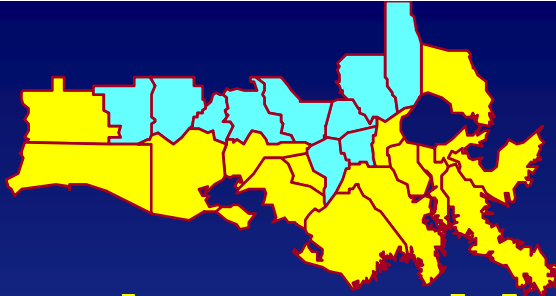


Coastal Plants Program

Technology Developments For
Coastal Wetland Enhancement,
Restoration, and Creation





Deep Water Horizon **Oil Spill**

- ... the scope and degree of impacted marshes has not been totally assessed, nor do we know the extent of natural recovery;**
- ... based on early site assessments, impacted areas will be predominately intertidal saline marshes, some brackish, and bay/barrier islands;**
- ... probable that BP's remediation liability will exceed actual damaged acres and that surrogate marshes will be identified for creation/enhancement;**
- ... acreage to be remediated will be significant.**



Brown Marsh



Standing Dead



Stubble







Spartina alterniflora
Smooth Cordgrass



Uniola paniculata

Sea Oats



Holly Beach, La.

*Dune
Stabilization*

East Island, La.



*Panicum amarum var.
amarum*

Bitter Panicum



Avicennia germinans
Black Mangrove



SEED-BASED RESTORATION





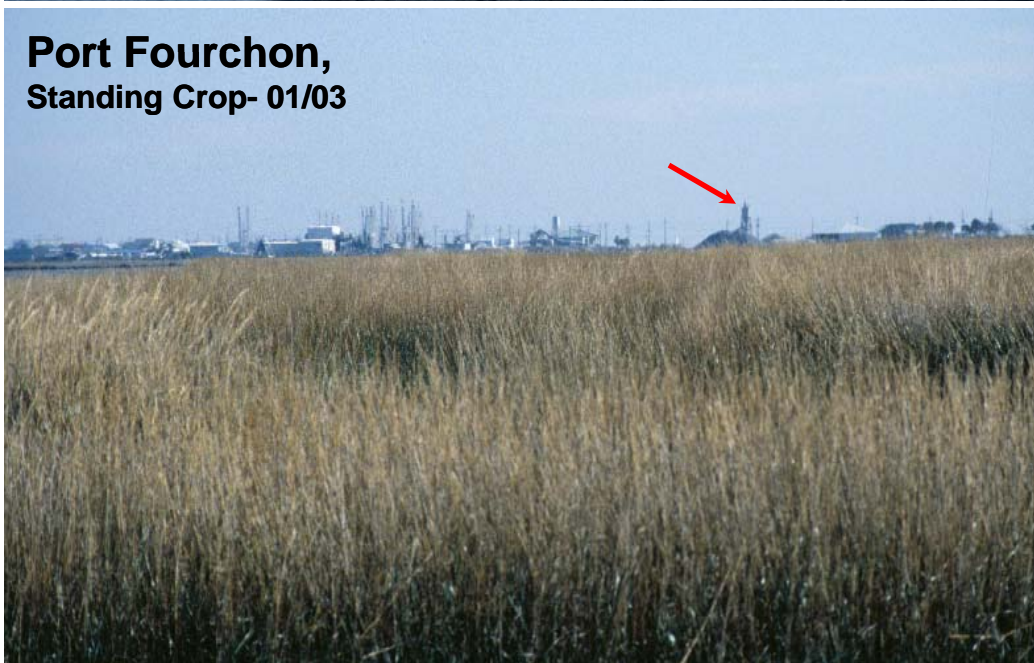
*Smooth Cordgrass
Bulk Harvest Seed*



Port Fourchon,
Aerially Seeded- 03/02



Port Fourchon,
Standing Crop- 01/03





Paspalum vaginatum
Seashore Paspalum



WHOLESALE/LARGE-SCALE VEGETATIVE RESTORATION IS POSSIBLE

UP & DOWN SIDES

Whole-Plant Restoration

- High Probability of Survival
- High Cost/Unit Area Restored
- Inaccessibility/Sensitivity of Sites

- Industry is Well Established
- Plant Materials...Available
- Standards and Specifications
- Applicators In Place
- Requires Less Over Sight

Seed/Propagule Restoration

- Reduced Probability of Survival
- Reduced Cost/Unit Area Restored
- Unfettered Access/Sensitivity of Sites

- New Industry...Re-Tooling
- Limited Plant Materials
- No Standards & Specifications
- Applicators In Place
- Specialty Mechanization
- Requires Greater Over Sight