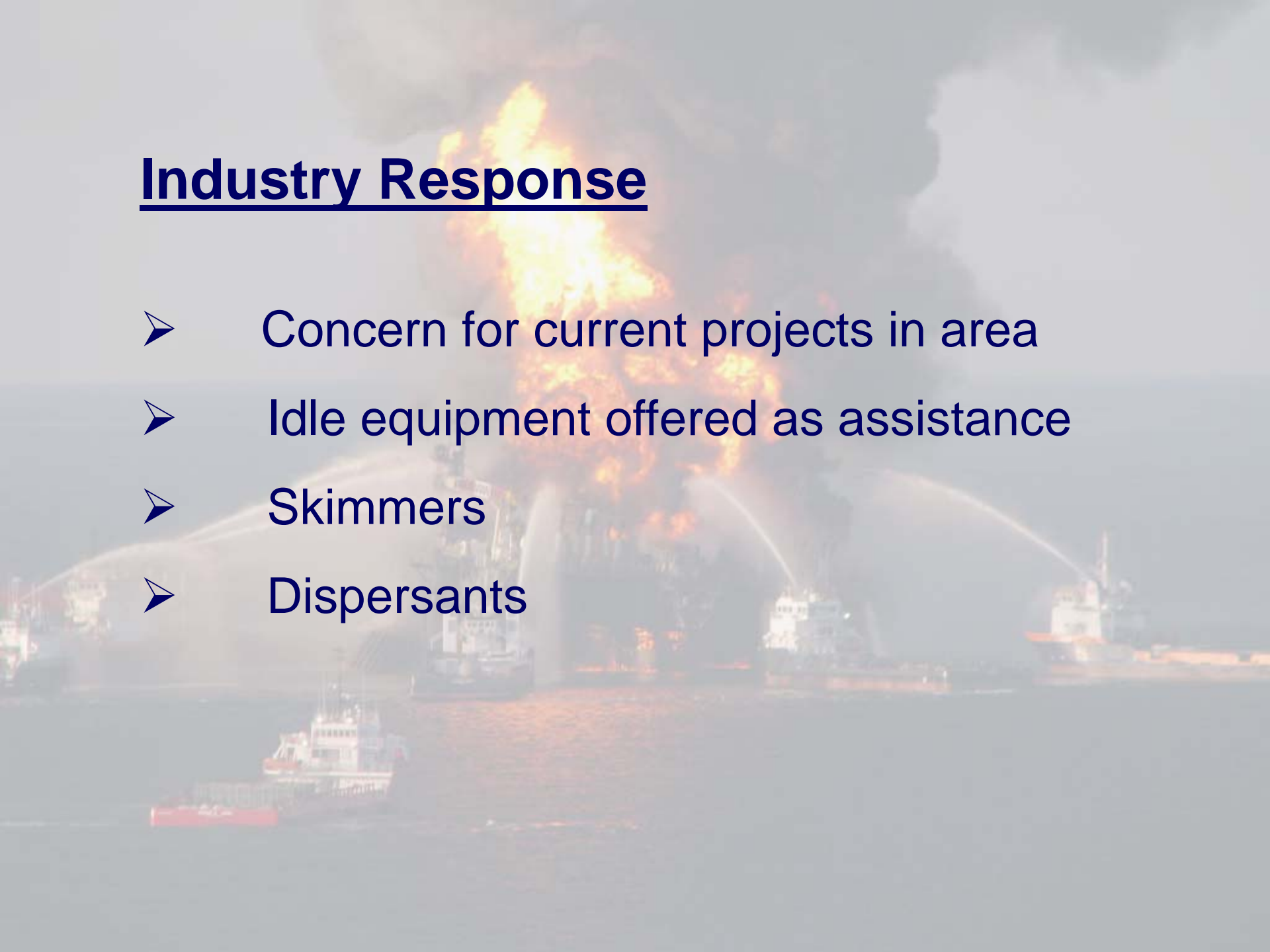
Chandeleur Sound

Barataria  
Basin

Deepwater Horizon

# Industry Response

- Concern for current projects in area
- Idle equipment offered as assistance
- Skimmers
- Dispersants



# Berm Plan

- Old State Plan
- More Damage Than Benefit
- Foreign marketing efforts distraction
- Concept gained momentum as spill continued

# Berm Plan

- Ancil Taylor, Bean Consultant
- Pressure on BP building, so what if??
- Steel Availability
  - Idle
  - Otherwise available
- Paper Availability
  - Permits
  - Engineering
  - Contracts
- Meet With Corps, USCG, BP





610  
10  
47  
New Orleans  
90

Chandeleur Sound

Line of Defense

Barataria  
Basin

Line of Defense

Deepwater Horizon

# Berm Plan

- Cap Failed
- USCG/BP State Funding Next Day
- Corps permits to State
- Shaw hired
- Shaw meets with industry
- Corps protocol for dredges



# Start Up Challenges

## Philosophical

- No negative thoughts
- We can do this
- This is what we do
- SAFETY



# Start Up Challenges

- No time for planning and preparation
- Minimal plans and specifications
- Difficult Communications
- Long transport distances / Exposed Conditions
- Small unit operations in remote locations (surveys, pipeline install)
- Large workforce- influx of subcontractors
- Pressure to show progress and meet milestones



# Start Up Challenges

- Weeks Clamshell first dredge deployed – same day – cancelled
- First Dredge in Site TSHD “Stuyvesant”
- CSD California next on site















# Timeline

- BP Deepwater Horizon Explosion 20 Apr
- State pushes for Berm Permits May
- Shaw signs Contract with State of LA 8 Jun
- Shaw Meets with Contractors 9 Jun
- Stuyvesant and California on Site 11-14 Jun
- NTP for Alaska, Texas, Liberty, Terrapin Padre, Spider Barge, Scows 15 Jun
- Liberty Island starts dredging 19 Jun
- Terrapin Island starts 23 Jun
- Padre Island starts 27 Jun
- Alaska departs NJ 29 Jun
- Texas departs Jax 8 Jul
- GL55 Spider Barge departs Jax 10 Jul





















Equipment Crews, Staff,



State / Shaw / GLDD Focus on  
Production



Incidents

**Safety Intervention Update**



# An Incident Injury Free Workplace

It's about caring for your coworkers

It's about speaking up when you see something unsafe

It's about planning activities and asking questions

It's changing from complying with safety practices to adopting them as the standard



It's about taking responsibility for your own safety and the safety of those who work with you

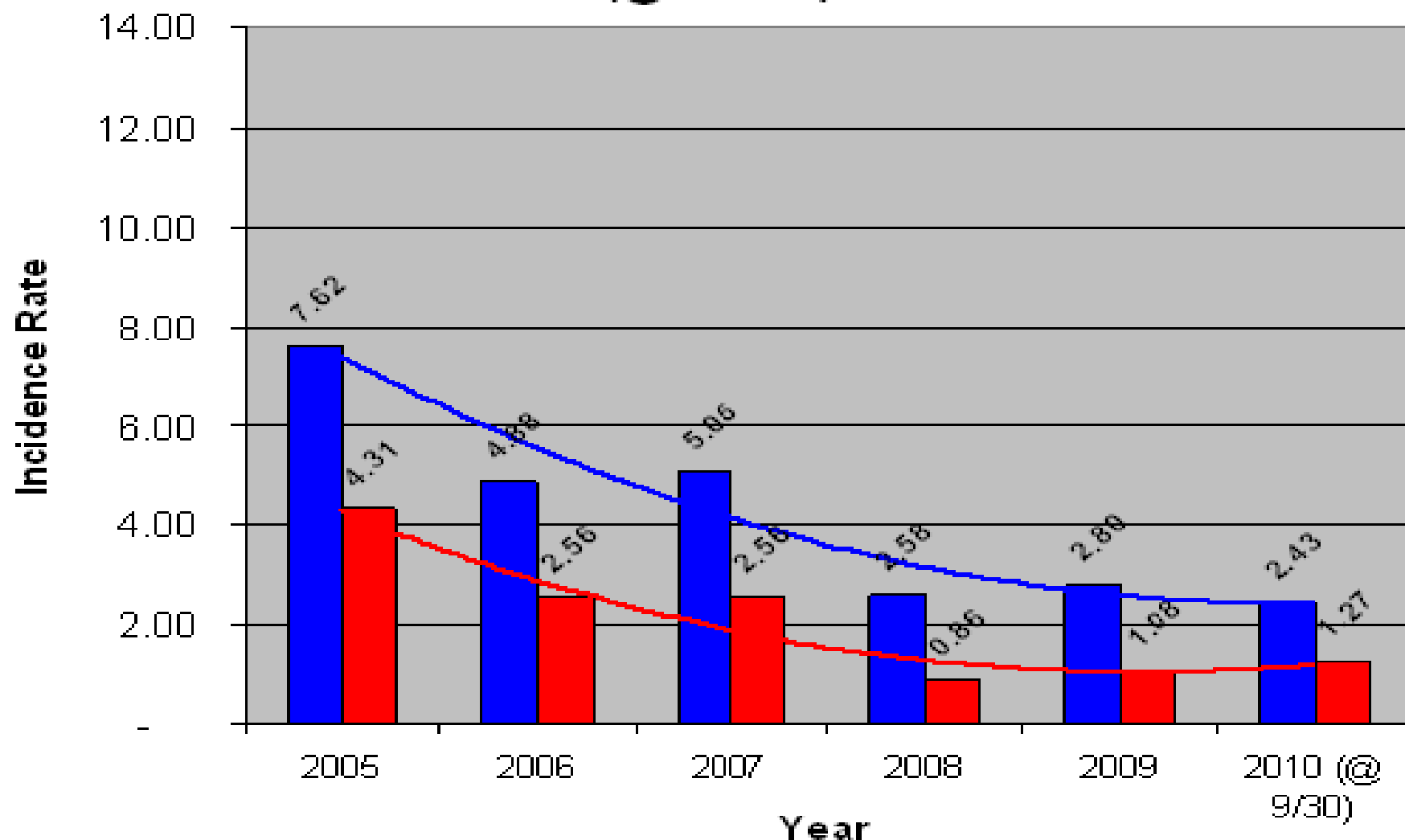
It's about acknowledging your importance to the company

It's about choosing to follow safety rules because you want to not have to

It's about going

It's about

# Personal Injury Incidence Rates Calendar Years 2005 through 2010 (@ 9/30/10)



■ Total ■ Lost Time — Trend (Total) — Trend (Lost Time)

Incidence Rate = (# of injuries & illnesses ÷ total hours worked) X 200,000

# Thinking on Our Feet

- Innovation in methodology
- Innovation in technology
- SAFETY
- Communication - Corps starts weekly meetings
- Production challenges
  - Variable material , how measure progress?





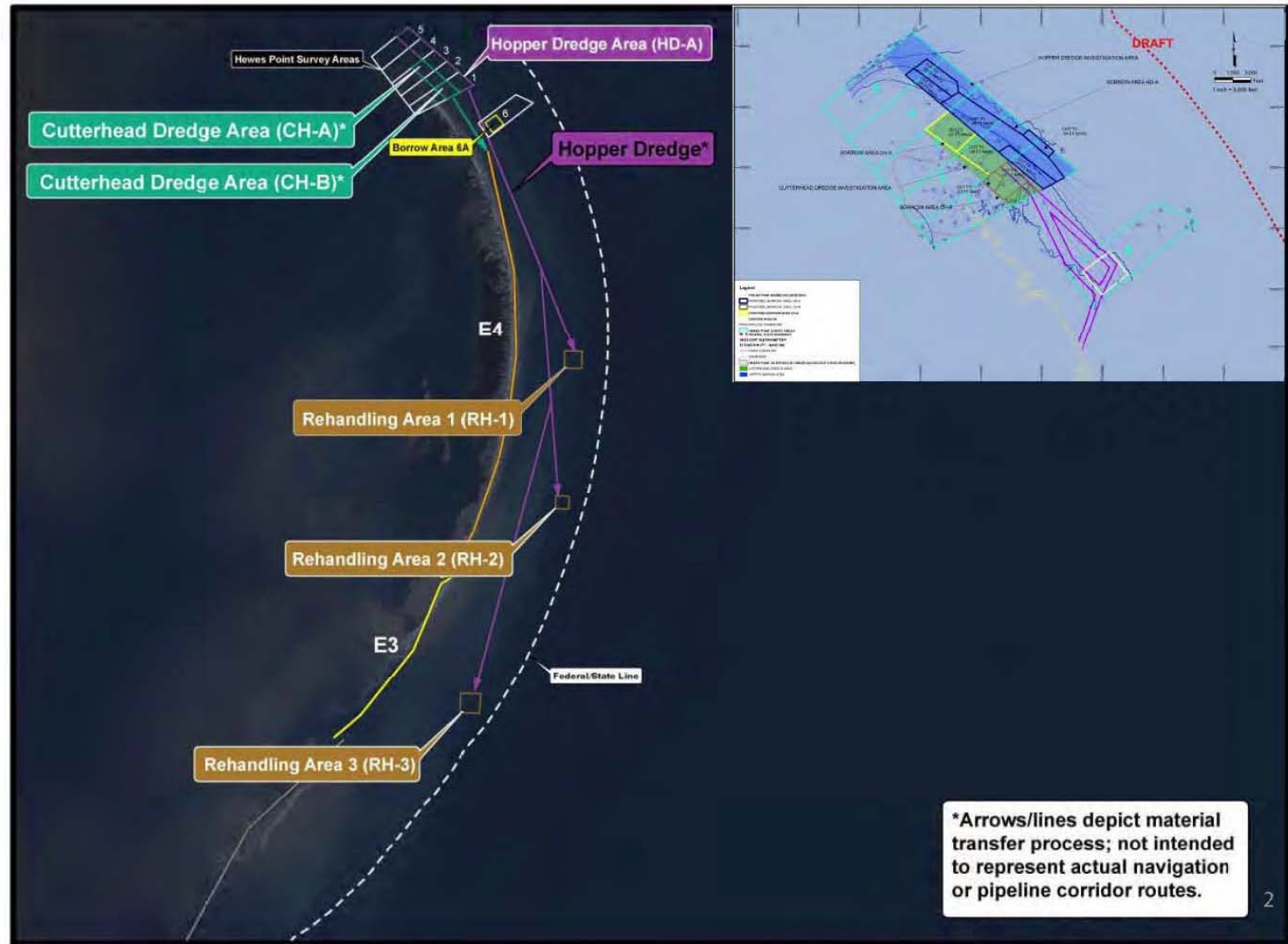
# BARRIER BERM PROJECT



(File name: Overall Berm)

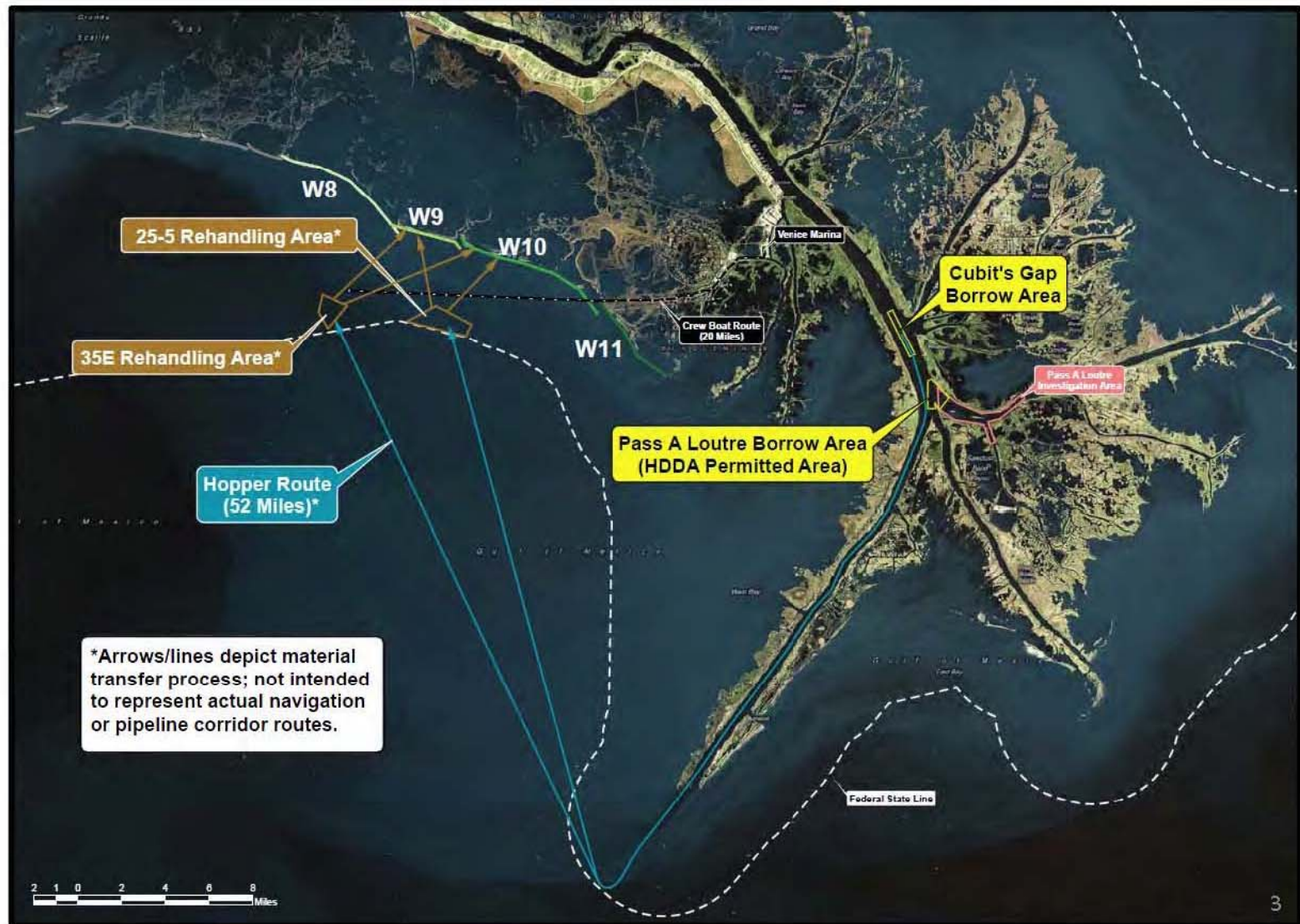


# EASTERN BARRIER BERM DETAIL



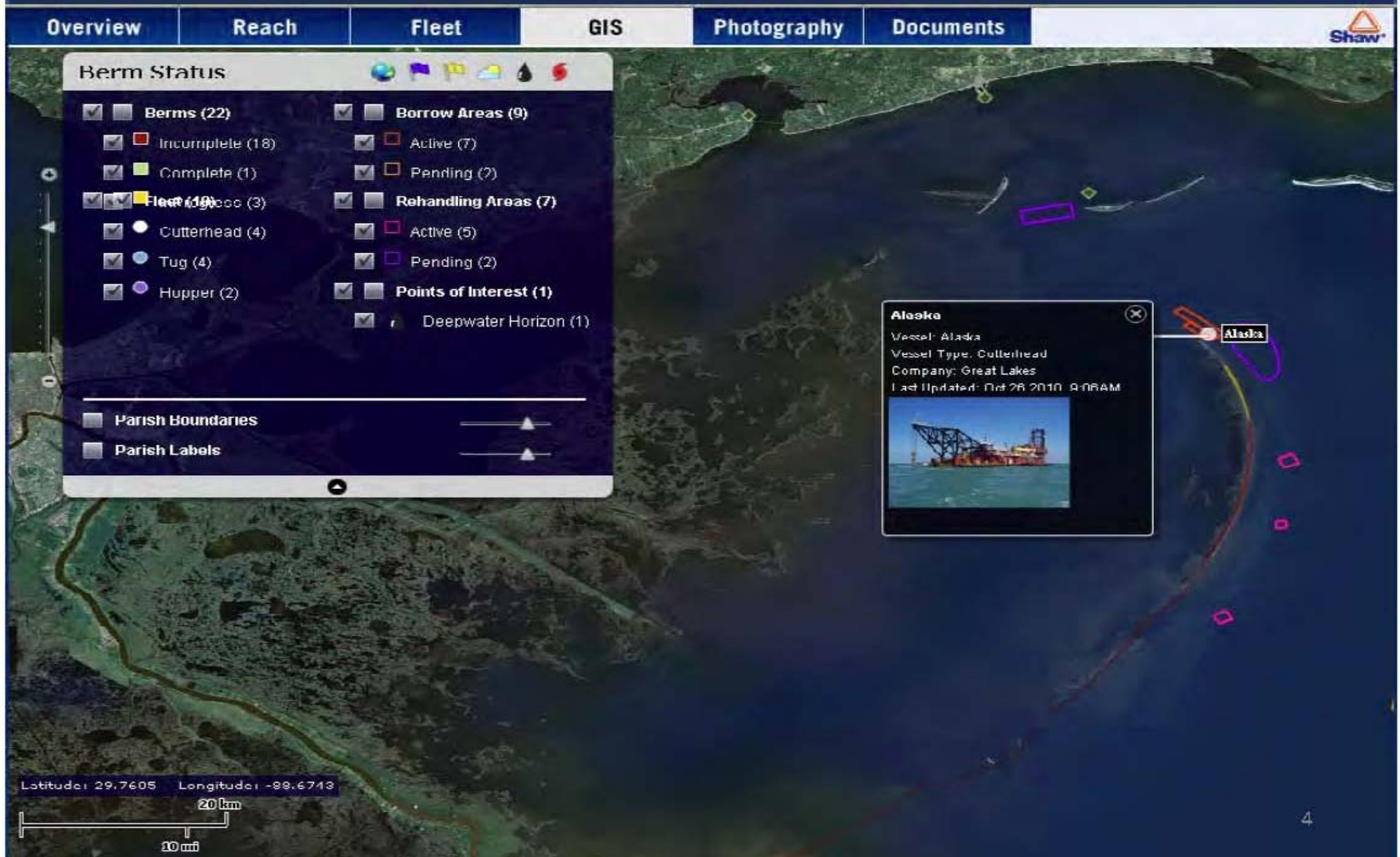


# WESTERN BARRIER BERM DETAIL





# Eastern Barrier Berm Activity





# Western Barrier Berm Activity

Overview

Reach

Fleet

GIS

Photography

Documents



## Berm Status

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> <input type="checkbox"/> Berms (22)      | <input checked="" type="checkbox"/> <input type="checkbox"/> Borrow Areas (9)       |
| <input checked="" type="checkbox"/> <input type="checkbox"/> Incomplete (18) | <input checked="" type="checkbox"/> <input type="checkbox"/> Active (7)             |
| <input checked="" type="checkbox"/> <input type="checkbox"/> Complete (1)    | <input checked="" type="checkbox"/> <input type="checkbox"/> Pending (2)            |
| <input checked="" type="checkbox"/> <input type="checkbox"/> Hopper (3)      | <input checked="" type="checkbox"/> <input type="checkbox"/> Rehandling Areas (4)   |
| <input checked="" type="checkbox"/> <input type="checkbox"/> Cutterhead (4)  | <input checked="" type="checkbox"/> <input type="checkbox"/> Active (5)             |
| <input checked="" type="checkbox"/> <input type="checkbox"/> Tug (4)         | <input checked="" type="checkbox"/> <input type="checkbox"/> Pending (2)            |
| <input checked="" type="checkbox"/> <input type="checkbox"/> Hopper (2)      | <input checked="" type="checkbox"/> <input type="checkbox"/> Points of Interest (1) |
|  | <input checked="" type="checkbox"/> <input type="checkbox"/> Deepwater Horizon (1)  |

☐ Parish Boundaries

☐ Parish Labels

Latitude: 29.4524 Longitude: -89.1929



### EW Ellefsen

Vessel: EW Ellefsen  
Vessel Type: Cutterhead  
Company: Weeks  
Last Updated: Oct 26 2010 11:00 AM



Shelby

EW Ellefsen

Alexandra

Katherine  
Camacho

Shirley

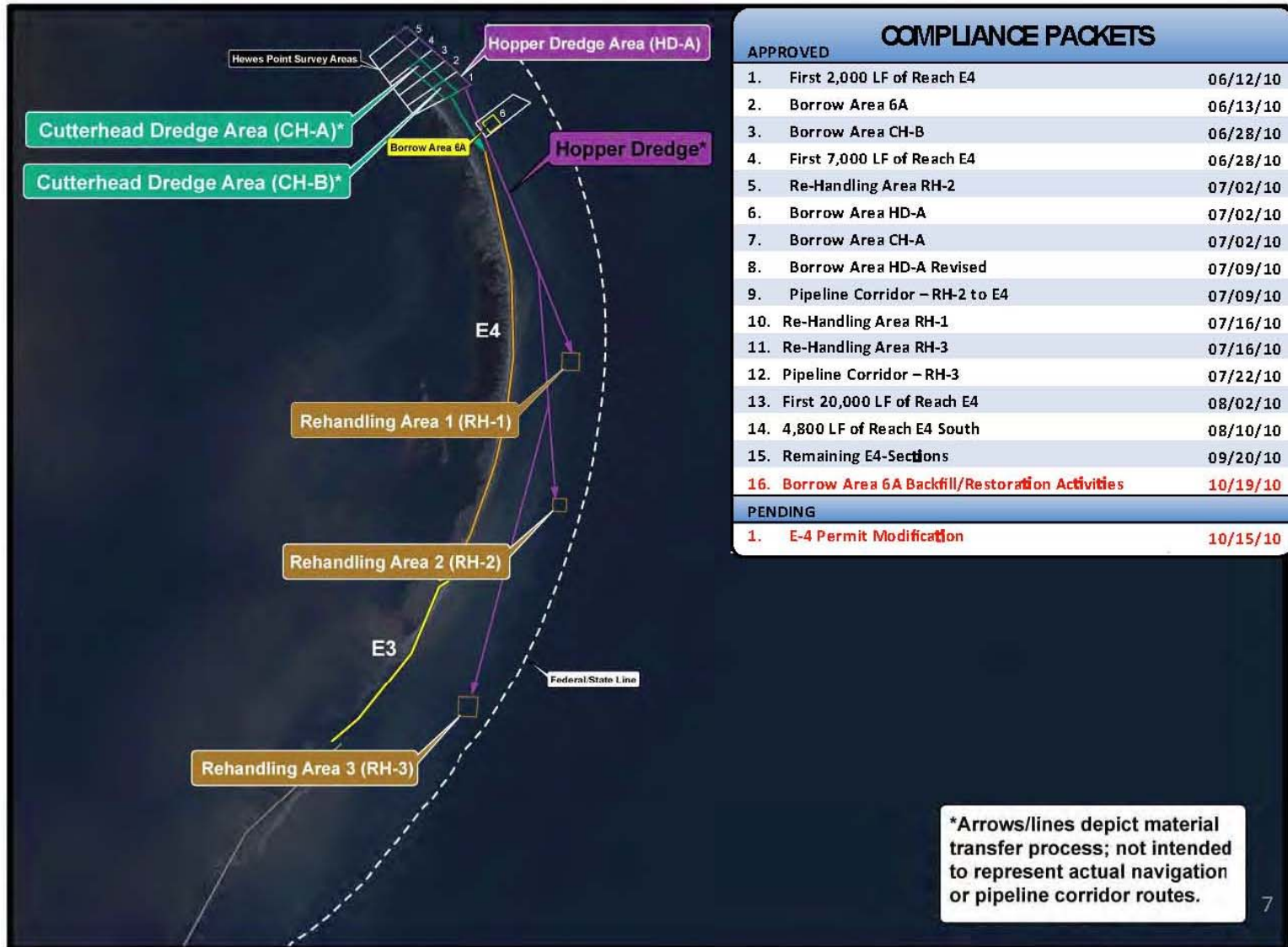
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## Barrier Berm Progress Through October 25, 2010

Berm ID	Linear Foot Under Construction	Linear Foot to Elevation (+6 foot)	35E Handling Site (yd <sup>3</sup> )	25-5 Handling Site (yd <sup>3</sup> )	Hewes Point (yd <sup>3</sup> )	RH-2 Handling Site (yd <sup>3</sup> )	RH-2	St. Bernard Shoals (yd <sup>3</sup> )	Berm (yd <sup>3</sup> )
Reach W8	3,250	2,550							564,955
Reach W9	12,449	12,449	5,017,108						2,281,314
Reach W10	8,830	8,230		2,562,324					1,162,519
Reach W11		0							
Reach E3		0							
Reach E4	24,747	24,407			3,162,672	471,634	438,546		3,601,218
6A Refill					533,000				
Linear Foot Total	49,276	47,636							
Volume			5,017,108	2,562,324	3,695,672	471,634	438,546	0	7,610,006
Summary									16,194,072

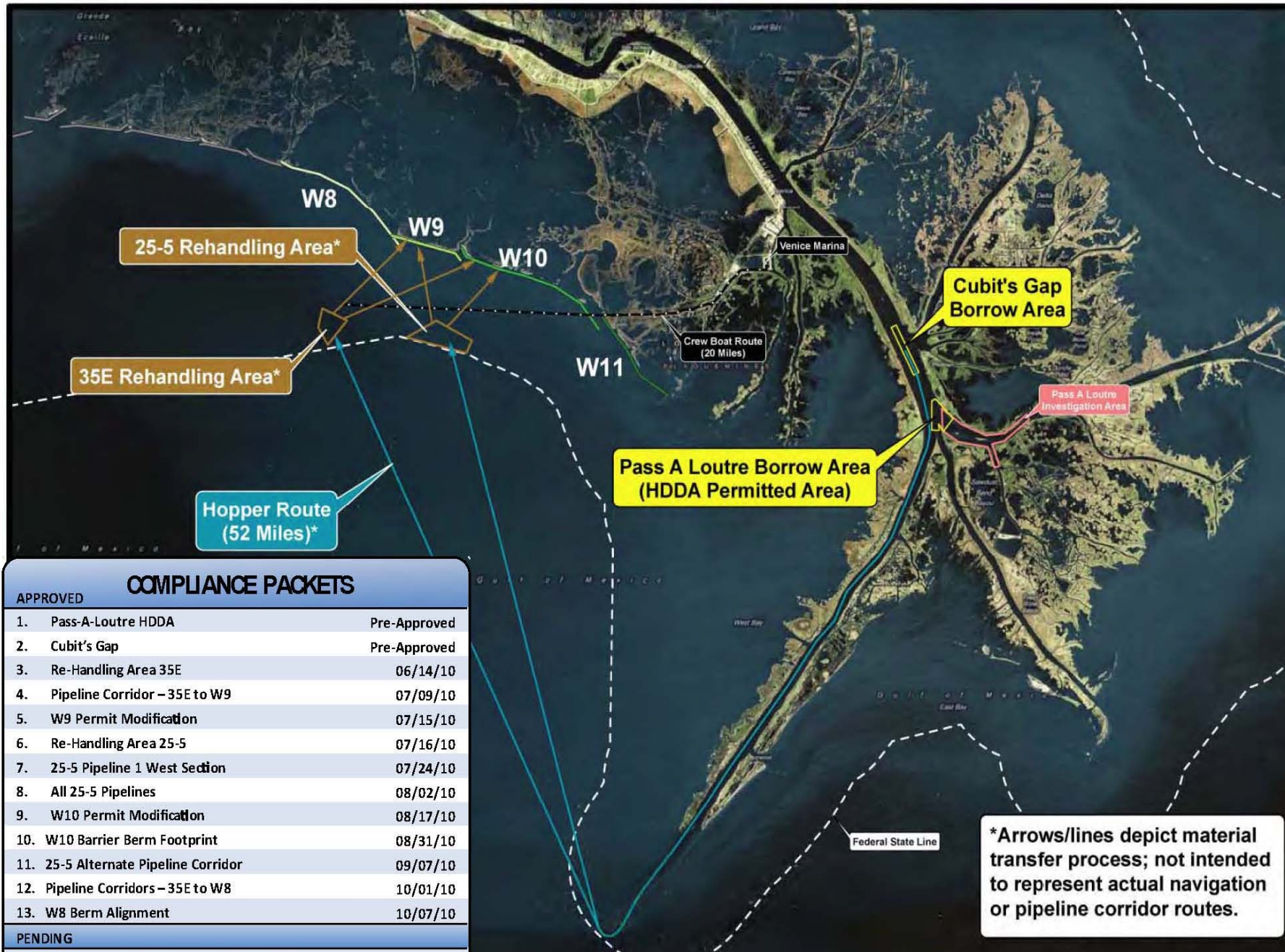
 Material from Hewes Point directly to Berm

# EASTERN BARRIER BERM DETAIL





# WESTERN BARRIER BERM DETAIL



## COMPLIANCE PACKETS

### APPROVED

1.	Pass-A-Loutre HDDA	Pre-Approved
2.	Cubit's Gap	Pre-Approved
3.	Re-Handling Area 35E	06/14/10
4.	Pipeline Corridor – 35E to W9	07/09/10
5.	W9 Permit Modification	07/15/10
6.	Re-Handling Area 25-5	07/16/10
7.	25-5 Pipeline 1 West Section	07/24/10
8.	All 25-5 Pipelines	08/02/10
9.	W10 Permit Modification	08/17/10
10.	W10 Barrier Berm Footprint	08/31/10
11.	25-5 Alternate Pipeline Corridor	09/07/10
12.	Pipeline Corridors – 35E to W8	10/01/10
13.	W8 Berm Alignment	10/07/10

### PENDING

\*Arrows/lines depict material transfer process; not intended to represent actual navigation or pipeline corridor routes.

# CURVE BALLS

- After everything geared up, only two weeks at full capacity
- Turtle issues shut down hoppers
- SAFETY
- Still working, lack of commitment makes tough to plan.



# Lessons learned. Take aways?

- We can do this. This is what we do.
- What an opportunity for engineers/scientists
- Good material in Gulf/River
- Equipment versatility is important
- Engineering flexibility is important
- Need team effort owner, regulators, and dredgers.
- Need progressive thinking regulators



# Lessons learned. Take aways?

- Reporters don't care about facts
- Real experts aren't relevant
- Short term impacts?
  - Long term impacts?
- Gulf shorelines need protection, study, and action.
- US Shorelines need protection, study, and action.

Engineers can be heroes too!!



**It's Not The Steel, It's the Paper!**

**WE CAN DO THIS!**