

**MINUTES OF THE
SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY – EAST
BOARD MEETING
THURSDAY, JULY 18, 2013**

The regular monthly Board Meeting of the Southeast Louisiana Flood Protection Authority - East (Authority or SLFPA-E) was held on Thursday, July 18, 2013, in the Jefferson Parish East Bank Library - Napoleon Room, 4747 West Napoleon Avenue, Metairie, Louisiana, after due legal notice of the meeting was sent to each Board member and the news media and posted.

Mr. Doody called the meeting to order at 9:40 a.m. and led in the pledge of allegiance.

PRESENT:

Timothy P. Doody, President
John M. Barry, Vice President
Louis E. Wittie, Secretary
Stephen Estopinal, Treasurer
David P. Barnes, Jr.
G. Paul Kemp
Ricardo S. Pineda
Wilton P. Tilly, III

ABSENT:

Richard A. Luetlich, Jr.

OPENING COMMENTS:

Mr. Doody reported that a meeting was held at Canal Barge that was attended by himself, Robert Turner, SLFPA-E Regional Director, Senator David Vitter and local stakeholders to discuss the progress of the Water Resources Development Act (WRDA) bill. The U.S. Army Corps of Engineers' (USACE) legal team expressed concern that the Senate version of the WRDA bill does not properly task the USACE with the Operation and Maintenance (O&M) responsibilities of the IHNC Surge Barrier gates. The language regarding 65/35% split addresses payment for the O&M and not the turnover of the O&M responsibility to the USACE. Additional work must be done in the House to resolve this problem and Senators Vitter and/or Landrieu have requested the appropriate language from the USACE. The O&M of the Seabrook Structure is not currently included in the WRDA bill. The SLFPA-E hopes that the Seabrook Structure will be included as part of the O&M responsibilities to be turned over to the USACE since the operation of the Seabrook and IHNC Surge Barrier marine gates must be closely coordinated.

Mr. Doody advised that he, Mr. Turner, and Robert Lacour, SLFPA-E General Counsel, met with Robert Lupo, President of the Non-Flood Protection Asset Management Authority (NFPAMA), about a month ago to discuss the NFPAMA's financial request. At

that time Mr. Lupo suggested that the NFPAMA would be requesting a loan from the SLFPA-E until the millage for the NFPAMA approved by the voters takes effect in 2016. Initially, the SLFPA-E appeared before the Louisiana Bond Commission concerning the renewal of the Orleans Levee District Special Levee Improvement millage. The Bond Commission requested that the SLFPA-E meet with the NFPAMA and increase the millage rate so that an additional .65 mills would go directly to the NFPAMA. The millage renewal was approved by the voters; however, the tax does not take effect until 2016. State Treasurer John Kennedy suggested that the State may have some Capital Outlay dollars to help fund some of the investment by the NFPAMA in the non-flood protection assets. He stated that he and Mr. Lupo spoke again with the State Treasurer just before the Board meeting and was told that if a commitment can be obtained from the Governor's Office that he would do his best to find the Capital Outlay dollars to close the gap for the NFPAMA. It is hoped that a meeting can take place concerning the Capital Outlay dollars before the NFPAMA makes its request for a loan.

Mr. Doody explained that a concern was expressed during the meeting with Mr. Lupo about the lighting along Lakeshore Drive. Walter Baudier with Design Engineering, Inc. was present at the meeting. The supposition made at the meeting was that there may be some issues with the wiring and that the estimated cost of the fix would be expensive (approximately \$700,000). Mr. Turner requested that SLFPA-E staff look into this situation. A solution has been proposed that consists of changing the wiring to the ballasts and reconfiguring the lights from 240v to 208v. This potential fix can be accomplished at a significantly lower cost.

Mr. Doody reported that he and Mr. Turner met with Dr. Denise Reed, Chief Scientist at The Water Institute of the Gulf, to discuss how the Institute may be able to assist the SLFPA-E.

Mr. Doody advised that a Strategic Partnership Meeting was held on June 28th at which time the Levee System Evaluation Report (LSER), armoring and the Permanent Canal Closures and Pumps (PCCP) were discussed.

Mr. Doody reported that the Association of Levee Boards of Louisiana (ALBL) met on July 12th and that one of the topics discussed was Senate Concurrent Resolution (SCR) 39 by Senator Morrish. SCR 39 provides for a comprehensive study and evaluation of Louisiana's levee districts and other water resource boards. The study will be performed with an eye towards combining some of the entities by basin in order to achieve efficiencies.

Mr. Doody explained that during the past two days Mr. Turner and other members of the SLFPA-E staff participated in day long meetings discussing armoring issues and addressing the comments of the SLFPA-E, Coastal Protection and Restoration Authority (CPRA) and other levee districts. Maj. General John Peabody, Commander of the USACE Mississippi Valley Division, requested a list of the top ten issues. A conference call was held yesterday to prioritize the SLFPA-E's comments. A suggestion was made at a previous meeting that height could function as a form of armoring. The SLFPA-E

recognizes that armoring may be the most important component of the system; therefore, it wants to ensure that the right decisions are made. The SLFPA-E may not concur with others that height can be substituted for armoring.

Mr. Doody advised that a meeting will be held tonight in St. Bernard Parish addressing the topic of living with water. Mr. Doody, Mr. Pineda and Mr. Turner plan to attend the meeting.

Mr. Doody reported that the USACE's turnover of the Seabrook Complex structure to the SLFPA-E may be delayed until near the end of or after hurricane season.

ADOPTION OF AGENDA:

A motion was offered by Mr. Wittie, seconded by Mr. Estopinal and unanimously approved, to adopt the agenda.

A motion was offered by Mr. Barry, seconded by Mr. Wittie and unanimously adopted by a roll call vote, to amend the agenda to add Item XII.C.1 – consideration of a resolution regarding the enforcement of the 15-ft. clear zone under La. R.S. 38:225 relative to the Orleans Parish Outfall Canals. Mr. Barry advised that the resolution placed before the Board is the same resolution adopted by the CPRA Board at its meeting yesterday.

RESOLUTION NO. 07-18-13-01 – APPROVAL OF JUNE 14, 2013 BOARD MEETING MINUTES

On the motion of Mr. Barry,
Seconded by Mr. Tilly, the following resolution was offered:

BE IT HEREBY RESOLVED, that the Southeast Louisiana Flood Protection Authority-East approves the minutes of the Board Meeting held on June 14, 2013.

The foregoing was submitted to a vote, the vote thereon was as follows:
YEAS: Mr. Barnes, Mr. Barry, Mr. Estopinal, Mr. Pineda, Mr. Tilly and Mr. Wittie
NAYS: None
ABSENT: Mr. Kemp and Mr. Luettich

PRESENTATIONS:

1. Briefing on Permanent Canal Closures and Pumps and Armoring - USACE

Colonel Richard "Rick" L. Hansen, USACE New Orleans District Commander, introduced himself and gave a brief synopsis of his background. He proceeded with the first presentation.

Permanent Canal Closures and Pumps (PCCP):

Col. Hansen advised that the PCCP presentation was provided yesterday to the CPRA. He explained that the USACE will be very engaged with the public throughout the entire process. Information regarding the current Interim Closure Structure (ICS) Barriers and Pumps at the 17th Street, Orleans Avenue and London Avenue Outfall Canals was reviewed. The ICSs were among the first structural work accomplished after Hurricane Katrina and have taken the outfall canals out of the perimeter protection. The ICSs have been successfully operated through a number of tropical weather events. A rendering of the PCCP was viewed. The PCCPs will be constructed closer to the lake than the interim structures. The permanent pump stations were designed to be as aesthetically pleasing as possible for a pump station and to match the characteristics of existing pump stations in New Orleans. The foundation of the pump station and depth of the pumps will accommodate a potential Option 2 or 2A. Diagrams of the rights-of-way requirements were viewed. The groundbreaking ceremony for the PCCP Project was held on June 14, 2013. The approximately \$615 million project was awarded to PCCP Constructors, a joint venture. The ICSs will remain operational during construction of the PCCPs. The PCCP project milestones were reviewed:

- Nov. 2013:** Major construction begins
- Jan. – March 2014:** Install open cell cofferdam (17th)
- Oct. 2014:** Dewater cofferdam (17th)
- Jan. – Feb. 2014:** Install open cell cofferdam (Orleans)
- May 2014:** Dewater cofferdam (Orleans)
- Jan. – March 2014:** Install open cell cofferdam (London)
- Oct. 2014:** Dewater cofferdam (London)
- 2017:** Construction complete

Upcoming activities were reviewed:

- 10 July:** Site clearing and access road construction
- 17 July:** Test pile program starts
- 23 July:** Geotechnical exploration program complete
- 29 July:** Field office site mobilization
- Late Aug.:** Site surcharge (17th and Orleans)
- Sept.:** Bypass cofferdam sheet pile installation (17th)

Col. Hansen discussed the various forms of public outreach that will be utilized by the USACE to support the flow of information, which includes participation in public and civic association meetings, website and social media (Facebook and Twitter), stakeholder updates, a construction impact hotline, canvassing and direct mail. The USACE will distribute flyers door-to-door concerning the project. The USACE will host meetings every six months during the construction of the project. A PCCP formal partnering meeting will be held on July 30th.

Hurricane and Storm Damage Risk Reduction System (HSDRRS) Resiliency (Armoring):

Col. Hansen explained that most of the levee and floodwall failures that occurred during Hurricane Katrina were related to overtopping. Interagency Performance Evaluation Task Force (IPET) findings and lessons learned from Hurricane Katrina were reviewed. Resilience should be a component of the design. Armoring is designed to address scouring on the protected side of the levee. Armoring recognizes that at some point overtopping is a possibility that can result from a number of factors, including subsidence, relative sea level rise, settling of the levees, or a storm that exceeds the design of the system. Transitions between levees and floodwalls generally have more significant scouring.

Col. Hansen advised that the authority for armoring is found in the 4th Supplemental (P.L. 109-234): “\$170,000,000 shall be used for armoring critical elements of the New Orleans hurricane and storm damage reduction system”. Armoring is defined as “A natural or artificial material placed on or around a levee, floodwall or other structure to reduce the risk to the system or component, to prevent breaching or major damage when confronted with wave attack, overflow and overtopping associated with a greater than design storm event.”

Mike Park, USACE Director of Task Force Hope, pointed out that the authority in the 4th Supplemental is unique; therefore, a standard had to be developed since none previously existed. He discussed various research and development (R&D) efforts commissioned by the USACE:

Texas A&M University – Transition modeling and numerical analysis and steady flow erosion resistance testing. The USACE has armored about 420 transitions around the system using a 30-foot long footprint. The testing at Texas A&M indicated that a ten-foot long footprint would have been adequate.

U.S. Army Engineer Research and Development Center (ERDC) - Floodside Research – Investigation of existing guidance/technologies for floodside protection.

Colorado State University (CSU) – Full scale wave overtopping testing of selected classes of materials: grass, Turf Reinforcement Mat (TRM) and others.

Louisiana State University (LSU) – Grass R&D. 80 soil cores were taken in July, 2011, from eight different sites to characterize root quality. Initial total root length was ~3,000 cm. The grass was fertilized and mowed per specifications and after the 84th day the total root length increased to ~5,500 cm.

Mr. Park explained that full scale wave overtopping testing was conducted at a large, computer controlled, overtopping wave simulator built at CSU. Testing included 6.0 cfs/ft flow capacity and 8-ft. wave max (157 cfs/ft). A nearby reservoir provided an inexhaustible water supply. 500-year land side wave conditions were simulated on a levee slope. Various armoring materials were tested up to 24 hours to determine erosion resistance capabilities. The average wave overtopping flow rates were

progressively increased from low rates to the maximum capacity of the apparatus.

Materials tested included:

- Unreinforced (Enhanced) Bermuda & Bahia grass
- Lime stabilized clay
- Bermuda grass reinforced with Turf Reinforcement Mats (medium grade and high performance TRM)

Mr. Park explained that the average total root length at the time that the green Bermuda grass was tested was ~6,600 cm and the root volume was ~7 cubic cm. After the initial battery of tests was completed on the healthy green grass, the trays sat outdoors in the Colorado winter and the grass was significantly stressed. The canopy of the grass was reduced along with the root length and volume. The average total root length at time that the distressed Bermuda grass was tested was ~3,100 cm and the root volume was ~2 cubic cm.

Mr. Park reviewed the performance observations of the CSU tests:

- Unreinforced “Enhanced” Bermuda turf survived three hours of wave overtopping at average flow rates of 4.0 cfs/ft without observable damage
- HPTRM reinforced “Enhanced” Bermuda turf survived three hours of wave overtopping at average flow rates of 4.0 cfs/ft without observable damage
- Unreinforced distressed Bermuda turf survived overtopping up to 2.0 cfs/ft for three hours
- HPTRM reinforced distressed Bermuda turf survived overtopping up to 4.0 cfs/ft for three hours
- TRM reinforced distressed Bermuda turf survived overtopping up to 2.0 cfs/ft for three hours

Maxwell Agnew, USACE Hydraulics Engineer, addressed the development of the hydraulic design of the HSDRRS. He discussed stage-frequency uncertainty and how the standard deviation, which represents the uncertainty, was developed. 100-year and 500-year surge elevation, wave height and wave period are treated as random variables in the hydraulics. Uncertainties in surge, wave height and wave period are accounted for in the Monte Carlo Overtopping Calculations. Ten thousand samples were used with the appropriate overtopping equations to compute overtopping rates. Each sampling uses random and non-random variables. The non-random variables are the levee geometry factors (e.g., levee elevation, slope and wave angle factor). The Monte Carlo Analysis accounts for the uncertainty in the hydraulic parameters and determines the q50 and q90 (50% non-exceedance confidence and 90% non-exceedance confidence).

Mr. Agnew reviewed the HSDRRS 100-year design elevation criteria:

Using the peak surge coincident with the peak wave accounting for the frequency uncertainties (using Monte Carlo simulation) the 100 year HSDRRS elevations are set as follows:

Required to limit surge and wave overtopping to **0.01 cfs/ft (50% non-exceedance confidence)**

And

Required to limit surge and wave overtopping to **0.1 cfs/ft (90% non-exceedance confidence)** originally informed by Dutch standards

Then check

500 year stillwater surge elevation (50% non-exceedance confidence)

Mr. Agnew then reviewed the HSDRRS armoring design criteria:

Using the peak surge coincident with the peak wave accounting for the frequency uncertainties (using Monte Carlo simulation):

- 500 year 50% non-exceedance confidence overtopping flows provided the basis for armoring material selection.

Then check using a duration based assessment

- 500 year 90% non-exceedance confidence overtopping flows were used to account for uncertainty (using Monte Carlo simulation) of the overtopping hazard.
 - This check advises the decision on armoring material selection that was based on the 50% non-exceedance confidence overtopping rates and in some instances resulted in more robust armoring solutions.
 - CSU tests established performance limits for distressed turf with and without HPTRM
 - Using a Factor of Safety (FoS) of 2, the performance range for grass was set from 0.0 – 1.0 cfs/ft
 - Using a FoS of 1.5, the performance range for HPTRM was set from 1.0 – 2.7 cfs/ft

Mr. Agnew reviewed the performance rates for armoring applications:

50% confidence Peak Wave Overtopping Discharge q_{50} (cfs/ft)	Armoring Recommendation
Zero – 1.0	Bermuda Grass
1.0 – 2.7	HPTRM Reinforced Bermuda Grass
Greater than 2.7	None predicted in HSDRRS

90% confidence Time-Averaged Wave Overtopping Discharge q_{90} (cfs/ft)	Armoring Recommendation
Zero – 1.0	Bermuda Grass (existing)
1.0 – 1.8	Enhanced Bermuda Grass
1.8 – 4.0	HPTRM
Greater than 4.0	HPTRM

He noted that areas with greater than four cfs/ft go from a wave overtopping to a surge or wave and surge overtopping scenario and the location of the scour moves from the crest of the levee to the bottom of the backside of the levee as well.

Mr. Park reviewed the Qualitative Risk Assessment:

- Where q90 overtopping rates approach performance limits of armoring materials, a qualitative risk assessment is performed to determine appropriateness of applying more robust armoring alternatives
- Considerations:
 - Proximity to populated areas
 - Storage area
 - Critical access routes
 - Ability to maintain good grass coverage
- Assessment score of 3 or less, no change to armoring material selection
- Assessment score greater than 3, upgrade armoring material selection

Mr. Park reviewed a map of the Greater New Orleans HSDRRS that includes both the Lake Pontchartrain and Vicinity (LPV) and West Bank and Vicinity (WBV) systems depicting the proposed armoring solution (LPV HPTRM: 8 miles, LPV Enhanced Grass: 10 miles and WBV HPTRM: 27 miles).

Mr. Park discussed the next steps for the LPV and WBV System Armoring:

- Large Scale HPTRM Pilot Projects
 - Testing 5 HPTRM products for qualification for full scale implementation
 - Inform plans and specifications (P&S) and installation methods
 - Field test Operation and Maintenance on two 5,000-ft. HSDRRS levee segments
- Hydraulic erosion resistance testing at CSU
- Full Scale Armoring Implementation
 - ~35 miles of perimeter levees

Mr. Park reviewed the O&M considerations:

- Durability under tractor wheel loads
- Repair and Maintenance methods
- Adequacy of turf cover
- Sustainability of enhanced turf

Mr. Park discussed the upcoming LPV/WBV Armoring Program Milestones:

Project Description Document (PDD) review by Non-Federal Sponsors (NFS) complete 22 July

Agency Technical Review (ATR) certification of the Levee Armoring Research Recommendations Report (LARRR) 24 July

PDD approval by Mississippi Valley Division (MVD) CMDR 30 August
Armoring Pilot Phase II reports 30 November
Armoring construction contract awards NLT 30 June 14
Construction completion Fall 2016

Mr. Doody asked whether the funding in the 4th Supplement for armoring was still intact and sufficient to armor the entire system. Mr. Park explained that the 4th Supplemental provided \$170 million for armoring and the 6th Supplemental provided an additional \$459 million, bringing the total to \$629 million. The USACE was not in a position to move forward with armoring at that time. There was a need to fully fund perimeter and pump station projects; therefore, \$540 million was reprogrammed out of armoring, leaving \$89 million to be used for transition armoring throughout the system. The reprogramming of funds was approved with a commitment that the USACE would provide a regular report to the Appropriations Subcommittees on how it intended at some future point to refund armoring requirements. The actual cost estimates for armoring were developed and the USACE ultimately moved \$325 million back into armoring. The total funding for the armoring program is \$414 million of which about \$75 million has been spent to-date. The balance of this funding is available for the USACE to complete the armoring of the Greater New Orleans 100-year HSDRRS and the New Orleans to Venice Project. Mr. Park stated that the funding is adequate to complete all of the armoring that is anticipated. The movement of \$325 million back into armoring was based upon an estimate for the placement of HPTRM on about 80 miles of levees in the LVP and WBV projects. The funding is ample and available to put HPTRM on the entirety of the 100-year system; however, this is not the USACE's current recommendation.

Mr. Doody commented that the 4th Supplemental provides that the USACE identify the critical components of the system. He asked whether the USACE has identified the critical components. Mr. Park responded that the USACE identified the protected sides of the earthen levees and transitions as the critical elements of the system. There are other anomalies in the system, such as utility crossings, that will be treated as critical elements. The protected sides of the entire perimeter of the system would be considered critical and the decision on whether a more robust armoring solution than just standard grass would be used in areas of the system would be based upon an estimation of the hazard. The USACE will continue using a 30-ft. long footprint for armoring at transitions.

Mr. Estopinal asked about the use of different factors of safety at the q50 and q90 levels and Mr. Park responded by explaining the reasons for their use.

Mr. Barry commented that a few months after Hurricane Katrina and prior to this Board's existence General Riley gave him a personal commitment relative to armoring and Steve Stockton made the point that when the floodwalls were designed along the Industrial Canal that thought was given as to how much money should be put into resilience and how much should be put into additional height, and the USACE went for

the additional height, which resulted in the collapse of the wall. He pointed out that it is inevitable that the HSDRRS will be overtopped and that building resilience into the system is incredibly important. He stated that the factor of safety did not seem to be an adequate standard considering what is at risk. He asked about the role of soils in resiliency. Mr. Park replied that testing was performed on soil samples at Texas A&M to measure the erosion resistance of clays. The earthen materials used for levees are expected to be a great deal more erosion resistant than the materials used pre-Katrina because of the current standards. Variability of the soil substrate was not considered in the armoring recommendations. The specifications applied assure a uniformity of the materials used to construct the levees at the 100-year elevation.

Mr. Barry asked about the change in the anticipated number of miles of the system to be armored. Mr. Park responded that there has been some evolution of the hydraulic analysis of the system. The primary reason for the lesser number of miles recommended for HPTRM on the east bank is the estimated lower overtopping flow rate.

Mr. Kemp expressed concern about protection on the unprotected floodside of the levees. He pointed out that waves for different periods and various run-up characteristics were probably not well represented in the CSU tests. At Mr. Kemp's request Mr. Agnew provided additional explanation on the cloud produced by the Monte Carlo simulations.

Mr. Barry asked about the reaction of the turf after multiple storms in a single season. Mr. Park responded that CSU simulated multiple storm events. He further described the testing that was performed at CSU. One last set of tests will be performed by CSU to determine how many hours the materials will perform before they ultimately fail.

Mr. Doody noted the height of the grass in the CSU tests and pointed out that education will be needed if the length of the grass is critical in providing resiliency. Mr. Park advised that the performance ranges identified for various armoring alternatives were not based on the performance of the good grass, but were set based on grass that had been wintered and desecated.

Mr. Estopinal asked whether consideration had been given to identifying areas where the placement of armoring should be based upon the future condition of the levee crest rather than the design elevation. Mr. Park explained that the analyses are based upon the 100-year design elevation and not the constructed elevation. This also applies to the armoring solution. The USACE is monitoring subsidence rates around the perimeter of the system. With the exception of St. Charles Parish, most of the levees in the LPV perimeter are fairly mature and have relatively modest subsidence rates with a few exceptions. Thomas Holden, USACE Deputy District Engineer for Project Management, added that the USACE tracks the settlement curves. It is assumed that the design cross section profile will be maintained. The USACE did not do a sensitivity analysis on the non-random variables. He explained how the matrix with the assessment criteria and the final assessment were utilized.

Mr. Doody asked whether there is sufficient time to make course changes to address concerns. Mr. Holden responded that there is always the opportunity to modify the LARRR and to amend the PDD. Due to the schedule the SLFPA-E's comments will be given to the Risk Management Center and their final comments will be considered.

Mr. Doody requested that Mr. Holden summarize some of the SLFPA-E's and CPRA's written comments. Mr. Holden stated that the comments concisely and professionally captured the concerns expressed to the USACE. The comments addressed concerns such as the performance of a sensitivity analysis, variation of levee slopes, the sustainability of enhanced grass, the ability to have flexibility by adding elevation, and whether this is the correct time to armor a levee that may receive a future lift. Written comments were also provided on the pilot program and operations and maintenance of the materials. He pointed out that there is a challenge relative to additional elevation since resiliency is defined as a material application; however, he recognized that the SLFPA-E's position is that it does not consider additional elevation to be resiliency.

Mr. Wittie pointed out the difficulty in establishing turf on levee raising projects. He asked about the criteria for the acceptance of turf in the armoring project. Mr. Park responded that a total root length will be specified and cores will be taken to validate that the specified root length has been achieved.

Mr. Doody noted that the levee districts are currently maintaining portions of the system that have not been turned over to the local sponsor. The SLFPA-E is most interested in achieving the right armoring solution. He asked that the USACE consider all of the points that were made by the SLFPA-E and incorporate them in the final decision.

Col. Hansen stated that he appreciated this opportunity to share this information with the Board. The USACE is looking very hard at the SLFPA-E's written comments. If there is an obvious indicator that some part of the analysis should be changed, then the USACE is open to doing so.

2. Inspection of waterbottom and floodgate sills for debris and sediment accretion - C. H. Fenstermaker & Associates, L.L.C.

Om P. Dixit, P.E., with C. H. Fenstermaker & Associates, L.L.C. (Fenstermaker), advised that the SLFPA-E has an Indefinite Delivery-Indefinite Quantity Contract with Fenstermaker for survey services. Fenstermaker was requested to provide a proposal on the inspection of waterbottom and flood gate sills for debris and sediment accretion at the marine floodgates and in the outfall canals.

Ken LeBry, Manager of Fenstermaker's Underwater Acoustics Group, explained that the proposed system is the same system used daily by the offshore oil and gas industry prior to mobilizing jack-up drilling rigs, elevator barges and spud barges. The waterbottom must be cleared to avoid damaging any of the vessels' components.

Techniques were developed to use this technology in an inland infrastructure environment for imaging waterbottoms and underwater structures. Fenstermaker has performed work on submerged bridge structures, dams and water control structures. The proposed unit is cost effective, compact and easily deployable and provides an excellent preliminary investigative tool for providing visualization of an underwater acoustical plane. The ability to perform profile measurements were added to the tool. He stated that the SLFPA-E is interested in pre and post operation investigations at the gated structures to determine whether there are any obstructions or sediment buildup. This investigation can be done from a visual verification alone. The proposed system (Dual Element Remote Sensing Unit based on a Kongsberg Mesotech MS1000) provides almost photographic quality imaging of a single plane. Protrusions above the waterbottom or gate sills that may impede the operation of the gates would be identified. There is a 328-ft. radius on the scan of the unit (656-ft. from edge to edge). A relief measurement with specific relief values that are accurate within about 1/10-inch can be made should an obstruction be identified.

Mr. LeBry further described how the proposed system works. The system display is available on site and trained operators can make an immediate decision about whether an obstruction exists and trained divers are needed to remove the obstruction. The unit has multi-axis flexibility. The component for the gate inspections would be a free standing tripod deployment off a boat or the gate. The investigation will be short notice—quick response (within 72 hours of the approach of a storm). Several slides were viewed of the system's visualization capabilities. Typically, a scan of an area takes about one hour to complete. Multiple scans of the waterbottom surface are done in order to disqualify marine life. The unit includes a self-supported tri-pod, computer and an interface unit to provide power to the system and is tethered with a cable, which is also used to deploy and lift the unit. He recommended deployment of the unit off the side of the gate structure. A USACE certified dive team is subcontracted to Fenstermaker on a short notice—short response basis.

Mr. LeBry discussed the possibility of doing cross sections of the drainage canals. After Hurricane Katrina in 2005 Fenstermaker did cross sections of the London Avenue and 17th Street Canals. The cross sections were very labor and time intensive due to the limited vessel access. He explained that with the current technology a shallow water bathymetry system is now available that can be mounted on a small vessel. The 2005 cross sections were done at 50 foot intervals. The new system would only be able to come up to about three feet from the top of the water. A survey with the new system would take approximately two days to complete for each canal. A survey crew would be required for measurements within three feet from the top of the water, which would be time intensive.

PUBLIC COMMENTS:

Roy Arrigo commented that the residents along the 17th Street Canal were elated that the resolution added to today's agenda was adopted by the CPRA at its meeting yesterday and that the resolution gives the residents peace of mind.

Carol Byram commented on the spraying that is being done by levee district employees on either side of the 17th Street Canal Floodwall which she stated is killing the grass. Mr. Doody requested that Gerry Gillen, Orleans Levee District (O.L.D.) Executive Director, investigate this issue.

EXECUTIVE SESSION:

1. *West End Tennis and Fitness Club, Inc. as Successor in Interest to Edward P. Gaskell, III and Edward P. Gaskell, III, individually versus Board of Commissioners for the Orleans Levee District and the City of New Orleans Civil District Court for the Parish of Orleans, No. 06-13668 Division "G"*
2. *Olivier Plantation, LLC, Park Investments, LTD, and Morning Park, Inc. versus Parish of St. Bernard and Lake Borgne Basin Levee District Fourth Circuit Court of Appeal, Proceeding No. 2013-CA-0497 34th JDC for the Parish of St. Bernard, Proceeding No. 109,272 "B"*
3. *Haspel & Davis Milling and Planting Co., Ltd., Jean Mayer Connell, Joseph Jean Torre, Sr., Bohemia Planting Co., Inc., Leonie Davis Rothschild and Arthur Q. Davis, for Themselves and on Behalf of all Others Similarly Situated vs. Board of Commissioners of the Orleans Levee District, 25th Judicial Court, Parish of Plaquemines, No. 31-357, Div. A.*
4. Discussion of future litigation strategy.

A motion was offered by Mr. Estopinal, seconded by Mr. Wittie and unanimously adopted, for the Board to convene in Executive Session to discuss the items listed on the agenda. The Board convened in Executive Session at 12:10 p.m.

A motion was offered by Mr. Estopinal, seconded by Mr. Wittie and unanimously adopted, for the Board to reconvene in Regular Session at 1:30 p.m.

RESOLUTION NO. 07-18-13-02 – LEGAL ACTION

On the motion of Mr. Estopinal,
Seconded by Mr. Barry, the following resolution was offered:

BE IT HEREBY RESOLVED, that the Southeast Louisiana Flood Protection Authority-East consider a motion to approve the recommendation of Counsel received in Executive Session this date in the case entitled "*West End Tennis and Fitness Club, Inc. as Successor in Interest to Edward P. Gaskell, III and Edward P. Gaskell, III, individually versus Board of Commissioners for the Orleans Levee District and the City of New Orleans Civil District Court for the Parish of Orleans, No. 06-13668 Division G*".

The foregoing was submitted to a vote, the vote thereon was as follows:
YEAS: Mr. Barry, Mr. Estopinal, Mr. Kemp, Mr. Pineda, Mr. Tilly and Mr. Wittie
NAYS: None
ABSENT: Mr. Barnes and Mr. Luettich

RESOLUTION NO. 07-18-13-03 – LEGAL ACTION

On the motion of Mr. Barry,
Seconded by Mr. Wittie, the following resolution was offered:

BE IT HEREBY RESOLVED, that the Southeast Louisiana Flood Protection Authority-East consider approval of the motion stating that the Lake Borgne Basin Levee District does not have the funds or assets to cost share in the settlement of the case entitled, "*Olivier Plantation, LLC, Park Investments, LTD, and Morning Park, Inc. versus Parish of St. Bernard and Lake Borgne Basin Levee District*, Fourth Circuit Court of Appeal, Proceeding No. 2013-CA-0497, 34th JDC for the Parish of St. Bernard, Proceeding No. 109,272 B."

The foregoing was submitted to a vote, the vote thereon was as follows:
YEAS: Mr. Barry, Mr. Estopinal, Mr. Kemp, Mr. Pineda, Mr. Tilly and Mr. Wittie
NAYS: None
ABSENT: Mr. Barnes and Mr. Luettich

RESOLUTION NO. 07-18-13-04 – LEGAL ACTION

On the motion of Mr. Barry,
Seconded by Mr. Kemp, the following resolution was offered:

BE IT HEREBY RESOLVED, that the Southeast Louisiana Flood Protection Authority-East consider approval of a motion to pursue settlement discussions as recommended by Counsel in Executive Session this date in the case entitled, "*Haspel & Davis Milling and Planting Co., Ltd., Jean Mayer Connell, Joseph Jean Torre, Sr., Bohemia Planting Co., Inc., Leonie Davis Rothschild and Arthur Q. Davis, for Themselves and on Behalf of all Others Similarly Situated vs. Board of Commissioners of the Orleans Levee District*, 25th Judicial Court, Parish of Plaquemines, No. 31-357, Div. A".

The foregoing was submitted to a vote, the vote thereon was as follows:
YEAS: Mr. Barry, Mr. Estopinal, Mr. Kemp, Mr. Pineda, Mr. Tilly and Mr. Wittie
NAYS: None
ABSENT: Mr. Barnes and Mr. Luettich

COMMITTEE REPORTS:

Finance Committee: The Finance Committee did not meet during the month of July; therefore, no report.

Operations Committee: The Operations Committee did not meeting during the month of July; therefore, no report.

Legal Committee: The Legal Committee did not meet during the month of July; therefore, no report.

CPRA/Governmental Affairs: Mr. Barry advised that he attended the CPRA meeting held on July 17th. He did not have a report.

Coastal Advisory Committee: The Coastal Advisory Committee did not meet during the month of July; therefore, no report.

REGIONAL DIRECTOR'S REPORT:

Mr. Turner reviewed the highlights of the Regional Director's Report (copy appended to minutes). He noted that the USACE is continuing to exercise the IHNC Surge Barrier gates and Seabrook Structure gate. SLFPA-E/O.L.D. personnel will be alongside USACE personnel should there be a requirement to operate the gates for a storm event. No significant problems have been found thus far in the evaluation of the non-federal levees for certification. The U.S. Coast Guard has issued the proposed new Regulated Navigation Area (RNA) for review. The USACE has agreed to bring in some of the experts that worked on the HSDDRS to conduct a one or two day workshop on what was done and the reasons.

There was a brief discussion on the equipment and technology that could potentially be utilized for scanning the waterbottom and gate sill when opening or closing the IHNC Surge Barrier Barge Gate. The USACE is only requiring the investigation of the waterbottom and sill when operating the Barge Gate. The USACE recommended that this service be contracted. It was noted that the type of equipment that would be required would be expensive, maintenance intensive and would require professional training. Divers would be required on standby to clear the waterbottom and sill of any obstructions.

Mr. Doody advised that all of the local entities are onboard with the language in the WRDA bill relative to the transfer of the O&M responsibilities to the USACE for the structures identified in the bill. The SLFPA-E is attempting to make its case that the O&M of the Seabrook Structure should be included in this transfer of O&M responsibility since its operation is closely tied to the operation of the IHNC Surge Barrier gates. He requested that Evans-Graves Engineers be tasked to assist the SLFPA-E in putting together a document for Congress that will provide a clear and convincing case on this issue.

RESOLUTION NO. 07-18-13-05 - APPROVAL OF LEGAL INVOICES

On the motion of Mr. Barry,
Seconded by Mr. Estopinal, the following resolution was offered:

WHEREAS, the legal invoices submitted to the Southeast Louisiana Flood Protection Authority-East (SLFPA-E), East Jefferson Levee District, Lake Borgne Basin Levee District and Orleans Levee District listed on the spreadsheet entitled "Legal Invoices Approved on July 18, 2013", have been reviewed and approved by the appropriate levee district Executive Director, the SLFPA-E Regional Director and the SLFPA-E General Counsel, Robert Lacour; and

WHEREAS, the aforementioned invoices were submitted to the members of the Legal Committee for review.

BE IT HEREBY RESOLVED, that the legal invoices listed on the spreadsheet entitled "Legal Invoices Approved on July 18, 2013" are hereby approved.

The foregoing was submitted to a vote, the vote thereon was as follows:
YEAS: Mr. Barry, Mr. Estopinal, Mr. Kemp, Mr. Pineda, Mr. Tilly and Mr. Wittie
NAYS: None
ABSENT: Mr. Barnes and Mr. Luettich

**RESOLUTION NO. 07-18-13-06 –
AMENDMENT OF LEASE FOR OFFICE SPACE TO INCLUDE ROOM 208**

On the motion of Mr. Wittie,
Seconded by Mr. Estopinal, the following resolution was offered:

WHEREAS, the Southeast Louisiana Flood Protection Authority-East (SLFPA-E) entered into a Lease Agreement dated September 27, 2011, with the University of New Orleans Research and Technology Foundation, Inc. to lease Suites 420, 421 and 422; and

WHEREAS, the aforementioned Lease Agreement is for an initial term of one year, commencing October 1, 2011 and ending on September 30, 2012, with four consecutive one-year options to extend said lease; and

WHEREAS, rental rate for the one-year lease extensions is based on an increase to the base rent at the end of each year in an amount equal to the lesser of the percent increase experienced by the U.S. Consumer Price Index-All Urban for the previous twelve month period or five (5%) percent; and

WHEREAS, the SLFPA-E wishes to lease Suite 208, consisting of 216 square feet of space, for use by the SLFPA-E Police Superintendent; and

WHEREAS, the rental rate for Suite 208 shall be based on the current base rent for the SLFPA-E (\$18.31 per square foot per annum or \$329.58 per month) and the

leasing of said space shall be subject to all of the terms and conditions of the Lease Agreement.

BE IT HEREBY RESOLVED, that the Southeast Louisiana Flood Protection Authority-East authorizes the SLFPA-E President to execute the Third Amendment to the Lease Agreement with the University of New Orleans Research and Technology Foundation, Inc. to include the leasing of Suite 208.

The foregoing was submitted to a vote, the vote thereon was as follows:

YEAS: Mr. Barry, Mr. Estopinal, Mr. Kemp, Mr. Pineda, Mr. Tilly and Mr. Wittie

NAYS: None

ABSENT: Mr. Barnes and Mr. Luettich

**RESOLUTION NO. 07-18-13-07 – ORLEANS PARISH OUTFALL CANALS
FIFTEEN FOOT CLEAR ZONE**

Mr. Doody noted that the resolution before the Board is the same resolution that was adopted by the CPRA Board with the modifications required to identify the SLFPA-E as the acting entity. Mr. Barry added that the resolution provides that the SLFPA-E will only enforce the six-foot clear zone along the outfall canals unless the SLFPA-E deems it necessary to enforce the 15-foot clear zone because either a federal entity (USACE or FEMA flood insurance) requires it or the SLFPA-E deems it necessary for public safety.

On the motion of Mr. Barry,

Seconded by Mr. Wittie, the following resolution was offered:

**A resolution regarding Enforcement of the Fifteen Foot Clear Zone
under La. R.S. 38:225 Relative to the Orleans Parish Outfall Canals**

WHEREAS, La. R.S. 38:225(A)(1)(a) provides that no person shall place or cause to be placed upon or within fifteen feet of any part of the levees fronting any waterway subject to the control or surveillance of police juries, levee boards, municipal corporations, or other authorized boards or departments any object, material, or matter of any kind or character which obstructs or interferes with the safety of the levees or is an obstacle to inspection, construction, maintenance, or repair of any levee; or place or cause to be placed any object, structure, material, or matter of any kind or character upon any part of any land which the state or any agency or subdivision thereof may own or acquire by deed, lease, servitude, charge, or otherwise, and through its authorized representative, may donate, grant, or otherwise convey to the United States' rights-of-way, easements, or other servitudes for the construction, improvement, or maintenance of any flood-control structures or natural or other waterway, which may obstruct or interfere with the improvement or maintenance of such waterway or use of the land for flood-control purposes; and

WHEREAS, the clear zone distance in 38:225(A)(1)(a) was increased by the Louisiana Legislature from six (6) feet to fifteen (15) in 2011 to conform with federal

regulation and guidance; and

WHEREAS, the Southeast Louisiana Flood Protection Authority-East and the Coastal Protection and Restoration Authority are authorized to implement the provisions of La. R.S. 38:225(A)(1)(a) to ensure the safety of the levees and to prevent impediments to the inspection, construction, maintenance, and repair of levees and flood control structures; and

WHEREAS, the outfall canals in Orleans Parish are unique in that they provide drainage and a secondary level protection for the Lake Pontchartrain and Vicinity Hurricane Protection System.

BE IT HEREBY RESOLVED, that the Southeast Louisiana Flood Protection Authority-East as governing authority of the Orleans Levee District agree that they will not implement the clear zone provisions of La. R.S. 38:225(A)(1)(a) upon the outfall canals in Orleans Parish in the area within the additional nine (9) feet between the current fifteen (15) foot clear zone currently provided therein and the six (6) foot clear zone provided by state law prior to 2011 unless and until called upon or required by the U.S. Army Corps of Engineers, FEMA, or other Federal agency or entity to implement the fifteen (15) foot clear zone for purposes of ensuring the safety of any levee or flood

control structure or to necessitate the inspection, construction, maintenance or repair of any levee or flood control structure or unless and until implementation is necessary for the availability or eligibility of affordable national flood insurance as determined by the Federal government to protect the public safety.

The foregoing was submitted to a vote, the vote thereon was as follows:

YEAS: Mr. Barry, Mr. Estopinal, Mr. Kemp, Mr. Pineda, Mr. Tilly and Mr. Wittie

NAYS: None

ABSENT: Mr. Barnes and Mr. Luettich

The next regular monthly Board meeting will be held on August 15, 2013, and hosted by the Orleans Levee District.

There was no further business; therefore, the meeting was adjourned at 2:00 p.m.

SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY - EAST

REGIONAL DIRECTOR'S REPORT

July 18, 2013

HSDRRS Project Status Update

IHNC-02 - Lake Borgne Surge Barrier and Gates The barge gate and ancillary structures are still undergoing repair and remediation. The level and temperature gages on the windlass will be replaced. The windlass units will be repositioned, and design work is underway to reinforce the barge chain and anchorage points for closure in more challenging environmental conditions. Other steps will be taken to improve the operability and longevity of the windlasses.

Miscellaneous work continues, including re-alignment of gears at the Bayou Bienvenue Lift Gate and general touch-up painting. A plan was developed to install navigational hazard warning signs along the barrier wall. Practice operations of the Barge Gate will resume weekly on July 8, 2013. During those exercises, the Orleans Levee District will operate the gate under guidance from the Army Corps of Engineers and CBI one week, and the Corps personnel will operate the next week.

Water Control Plans (WCP) Our staff and CPRA continue to review proposed water control plans, manuals and standing instructions and provide our comments on those documents to the Corps. Flow charts for closure criteria are being carefully reviewed.

LPV-104.02b - Seepage Cutoff Orleans Lakefront The contractor has completed driving sheet piles for the seepage cut-off wall and finished the berm. Grass is being established, and the work is on schedule. The Corps is issuing a Mod to remove, relocate and replace the fence along the protected side toe of the levee and remove the unwanted vegetation within 15' of the toe.

LPV-106a - Citrus Lakefront Levee Crack Repair This project is almost complete, and a second final inspection was held on July 10, 2013 to check on crack repairs.

LPV-109.02a - Levee Enlargement for South Point to CXS Railroad and US11 and US 90 Floodgates Approximately 3,000 linear feet of levee must be raised about 2.5 feet to account for post-construction settlement; about half of the levee has already been raised.

Additionally, URS is preparing plans to repair problems resulting from unanticipated settlement of the floodgate at Highway 11.

A section of slope paving near the CSX Railroad Floodgate has settled significantly and must be replaced. Plans for the replacement also are being prepared by URS.

LPV-111 - CSX RR to Michoud Canal A surface slide occurred several months ago in a small section of the levee's protected side slope. The failure surface was excavated and the levee repaired. Seeding has been completed. URS is investigating whether other areas may be prone to such slides.

LPV142.02A- Safe House at St. Mary Pump Station (Pump Station #8) The preliminary site visit was conducted on July 11, 2013. The visit assessed existing site conditions, feasible structure locations, availability of power and other site limitations in preparation for commencement of the design phase.

LPV-149 - Caernarvon Canal Floodwall The 95% design for transition of the HSDRRS floodwall to the Mississippi River levee has been reviewed by SLFPAE staff and our comments submitted to the Corps.

Outfall Canals The 95% plans and specs for installation of more sheet pile along the London Ave Canal and west side of the 17th St. Canal have been reviewed and our comments submitted (OFC-07). The low water case in all three outfall canals is still being investigated. The Corps also is completing surveys on all three canals to check for erosion. Survey work on the Orleans and London Avenue Canals are almost complete. On behalf of SLFPA-E, Halcrow continues to review the Corps' engineering, design and analysis of the outfall canals.

Permanent Canal Closures and Pumps (PCCP) A partnering conference is scheduled for July 30, 2013. Construction is scheduled to start in November of this year. A status team meeting was held by the CPRA on July 11, 2013.

Armoring Members of our staff, SLFPA-W and CPRA have reviewed the Levee Armoring Research and Recommendations Report authored by USACE Task Force Hope. The non-federal sponsor team has provided more than 200 technical comments, none of which have been resolved to date. We have asked the Corps to provide our comments to their internal ATR review panel for consideration before the report is "certified" by them. We are also requesting the Corps to delay approval of the Project Description Document (PDD) until issues related to the LARRR are thoroughly vetted and resolved, and the the Armoring Pilot Projects have been completed.

Mississippi River & Tributaries (MR&T) There are two ongoing MR&T levee projects on the east bank. Design of the Jefferson Heights project has been completed, and the Environmental Assessment FONSI was completed on July 2, 2013. The project is

scheduled for construction contract award on September 28, 2013 and is expected to take more than two years to complete.

Construction of the Carrollton levee-raising project is 55% complete. The northern half has been raised but still needs to be seeded and slope pavement placed. Fill is being placed on the southern reach near Audubon Zoo. It is scheduled for completion in November 2013.

SBPS-07 – Repairs to LBBLD Pump Stations #2 and #3 The USACE held a review of the 95% Geotechnical Soil Report on July 9, 2013; the 50% Plans and Specifications submittal is due on July 31, 2013. The schedule shows construction contract award in January 2014.

Internal Affairs

Non-Federal Levee Certification Centerline elevation surveys and on-site inspections of the levees under OLD and LBBLD jurisdiction have been completed by Tetra Tech. Low areas and vegetation issues are being addressed by the local Levee Districts. Structural issues will require further investigation. A final report on Phase 1 will be submitted by Tetra Tech within the next 30 days.

Complex Structure Training Our personnel are training weekly to become more familiar with operation and maintenance of the complex gated HSDRRS structures.

Emergency Preparedness The river crested at 14.4'± on May 29, 2013 at the Carrollton Gage. It is currently near 10.0'. The forecast indicates a rise to 10.6' on July 24, 2013. The Corps and Levee Districts have discontinued their Phase 1 flood fight surveillance.

A SLFPAE hurricane tabletop exercise was held with all Levee District Directors on June 24, 2013. Other participants included Corps' Emergency Operations supervisors, the CPRA, and the National Weather Service.

USCG IHNC/GIWW Corridor Inspection The United State Coast Guard has resumed monthly inspections of the IHNC and GIWW, by boat, in preparation for the 2013 hurricane season. Representatives from SLFPA-E, the Port of New Orleans, and the US Army Corps of Engineers also participate in the inspection tour. The purpose of the tour is to foster cooperation and networking between the various stakeholders and confirm the number and type of vessels in the area to allow for proper planning and successful execution of evacuation of the corridor in advance of a tropical event.

Floodgate Status Module CPRA has updated the Levee Information Management System Floodgate Module, and it is being tested. Various parish, state and Corps Emergency Operation Centers will be able to quickly and easily see the near real-time status of all floodgates as an event unfolds. CPRA and SLFPAE will coordinate a workshop with the surrounding city and parish agencies to demonstrate the module once final revisions are complete.

Hardened Gauges Initiative At the direction of the Operations Committee during its meeting on Nov. 1, 2012, the SLFPAE staff began a collaboration with NOAA, the National Weather Service, the Army Corps of Engineers New Orleans District, CPRA and others on the need for storm-hardened water level and storm surge stations in the region. All too often, most of the gauges serving this area are knocked out by tropical storms and hurricanes. Not only are these hardened gauges and stations needed to observe active storms and provide real-time water, wind and weather information, but good observation and reliable data are critical to the effectiveness of surge and storm forecast models. During an iterative process that has taken place over four meetings of the Hardened Gauges Working Group this year, participants representing basins surrounding Lake Pontchartrain have identified more than two dozen sites where, if money was no object, group members would like to see hardened gauges established. Representatives of the group are now making site visits to a number of HSDRRS structures to determine the operability of any corps-installed gauges that exist in those locations. Follow-up visits will be made to other sites to determine the operability of gauges previously placed by USGS and others. These visits should result in the complete inventory needed in order to work up cost estimates that, in some cases, will require building expensive hardened stations from scratch. In other cases, it should be possible to mount hardened gauges on existing structures, such as major bridges, or improve existing stations or set of gauges, which are less expensive options.

Ultimately, much of the front-end financing of this project, as well as the annual O&M costs, will need to be shared by a consortium of users as is being done in other places, including along the Texas Coast.

NEW CONTRACTS Gulf South Media Consulting Agreement for Technology Services for period 7/1/13 to 6/30/14 – not to exceed \$15, 000

Levee District Construction Projects:

Project	District	Status	Comments
Franklin Administration Building Refurbishment	OLD	99% complete	Completion scheduled for July 15 th
Bayou Bienvenue Maintenance Cycle	OLD	99% complete	The structure is open for navigation.
Bayou St. John Waterfall Demolition Project	OLD	100% complete	
Bayou St. John Sandbar Removal	OLD	20% complete	NTP issued 4/29/13. Marsh creation added
Seawall Steps Erosion – Phase 1B	OLD	6% complete	Issued Notice to Proceed on Feb. 27, 2013; investigating power outage to lights.
Citrus Lakefront Levee – 8” Sewer Valve	OLD	100% complete	Valve installed
Maxent/Paris Rd. Levee – Clearing Contract	OLD	100% complete	Maxent Levee clearing between IHNC and RR tracks pending.
Franklin Warehouse Steel Silo Demolition	OLD	5 % complete	Issued Notice to Proceed on June 24, 2013.
Franklin Warehouse Safehouse Remediation	OLD	0% Complete	Pending Contract signature
Fence repair on Canal/Levees	LBBLD	0% complete	Advertised 6/21/13 Bid opening 7/24/13
Administration Building Hurricane Isaac Repairs	EJLD	100% complete	Completed exterior and 2 offices. Now working on foyer & board room.

Levee District Project Designs and Studies

Project	District	Comments
Outfall Canal Bank Stabilization Monitoring (Gerwick)	OLD	Final report under review. 75% complete.
Citrus Lakefront Railroad Drain Pipe Crossings (BKI)	OLD	Planning for an exploratory cleaning and condition assessment of drain lines, 50% complete
Franklin Front Parking Facility	OLD	Design 28% complete
Lakefront Seawall Area Reach , 4&5	OLD	Reach 4&5 Design @ 50% complete
Floodgate Seal Repairs	OLD	Design 25% complete
IHNC Florida Bridge Floodwall Replacement	OLD	Design 0%
Phase 1 for the engine upgrades at Pump Stations 1&4 HMGP approved by FEMA	LBBLD	RFQ advertised 6/7, Submittals due on 7/9/13.
Phase 1 for Safe Room Design HMGP approved by FEMA	LBBLD	P&S to be completed by end of 2013 Hurricane Season
Pump Station #6 pump repair and hangers at P.S. #7	LBBLD	P&S at 100% Advertise when erosion control project is complete.
Pump Station #6 Erosion Repair	LBBLD	P&S at 100% Advertise goal of 7/30
Floodgate #9 renovation	LBBLD	P&S at 100% Advertise goal 7/30 (must wait for NTP until after hurricane season).
Safehouse & Consolidated Facility	EJLD	Design progressing Street and property approvals set to go to City of Kenner and Jefferson Parish Council for first readings in June and final approval in July 18 th and 24 th respectfully..
PM Support to LBBLD Staff for HMGP Projects	LBBLD	Advertise by 6/28/13 RFP's due 7/29/13

Meetings and Items of Note:

A meeting on the “New Orleans Water Plan - St. Bernard Parish and the Lower Ninth Ward” will be hosted by GNO, Inc. and Waggoner & Ball at the Nunez Community College Auditorium, 3710 Paris Road, Chalmette, LA 70043, this afternoon (July 18, 2013) from 4:30 PM - 7:00 PM. The hosts will preview potential opportunities that have been identified for St. Bernard Parish and the Lower Ninth Ward.

The next meeting of the Coastal Protection and Restoration Authority is scheduled for August 21st at 9:30 am at the Terrebonne Civic Center, Houma, Louisiana .

The Governor’s Oyster Advisory Committee will meet September 19, at 1:30 pm location TBD.

The Greater New Orleans Foundation, in partnership with the Urban Institute and others, has completed *The Urban Water Series: Strategies that Work* workshops. If you missed the four sessions, which gave insight into innovative and affordable storm water management practices used in other cities, they can be seen online at <http://www.gnof.org/urbanwaterseries/>