

# Pontchartrain Coastal Lines of Defense Report Card

By John Lopez, Ph.D.

## The Pontchartrain Coastal Lines of Defense Program Project Areas *(see map)*

- MRGO-Lake Borgne Land Bridge
- Bayou la Loutre Ridge (including a dam in the MRGO)
- Chandeleur Barrier Islands
- South Shore fringe marsh buffer
- Violet Reintroduction
- Biloxi Marsh Land Bridge and barrier reefs (South)
- Breton Land Bridge
- East Orleans Land Bridge
- Biloxi Marsh Land Bridge and barrier reefs (North)
- Maurepas Land Bridge

*The Report Card grade is based on real project progress on each Pontchartrain Coastal Line of Defense, using standard project management tracking of project development from planning to construction. This project progression is referenced as a typical school report card grade to assist in expressing in simple terms the complex progress of coastal restoration. The Report Card Grade indicates progress since Hurricane Katrina toward actual restoration on critical areas of the coast which act as a coastal buffer to storm surge.*

## For each Pontchartrain Coastal Line of Defense, the grade is assigned as follows:

**A.** indicates that at least one significant project has been completed.

**Background** The Pontchartrain Coastal Lines of Defense Program consists of ten priority project areas within the Pontchartrain Basin. These ten coastal restoration project areas were chosen from the Comprehensive Habitat Management Plan, because of their importance to regional habitat restoration and because they may also provide important flood protection to residents of the Pontchartrain Basin. This program utilizes the “Multiple Lines of Defense Strategy” proposed by LPBF and subsequently adopted by the U.S. Army Corps of Engineers and Louisiana’s State Master Plan.

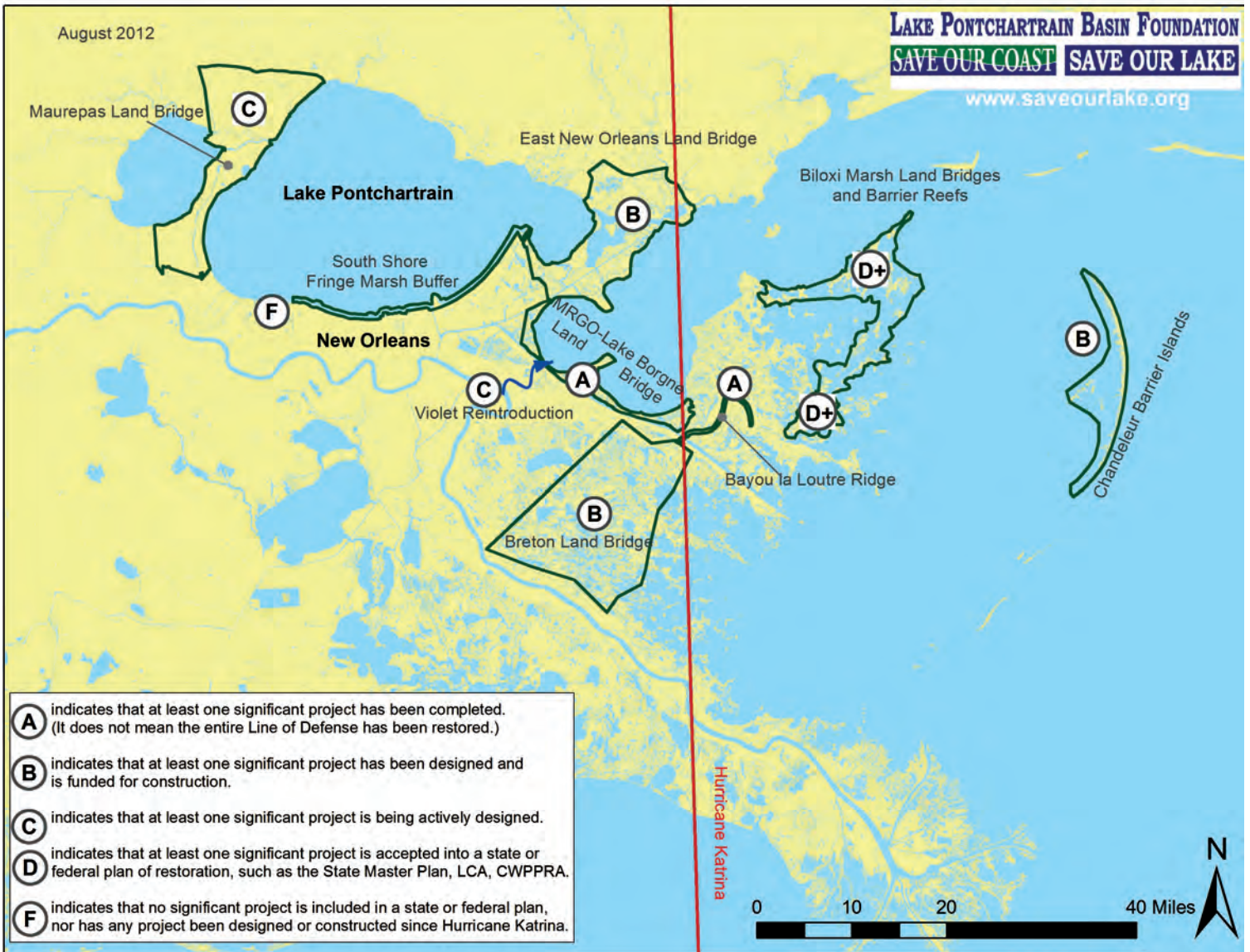
(It does not mean the entire Line of Defense has been restored.)

**B.** indicates that at least one significant project has been designed and is funded for construction.

**C.** indicates that at least one significant project is being actively designed.

**D.** indicates that at least one significant project is accepted into a state or federal plan of restoration, such as the State Master Plan, LCA, CWPPRA.

**F.** indicates that no significant project is included in a state or federal plan, nor has any project been designed or constructed since Hurricane Katrina.



The map shows the current “grade” for each of the Pontchartrain Coastal Lines of Defense. Although some grades have gone down, overall the report suggests a slight improvement.

## Pontchartrain Coastal Lines of Defense Report Card Grade Assessment – 2012

### MRGO Lake Borgne Land Bridge Report Grade A (Previously A)

This narrow marsh is all that separates Lake Borgne and the St. Bernard levee. Significant progress has been made by the Corps of Engineers due to the comple-

tion of a Lake Borgne shoreline stabilization project in 2008 and by bank stabilization along the Mississippi River Gulf Outlet (MRGO) since Hurricane Katrina. EPA has also recently completed a shoreline stabilization project under the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA). Also, additional rock armoring has been completed along the MRGO channel bank. Several marsh creation projects are currently being designed. The area is also included in the MRGO Ecosystem Feasibility Study. This land bridge has seen tangible progress on all fronts

of planning, design, and construction; and therefore, the land bridge still deserves an A grade.

### Bayou la Loutre Ridge Including a dam in the MRGO Report Grade A (Previously A)

The historic Bayou la Loutre Ridge was once a formidable ridge of oak trees that also was a major hydrologic barrier through the St. Bernard marsh. Restoration of the ridge has taken a significant step due to the completion of the rock dam across the MRGO

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which reconnects the ridge banks across the channel. This project was completed in 2009 by the Corps of Engineers with support from the State of Louisiana. Due to the rock dam, salinity of the region has been reduced but is still in need of freshwater reintroduction. Restoration of the forested ridge is in the newly adopted State Master Plan, and a small section is also included in the draft Corps MRGO Ecosystem Restoration Feasibility Study. The rock dam is the first step in physical closure of the MRGO which will significantly restore the hydrologic function of the ridge, and therefore, continues to earn an A grade.

### Chandeleur Barrier Islands Report Grade B (Previously F)

Until recently, the Chandeleur Islands were Louisiana's longest barrier island arc and a major bird rookery. They are within the Breton National Wildlife Refuge established in 1904 by President Theodore Roosevelt. Due to Hurricane Georges in 1998 and Hurricane Katrina in 2005, the islands have suffered significant

degradation. These islands are critical to maintaining the Biloxi Marsh, which has been identified as a "critical landscape feature" by the Corps because the marsh reduces hurricane surge. These islands were heavily oiled by the BP Deepwater Horizon oil well spill in 2010. In 2010, a sand berm was constructed with approximately 4 million cubic yards of good quality sand.

A recent USGS study is cautiously optimistic that the reworking of the sand berm is contributing to creation of a new land area on the islands and to replenishing the sand on the shoreline. Although the new State Master Plan does not include the islands, the state has included the Chandeleur Islands for early restoration for the Natural Resource Damage Assessment program for the BP oil spill. It is highly likely that additional restoration will occur on the Chandeleur Islands.

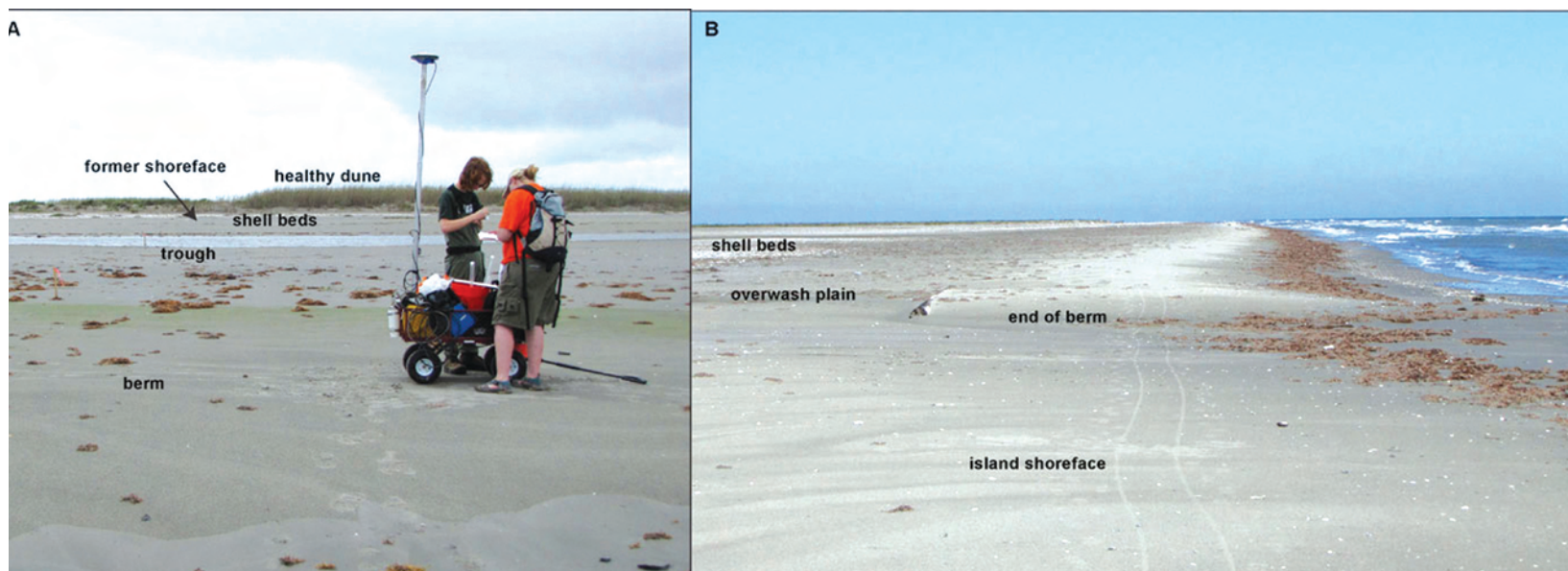
LPBF has contracted a study to develop plans for restoration in light of the recent developments. Because the islands have seen some restoration improvement, and restoration prospects are good, the island chain grade improves from an F to a B.

### Jefferson/Orleans Parish Fringe Marsh Buffer Report Grade F (Previously D)

The hurricane levee in New Orleans and Metairie directly faces the full force of Lake Pontchartrain during a hurricane. Restoring a fringing marsh with shore protection adjacent to the levee will stabilize the shoreline and reduce surge energy while creating critical estuarine habitat. This proposal is no longer within the State Master Plan or any other official plan, and therefore the grade must be reduced from a D to an F.

### Violet Diversion Reintroduction Report Grade C (Previously C+)

The Violet Diversion would reintroduce Mississippi River water into St. Bernard Parish, Central Wetlands, the Biloxi Marsh and Mississippi Sound. The project would re-establish estuarine hydrology and historic habitats to areas which provide critical protection to levees and which reduce storm surge. The Violet Diversion was authorized by Congress in WRDA 2007, and the state had committed \$39 million for the



US Geological Survey photograph of where the sand berm constructed during the oil spill has been incorporated into the Chandeleur Islands.

project. However, the diversion design work has languished due to the Corps' poor management of the project within the MRGO Feasibility Study. The design is far from complete, and it is unclear how the work will be completed. Federal funding that is still needed for construction cannot occur until this study, and the additional design work is complete. Because of the loss of the partial construction funding and the Corps' waffling, the Violet Diversion's grade is reduced from a C+ to a C.

### **Biloxi Marsh Land Bridges and Barrier Reefs** Report Grade D+ (Previously D)

The Biloxi Marsh land bridges are the outer edge of the Biloxi Marsh platform which faces Chandeleur and Mississippi Sounds. The Biloxi Marsh has been identified as a "critical landscape feature" by the Corps of Engineers because it reduces surge moving toward New Orleans and Lake Pontchartrain. The restoration of the Biloxi Marsh is within the new State Master Plan, and it is included in various restoration alternatives in the Corps' LACPR report. There has been no specific project that has been designed or constructed for the Biloxi Marsh.

A small demonstration reef project has been funded but not yet constructed by the Nature Conservancy. Because the areas are now in the State Master Plan, the grade has been improved from a D to a D+.

### **Breton Land Bridge** Report Grade B (Previously B)

The Breton Land Bridge flanks the levees of southern St. Bernard and eastern Plaquemines Parishes. These wetlands were significantly damaged during Hurricane Katrina when approximately 40 square miles of wetlands were converted to open water. The 4th

supplemental appropriations bill in 2006 included \$10 million for restoration of the wetlands. In addition, the Caernarvon Diversion is being evaluated to modify the operational plan to enhance wetland restoration. There are also various CIAP and mitigation projects that have been fully funded for several years. A CWPPRA project is being designed but is not funded for construction. Unfortunately, none of this has translated into actual construction. This lack of tangible on-the-ground progress is discouraging but still warrants a B grade.

*The Biloxi Marsh has been identified as a "critical landscape feature" by the Corps of Engineers because it reduces surge moving toward New Orleans and Lake Pontchartrain.*

### **East Orleans Land Bridge** Report Grade B (Previously B)

The East Orleans Land Bridge is the primary hydrologic control on Lake Pontchartrain during a hurricane, but also during normal tidal flow. Significant restoration is included in the newly adopted State Master Plan. The Corps has identified it as a "critical landscape feature" because of its capacity to reduce surge into Lake Pontchartrain. It is also a major evacuation route. Fortunately, several projects have been planned and are under development. The state's Coastal Impact Assistance Program (CIAP) has a major shoreline protection project which is being constructed. This project is utilizing demoli-

tion concrete from the Interstate 10 bridge which was re-built by the Federal Highway Administration. A CWPPRA project is also being designed by the Natural Resource Conservation Service (NRCS). Unfortunately, the establishment of a major, private, wetland mitigation bank on the land bridge has not resulted in any wetland restoration. Nevertheless, significant tangible momentum is being maintained for restoration of this land bridge, and a significant restoration project is being constructed - which earns a solid B again.

### **Maurepas Land Bridge** Report Grade C (Previously C)

The Maurepas Land Bridge is the hydrologic control between Lakes Pontchartrain and Maurepas. The Corps has identified it as a "critical landscape feature" because of its capacity to reduce surge into Lake Maurepas. It is also a major evacuation route. Most of the swamp has been identified as "relic" (dying) swamp that is in critical need of fresh water and nutrients. The Maurepas Swamp diversion project is designed to introduce Mississippi River water south of the land bridge and will enhance the land bridge. However, this project has languished and design is still not complete. It is not included in the new State Master Plan. However, the Blind River/Covent Diversion is included in the new State Master Plan. It is not as effective for the Maurepas Land Bridge as the original Maurepas Diversion but will help manage salinity and improve conditions. At this time, construction funds have not been appropriated. Because the net result is about the same as before, a C grade is still warranted.