Lessons Learned from Marsh Creation Vegetation Monitoring – Assessing the need for Plantings and Regional Variation in Vegetation Establishment

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Acknowledgements

- **USGS** - Sarai Piazza, Brady Couvillion, Gregg Snedden, Michelle Fischer, Greg Steyer, Craig Conzelmann

- **CPRA** – Lafayette, New Orleans, and Thibodaux Regional Offices, Ed Haywood, Rick Raynie

- **CWPPRA** – Coastal Wetland Planning Protection and Restoration Act Federal Partners
Q: Do we need to plant marsh creation projects?
A: No, not really.

But the inclination to do so is understandable.
Q: Do we need to plant marsh creation projects?  
A: No, not really.

If a borrow source has previously been shown to self-vegetate, there is no need to plant unless you want to influence the resulting vegetation community.

Plantings on a nearby cycle will influence future cells.

**Self-vegetating borrow sources:**
- Calcasieu Ship Channel
- Mississippi River
- Lake Pontchartrain
- Lake Boudreaux
- Bayous Perot and Rigolettes
Q: What does vegetation succession look like in created marsh?
A: Succulents then grasses and shrubs.
Q: Are the species that emerge the same across the coast?
A: No. MR sediments yield higher diversity and support fresh to intermediate vegetation.

Mississippi River sediments show higher diversity in four years than Calcasieu Ship Channel sediments do in 15 years.
Planted *Spartina alterniflora* can change the community in adjacent pre-existing marsh

**Lake Chapeau MC (TE-26)**


![Bar chart showing mean percent cover for each year from 1999 to 2013. The bars are color-coded for different species: Symphyotrichum tenuifolium, Lythrum lineare, Ipomoea sagittata, Schoenoplectus pungens, Vigna luteola, Schoenoplectus americanus, Schoenoplectus robustus, Distichlis spicata, Spartina patens, and Spartina alterniflora.]

Data Source:
Office of Coastal Protection and Restoration
Operations Division
Biological Monitoring Section
Thibodaux Regional Office
2012 DOQQ
Date: May 22, 2014
Map ID: 2014-TRO-041
Wild, flood tolerant *Spartina alterniflora* colonized submerged mudflats in the CS-28 project area during the 2011 drought.

E Sabine MC (CS-28), December 2010

May 2013
Wild, flood tolerant *Spartina alterniflora* colonized submerged mudflats in the CS-28 project area during the 2011 drought.
CPRA funded a study at BA-36 that assessed a whole suite of factors than we don’t typically monitor.

Find it in CIMS and come see Irv right here at 4:00.

Soil physio-chemistry, bulk density, nutrients
Species richness, above and belowground biomass, cellulose and litter decomposition, accretion, and elevation related to sediment slurry applications
There are CRMS and CRMS-like sites in some marsh creation project areas. Those data along with all CPRA monitoring data and reports are publically available online.

- CRMS6301 – E Sabine MC, Cycle 1 (CS-28)
- CRMS6302 – Black Lake MC (CIAP)
- CRMS3567 – Bayou Bonfouca MC (PO-104)
- TV21-CR01 and CR02 – E Marsh Island MC (TV-21)
- BA39-01, 02, and 03 – MR Sediment Delivery System - Bayou Dupont (BA-39)