LONG DISTANCE SEDIMENT PIPELINE
ENGINEERING THROUGH CONSTRUCTION

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BATHYMETRIC DATA ACQUISITION

- **Conduct several multi-beam bathymetric surveys @ 250’ to 500’ spacing in Mississippi River.**
- **Conduct a magnetometer survey @ 250’ spacing in all areas requiring excavation to locate existing or unknown pipelines.**
- **Determine horizontal and vertical location of pipelines/infrastructure.**
- **Determine available volume of borrow material.**
- **Determine marsh fill area(s) volume.**
Bathymetric Data Acquisition
Magnetometer Survey Data
MISSISSIPPI RIVER BORROW AREA
DELINEATION CRITERIA

• USACE Mississippi River Permissible Dredging Restrictions and Dredging Offsets.

• USACE Mississippi River Stage Work and Dredging Limits.

• Coordinate Navigational Safety Concerns- MNSA.

• Required Volume for dredging.

• Monitor Mississippi River Borrow Infilling rates.
USACE MISSISSIPPI RIVER PERMISSIBLE DREDGING REQUIREMENTS

- Must be 750’ from centerline of MR&T levee, then slope down on a 5:1 to a maximum dredge elevation of -90.0.
Alliance Anchorage Borrow Area

**LEGEND**
- LDSP BORROW AREA
- AUGUST 2011 SURVEY
- APPROX. EXISTING GRADE
- EXISTING REVETMENT
- DESIGN
- SEDIMENT DELIVERY PIPELINE

**NOTES:**
1. RIVER BOTTOM PROFILE BASED ON OSI SURVEY DATED AUGUST 17, 2011.
2. MISSISSIPPI RIVER SEDIMENT DELIVERY PIPELINE TO BE ROUTED ALONG RIVER BANK AT AN OFFSET ± 30 FEET FROM THE LWRP.
3. SEDIMENT DELIVERY PIPELINE MAY BE SUBMERGED OR FLOATING.
4. MINIMUM DISTANCE BETWEEN TOP OF CUT AND TOE OF ALLIANCE REVETMENT IS 300 FEET.
BORROW AREA DELINEATION IMPACTS

- **Mississippi River High Water Stage**
  - No excavation near MR&T above +11.0’ NGVD at Carrollton Gage (USACE – New Orleans)
  - No dredging above +15.0

- **Navigation Safety - Barge and Ships**
  - Specify Dredge Anchor Limits
  - Develop a Communication Plan with Contractor, USCG, USACE, & MNSA

- **Periodic Bathymetric Survey Data Collection**
Construction Duration Impacts
River Stage – Fall 2009

Mississippi River at New Orleans (Carrollton) (01300)
From 10/01/2009 To 12/31/2009

Gage Zero = 0 Ft. Gage

High Water Stage
LONG DISTANCE SEDIMENT PIPELINE

CONSTRUCTION PHASE
CONSTRUCTION CONTRACT AWARDED AND WEEKS MOBILIZED TO THE SITE APRIL 2014

PUMPING STARTED NOVEMBER 2014
ACCESS TO THE MISSISSIPPI RIVER

6,000 FEET OF 30" SUBMERGED PIPE

2,000 FEET OF FLOATING PIPE
44,000 FEET OF CONTAINMENT DIKE CONSTRUCTION
Project Layout

Long Distance Sediment Pipeline

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Bayou Dupont
ELECTRIC BOOSTERS PUMPS 2 SITES EACH SITE HAS 2 2,000 HP MOTORS
INSTALL PIPE UNDER RAILROAD AND HIGHWAY THROUGH EXISTING CASING PIPE
CONSTRUCT BRIDGE OVER CANAL
DREDGE PLANT ARRIVES OCTOBER 2014
Project Layout

Long Distance Sediment Pipeline

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Bayou Dupont
DREDGE PLANT ARRIVES OCTOBER 2014
DREDGE PLANT ARRIVES OCTOBER 2014

7 D6 Dozers
6 Marsh Excavators
AVERAGE PUMPING RATE PER DAY 36,000 CY

MAX PUMPED IN A SINGLE DAY 77,000 CY
QUESTIONS