MINUTES OF
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST
COASTAL ADVISORY COMMITTEE MEETING
HELD ON NOVEMBER 18, 2015

PRESENT: G. Paul Kemp, Chair
Rick Luettich, Committee Member
Albert Gaude, Committee Member
John Lopez, Committee Member
Carlton Dufrechou, Committee Member

The Coastal Advisory Committee (CAC) of the Southeast Louisiana Flood Protection Authority-East (SLFPA-E or Authority) met on November 18, 2015, in Meeting Room 201, Orleans Levee District Franklin Administrative Complex, 6920 Franklin Avenue, New Orleans, Louisiana. Mr. Kemp called the meeting to order at 3:00 p.m.

Opening Comments: None.

Adoption of Agenda: The agenda was adopted as presented.

Approval of Minutes: The minutes of the May 20, 2015 CAC meeting were approved.

Public Comments: None.

New Business:

C. Update on Surge Reanalysis Initiative.

Robert Turner, SLFPA-E Regional Director, explained that the U.S. Army Corps of Engineers (USACE) indicated that the shelf life of the analysis performed for the Hurricane and Storm Damage Risk Reduction System (HSDRRS) is about 10 years. A reanalysis may be needed as part of the recertification effort that must come to fruition in 2023. In order to preclude duplication of efforts by multiple stakeholders and diverse approaches that could produce differing results, the Lake Pontchartrain Basin Foundation (LPBF) was contacted to assist with bringing the appropriate stakeholders together to begin discussions.

John Lopez, LPBF Coastal Program Coordinator, advised that the Pontchartrain-Maurepas Surge Consortium was formed consisting of twenty to thirty different entities surrounding the lake that are working together on risk reduction issues. The Consortium has conducted several workshops. A letter was drafted by the Consortium to Colonel Hansen, USACE New Orleans District Commander, regarding a surge reanalysis of Southeast Louisiana. Mr. Turner commented on the increased interest by the Coastal Protection and Restoration Authority (CPRA) on this issue.

Mr. Turner estimated that the planning phase of the reanalysis could potentially take about six months and the effort could extend one-and-a-half to two years, depending on the availability of data. Mr. Luettich pointed out that the reanalysis will start from a more

advanced stage than the original analysis. Dr. Lopez noted that the modeling requirements for just the HSDRRS will require a regional look in terms of surge. The scope of the reanalysis in terms of boundaries was briefly discussed.

A motion was offered by Mr. Luettich, seconded by Mr. Gaude, and unanimously adopted for the Committee to endorse the Pontchartrain-Maurepas Surge Consortium letter dated November 6, 2015.

Bob Jacobsen informed the Committee that the Coastal Levee Consortium was recently created by the Legislature and includes the SLFPA-E and SLFPA-W in its membership. He commented on the association of the term "reaccreditation" with the reanalysis and the potential National Flood Insurance Program (NFIP) ramifications. Mr. Luettich clarified that his intention for the reanalysis is to assess hazards using updated tools, information and data. Dr. Lopez pointed out that the scoping phase can address any potential issues and stressed the importance of assessing hazards.

A. Discussion of proposed marsh project located in New Orleans East adjacent to South Shore Harbor by the Lake Pontchartrain Basin Foundation.

Dr. Lopez explained that the proposed marsh creation project is a collaboration with the Orleans Levee District (O.L.D.), SLFPA-E and private partners. The LPBF searched for opportunities to build marsh along the south shore of Lake Pontchartrain and discovered the proposed site, which is shallow due to shoaling and partially protected by an existing breakwater. The Non-Flood Protection Asset Management Authority (NFPAMA) is in negotiations with a private developer to lease a tract of land adjacent to the proposed marsh site that would be redeveloped for music, recreational and other usages. He addressed potential design options for the project using geo-tube and a rock or sheet pile breakwater. The proposed project would improve water quality by offering filtration for storm water discharged into the lake by a nearby pump station, enhance fish habitat and provide recreational opportunities through the construction of a beach and/or pier. Dr. Lopez noted that the project is conceptual at this time and requested comments from the Committee.

Wilma Heaton, SLFPA-E Director of Governmental affairs, advised that the NFPAMA Board has been in negotiations with the private developer for the former Bally's Casino site, which has been in a blighted condition since Hurricane Katrina. The developer is considering a multi-million dollar investment including a 5,000 seat amphitheater and a fuel dock. She suggested a collaboration between the LPBF, SLFPA-E and the private developer. The NFPAMA Board will consider the terms of a lease for the former Bally's Casino site at its next meeting, and if approved, the developer will work with Dr. Lopez on the marsh project. The estimated cost of the marsh project is $5 million. Dredged material from South Shore Harbor could potentially be used for the marsh creation. The SLFPA-E could potentially authorize some funding for the project from the BP settlement fund and the developer is considering a cash infusion in the marsh project and sponsoring a music event to raise money for the effort. Additional funding could be sought from other entities. A world class technical music component, restaurants, a fishing pier and other opportunities could evolve as a result of this effort. The project is being planned taking into consideration its location outside of flood protection.

Mr. Luettich offered a motion, which was seconded by Mr. Dufrechou and adopted, to support the proposed marsh project located in New Orleans East adjacent to South Shore Harbor by the Lake Pontchartrain Basin Foundation.

D. Update on Mardi Gras Pass.

Dr. Lopez advised that the LPBF presentation on Mardi Gras Pass was recently provided to the CPRA and USACE. He explained that the previously constricted point at Reach 4a of the pass almost entirely opened during the past year with the potential of producing significant changes in the hydrology. Monitoring performed by the LPBF since 2012, the year the pass first breached the Mississippi River, includes approximately 24 ADCP discharge surveys. The increasing discharge measurements indicate the channel's enlargement. A histogram of cross sectional areas of the reach was reviewed. Water flowing out of the pass is basically confined to the channel network (back levee canal and secondary canals). The sediment is basically falling into the back levee and secondary canals before reaching the sound. Pictures of Mardi Gras Pass and some of the emerging vegetation were viewed.

Dr. Lopez explained that if Mardi Gras Pass is allowed to continue to develop naturally, it may eventually reach a geomorphic limit where the system will begin to choke up and shut down. He discussed several potential options for managing the pass:

- Closing the pass by closing the breach. There would still be overtopping and a minimal amount of flow (probably less than 1,000 cfs).
- Installation of culverts to match the flow that might have otherwise come through the old culvert structure (about 1,000 cfs).
- Stabilizing the pass at its current flow (5,200 to 7,500 cfs depending upon river stage). If the flow is allowed to reach the next range (8,000 to 20,000 cfs), the sediment would go into the secondary canals with the majority of sediment falling out in the marsh area. If the flow is allowed to go over 20,000 cfs, the sediment would be pushed out into the sound where it would not be as effective in terms of building land or being captured by the marsh.

Dr. Lopez pointed out that the 2012 State Master Plan includes a diversion about two miles away from Mardi Gras Pass at Lower Breton of 50,000 cfs. Mardi Gras Pass has offered a learning experience relative to a natural course of events.

Dr. Lopez asked for comments from the Committee as to whether Mardi Gras Pass should be adaptively managed, and if so, how should the adaptive management be framed. Mr. Kemp voiced his support for the development of staged options to adaptively manage the Pass. Mr. Gaude commented on a growing concern about unintended consequences and suggested that any unintended consequences, such as a shift in vegetative regime, be documented.

E. Update on calibration of USACE gages and hardened gages project.

Mr. Turner explained that the SLFPA-E has been working with the U.S. Geological Services (USGS) and the USACE on the current velocity meters at the IHNC Surge Barrier Sector Gate. A plan was developed for USGS to take measurements, review the information collected by the USACE with the current velocity meters and attempt to either validate or find a way to use the old data by utilizing some type of calibration factor, and for the USACE to potentially modify the location of the meters. Mr. Luettich added the USACE has three ADCPs located at the Surge Barrier Gates. Historically, the operation of the meters has been intermittent and the data has been difficult to interpret. Mr. Turner commented on USGS's experience with analyzing this type of data. The USGS did a trans-sector of the structure, collected data to determine the velocity profile going through the structure, and compared this information to the data produced by the gages. It was determined that some of the cells are providing erroneous data. A potential problem may be that the data being collected is too close to the sides of the structure and the velocities that are collected are associated with eddies rather than stream flow. Adjustments may be required to the areas where the data is being collected. In addition, there is a significant difference between the velocities inside and outside of the structure's bay. The USGS will also provide recommendations to the USACE on potential adjustments to its website. He noted that the Barge Gate will remain closed until at least the end of November. USGS will visit the site within a week to collect additional data. Mr. Turner was hopeful that data collected since June or July will be usable at least from a qualitative perspective.

Mr. Turner reported that the SLFPA-E is awaiting a proposal from Moffatt and Nichol for the design of a hardened gage with full weather station capabilities and tie-in to the CORS (Continuously Operating Reference Station). The proposal will be brought to the Board for approval.

B. Discussion of Tremaine & Associates demonstration project.

John Lopez with Tremaine & Associates (Tremaine) explained that the technology developed for the U.S. Army's use to detect IED's and weapons catches is now being used for commercial purposes on infrastructure. Tremaine's methodology is being fused with algorithms developed Dr. Mehrez Elwaseif to constrain the collected electro-magnetic (EM) data in order to allow the details of the stratigraphy and features to be viewed. The SLFPA-E demonstration project includes three locations (LPV 109, LPV 111 and MRL 11). Dr. Elwaseif briefly explained the technology and the data collection and processing procedures. Mr. Lopez advised that the EM data can be provided prior to his departure; however, the resistivity analysis may take additional time, depending on the complexity of the results.

Robert Jacobsen advised that a public hearing will be held at an upcoming meeting on the full report on the management of residual risks and compartmentalization [a Community Development Block Grant (CDBG) project].

There was no further business; therefore, the meeting was adjourned at 5:00 p.m.