

**LAKE PONTCHARTRAIN BASIN FOUNDATION**  
**SAVE OUR COAST SAVE OUR LAKE**

**20 YEARS OF SAVING OUR LAKE AND COAST**

P.O Box 6965 Metairie, LA. 70009-6965 - SaveOurLake.org

**Pontchartrain Coastal Lines of Defense  
Report Card**  
**Released October 13, 2009**

**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 (LPBF, 2006), because of their importance to the 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 (Lopez, 2006, 2009) and subsequently adopted by the U.S. Army Corps of Engineers and Louisiana’s State Master Plan.

The Pontchartrain Coastal Lines of Defense Program includes project areas (see map):

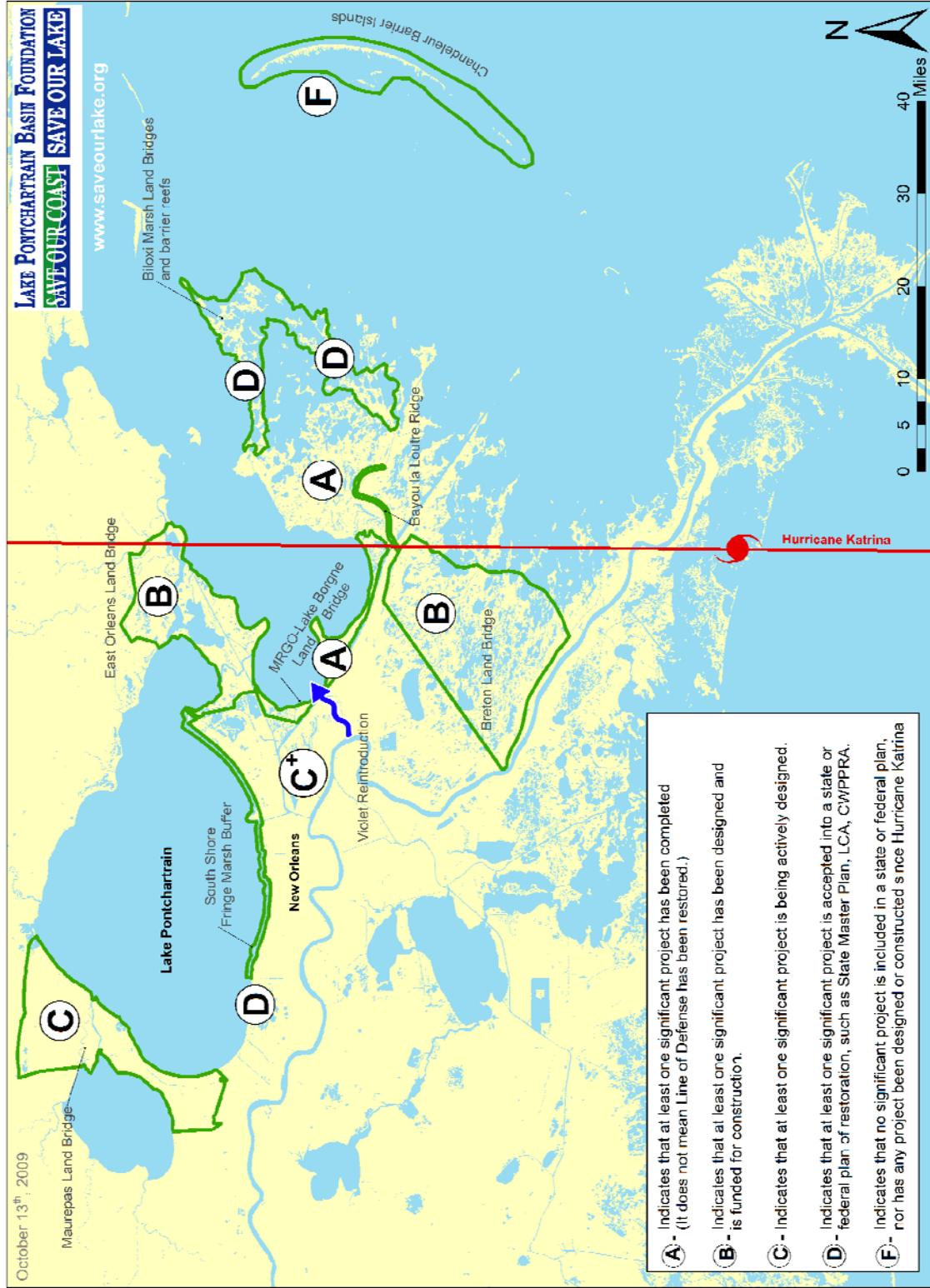
1. MRGO-Lake Borgne Land Bridge
2. Bayou la Loutre Ridge (including a dam in the MRGO)
3. Chandeleur Barrier Islands
4. South Shore fringe marsh buffer
5. Violet Reintroduction
6. Biloxi Marsh Land Bridge and barrier reefs (South)
7. Breton Land Bridge
8. East Orleans Land Bridge
9. Biloxi Marsh Land Bridge and barrier reefs (North)
10. 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.  
(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.

# Pontchartrain Coastal Lines of Defense: Report Card



## **Pontchartrain Coastal Lines of Defense Report Card Grade Assessment**

### **MRGO-Lake Borgne Land Bridge (Project area 1): Report Grade 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 completion of a Lake Borgne shoreline stabilization project in 2008 and by bank stabilization along the Mississippi River Gulf Outlet (MRGO) by the Corps of Engineers since Hurricane Katrina. EPA has also recently completed a shoreline stabilization project under the Coastal Wetlands Planning Protection and Restoration Act (CWPPRA). Several marsh creation projects are currently being designed. The area is also under further study 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 deserves an A Grade.

### **Bayou la Loutre Ridge (including a dam in the MRGO) (Project area 2): Report Grade 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 in the MRGO 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. Restoration of the forested ridge is in the State Master Plan and is being investigated by the Corps in the MRGO Ecosystem 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, earns an A grade.

### **Breton Land Bridge (Project area 7): Report Grade 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 4<sup>th</sup> supplemental appropriations bill in 2006 included \$10 million for restoration of the wetlands. The Corps is currently finalizing restoration project plans with these funds. Significantly more funds are needed, but nevertheless this progress warrants a B grade due to the advanced project development and available funding.

### **East Orleans Land Bridge (Project area 8): Report Grade B**

The East Orleans Land Bridge is the primary hydrologic control on Lake Pontchartrain during a hurricane but also during normal tidal flow. Restoration is included in the 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) program has a major shoreline protection project which is being designed and already has funds budgeted for construction through the Office of Coastal Protection and Restoration (OCPR). This project will utilize demolition concrete from the Interstate 10 bridge which is being re-built by the Federal Highway Administration. A CWPPRA project is also being designed by the Natural Resource Conservation Service (NRCS). Also encouraging is the establishment of a major, private, wetland mitigation bank on the land bridge. Significant tangible momentum has developed for restoration of this land bridge, but actual completion of a significant restoration project has not been realized - which earns a solid B.

**Violet Diversion Reintroduction (Project area 5): Report Grade C+**

The Violet Diversion would reintroduce Mississippi River water into St. Bernard Parish, the Biloxi Marsh and Mississippi Sound. The project would re-establish estuarine hydrology and historic habitats to areas which provided critical protection to levees and which reduce storm surge. The Violet Diversion was authorized by Congress in WRDA 2007 and the state has committed \$39 million for the project, which is currently being designed. However, the project cost will likely be significantly more, and the Corps is evaluating the project under the MRGO Ecosystem Feasibility Study. Federal funding needed for construction cannot occur until this study is completed. Because only partial construction funding is committed for the project the Violet Diversion is awarded a C+.

**Maurepas Land Bridge (Project area 10): Report Grade C**

The Maurepas Land Bridge is the hydrologic control between Lakes Pontchartrain and Maurepas. Restoration is included in the State Master Plan. 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. The project was authorized in Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) and Louisiana Coastal Area (LCA), and the design is nearly completed by EPA and State agencies (OCPR). At this time, construction funds have not been appropriated. This project has come a long way and is now poised for a construction appropriation, but until then must be given a C grade.

**Jefferson/Orleans Parish Fringe Marsh Buffer (Project area 4): Report Grade 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 within the State Master Plan, but has not progressed beyond the conceptual stage. In part, this is due to the uncertainty of the footprint of final levee design along the lake front. Nevertheless, since there is no tangible project that has moved beyond the conceptual design stage, a low grade is appropriate. It must be awarded at least a D since it is included in the State Master Plan and, hopefully, planning issues can soon be resolved to move this project toward design.

**Biloxi Marsh Land Bridge and Barrier Reefs (South & North) (Project areas 6 & 9): Report Grade D**

The Biloxi Marsh land bridges are the outer edge of the Biloxi marsh platform which face 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 State Master Plan and it is included in various restoration alternatives in the Corps' LACPR report. In 2006, the National Marine Fisheries Service jointly proposed with LPBF a project for CWPPRA, but the project was not selected for design. 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. This may encourage a significant project to be developed so that this may be assigned more than a D grade.

**Chandeleur Barrier Islands (Project area 3): Report Grade 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. The State Master Plan recommends working with the Department of the Interior (DOI) to restore the barrier islands, but falls short of committing to their restoration. The DOI has nearly completed a U.S. Geological Survey study of the islands which may recommend restoration, but otherwise the islands have not been included in a state or federal plan of restoration since Hurricane Katrina and no restoration projects have been completed. In addition, the Corps is evaluating the islands under the MRGO Ecosystem Feasibility Study. Unfortunately for now, this great barrier island chain and National Wildlife Refuge treasure must be given an F grade.

## References

CPRA, 2007, Integrated Ecosystem Restoration and Hurricane Protection: Louisiana's Comprehensive Master Plan for a Sustainable Coast. Draft report by the Coastal Protection and Restoration Authority, Final report April 2007  
[http://www.louisianacoastalplanning.org/draft\\_master\\_plan.html](http://www.louisianacoastalplanning.org/draft_master_plan.html)

CWPPRA, 2009, Project list LACOAST website <http://www.lacoast.gov/>

CIAP, 2009, Coastal Impact Assistance Program official program website  
<http://www.lacpra.org/index.cfm?md=pagebuilder&tmp=home&nid=31&pnid=24&pid=20&fmid=0&catid=0&elid=0>

Lake Pontchartrain Basin Foundation, 2006, Comprehensive Habitat Management Plan for the Pontchartrain Basin, Lake Pontchartrain Basin Foundation, Metairie, LA  
<http://www.saveourlake.org>

Lake Pontchartrain Basin Foundation and Coalition to Restore Coastal Louisiana, 2008.  
“Comprehensive Recommendations Supporting the Use of the Multiple Lines of Defense Strategy to Sustain Coastal Louisiana.” Lake Pontchartrain Basin Foundation, Metairie, Louisiana. <http://www.mlods.org/>

Lopez, J. A., 2006, The Multiple Lines of Defense Strategy to Sustain Coastal Louisiana, Lake Pontchartrain Basin Foundation, Metairie, LA. <http://www.saveourlake.org>

Lopez, J. A., 2009, The Multiple Lines of Defense Strategy to Sustain Coastal Louisiana, Journal of Coastal Research, Special Publication 2009 (in press)

U.S. Army Corps of Engineers, 2009, LACPR Draft Technical Report <http://lacpr.usace.army.mil/>

John A. Lopez, Ph.D.  
Director - Coastal Sustainability Program  
Lake Pontchartrain Basin Foundation  
225 294-4998 504 421-7348 cell [johnlopez@pobox.com](mailto:johnlopez@pobox.com)