

**MINUTES OF
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY-EAST
OPERATIONS COMMITTEE MEETING
HELD ON MAY 8, 2014**

PRESENT: Timothy Doody, Acting 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 May 8, 2014, in Meeting Room 201, Orleans Levee District Franklin Administrative Complex, 6920 Franklin Avenue, New Orleans, Louisiana. Mr. Doody advised that Mr. Wittie was unable to attend today's meeting and called the meeting to order at 9:30 a.m.

Opening Comments: None.

Adoption of Agenda: The agenda was approved as presented.

Approval of Minutes: The minutes of the April 3, 2014 Operations Committee meeting were approved.

Public Comments:

Mike Merritt, Southeast Louisiana Flood Protection Authority-West (SLFPA-W) Commissioner, commented on the Flood Protection Authorities' rich tradition of cooperation. He noted that the SLFPA-E's pioneering work in seismic testing of levees for safety purposes five years ago was followed by the Japanese two years later when they began using seismic methods to ensure the safety of their levees after their disaster. Lessons were learned from the 2005 hurricane season during which the weakest links in the system were discovered. He commented that the U.S. Army Corps of Engineers (USACE) only fixed the weakest links. He presented a challenge to the SLFPA-E in going forward to find and repair the next weakest links in the system before another event occurs. He pointed out that there are exciting new technical developments that can be pursued and invited the SLFPA-E to begin a conversation about a new method for finding unhealthy levee sections. Dynamic Measurement System located in Houston, Texas, has a patented technology that is effective in finding local features that could potentially undermine a levee. Mr. Doody advised that Mr. Merritt would provide a presentation to the Operations Committee at its next meeting.

Old Business:

A. Discussion of establishing a present condition baseline of Lakeshore Drive and comparing to future condition upon completion of the PCCP projects using materials testing and vibration monitoring. (O.L.D.)

Robert Turner, SLFPA-E Regional Director, reported that neither the USACE nor the contractor for the Permanent Canal Closures and Pumps (PCCP) Project agreed to do the testing to establish a present baseline condition for Lakeshore Drive. He requested that the USACE advise in writing whether it would hold the contractor responsible and require some type of mitigation should the SLFPA-E proceed with establishing the baseline and determine later that some of the pavement's surface life had been used up. A video-survey of the roadway was done by the contractor.

New Business:

A. Discussion of datum changes and data collections – Tim Osborne.

Tim Osborn, Regional Navigation Manager of the National Oceanic and Atmospheric Administration (NOAA) Office of Coast Survey for the Central Gulf Coast, advised that the presentation would cover maintaining, operating and sustaining a flood protection system in a rapidly changing environment with rapidly rising sea levels. He pointed out that Grand Island and coastal Louisiana are experiencing some of the highest rates in the world in relative sea level rise. NOAA is the Federal authority responsible for measuring and reporting sea level rise trends. NOAA is joined internationally in a collaboration to observe and report sea level trends around the world. Sea level trends are used in looking at critical infrastructure as well as flood protection purposes. The rate of sea level rise along with subsidence is used to develop projections on potential impacts from tides and storm surge. Tidal stations, such as the station at Grand Isle, have been in existence for over 70 years and continuously record water levels. The Grand Isle station is resurveyed every year for the purpose of vertical control. The relative sea level rise (subsidence and true sea level rise) is about 9.24 millimeters per year against a coastal landscape of approximately 12,000 square miles (the coastal zone) with an average elevation of three-feet or less.

He explained that datums are essentially a means to measure and report water levels. A number of datums are currently in existence. Water levels posted to tidal datums are usually adjusted on a 19 to 20 year basis. However, rates are moving very rapidly in two areas: Alaska where water levels are dropping due to glacial rebounds and southeast Louisiana where water levels are rising. Therefore, NOAA's Center for Operational Oceanographic Products and Services, the legal authority for measuring and reporting coastal water levels in the U.S., updates the water levels posted to the datums for Alaska and southeast Louisiana on a five-year basis.

Mr. Osborn advised that the posting of adjusted values to mean sea level occurred on May 6th. The water level value for mean sea level was adjusted upwards 1.32 inches for the period 2007 to 2011. The adjustments and projected trend can be used when looking at levee heights versus water level heights. He estimated that mean sea level will rise approximately one-foot to 14 inches by 2050 (over a period of seven postings).

Mr. Osborn addressed two additional considerations:

1. National Geodetic Service (NGS) Technical Report No. 50 provides an analysis of subsidence for south Louisiana and indicates that it is very likely that there are higher rates of subsidence in this area than are being posted and reflected at the Grand Isle station.
2. Global Sea Level Rise Scenarios for the United States for the National Climate Assessment provides reasonable support that increases in the rate of relative sea level rise may be seen in coastal Louisiana. NOAA, in cooperation with the USACE, EPA and others entities, prepares likely trends for the future. The likely trends for the future project significantly increasing rates. Graphs with two possible trend increases that both NOAA and the USACE have reported for Grand Isle and southeast Louisiana were reviewed.

Mr. Osborn discussed two recommendations:

1. Conducting regularly scheduled (annual or biannual) GPS based surveys of the entire system. This would create highly accurate profiles for the system that can be used during high water and storm surge events.
2. Installing and operating hardened water level stations with tidal datums that include, among others, mean sea level. A great amount of work is involved in the required surveying, establishment of datums and posting of datums to a station. The hardened weather stations should have a dual role: 1) measuring and referencing levee heights to the stations, and 2) monitoring and reporting on surge events in real time with six-minute updates.

Mr. Osborn pointed out that the implementation of the two recommendations would assist in the recertification of the Hurricane and Storm Damage Risk Reduction System (HSDRRS) that will be required by FEMA in ten years. He estimated that a hardened weather station with tidal datums that can withstand a Category 2 or 3 event costs approximately \$75,000. The operation and maintenance of the station would be an additional cost. The stations can also provide documentation of a hurricane strike in order to request FEMA assistance.

Mr. Doody commented that the Board at its last meeting discussed the incorporation of technology into the system. Mr. Estopinal pointed out the need for accurate Continuously Operating Reference Stations (CORS), good gravitational observations and the adoption of a gravitational based datum, identification of areas where slippage and differential movement are occurring, and good observations for modeling efforts. Mr. Turner suggested that he meet with Mr. Osborn in order to work out a partnership between the SLFPA-E and NOAA. Mr. Osborn advised that two members of NOAA's Co-ops Leadership will be in the area next week and could meet with Mr. Turner. The representatives will also discuss NOAA's forecast products. Mr. Doody suggested that the partnership be opened to other interested entities. Mr. Osborn noted that he would be providing the presentation to the SLFPA-W.

B. Discussion of updated EOP Manuals. (EJLD, O.L.D. and LBBLD)

Mr. Turner explained that the levee districts update their Emergency Operations Procedures (EOP) Manuals on an annual basis. The manuals are brought to the Board for adoption. Electronic copies of the manuals were provided to Board members. This year the SLFPA-E developed a Comprehensive Emergency Management Plan that serves as an umbrella plan for the entire organization. A draft copy of the Comprehensive Emergency Management Plan was provided.

C. Discussion of exercise of one-year renewal option for Indefinite Delivery-Indefinite Quantity (ID-IQ) contracts for Professional Surveying, Hydraulic Engineering, Coastal Engineering and Geotechnical Engineering Services.

Mr. Turner recommended that the one-year renewal option for the ID-IQ contracts for Professional Surveying and Hydraulic, Coastal and Geotechnical Engineering Services be exercised. The request to exercise a one-year renewal option includes a contract with GEC, Inc. for engineering services in connection with the HSDDRS complex structures. The contracts in place are sufficient to cover the SLFPA-E's current needs. Mr. Estopinal suggested that a procedure be put in place to grade the consultants' responsiveness to requests and quality of work.

The Committee recommended that the Board approve the exercise of the one-year renewal options for the aforementioned contracts.

D. Discussion of extension of contract period for contract with Tetra Tech, Inc. for services associated with the non-federal levee certification project.

Mr. Turner advised that the estimated completion of the current task orders extend beyond the expiration date of the Tetra Tech, Inc. contract and recommended that the one-year renewal option provided in the contract be exercised so that the work can be completed. At this time there is no indication that there will be an increase in the contract amount.

The Committee recommended that the Board approve the exercise of the one-year renewal option for the Tetra Tech, Inc. contract.

E. Discussion of a Cooperative Endeavor Agreement between the LBBLD and St. Bernard Parish Government for permission to construct the Central Wetlands Assimilation - Riverbend Project.

Mr. Turner advised that the St. Bernard Parish (SBP) Government wishes to do an assimilation project where effluent from an oxidation pond is used to provide marsh nourishment. The Central Wetlands Assimilation – Riverbend Project is funded through the Coastal Impact Assistance Program (CIAP) and is being constructed in conjunction with CPRA's Master Plan. SBP did not submit a permit request in a timely manner. When the permit request and plans were submitted a problem was discovered relative

to the location of a force main at the floodside toe of the levee and revisions were required. The revisions were just received and are being reviewed by the Department of Transportation and Development (DOTD). Indications are that the revisions are sufficient; however, the LBBLD has not yet received a letter of no objection from DOTD. SBP hired a contractor for the work and will begin incurring costs. Therefore, SBP requested that in the interim the contractor be allowed to perform work that is above ground and does not in any way affect the levee. Mr. Turner suggested that that the interim work could be allowed with the understanding that it is being performed at the SBP Government's risk. A draft resolution has been prepared for submittal to the Board to approve the execution of the Cooperative Endeavor Agreement, subject to the approval of legal counsel.

Levee District Reports: (copies of status reports appended to minutes)

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

Mr. Turner reviewed the highlights of the HSDRRS Status Report. He discussed the request by navigation interests for the installation of tripping dolphins at the IHNC Surge Barrier Sector Gate. The maritime industry is experiencing difficulty navigating through the Sector Gate structure under certain environmental conditions and with certain configurations of tow because of the width of the gate (150-ft.). The maritime industry requested that the USACE place tripping dolphins on both sides of the structure so that tows can pull up and disconnect and reassemble the barges along the dolphins and navigate through the structure in a safer manner. The SLFPA-E took the position that the tripping dolphins are an aid to navigation that is not required by law and a convenience for the maritime industry; therefore, the tripping dolphins would fall within the USACE's domain. The USACE should not only pay for the cost of the installation, but should also own, operate and maintain the tripping dolphins. The USACE's attorneys have preliminarily advised that there would be no need for the tripping dolphins if there were not a Storm Surge Barrier and Sector Gate at that location; therefore, the aids for navigation are needed due to the flood protection facility and should be a part of the flood control project. Therefore, Lake Pontchartrain and Vicinity Project funding should be used for the installation and the tripping dolphins would be turned over to the non-federal sponsor for operation and maintenance. The SLFPA-E objected to the opinion provided by the USACE's attorneys. Discussions have taken place with the USACE, the maritime industry, CPRA and DOTD. There is no clear path forward at this time on this matter. Mr. Turner pointed out that a bigger issue is the SLFPA-E's legal exposure in the event the dolphins are improperly used. Neither CPRA nor DOTD are willing to accept the liability exposure. DOTD recommended that the SLFPA-E reconsider the installation of the tripping dolphins in order to alleviate any potential damages to the structure. Mr. Turner pointed out that the operational parameters of such a facility (tripping dolphins) are unknown to the SLFPA-E. Additional costs would be incurred should additional staff and training be required to operate and maintain the tripping dolphins. The USACE is reluctant to install the dolphins under the HSDRRS Project without having CPRA, acting on behalf of the non-federal sponsor, agree to allow the installation. CPRA intends to ask the USACE to

reconsider its legal opinion and, if necessary, challenge the opinion that the tripping dolphins cannot be made a part of the Gulf Intracoastal Waterway Project. CPRA indicated that it could potentially offer the USACE assistance with the cost to maintain the facility, but not accept any liability associated with the facility nor be responsible for directing maritime traffic. Mr. Turner pointed out that the SLFPA-E could make it safe for the maritime industry to traverse the Sector Gate without tripping dolphins if it was allowed to operate the Seabrook Complex Structure to stop the current; however, this would inconvenience mariners at Seabrook.

Mr. Turner advised that a joint hurricane exercise will be held by the USACE on May 19th.

Lake Borgne Basin Levee District (LBBLD): Peggy Sembera, LBBLD Administrative Assistant, reviewed the highlights of the LBBLD monthly status report.

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

East Jefferson Levee District (EJLD): Jonell Cangelosi, Assistant to the EJLD Executive Director, reviewed the highlights of the EJLD monthly status report.

Robert Garner, SLFPA-E Superintendent of Police, provided a report on police activities. He reported that during the month over 350 proactive items were generated by the police officers which included 200 dispatch calls. A cadre of reserve officers was assembled in anticipation of the need for additional police presence with the reopening of Lakeshore Drive in both directions on weekends starting on April 20th. He discussed statistics related to the policing of Lakeshore Drive. At least five additional reserve officers will be assisting O.L.D. Police until further notice. The markings and labeling on levee district police units are being changed so that all of the units look alike. He reported that all officers, including reserve officers, were re-post certified with firearms and several officers attended a class in Ascension Parish on recognition of improvised explosive devices. He advised that Active Solutions was contacted relative to the placement of cameras on water structures in the LBBLD.

There was no further business; therefore, the meeting was adjourned at 11:10 a.m.