

**MINUTES OF
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST
OPERATIONS COMMITTEE MEETING
HELD ON JULY 10, 2014**

PRESENT: Louis Wittie, Chair
Stephen Estopinal, Committee Member
Paul Tilly, Committee Member

The Operations Committee of the Southeast Louisiana Flood Protection Authority-East (SLFPA-E or Authority) met on July 10, 2014, in Meeting Room 201, Orleans Levee District Franklin Administrative Complex, 6920 Franklin Avenue, New Orleans, Louisiana. Mr. Wittie called the meeting to order at 10:30 a.m.

Opening Comments: None.

Adoption of Agenda: The agenda was approved as presented.

Approval of Minutes: The minutes of the June 12, 2014 Operations Committee meeting were approved.

Public Comments:

Craig Berthold asked that the SLFPA-E send a representative to look at the vegetation free zone along the 17th Street Canal and the liability issue associated with the public and vehicles being able to freely access the property and report back to the Committee. He added that the SLFPA-E should take responsibility for this zone, which the landowners cannot fence, but must insure. Robert Turner, SLFPA-E Regional Director, advised that he and Gerry Gillen, Orleans Levee District (O.L.D.) Executive Director, would visit the site. Mr. Tilly advised that he would attempt to participate in the site visit.

New Business:

A. Presentation on Levee Safety Survey by Mike Merritt, SLFPA-W:

Mike Merritt, Southeast Louisiana Flood Protection Authority-West (SLFPA-W) Commissioner, commented on the tradition of cooperation between the East and West Flood Protection Authorities. He explained that he was bringing information to the SLFPA-E's attention that could aid in strengthening any weak levee reaches. The proposed Levee Safety Survey could be accomplished before or soon after a project is turned over to the Non-Federal Sponsor. Hurricanes Katrina and Rita found the weak links in the levee system. The U.S. Army Corps of Engineers (USACE) has repaired the weakest links. He asked, how can the next-to-the-weakest links be found before the USACE turns over a project that may include issues that should be cost shared? He

stated that anomalies can be found within a few days with an inexpensive geophysical survey.

Mr. Merritt informed the Committee about his discussions with a representative from Dynamic Measurement, LLC, concerning Natural Sourced Electro Magnetic (NSEM) Lightning Analysis. He explained that lightning strikes in the same place for a good electrical circuit reason. Dynamic Measurement has patented knowhow and can quickly analysis weather (lightning) data for a particular area in order to measure, monitor and predict things about levee issues. He discussed a Dynamic Measurement study of lightning strikes during a lunar cycle that compared an onshore dry land example versus a swamp example. He noted that there are more lightning strikes at both maximum flood and maximum ebb in the onshore example because it is believed that the tides slightly open or close faults increasing conductivity. There were no strikes at maximum flood or maximum ebb in the swamp example because it is believed that the tides wash out both biogenic and thermogenic methane. Most strikes in the swamp example occur just past half flood. The electrical characteristics of the levee right-of-way determine the location of the lightning strikes. Digital data on lightning strikes over the past fifteen years can be acquired and processed allowing an opportunity to measure and map subtle local faults or seepage. The resulting data can provide information relative to levee design and survivability. Mr. Merritt showed a map of potential study areas for the SLFPA-W and a boxed outline of the entire jurisdiction where data can be obtained for a quick survey at a relatively low cost.

Mr. Merritt stressed that the Flood Authorities must understand what is below the surface of their levees. The SLFPA-W President recently established an Environmental and Research Committee to investigate and acquire know how to help Flood Authority Commissioners gain an understanding of the foundation soils beneath the levees. The new committee intends to use modern methods to find any inherent weaknesses in or below the levees so that they can be strengthened before a severe test takes place.

B. Discussion of Cooperative Endeavor Agreement between SLFPA-W and SLFPA-E for Emergency Services.

Robert Turner, SLFPA-E Regional Director, advised that the proposed Cooperative Endeavor Agreement (CEA) would allow the SLFPA-W and SLFPA-E to provide emergency assistance (mutual aid) to each other. He noted that fifteen member levee districts of the Association of Levee Boards of Louisiana (ALBL), including the three levee districts under the jurisdiction of the SLFPA-E, have executed CEAs and participate in a mutual aid agreement. The SLFPA-W and Plaquemines Parish are not included in the list of participating ALBL levee districts. Mr. Estopinal pointed out that Plaquemines Parish should be contacted relative to the execution of such an agreement. The Committee directed Mr. Turner to contact the appropriate representatives of Plaquemines Parish.

C. Update on OFC-07 and OFC-08 Projects (Orleans, London and 17th Street Canal Remediation) by U.S. Army Corps of Engineers (USACE) and discussion of debris in levee.

Brad Drouant, USACE Senior Project Manager for the Lake Pontchartrain and Vicinity (LP&V) Project, provided an update on the current outfall canal remediation projects. In February, 2014, the USACE awarded the contract for OFC 07. The project involves the driving of 1,400 linear feet of sheetpile along the 17th Street Canal and 3,800 linear feet of sheetpile along the London Avenue Canal. The work is about 50 percent complete on the 17th Street Canal and 20 percent complete on the London Avenue Canal. The sheetpile is being driven about five-feet off of the protected side of the floodwall using a hydraulic press hammer. The process includes the digging of a small trench on the protected side of the floodwall. Some images of unsuitable material recently appeared in the media. The USACE looked into the issue and determined that the materials are isolated. The USACE is confident that the chunks of concrete will not have any impact on the integrity of the floodwall and that the floodwall will perform as designed. The sheetpile will not be tied into the floodwall in the areas where it will act as seepage cutoff. The sheetpile will be tied into the floodwall in the areas where it is being driven to reduce deflection. The project is anticipated to be completed at the end of February or early March.

Mr. Turner advised that the USACE agreed to provide a geotechnical report to the SLFPA-E. Copies of the images provided to the SLFPA-E were forwarded to the engineering consultant retained by the SLFPA-E to review the remediation work designs. The consultant's preliminary response was that based on the images provided there is no reason for immediate concern. The debris consists of pieces of concrete and brick and glass bottles. The materials are not organic.

Brett Herr with the USACE advised that although the USACE does not believe the materials represent a risk to the levee, it plans to remove any objects the size of a brick or larger as the material is being moved back into the trench for recompaction. The unsuitable material will be replaced with suitable material.

D. Discussion of residual flooding on Grandlake Boulevard on the landside runoff project by USACE.

Mr. Drouant explained that the USACE constructed a new floodwall after Hurricane Katrina about 35-feet west of the existing West Return Floodwall in Kenner, LA. Additional area was added as a result of the project where rain would collect. The USACE's intent with the landside runoff project currently being constructed is to collect the water and direct it towards the Parish's drainage canals. In several incidents the swale overflowed at several low points, which were subsequently identified, into backyards during construction. He stated that the USACE is very concerned about this situation and its goal is to improve circumstances for the residents. Immediate steps were taken to prevent any additional flooding while the issue is being investigated. After the June 22nd event the USACE immediately directed the contractor to install a silt fence

and to begin placing sandbags provided by the East Jefferson Levee District. The rain continued through June 23rd and some additional flooding occurred. Additional flooding also took place on June 25th along Grandlake Boulevard. Surveys have identified the low area and the sandbags have been extended. In addition, two six-inch pumps have been placed in the area where homes have flooded so that the water can be removed immediately and pumped over the floodwall should the swale fill up again. Additional surveys of the entire swale are being done in order to verify elevations along the property line. The USACE is also reviewing the design and construction practices.

Mr. Estopinal inquired about the overflow mechanism for when the subsurface drainage is overloaded. Mr. Drouant explained that as a result of some of the events a spillway was placed at West Esplanade (Canal 17) to act as a relief valve for the swale in the event the water comes up again. He added that the USACE has been watching the situation and has not seen any significant depths in subsequent events. Information on canal elevations and rainfall events has been collected. The USACE is working to verify that the design meets the ten-year rain event criteria prior to turning the project over to the local sponsor. Mr. Estopinal pointed out that the 10-year event criteria is sufficient for the subsurface drainage; however, the system must function for better than a 100-year event. He stressed that the drainage system cannot be designed to protect homes for just a 10-year event. Mr. Drouant added that the USACE is taking significant actions to ensure that turf is established. Mr. Estopinal requested that he be provided a copy of the redesign.

E. Discussion of no rip-rap being placed on the east side of the 17th Street Canal by the USACE.

Mr. Drouant advised that about one-foot of rock is being placed on the existing shoreline on the west side of the 17th Street Canal between Hammond Highway and Veterans Boulevard under Project OFC 08. The USACE determined that the erosion at this location could potentially pose a stability threat to the floodwall in the immediate future should it be allowed to continue. In the interest of being a good partner and not turning over a project that would need immediate work, and being overly cautious, the USACE made the decision to place the rock in this particular section along the 17th Street Canal. He pointed out that erosion control is normally considered a maintenance issue. In accordance with the Project Partnering Agreement between the USACE and the State (the local sponsor), the State, through the SLFPA-E and East Jefferson and Orleans Levee Districts, is responsible for taking measures to prevent additional erosion along the canal. The Orleans Levee District currently has a consultant who is studying this issue along with possible solutions. The USACE is providing assistance to the consultant by supplying data.

Mr. Turner explained that the SLFPA-E originally attempted to obtain a design template from the USACE so that future periodic cross sections of the canal could be compared with the template for the potential placement of additional material as required. Information obtained thus far is that it is a complex system and the development of a standard template would be difficult. In the absence of a template, the responsibility for

determining when the factors of safety fall below the required levels at the time that cross sections are done would fall to the SLFPA-E and the levee districts. He pointed out that there is no land on the floodside of the floodwall in some areas along the outfall canals; therefore, the existing conditions were used when the analysis was done to determine the stability of the wall for the required hydraulic conditions for both high and low water. The area of immediate concern was the stretch along the west side of the 17th Street Canal where the depth of the existing sheets was the shallowest of the sheet tip depths in the system. Mr. Drouant added that the USACE selected the placement of rock in this location as the appropriate, most cost effective engineering alternative. He noted that the immediate concern for this levee section was relative to years, and not months, should historic erosion rates continue. Mr. Tilly requested that the SLFPA-E be provided with a copy of the USACE's analysis or criteria for determining when erosion remediation is required landside of the outfall canal floodwalls.

F. Discussion of additional rights-of-ways for USACE Permanent Canal Closures and Pumps (PCCP) Project.

Lee Walker, a contracted project manager with Evans-Graves Engineers for the USACE PCCP Project, explained that several months ago she showed the Committee some maps delineating the additional rights-of-ways that would be required for utility tie-ins and access to the pump stations. The maps were included in a Supplemental Individual Environmental Report that was issued for a thirty-day public review and comment period. Several requests were received for more defined footprints; however, no strong opposition was received relative to the additional rights-of-ways. The USACE District Engineer reviewed the comments, agreed with the proposed action to seek the additional rights-of-ways and signed the decision record. The project description document will be forwarded to the USACE's Vicksburg Division. Once the paperwork is completed, the USACE's Real Estate Department will send a formal right-of-way request to the Coastal Protection and Restoration Authority (CPRA). The footprints of the rights-of-ways have not yet been clearly defined; however, the proposed features will be described in the rights-of-ways requests. CPRA can subsequently request that any lands not used be turned back over to the original owner. She briefly discussed potential impacts to some of the vegetation within the rights-of-ways. Mr. Tilly requested that the USACE consider relocating some of the larger trees that must be removed. The additional rights-of-ways are located in park areas owned by the Orleans Levee District.

Levee District Reports: (copy appended to minutes)

Hurricane and Storm Damage Risk Reduction System (HSDRRS) Status Report:

Mr. Turner reviewed the highlights of the HSDRRS status report.

Robert Garner, SLFPA-E Regional Police Superintendent, reported on police activities during the month of June. Over 200 complaints were initiated, 44 separate arrests promulgated, over 150 tickets were issued, 420 complaints were generated by officers and 158 pedestrian checks were completed. Representatives continue to attend

hurricane preparedness meetings. Reserve officers are continuing to be deployed along Lakeshore Drive. No problems took place during the July 4th holiday.

Lake Borgne Basin Levee District (LBBLD): Nick Cali, LBBLD Executive Director, reviewed the highlights of the LBBLD status report.

Orleans Levee District (O.L.D.): Gerry Gillen, O.L.D. Executive Director, reviewed the highlights of the O.L.D. status report.

East Jefferson Levee District (EJLD): Danny Abadie, EJLD Superintendent of Operations, reviewed the highlights of the EJLD status report.

There was no further business; therefore, the meeting was adjourned at 11:40 a.m.