

**MINUTES OF  
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST  
COASTAL ADVISORY COMMITTEE MEETING  
HELD ON APRIL 20, 2010**

**PRESENT: Carlton Dufrechou  
Mark Schexnayder  
John Lopez**

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The Coastal Advisory Committee met on April 20, 2010, in the Second Floor Hall of the Lake Vista Community Center, 6500 Spanish Fort Blvd., New Orleans, Louisiana. The meeting was called to order at 10:50 a.m.

**Opening Comments:**

Mr. Dufrechou introduced the members of the Coastal Advisory Committee (CAC). He explained that this is the second of two initial meetings to identify priority, near term coastal projects in the Pontchartrain Basin. The Southeast Louisiana Flood Protection Authority-East (SLFPA-E) tasked the CAC with identifying projects with plans and specifications that are near completion and that have available funding. The CAC is to produce a list of near term high priority coastal projects and projects for opportunity in the near term. The CAC reviewed about 15 projects at its first meeting on April 7<sup>th</sup> and will review about 14 projects at today's meeting. The CAC's first list of short term priority projects will be developed from the two initial meetings. The CAC will hold future meetings on a quarterly basis and will follow up on the progress of these projects. The intent is to try to recreate a self-sustaining coast on the outside of the hurricane protection system to help reduce storm surge and enhance the degree of protection for the metropolitan region. Dr. Lopez added that the projects being reviewed cross authorization boundaries and their commonality is the Pontchartrain Basin.

**PRESENTATIONS ON PONTCHARTRAIN BASIN COASTAL PROJECTS:**

**Blind River Freshwater Diversion (LCA)**

The presentation on the project was given by Renee Sanders with OCPD.

The project area is about 35 square miles (22,000 acres), encompasses fresh water marsh and hard wood forest and is located about three miles north of the Mississippi River. The Mississippi River levee prevents periodic inundation of the adjacent swamp causing tree mortality, changes in water chemistry, impacts to wildlife species and habitat conversion. Project opportunities include the prevention of habitat conversion, improved and enhanced water quality within the Blind River and enhanced recreational opportunities. The study area provides critical habitat for the West Indian manatee and the Gulf sturgeon. Maurepas Swamp is one of the last remaining large fresh water swamps in Louisiana. The project purpose is to reintroduce fresh water sediment nutrients, essentially mimicking the

Mississippi River flow prior to the levee construction. The goal is to reverse the current trend of degradation and to contribute towards a sustainable coast. The project team determined a final array of alternatives. The 2005 LCA report project description includes a small diversion with the objective of reintroducing sediment nutrients and states that the project is to work in conjunction with the Hope Canal Diversion Project. Alternative 2 most closely matches the language of the LCA report. The selected plan (Alternative 2) includes a 3,000 cfs diversion at Romeville and uses a gated culvert system. Alternative 2 is also the National Ecosystem Restoration Plan. Features in Alternative 2 include a gated culvert, a transfer canal for conveying water from the Mississippi River into the project area, improving existing berm cuts and creating new berm cuts to restore natural hydrology, six water control structures and four culverts under Airline Highway. Alternative 2 will contribute to reversing the current trend of degradation and deterioration within the Maurepas Swamp and meets all project goals and objectives. It is consistent with U.S. Army Corps of Engineers (USACE) policies and procedures, a best buy for the project and within the scope of the 2005 LCR report. The project's non-federal sponsor is the State (CPRA). The total project cost is \$123 million, which is below the cost cap of \$124.5 million. The draft report for the project will be released in May. The Chief's Report is expected to be signed in December, 2010. The PED will be completed in October, 2010. Construction is anticipated to be completed in March, 2015.

### **Amite River Diversion Project (LCA)**

The presentation on the project was given by Renee Sanders with OCPD.

The project study area is located northeast of the Blind River project and includes the Amite Diversion Canal. The Amite River Diversion Canal was dug as a part of the Amite River and Tributaries Project in 1956. Materials from the canal were deposited on its north and south banks, which prevents water from the diversion canal from flowing into the adjacent swamps and the discharge of water back into the diversion canal. The degradation within the swamp is occurring primarily due to the lack of fresh water exchange. The hydrology was altered by the construction of the diversion canal and the effects have been compounded by sea level rise and subsidence. Habitat conversion is occurring. Project opportunities include an improved hydrologic process and improved flow between the diversion canal and the adjacent swamp. The purpose of the project is to establish connectivity between the diversion canal and the swamp. The goal is to reverse the current trend of degradation. The project team divided the project area into hydrologic basins and determined the areas that are more critically impacted. The 2005 LCA report project description includes two key points: 1) the construction of gaps and 2) the introduction of flood waters to supply fresh water and nutrients to the swamp. The exchange in flow would occur during flood events (high flow conditions) and by way of gaps in the railroad grade and spoil banks (low flow events). Sediment nutrients will be provided by mimicking the natural flooding from the diversion canal. All of the alternatives in the final array meet the project description in the 2005 LCA report. The National Ecosystem Restoration Plan for the project is Alternative 39. Alternative 39 encompasses more of the critical areas and contains more features than Alternative 33. The cost of Alternative 39 is \$13.6 million, which is above the \$8.1 million cost cap. The tentatively

selected plan is Alternative 33. Alternative 33 focuses on the most critical area, meets project goals and objectives, re-establishes hydrologic connectivity and is cost effective. The cost of Alternative 33 is \$7.7 million, which is just below the cost cap of \$8.1 million. The PED will be completed in December, 2011. The construction completion deadline for earthwork is 2013. Cypress and tupelo trees will be planted, their mortality will be evaluated and then a second planting will take place.

### **Manchac (LP) Shoreline Mitigation re-do LP&V post Betsy**

The presentation on the project was given by Greg Miller with the USACE.

The authority for the mitigation project falls within the Lake Pontchartrain and Vicinity (LPV) Hurricane Protection Project. The mitigation work at Manchac was first identified in the 1988 LPV Mitigation Study and EIS. Project funding is from the 3<sup>rd</sup> Supplemental Appropriation in 2006. A segmented breakwater was constructed in two reaches under the original project. The breakwater has subsided and no longer provides the intended shoreline protection. The USACE would like to bring the project back to the intended performance. The current project will consist of two components: 1) a continuous breakwater system stretching about 5.5 miles fronting the Wildlife Management Area and 2) a marsh creation component that will guarantee 100 acres of required mitigation benefit. Approximately 800,000 cubic yards of material will be dredged from Lake Pontchartrain and pumped behind the breakwater to create marsh. Approximately 120 to 127 acres of marsh will be created. Openings in the breakwater for fisheries access and tidal exchange are required by NOAA. The site will be monitored to determine whether these openings will occur naturally and, if not, the openings will be constructed. The IER will be released for public comment in June, 2010.

### **Bonnet Carre - Frenier Wetland Restoration**

The presentation on the project was given by John Lopez with the Lake Pontchartrain Basin Foundation (LPBF).

The construction of a structure in the guide levee on the downstream end (upstream side) of the Bonnet Carre Spillway is proposed for shunting a small portion of the water to the wetlands while the spillway is operated to reduce water levels in the Mississippi River. Diversion discharge rates in the order of 3,000 to 4,000 cfs have been discussed with the State. The wetlands provide an important buffer between storm surge and the local communities. A proposed hurricane protection levee is being evaluated by the USACE. Wetlands will be situated between the lake and the proposed levee. The Illinois Central Railroad is situated on a foundation that follows Lake Pontchartrain and will prevent the water discharged through the guide levees from flowing into the lake and force the water towards the northwest. The proposed levee will prevent backwater flooding due to the diversion. If water can be directed into the I-55 borrow canal, it would help facilitate the movement of water further northwest into the land bridge area. The proposed structure would be similar to the Morgaza Floodway Structure, but smaller, with a causeway on top. The estimated cost of the structure, including 100 percent contingency, is \$25 million. The

cost per thousand cubic feet (cfs) for the Bonnet Carre Spillway diversions is significantly less than other diversion projects because fewer features are required.

### **Bonnet Carre – Wetland Restoration (LCA)**

The presentation was given by Greg Miller with the USACE.

The conceptual goal is to use the Bonnet Carre Spillway to introduce fresh water for lowering salinity levels and enhancing productivity in adjacent marsh and forests. Potential options for authority include Section 1135 (continuing authority from Congress for the USACE to modify an existing project) and the Water Resources Development Act (WRDA) of 2007, which provides two options that could potentially be tapped (Section 7005 - project modifications and Section 7006 - demonstration projects). Section 7005 gives the USACE the authority to look at modifying any existing water resources project in coastal Louisiana for the purpose of ecosystem restoration. Section 7006 gives the USACE the ability to carry out projects in accordance with the 2004 near term LCA plan to resolve areas of scientific or technological uncertainty. Options for moving water from the Bonnet Carre Spillway into adjacent swamps include constructing gaps or gaps with sills in the levee, installing culverts or other structures, outfall management and pumping water over the levee system. At this time no cost share agreement is in place with the local sponsor (State of Louisiana) for investigation. There is a broad general consensus that the concept should be developed. There is potential for a FY 2011 new start construction project for the pumping option, if pursued in partnership with the State under the demonstration authority. Pumps would be put in place to move water over the levee and the effects and benefits of the operation would be monitored. If the pumping option is demonstrated to be an effective concept, the 7005 authority could be pursued for physical modifications by the construction of gaps or structures in the levee for moving water. Pumping water over a levee would not be a permanent solution and would be expensive; however, it is probably the quickest route for positive action in this area. Other authorities can be pursued for other concepts; however, it would take time.

The pursuit of the design and construction of a more permanent solution and concept under other authorities was discussed.

### **Grand Coin Pocket Marsh Creation (Chef Pass Marsh Creation) – New Orleans Land Bridge Restoration**

The presentation on the project was given by John Lopez with the LPBF.

The New Orleans Land Bridge is identified in the USACE LaCPR as a critical landscape feature for reducing storm surge. Implemented and planned restoration projects along the land bridge were reviewed. The proposal is to implement marsh creation projects in ponds located in the Grand Coin pocket and Chef Pass. The proposed Grand Coin and Chef Pass marsh creation projects are too small for consideration under the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) program. It was recommended that

these marsh creation projects be considered as an area of mitigation under the 100 year flood protection project program.

### **Modify Authorization of Caernarvon Diversion**

The presentation on the project was given by Greg Miller with the USACE.

The 4th Supplemental Appropriation in 2006 included \$20.2 million for wetland restoration work around the City of New Orleans to reduce storm surge risk. The USACE was directed to split the appropriated dollars--\$10.1 million on the West Bank (Barataria Land Bridge) and \$10.1 on the East Bank (Caernarvon area). The proposed project components include shoreline protection, marsh creation, canal cleanouts and possibly a cut to allow diverted water from the Caernarvon structure to move farther east. The proposed work includes using borrow material out of Lake Lery to build marsh in shallow open water pockets along the Lake Lery shoreline, shore protection fronting the created marsh and cutting a path so that water coming down the Caernarvon Diversion Canal can move farther east in the system. The planning work is underway. The Environmental Assessment is scheduled for public review in the summer of 2010.

### **Braithwaite Levee Mitigation at Caernarvon**

The presentation on the project was given by Greg Miller with the USACE.

The mitigation project area is in the vicinity of Caernarvon. Twenty-four acres of marsh will be created using a hydraulic dredge to fill an area of shallow open water. The borrow source for approximately 150,000 cubic yards of dredged material is from Big Mar. Due to the emergent marsh in the southern area of Big Mar (the original target borrow site), a new borrow site will be needed. The new target borrow site is being shifted farther north into Big Mar. The Individual Environmental Report is scheduled to be released in late 2010. Funding for the project is included in the 4<sup>th</sup> Supplemental Appropriation.

### **Lake Lery Rim Re-establishment (St. Bernard)**

The presentation on the project was given by Bill Kappel with Coastal Environments, Inc.

The Lake Lery Shoreline Restoration and Marsh Creation Project are fully funded through the Coastal Impact Assistance Program (CIAP). Material will be dredged to create marsh in the northeast area of the shoreline. The material to rebuild the shoreline to create a perimeter barrier has not yet been determined. The project is synergistic with other plans in the area and part of a larger effort to stabilize the Lake Lery area. The ultimate goal is to keep Lake Lery, which was tremendously damaged during Hurricane Katrina, as a defined body of water. On-going discussions are taking place with the contractor; therefore, construction has not yet commenced.

## **Orleans Land Bridge SP and Marsh Creation & Irish Bayou SP with I-10 spans**

The presentation on the project was given by Luke LaBas with OCPR.

Dedicated funding is in place through CIAP for construction of the Orleans Land Bridge Project. An area along the northwest shoreline of Lake Borgne will be protected using the remnants of the I-10 twin spans. Spans will cut twice along the longitude, inverted and placed along the shoreline for the benefit of attenuating waves for whatever time frame they are able to do so. The current application that will be used is the marine mattress revetment. The project is currently in the permit modification process. Eight to nine miles of shoreline protection will be provided, depending on bid results. The 30% design review meeting was held in March. Final design is expected to be completed in May. Construction is anticipated to be completed in December, 2012. The project is being coordinated with DOTD for beneficial use of the twin span debris. The Irish Bayou portion of the project will not be constructed due to access. The total cost of the Orleans Land Bridge Project is almost \$42 million (CIAP). State funding of \$2 million to \$3 million will be used for the beneficial use of the twin span material for the protection at Chef Pass as it enters into Lake Pontchartrain.

## **River Reintroduction into Maurepas Swamp (Hope Canal)**

The presentation on the project was given by Brad Miller with OCPR.

The project design is funded through CWPPRA. The federal sponsor is the Environmental Protection Agency (EPA) and the local sponsor is the State of Louisiana. The project area is south of Lake Maurepas. Project features include a diversion structure at the Mississippi River using box culverts; a sedimentation pond; a new channel from the diversion structure to just north of Airline Highway at Hope Canal; relocations and structures needed to cross River Road, two railroads, a number of pipelines and Airline Highway; improvements to the existing Hope Canal and outfall management structures. The intent is to have an appropriate size diversion into the swamps of Lake Maurepas so that the swamps will eventually move back toward environmental sustainability through increased nutrients and fine sediments. Water quality issues were examined and approximately 20 models were run. The 30% design review meeting was held in December, 2009. The USACE requested that a gap analysis be done before the project moves forward to show the gaps between the CWPPRA project design and the LCA Hope Canal Project design. The final design is scheduled for completion in December, 2011. The EPA and the USACE are working on an agreement for the gap analysis.

Construction is contingent upon obtaining authorization and the appropriation of construction funds, as well as the completion of the NEPA process and obtaining all necessary permits. The State wants to finish the design of the project under CWPPRA. The cost of engineering and design for the project is approximately \$5 million. The project could be transferred to the LCA for construction. The Hope Canal Project was authorized in the LCA for \$68 million. The estimated construction cost at the 30% design is \$152 million; however, this estimate may be refined downward due to the liberal assumptions

made just after Hurricane Katrina. LCA projects that are 150% over the authorization must be re-authorized for construction or a reasonable increment of the project could be constructed within the existing LCA authorization.

### **Biloxi Marsh – Lake Borgne Shoreline Protection**

The presentation on the project was given by Tim Harper with OCPR.

The Biloxi Marsh Shoreline Protection Project (PO-72) will start at the terminus of the Lake Borgne & MRGO Shoreline Protection Project (PO-32) and continue northward as far as funding will allow. About five to seven miles of shoreline protection is projected to be constructed along the southeastern shoreline of Lake Borgne. Erosion rates along the shoreline range from 5 to 50 feet per year. The project is funded by the 2007 State surplus in the amount of \$22 million. The 30% design will be completed by July, 2010 and the final design will be completed in January, 2011. Construction is anticipated to commence in May, 2011 and be completed in July, 2012.

A brief summary of all of the projects in the LaBranche area was provided by Jonathan Hird.

Mr. Dufrechou advised that the CAC will review the information and materials offered at the April 7 and 20 meetings and provide a summary to the SLFPA-E at its Board meeting on May 20, 2010.

There was no further business; therefore, the meeting was adjourned at 3:20 p.m.