

WEDA Environmental Commission
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Ancil Taylor, Bean Dredging;
"Louisiana Oil Barrier Berms"

The Louisiana Barrier Berm Project

EMERGENCY RESPONSE

In response to the deadly BP oil spill and unprecedented exposure to long term damage along the coastal areas of the Gulf of Mexico, the State of Louisiana embarked upon the largest and most expeditious mobilization and execution of dredging and berm constructing resources ever undertaken in this nation. In the face of many months of an estimated 60,000 barrels per day of oil spewing into the Gulf and the migration of that oil toward more than 8,000 miles of fragile coastline just within the Louisiana coastal area, it was apparent that extraordinary measures were necessary to protect the vulnerable habitat of the nation's seafood supply.

In concert with BP, the State of Louisiana, the United States Army Corps of Engineers [USACE], the US Department of the Interior and the United States Coast Guard [USCG] embarked on a plan to construct a protective feature called the Barrier Sand Berm along the coastline most immediately vulnerable to the onslaught of crude oil. This plan, primarily developed by The Bean Companies [Bean] whose home office is located within one of the parishes under attack from the oil, was designed to match the requirements of the berm and coastal protection with the immediate capabilities of the United States dredging fleet.

THE CONCEPT

In early May, 2010, the concept was presented by a Dutch delegation to the Governor of Louisiana, Governor Bobby Jindal. Bean was subsequently asked to explore the practicality, constructability and availability of dredging plant both inside and outside of the United States to build a large scale sand berm designed to protect the coastal area. After a couple of days of consideration and initial development, Bean along with GCR Associates of New Orleans, LA was asked to present the plan to the Governor on May 8, prior to the Governor's press conference about the possible concept. This day launched one of the most intense, urgent and crucially important 8 month period the US Dredging industry has encountered in many decades.



On May 8th, Bean and GCR Associates immediately began to prepare the permit



application to construct berm(s) along an area of more than 100 miles of Louisiana's coast. During the application process, the State of Louisiana and the USACE hosted several meetings with multiple Federal, State and Local agencies along with several interested parties, NGO's and other stakeholders. Ideas, concerns, issues and alternatives were raised, discussed and addressed. The persistent and effective leadership of Governor Jindal, Plaquemines Parish President Billy Nungesser and several other of the State's elected officials succeeded in acquiring the emergency federal permit necessary to begin further investigation and possible construction along a 44 mile stretch of the coast. The USACE permit

was received on Thursday, May 27, 2010.

EXECUTION

The plan was ready to execute, dredgers were needed, potential borrow pits had been conceptually identified, approximate berm alignments had been investigated and the sensitive subject of re-assigning virtually all of the larger US dredge vessels away from current and existing contract obligations had been broached.

These issues along with so many more were now ready to take to the next level of activity to "Get 'er done".



The State of Louisiana chose The Shaw Group of Baton Rouge, LA to administer the massive procurement and contract management effort that would be consistent with such an endeavor. The Shaw Group contracted Bean and GCR to continue the project design, planning, construction oversight and permit compliance activities required to achieve the goal of creating "linear real-estate" as quickly as possible. Within hours of the initial Notice to Proceed, the first hopper dredge mobilized to the site began borrowing sand from the Mississippi River and hauling it more than 50 miles to the first re-handling area on the western side of the river.



Within a week the first large cutterhead was onsite and mining sand for placement along the northern end of the Chandeleur Island chain on the east side of the Mississippi River.

EQUIPMENT

In total, the 8 largest US hopper dredges, 5 of the largest ocean capable cutterhead dredges, 2 large spider loaders, 12 of the largest US material scows and almost 300 other ancillary vessels joined the mobilization and execution effort. Deployment upon arrival of equipment often occurred within hours of receiving acceptance of our compliance packages from the USACE. Within a week of dredge arrival, berm was coming out of the water and standing between the Macondo well and the sensitive Louisiana marsh. As more equipment began to arrive and more borrow and re-handling areas were identified, a greater and more extensive effort commenced. Multiple berm alignments were under construction while others were in various stages of design.

CHALLENGES

The challenges were numerous and briefly mentioned here.

1. Construction to occur offshore during the height of hurricane season.
2. Design and berm dimensioning occurred with limited information of borrow material quality.
3. Coordination of the overall plan design with appropriate agencies.
4. Matching the plan design with the appropriate dredge capabilities in production, and other specifications.
5. Securing the dredge plant and negotiating releases from contractual obligations of the responding dredgers.
6. "On the Fly" berm alignment design as higher resolution surveying is acquired.
7. 24/7 surveying of the re-handling areas to manage effective and efficient placement of material.
8. The existence of an extraordinary population of turtles on and around one of the borrow areas.
9. Identification and avoidance of the massive offshore oil field infrastructure.

SUCCESSSES

1. Almost 20 miles of protective berm were designed, permitted and constructed as linear real-estate and continues to protect the Louisiana coastline today.
2. Over 20 million cubic yards of sand were handled and transported a distance of some 50 miles from the river into the coastal barrier footprint,



demonstrating the immense success of utilizing riverine sediments as a viable source for barrier island restoration.

3. Effectively conceptualizing, designing, applying for and receiving a permit for one of the largest dredge and fill projects ever undertaken in the United States in less than three weeks.

THANK YOU

As residents of Louisiana we express our gratitude to:

1. Governor Bobby Jindal
2. Garret Graves, Louisiana Director of Coastal Activities
3. Plaquemines Parish President Billy Nungesser,
4. New Orleans District of the Army Corps of Engineers,
5. Chris Accardo, Chief Operations Division, USACE,
6. The Shaw Group,
7. Mike Flores, President GCR Associates,
8. The dredgers, Great Lakes Dredge and Dock, Weeks Marine, Manson, and Stuyvesant Dredging.
9. The families of those who temporarily suspended their lives during the construction of these berms.

Their dedication, commitment and untiring availability to the team to achieve the successful outcome represented the typical partnership, trust and dependability that characterize those in this arena so accurately.

