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The Save Louisiana Coalition



**MISSISSIPPI RIVER FRESHWATER DIVERSIONS IN
SOUTHERN LOUISIANA:
EFFECTS ON WETLAND VEGETATION,
SOILS, AND ELEVATION**

A Position Paper by the Technical Panel from the

*Workshop on Response of
Louisiana Marsh Soils and Vegetation to Diversions*



The Panel concluded that little evidence was available that any Freshwater Diversion in the Louisiana deltaic plain has significantly reversed the rate of marsh degradation and land loss.



Coastal marsh near Lakeville, Louisiana. Photo Credit: Dennis Dimmock (USGS)

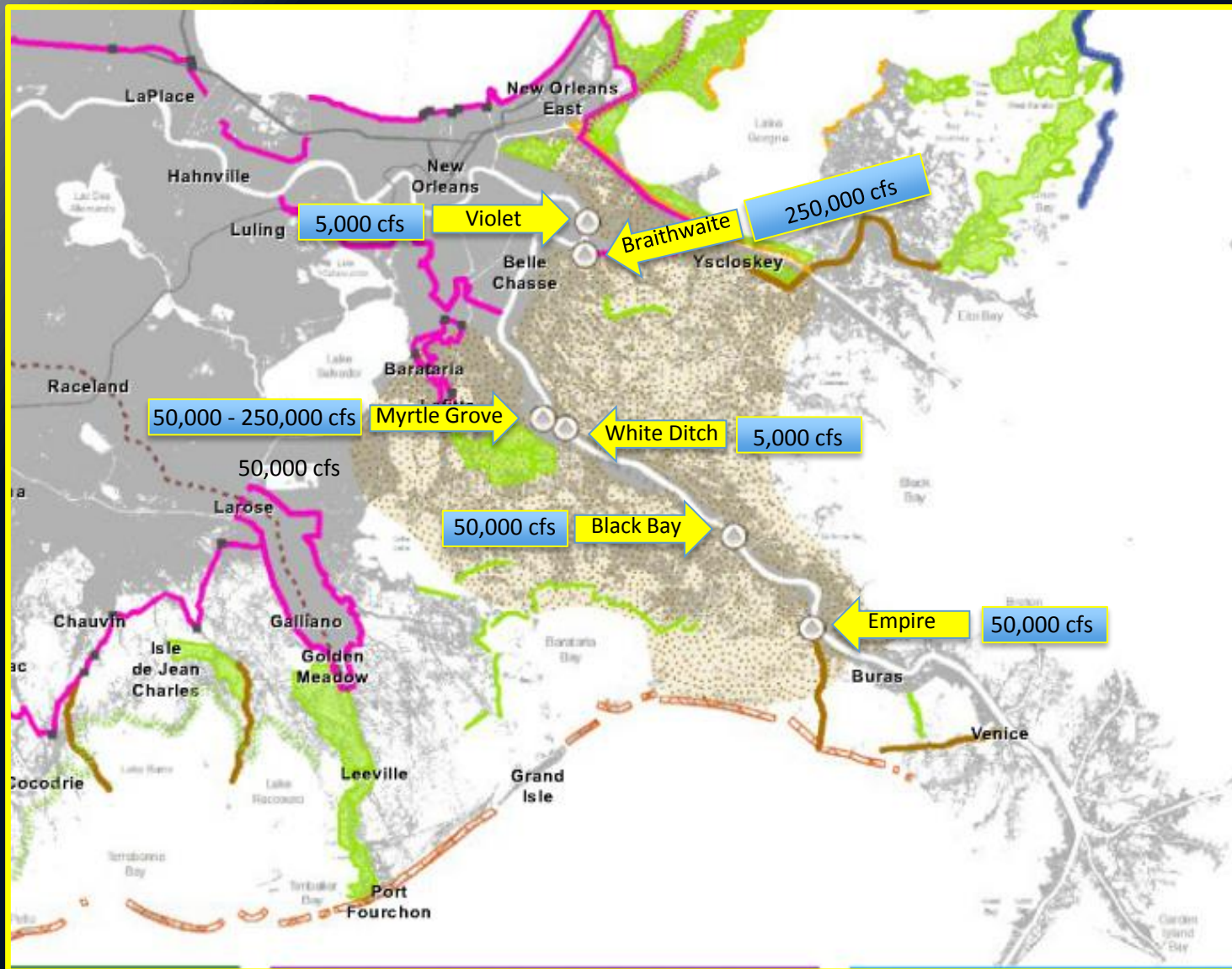
**Final Report to the
State of Louisiana and
U.S. Army Corps of Engineers through the
Louisiana Coastal Area Science and Technology Program**

**Coordinated by the
National Oceanographic and Atmospheric Administration**

December 5, 2012



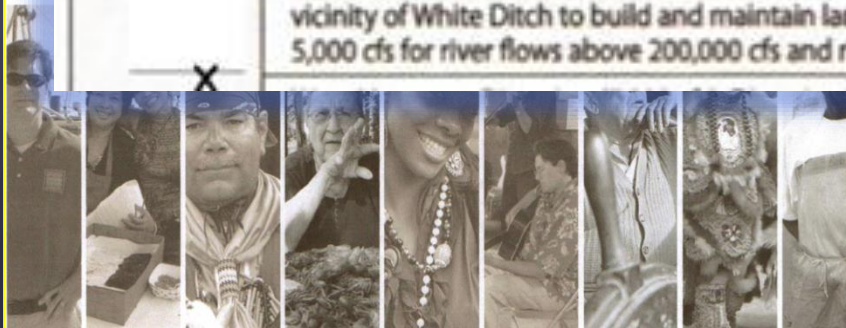
Diversion Sites



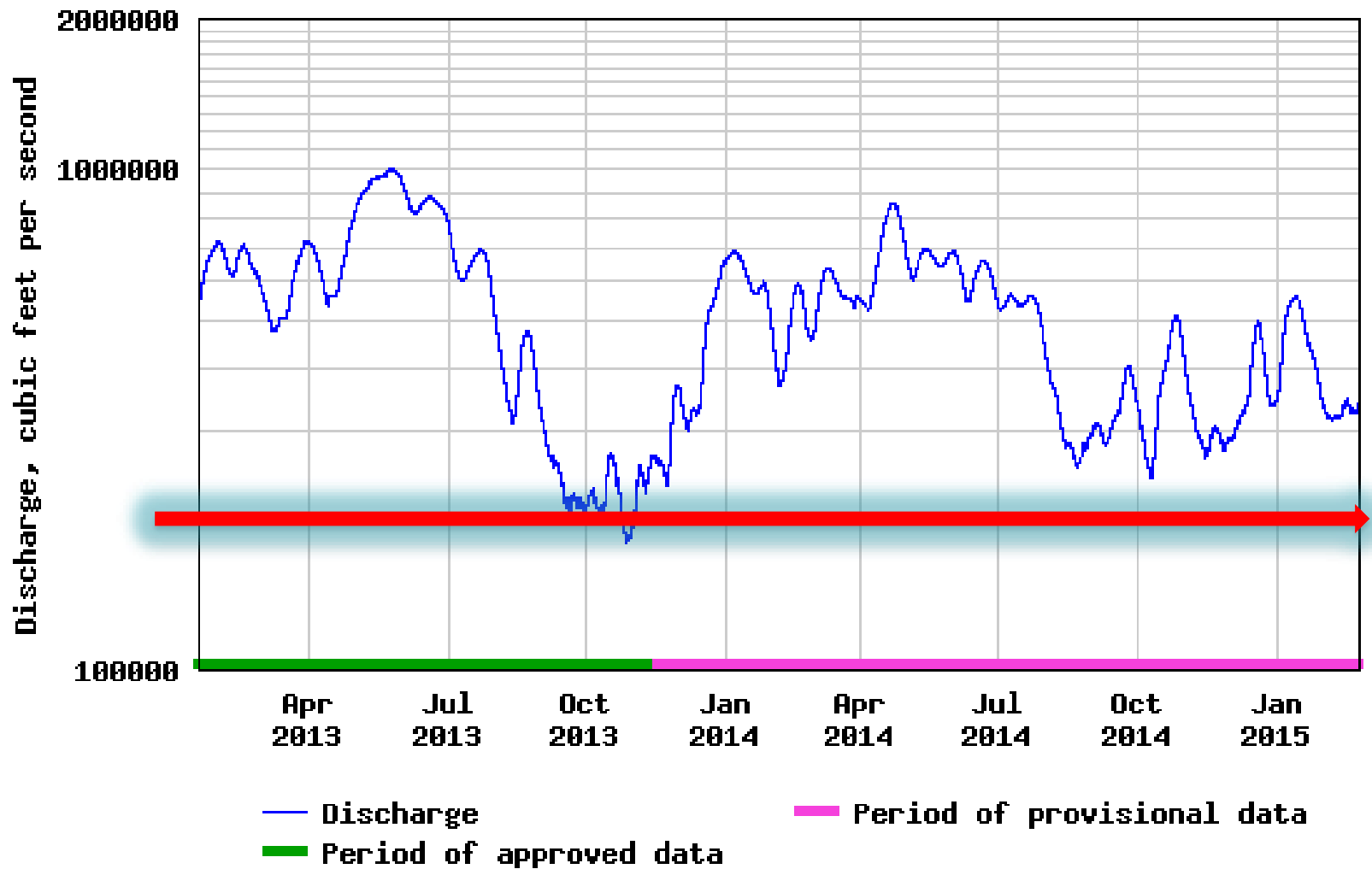
Southeast Coast: Project List

X	Lower Breton Diversion (50,000 cfs): Sediment diversion into lower Breton Sound in the vicinity of Black Bay to build and maintain land, 50,000 cfs capacity (modeled at 50,000 cfs when Mississippi River flow exceeds 600,000 cfs, at 8% of river flows between 200,000-600,000 cfs, and no operation when river flow is below 200,000 cfs).	\$212M	001.DI.02
X	Upper Breton Diversion (250,000 cfs): Sediment diversion into upper Breton Sound in the vicinity of Braithwaite to build and maintain land, 250,000 cfs capacity (modeled at 250,000 cfs when Mississippi River flow exceeds 900,000 cfs, at 50,000 cfs for river flows between 600,000-900,000 cfs, at 8% of river flows between 200,000-600,000 cfs, and no operation when river flow is below 200,000 cfs).	\$885M	001.DI.17
X	Central Wetlands Diversion (5,000 cfs): Sediment diversion into Central Wetlands in the vicinity of Violet to provide sediment for emergent marsh creation and nutrients to sustain existing wetlands, 5,000 cfs capacity (modeled at 5,000 cfs when Mississippi River flow exceeds 200,000 cfs and no operation for river flows below 200,000 cfs).	\$189M	001.DI.18
X	Mid-Breton Diversion (5,000 cfs): Sediment diversion into mid-Breton Sound in the vicinity of White Ditch to build and maintain land, 5,000 cfs capacity (modeled at 5,000 cfs for river flows above 200,000 cfs and no operation below 200,000 cfs).	\$123M	001.DI.23

	of a 250,000 cfs diversion to mid-saratana. The influence area shown is for the total 250,000 cfs project upon completion in the second implementation period.		
X	Lower Barataria Diversion (50,000 cfs): Sediment diversion into lower Barataria Bay in the vicinity of Empire, 50,000 cfs capacity (modeled at capacity when Mississippi River flow exceeds 600,000 cfs; modeled at 8% of river flow from 600,000 cfs down to 200,000 cfs; no operation below 200,000 cfs).	\$203M	002.DI.15
	Bayou Lafourche Diversion (1,000 cfs): Diversion of the Mississippi River into Bayou Lafourche to increase freshwater flow down Bayou Lafourche, 1,000 cfs capacity (modeled with continuous operation at 1,000 cfs).	\$189M	03a.DI.01
X Hydrologic Restoration	Amite River Diversion Canal: Hydrologic restoration in the western Maurepas Swamp by gapping spoil banks along the Amite River Diversion Canal to eliminate impoundment and restore hydrologic exchange.	\$4M	001.HR.01



USGS 07374000 Mississippi River at Baton Rouge, LA





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
<http://sero.nmfs.noaa.gov>

F/SER4:RH/PW

JUN 26 2013

Ms. Elizabeth L. Davoli
Coastal Protection and Restoration Authority
Environmental Section
Post Office Box 44027
Baton Rouge, Louisiana 70804-4027

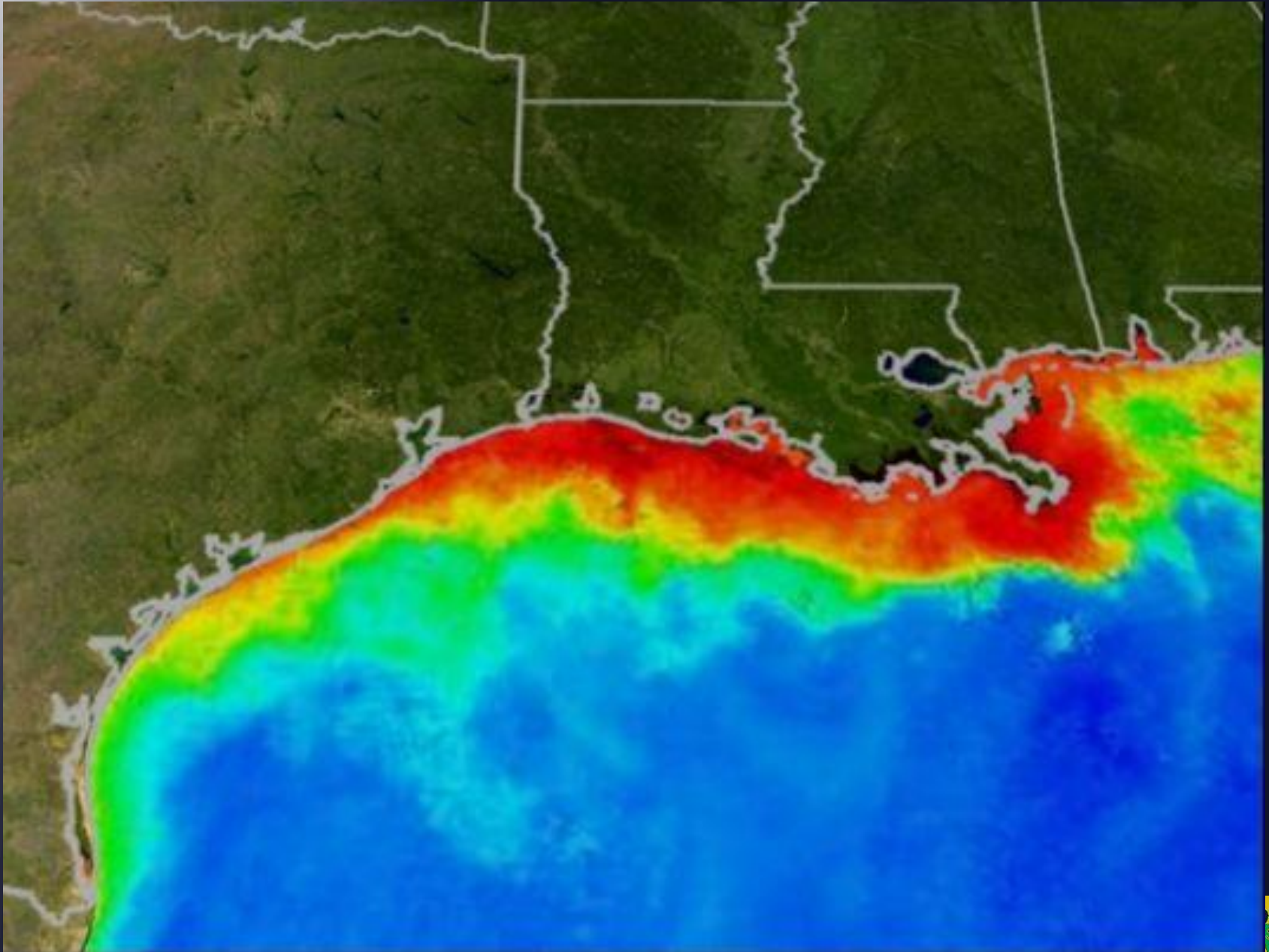
Dear Ms. Davoli:

NOAA's National Marine Fisheries Service (NMFS) received the Solicitation of Views request

“(1) DISPLACE MARINE FISHERY SPECIES FROM CURRENTLY PRODUCTIVE HABITATS TO LESS SUPPORTIVE HABITATS, (2) REDUCE MARINE FISHERY PRODUCTIVITY, (3) CONVERT ESSENTIAL FISH HABITAT (EFH) TO AREAS NO LONGER SUPPORTIVE OF SOME FEDERALLY MANAGED MARINE FISHERY SPECIES OR THEIR PREY ITEMS, (4) RENDER WETLANDS IMPACTED BY DIVERSIONS MORE SUSCEPTIBLE TO EROSION FROM STORMS, (5) DEGRADE WATER QUALITY, AND (6) CAUSE SOCIO-ECONOMIC HARDSHIP TO THOSE INVOLVED IN THE COMMERCIAL AND RECREATIONAL FISHING INDUSTRIES.”

Areas within the influence of the proposed diversion are designated as EFH under provisions of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297). Categories of EFH in the Barataria basin include emergent wetlands; mangrove





Hydrocoast Map - Water Quality

(June 17 - 23, 2013)



Sporadic local, occurrences of algae blooms in Lake Pontchartrain

The over 100,000 cfs of polluted river water from current diversions create a dead zone every year in Breton Sound

Legend

Salinity Contours (psu)

- 0.0 - 5.00
- 5.00 - 10.00
- 10.00 - 15.00
- 15.00 - 20.00
- 20.00 - 25.00
- 25.00 - 30.00
- 30.00 - 35.00

Oyster Advisory

- Oyster Area(s) Open
- Oyster Area(s) Closed
- Oyster Zone Areas

Fecal Coliform Advisory (MPN)

- 0 - 99
- 100 - 199
- 200 - 299
- 300 +

Other Data

- Developing Hypoxia Zone(s)
- Stream Discharge
- Salinity Barriers
- LPBF Water Quality Stations
- Salinity Stations
- Salinity Leak Points

MODIS Satellite Imagery: 6/17/2013

Information on the Lake Pontchartrain Basin Foundation - Hydrocoast Program can be found at: saveourlake.org/coastal-hydrocoast.php, or by calling 504-836-2213

To receive Hydrocoast map products by email, contact: hydrocoast@saveourlake.org



Table 1: Average Weekly Discharge

Rivers and Structures	cfs	Trend
Levee River	4,008	↓
Tangipahoa River	342	↓
Tribble River	123	↓
Atchite River	1,187	↓
Casemartin Diversion	601	↓
Merit Creek Pass	3,071	↓
Amite Siphon	280	↓
Summer Canal Spillway	330	↓
Fort St. Philip	43,366	↓
Indiane Collette	87,364	↓



Table 2: LPBF Water Quality Report

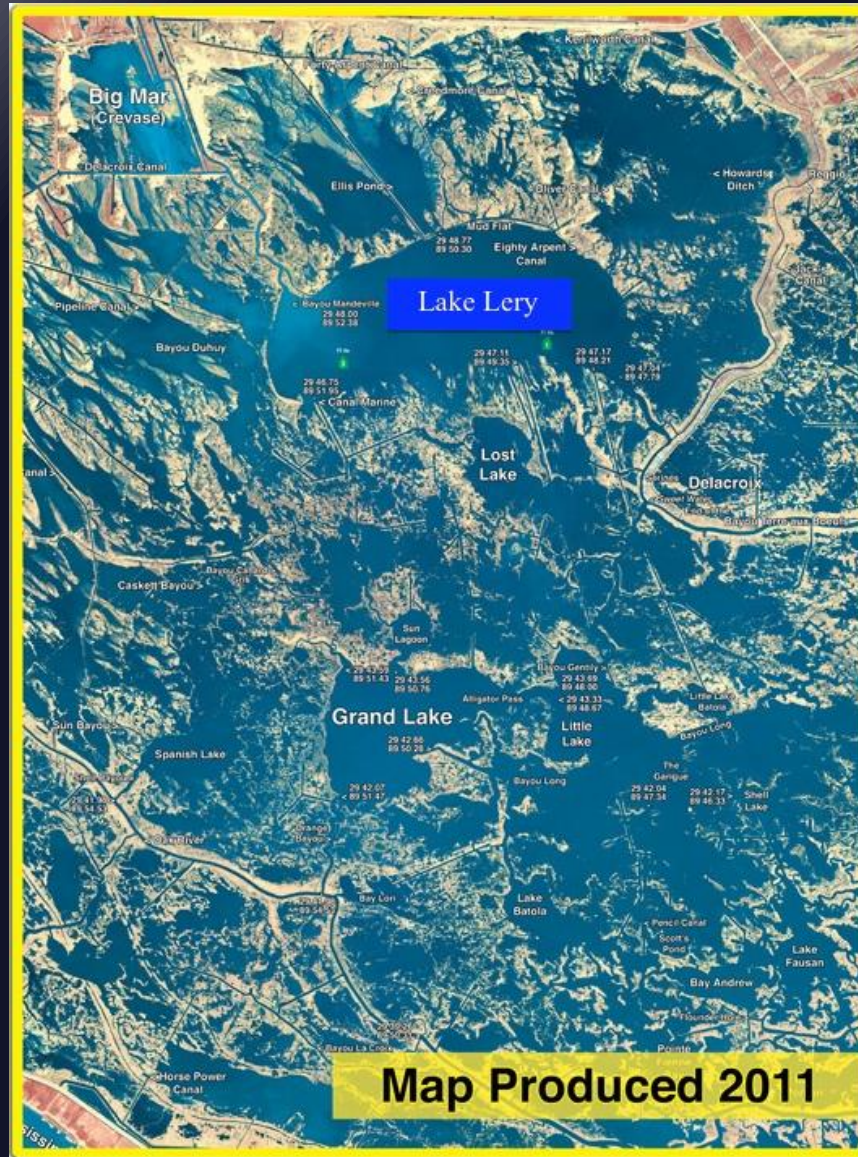
Station #	Location Description	Fecal Coliform (MPN)	Water Temp (F)	Water Visibility (ft)	Salinity (psu)	Dissolved Oxygen (mg/L)
1	Lakewood	20	85.3	1.64	1.5	5.80
2	Bonnabel Boat Launch	46	84.7	3.20	1.5	5.91
3	Old Beach	8	85.9	2.46	1.5	7.34
4	Pontchartrain Beach	5	85.3	3.20	1.5	7.15
5	Bayou St. John	79	86.5	4.1	1.6	6.70
6	Slague Falaise	230	78.9	0.82	0.0	6.40
7	Tchoufoute River	45	84.5	1.64	0.6	4.34
8	Bayou Cadine	17	86.2	0.82	1.0	5.64
9	Pontchartrain Beach	17	82.9	0.82	1.1	7.40
10	Northshore Beach	23	84.2	0.41	1.4	7.15

Table 3: Additional Water Quality Data

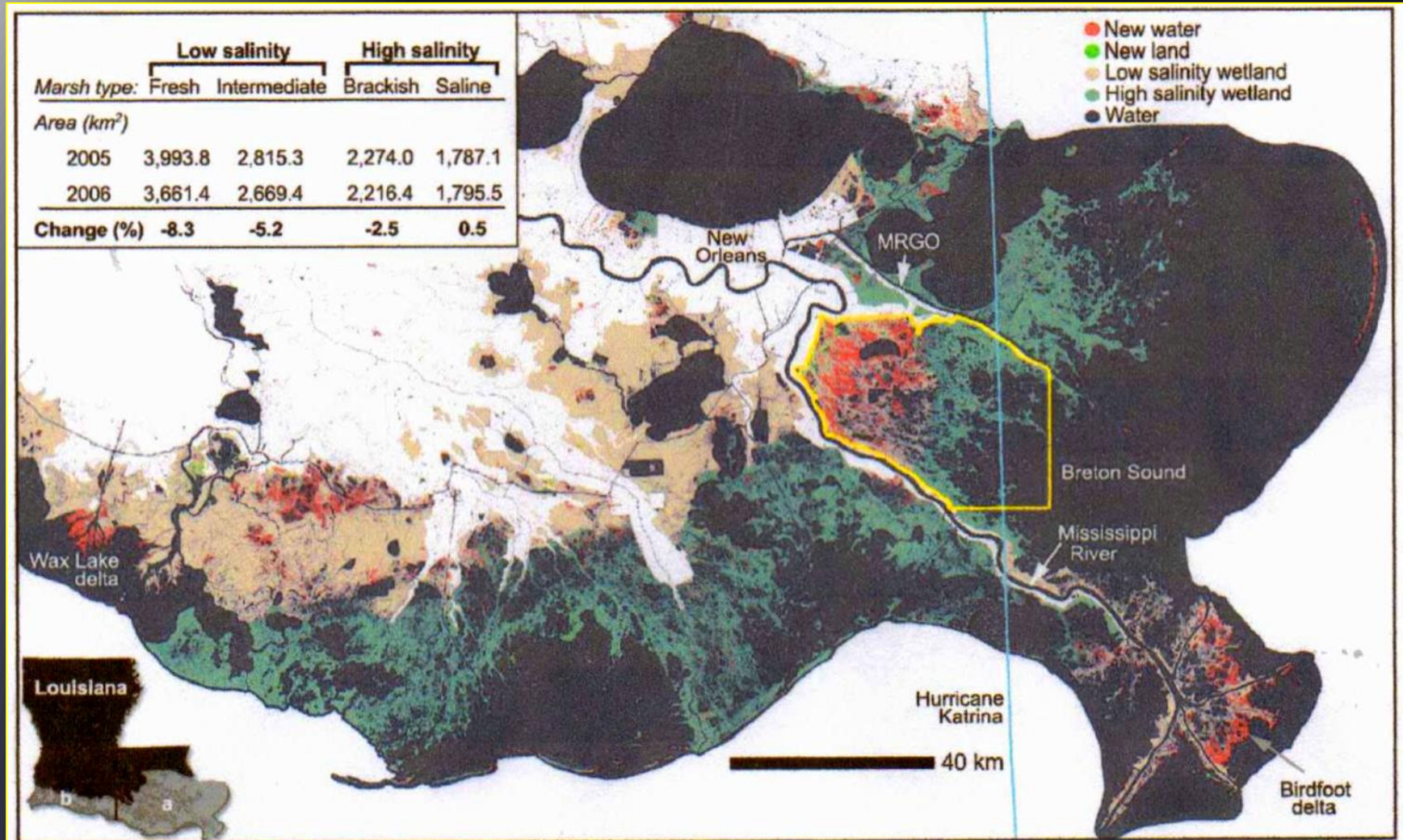
Station #	Location Description	Fecal Coliform (MPN)	Water Temp (F)	Water Visibility (ft)	Salinity (psu)	Dissolved Oxygen (mg/L)
11	Abite River	2300	-	-	-	-
12	Little Tchoufoute River	2300	-	-	-	-
13	Cane Bayou	17000	-	-	-	-
14	Bayou Lacombe	800	-	-	-	-
15	Liberty Bayou	170	-	-	-	-
16	Bayou Bonfouca	800	-	-	-	-



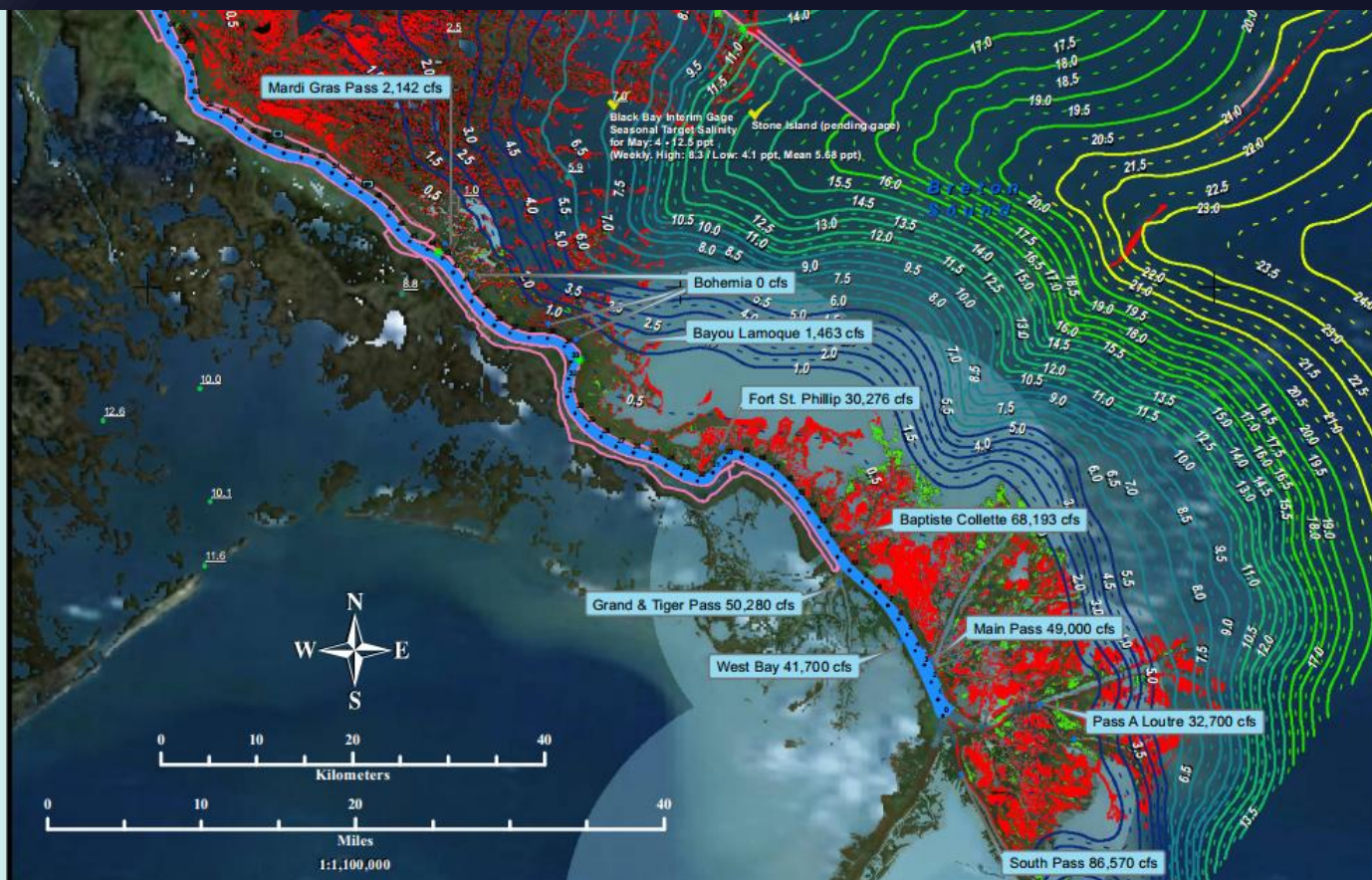
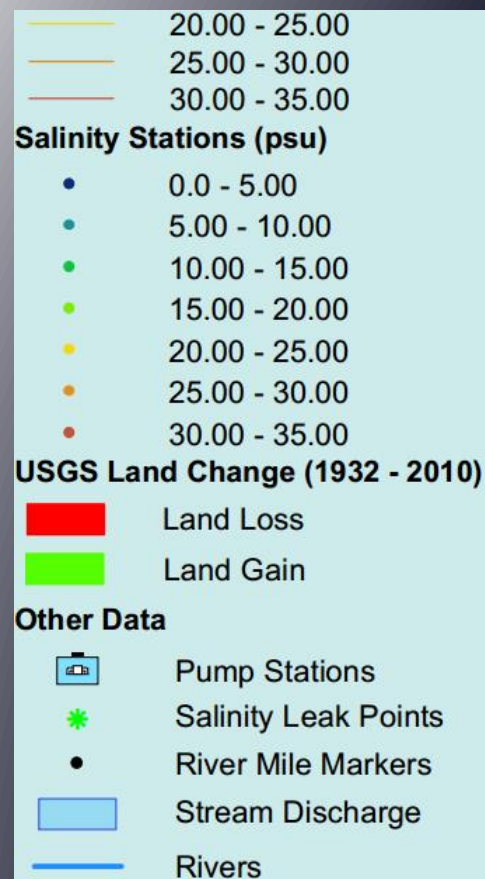
Caernarvon Damage



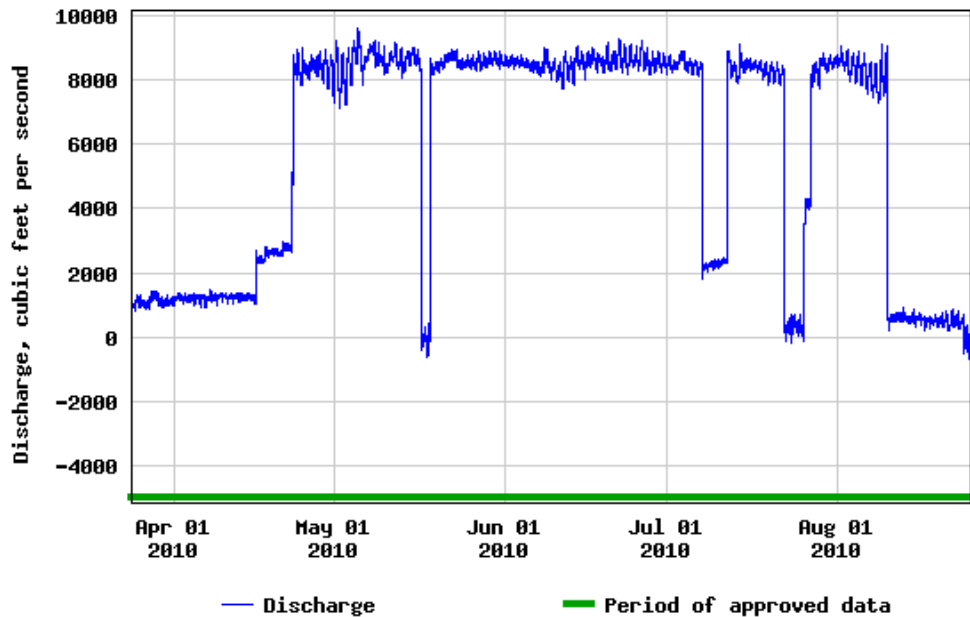
River-influenced Land Loss



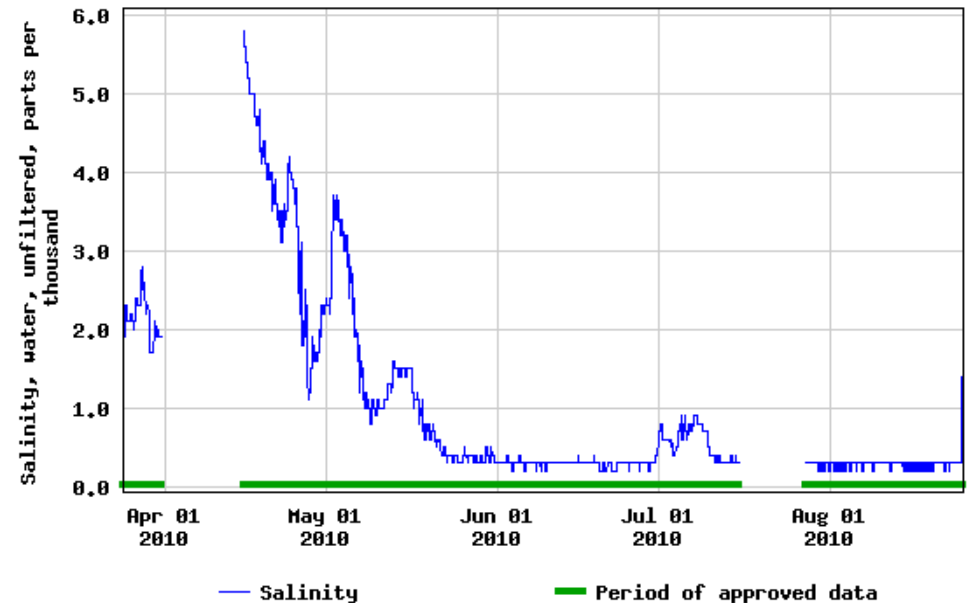
River-influenced Land Loss



USGS 295124089542100 Caernarvon Outfall Channel at Caernarvon, LA



USGS 073745257 Crooked B. NW of L. Cuatro Caballo near Delacroix



Management Area

Violet

3137

Belle Chasse

St Bernard

46

624

23

39

23

Black Bay

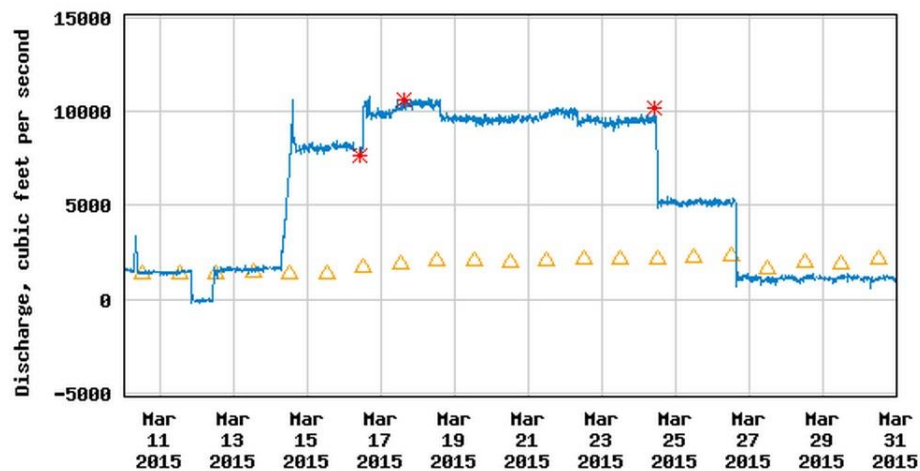
Google

23

162 Biregiles



USGS 295501090190400 Davis Pond Freshwater Diversion near Boutte, LA



Salinity, water, unfiltered, parts per thousand

Most recent instantaneous value: 9.0 10-14-2015 18:00 CDT

USGS 292800090060000 Little Lake near Bay Dosgris E of Galliano, LA



---- Provisional Data Subject to Revision ----



LA is the most productive fishery in North America

- 25% of continental U.S. Commercial fisheries
- More than one billion pounds caught annually with a dockside value of \$291 million
- Recreational value \$900 million to \$1.2 billion
- Louisiana has 40% of the coastal marshlands in the U.S.



Dredge....Don't Divert

TheSaveLouisianaCoalition.com

