**MINUTES OF**
**SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST**
**OPERATIONS COMMITTEE MEETING**
**HELD ON AUGUST 7, 2014**

PRESENT: Louis Wittie, Chair
Stephen Estopinal, Committee Member

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The Operations Committee of the Southeast Louisiana Flood Protection Authority-East (SLFPA-E or Authority) met on August 7, 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 9:30 a.m.

**Opening Comments:** None.

**Adoption of Agenda:** The agenda was approved with the deletion of Item C under New Business.

**Approval of Minutes:** The minutes of the July 10, 2014 Operations Committee meeting were approved.

**Public Comments:** None.

**New Business:**

**A. Outfall Canal Bank Erosion Mitigation Presentation. (O.L.D.)**

Stevan Lundgren with Evans-Graves Engineers, Inc. provided a follow up report on the conceptual designs for mitigation of the erosion along the London Avenue, Orleans Avenue and 17th Street Outfall Canals. The Conceptual Design Report dated July, 2014 was provided to Committee members. Modifications were made to the report as requested by the Committee at its May 8th meeting involving a further look at the velocities in the canals. The U.S. Army Corps of Engineers (USACE) was contacted after the May 8th meeting. The USACE did not have data that was finalized and ready to be released regarding hydraulic profiles in the canals; however, they did provide their preliminary data for the three canals. Mr. Lundgren noted that the water surface profiles and velocities are different from those contained in the original report.

Mr. Lundgren reviewed the data for a typical test section for each of the canals:

- London Avenue Canal - The water surface elevation is +5-ft. The average velocities in the USACE's profile range from 2 to 7 FPS (feet per second). The estimated flow velocity at maximum pumping capacity is 4.70 FPS, which is on the high end for an earthen canal.
- Orleans Avenue Canal – The water surface elevation is +2.2-ft. and the estimated flow velocity at maximum pumping capacity is 2.20 FPS.

- 17th Street Canal – The water surface elevation is +6.3-ft. and the estimated flow velocity at maximum pumping capacity is 4.80 FPS.

Mr. Lundgren explained that the data was used to determine the probable causes of the erosion in the canals, which include the hydrology, rapid water level changes due to pumping, soil types and nutria. Eight solutions were considered ranging from vegetation and seeding to sheet pile flume. Based on the factors in the canals Evans-Graves recommended Option 5 - Geogrid. The process would include dressing the canal banks with dirt back to the original cross section, placement of erosion control fabric and Geogrid material. About 3-inches of crushed aggregate would be placed between the Geogrid cells in order to provide added stability. The Geogrid solution would provide a good foundation for maintenance purposes and erosion control and would prevent the burrowing of nutria and other animals. The estimated cost of utilizing the Geogrid solution for 30,000 linear feet of bank along the outfall canals is $2.7 million. Evans-Graves recommended the rip-rap solution for the breach area on the 17th Street Canal due to the large scour hole.

Mr. Estopinal pointed out that consideration should be given regarding how the Geogrid is placed in the transition areas. He asked the name of the individual responsible for the report. Mr. Lundgren responded that he is the engineer responsible for the report.

**B. <u>Discussion of Seawall Erosion Engineering Fee Contract. (O.L.D.)</u>**

Jim Martin, President of Design Engineering, Inc. (DEI), provided a brief presentation on the Lakefront Seawall Erosion Control Project. He pointed out that the seawall, which is the base of the project, is the frontline for flood protection for the Greater New Orleans area. He showed a map delineating the project reaches. Reach 1B of the project is nearing completion, Reaches 4 and 5 are currently under construction and Reach 2B is currently being advertised.

Mr. Martin pointed out that utility crossings are an important part of the erosion control project. He explained that when the seawall was constructed in the 1930's thirteen steps were visible and the top of the wall was at elevation +9-ft. Today, seven steps are visible and the top of the seawall is at elevation +6.5-ft. Waves that would not have crashed over the seawall when it was first constructed now routinely crash over the seawall. He discussed the impact of the wave overtopping on the seawall and Lakeshore Drive. A picture of the pilot project for the pile supported control slab constructed at the Mardi Gras Fountain was viewed. Mr. Martin pointed out that the structural integrity of the erosion control slab was not affected by Hurricane Katrina; therefore, the decision was made to enact this solution in other locations. A typical conceptual project rendering was reviewed, which includes sealing the seawall steps, construction of the pile supported erosion control slab, and safety features such as bollards and lighting. The erosion control slab is sloped in order to gain some of the elevation that has been lost over the past 80 years. He pointed out that certain areas, such as large park areas, would require adjustments in the erosion control slab solution.

Mr. Martin advised that he met with SLFPA-E and Orleans Levee District staff to discuss the breakdown of the remaining reaches into phases, to-wit:

Phase 1 – Reaches 1A and 3B – 3,480-ft.
Phase 2 – Reaches 2C, 2D and 3C – 4,740-ft.
Phase 3 - Reaches 1C, 2A and 5B – 4,960-ft.
Phase 4 – Reach 3A – 3,670-ft.

Mr. Martin reviewed the scheduling for Phases 1 thru 4 of the project. The phases have been tightly compressed and the design and construction will take three years. Contractors will be working simultaneously in multiple locations.

Mr. Estopinal questioned the fees for Phase 1 of the project, which included engineering fees - 11.8 percent, construction administration - 6.8 percent, resident inspection - 4.9 percent, for a total of 23.5 percent of the construction cost. He referred to the American Society of Civil Engineers Standard Percentage Fees for Engineering Design. Mr. Martin explained that the engineering fees include electrical engineering, elevation surveys, geotechnical engineering, testing and landscape architecture. Mr. Estopinal expressed his discomfort with the percentage of engineering fees for the project. He inquired about DEI's direct labor multiplier. Mr. Martin responded that DEI has an audited overhead rate of 1.98; therefore, the multiplier would be 2.98. He advised that DEI provided staff with direct labor costs including man hour estimates and line items. He pointed out that DEI first provided staff with its billing rates. Staff compared the rates with similar contracts and advised DEI where the rates were too high and DEI changed the rates.

A follow up meeting was needed between representatives of DEI and the President to clarify rates.

**D. <u>Discussion of adopting an O&M Manual for the Non-Federal Levees.</u>**

Robert Turner, SLFPA-E Regional Director, advised that an operations and maintenance (O&M) manual must be adopted for the non-federal levees as part of the certification process. The consultant for the non-federal levee certification project reviewed the manuals and recommended certain changes. He noted that the USACE is in the process of developing O&M manuals for the Federal levee system.

The Committee recommended that an item be placed on the Board agenda for the adoption of the O&M manual for the non-federal levees.

**<u>Levee District Reports</u>:** (Copy of status reports appended to minutes.)

**<u>Hurricane and Storm Damage Risk Reduction System (HSDRRS) Status Report</u>:**
Mr. Turner reviewed the highlights of the HSDRRS Report. He advised that the USACE is issuing the Notification of Contract Completion on several projects with outstanding punch list items; however, the USACE has provided assurances that they will resolve the outstanding issues.

**Police Activities:** Robert Garner, SLFPA-E Superintendent of Police, reported on police activities over the past month, which included affecting 40 arrests (misdemeanor and felony), issuance of approximately 70 tickets, 261 pedestrian and vehicle checks and dispatching of 178 complaints. Reserve officers logged in over 370 hours assisting with patrols. EJLD Reserve Officers continue to assist on Lakeshore Drive on weekends. Assistance is being provided to the O.L.D. for the updating of its radios to increase operability. The EJLD is preparing for an auction later in the month at which nine vehicles will be auctioned. The Pump to the River Project at Powerline Drive and the River is being monitored and a recommendation was made to the contractor regarding the placement of additional signage.

**Lake Borgne Basin Levee District (LBBLD):** Nick Cali, LBBLD Executive Director, reviewed the highlights of the LBBLD status report. He advised that Pump Station #6 reported 3.41 inches of rain in one hour on July 20th. Some street flooding occurred; however, there were no issues with the pump stations or canals and no reports of residential flooding. He noted that the removal of Floodgate No. 9 was accomplished in-house saving the LBBLD about $50,000, since the removal of the floodgate is a FEMA reimbursable activity. The removal of the floodgate and the video inspection of the culverts for which a task order has been executed are the last two outstanding items in order to make the non-federal levee eligible for the USACE's Rehabilitation and Inspection Program (RIP) and Public Law 84 99 funding. The USACE advertised and awarded a contract for the construction of a safe room at Pump Station #8 and the contractor is preparing to mobilize. Meetings are on-going concerning the certification of the non-federal levees.

**Orleans Levee District (O.L.D.):** Felton Suthon, O.L.D. Engineer, reviewed the highlights of the O.L.D. status report.

Mr. Estopinal inquired about the Permanent Canal Closures and Pumps (PCCP) Project and whether pump operations will be sequenced. Mr. Turner explained that one of the original requirements placed on the design-build contractor was to design a facility that minimized the velocities through the gates. The contractor advised the USACE that it was having trouble with the maximum velocity and proposed that the pumps be operated under certain conditions to minimize the velocity through the gate. Therefore, there would be flow through the pump stations at times other than when the gates are closed. The SLFPA-E, Sewerage & Water Board and Coastal Protection and Restoration Authority (CPRA) objected to the proposed solution for several reasons. The USACE took the contractor's recommendation under consideration and ultimately told the contractor to go back to the drawing board and determine what must be done to meet the requirement. He pointed out that in rare instances the gates may need to be closed in order to maintain the required minimum low water level.

**East Jefferson Levee District (EJLD):** Fran Campbell, EJLD Executive Director, reviewed the highlights of the EJLD status report. She advised that the purchase of a

portion of two streets is anticipated to be included in the Planned Unit Development (PUD) for the proposed consolidated administration/safehouse complex.

Mr. Turner reported that a meeting was held with USACE personnel regarding the preparation of semi-annual reports, which are in addition to the quarterly inspections. SLFPA-E staff has worked closely with USACE personnel over the past five to six months on the reporting process.

Mr. Turner advised that a major issue in the certification of the non-federal levees is the area along the Violet Canal. The renovation required at the location of the Violet Canal is estimated at $4 million. Meetings have been held with officials of the City of New Orleans and St. Bernard Parish Government and discussions have taken place with Jerome Zeringue, CPRA Executive Director, in an attempt to gain support for a funding request to the Interim Emergency Board.

Mr. Turner explained that the estimated local funding required in order to raise the levees in the SLFPA-E's jurisdiction prior to the USACE's armoring project for the HSDRRS is between $30 million to $40 million. This would make possible a ten to fifteen year service life for the armoring. The CPRA is considering contracts for geotechnical work to determine how high the levees should be raised and which parts of the levee must be raised. The USACE will require a commitment within the next few months relative to this issue and a determination will need to be made on how to proceed. A list has been provided to the USACE of the levees that will not require a lift within the next ten to twelve years so that the USACE can commence the HSDRRS armoring project. The USACE has elected not to recommend armoring on the Mississippi River Levee at this point in time.

There was no further business; therefore, the meeting was adjourned at 10:45 a.m.