

The Flood Protection Authority-East

News of Your Flood Defense System

Inner Harbor Navigation Canal Surge Barrier Barge Gate

Message from The Flood Protection Authority President Joe Hassinger

While the metro area was spared a direct hit this hurricane season, storms passing close by once again gave the men and women of the Flood Protection Authority the opportunity to shine. When storms approach, they act - quickly and methodically. Complacency is not part of their vocabulary. Professionalism; a strong sense of responsibility to neighbors, friends and family; a calm confidence built on a year-round program of preparation - those are the characteristics that are demonstrated by the Flood Protection Authority team. That's who they are. On behalf of the Board of Commissioners, I thank our staff for what they do so well.

As I write this, Hurricane Michael bears down on Florida, certain to make its way to our friends in the Carolinas, who are still recovering from Hurricane Florence. So let's take a moment to remember what we lost in Katrina and Rita. Take note of the casualties and destruction that could have come our way in 2018. Be thankful for what we hold dear. And remain vigilant for what will come our way one day.

October 10, 2018

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Flood Protection Authority

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IN THIS ISSUE PAGE

Congressman Scalise Tours PCCCP 2

Dr. Kemp Recognized for Service on FPA Board 3

Herbert Weysham Appointed to FPA Board 3

> Understanding the Levee Safety Action Classification

Classification 4 FPA Responds to

Tropical Storm Gordon 5

Preparing Educators On Flood Protection

Curriculum 6

PCCP on History Channel 6

Orleans Canal East Bank L-Wall Retrofit Inspection 7

Update on New Facilities 7

FPA Permits Go High Tech 8

WEF's Emerging Workforce Scholars Program 8

Congressman Steve Scalise Tours 17th Street Outfall Canal PCCP



The FPA was honored to have Congressman Steve Scalise, the U.S. House Majority Whip, tour the 17th Street Canal Permanent Canal Closure and Pumps (PCCP) on August 18, 2018. Congressman Scalise was able to learn first hand about the role that the new state-of-the-art gate closure/ pump stations play in providing perimeter protection for the Greater New Orleans Metropolitan area and see the technology used to operate the stations and monitor the outfall canal water levels.

Top left: Congressman Scalise, Col. Michael Clancy, Corps of Engineers New Orleans District Commander, Joe Hassinger, FPA President, Gerry Gillen, FPA Chief of Operations, and former U.S. Senator David Vitter.

The following is quoted from "THE SCALISE CAPITOL REPORT" dated August 18, 2018:

Fighting for Strong Hurricane Protection

This week, I was able to evaluate the 17th Street Canal pumping station and talk with local, state and federal flood protection officials. As we enter the height of the 2018 Atlantic Hurricane Season, it's so important our region is ready for whatever may come our way. Hopefully the full capacity of the 17th Street Canal pump station is never needed, but it is important to know that the system is ready and fully capable of operating to its highest level if the worst kind of storm happens.

While this pump station and the rest of the New Orleans area flood protection system are critical parts of our defense system against powerful storms, much work remains to ensure protection for all areas across Southeast Louisiana, and I will continue to fight every day for additional flood protections and coastal restoration efforts in Congress.

> Steve Scalise House Majority Whip



Above: After the tour Congressman Scalise answered questions from the Press



Above: Ignacio Harrouch, CPRA Chief of Operations, discusses the technology used to monitor the water level in the outfall canal and pump operations with Congressman Scalise

Below: Congressman Scalise tours the pump station

G. Paul Kemp Recognized for Service as FPA Board Member



Dr. Kemp is presented with a Resolution adopted by the Board expressing its gratitude and appreciation for his commitment to flood protection and his service on the Board of Commissioners

G. Paul Kemp, Ph.D., was recognized by the Board at its June 14th meeting for his service as a Commissioner on the Board of Commissioners and for his commitment and contributions to the Flood Protection Authority and the citizens of Southeast Louisiana. Dr. Kemp was appointed to serve on the Board as of August 12, 2011 because of his outstanding qualifications and expertise and his 40+ years of professional experience in the field of environmental sciences and geology.

Dr. Kemp recognized the importance of the FPA's mission and continuously strived to investigate and implement advancements and improvements in order achieve the best flood protection possible for the citizens of Southeast Louisiana.

During his tenure on the Board, Dr. Kemp served as the Board's Secretary, Chair of the Coastal Advisory Committee and Operations Committee member.

Appointment of Herbert T. Weysham, III to FPA Board

Herbert T. Weysham, III, was appointed to the Board of Commissioners by Governor John Bel Edwards for a four year term commencing on July 2, 2018. He took his oath of office at the Board's July 19th meeting and immediately plunged into service as a Board Member.

Mr. Weysham currently resides in Slidell, LA; however, he was born and raised in New Orleans East, attending Lake Castle and Brother Martin High School. He told Board members that he still has family living in St. Bernard, Orleans and Jefferson Parishes and expressed his desire to help protect the region.

Mr. Weysham attended UNO and graduated from Delgado Community College with an Associate of Science Degree in Electrical Engineering and McNeese State University with a Bachelor of Science Degree in Electrical Engineering Technology. He has been the Manager of Projects and Estimating at VersaTech Automation Services since August, 2010, managing instrumentation and electrical construction projects ranging in size from \$10,000 to \$10,000,000. He has over 25 years of instrumentation and electrical experience in the onshore and offshore oil and gas markets and has served as a Project Director managing multiple projects and crews with up to 250 field technicians.

Applicants for Commissioner are asked the reason they wish to serve on the Board. Mr. Weysham stated, "I believe I can give a fresh perspective to the board from a person that has no affiliation to any organizations. Additionally, I believe I have a civic duty to this cause, because I have lived my entire life in this community."

The Flood Protection Authority is constantly striving to enhance, expand and update its website to increase awareness of its flood protection mission, provide information about our state of the art flood defense system, and serve the needs of the public.

Visit our website — floodauthority.org



Understanding the Levee Safety Action Classification

The U.S. Army Corps of Engineers rolled out its newest methodology for classifying risks – the Levee Safety Action Classification (LSAC). The Corps learned from Hurricane Katrina the importance of communicating residual risks and providing the best information available to local officials, stakeholders and the public so that they can make informed risk-based decisions. The LSAC was developed by the Corps for this purpose.

The Corps writes, "The LSAC is neither a levee rating or grade, it is a classification system designed to take into account the probability of the levees being loaded (Hazard), existing condition of the levee, the current and future maintenance of the levee (Performance), and the Consequences if a levee were to fail or be overwhelmed. A levee that reduces risk for a dense population will receive a different classification from an equally constructed levee with a smaller population because the consequences associated with failure is greater."

A levee system may receive a LSAC of High Risk even though it is well maintained with no obvious performance issues because it protects a large population, significant development and/or critical infrastructure and due to potential environmental losses. On the other hand, a levee system may receive a LSAC of Low Risk because it protects a sparsely populated area or has maintenance issues. The LSAC does not impact FEMA's National Flood Insurance Program (NFIP), as long as the levee system is accredited.

Each levee system throughout the country, as well as the population size and infrastructure protected by the system, is unique. Risk Characterizations were individually developed for each levee system in order to analyze the risks specific to that system. The Risk Characterizations include details about how the criteria (Hazards, Performance and Consequences) were used to determine the LSAC for a system and the risk drivers.

The Corps has classified our system as High Risk primarily based on New Orleans' proximity to the Gulf and the large population and the considerable development and infrastructure that would be impacted by a significant event. Col. Michael Clancy, New Orleans District Commander for the Corps, states, "Looking at the Hazards and Consequences criteria alone, we know that there is a high risk in Southeastern Louisiana. A river flood is expected annually and each year we ready ourselves for hurricane season; that coupled with the densely populated areas and the industrial infrastructure are the driving factors for many of the LSACs across the district." The Hurricane and Storm Damage Risk Reduction System (HSDRRS), designed to protect against a 100-year storm event, is one of the best flood defense systems in the world. However, no system can completely eliminate risks.

The LSACs and Risk Characterizations for levee systems are available on the recently expanded and enhanced National Levee Database. The Corps urges local sponsors and the public to visit the National Levee Database to access the plethora of available useful information about the system protecting their region by going to https://levees.sec.usace.army.mil.

The Flood Protection Authority and its team members are dedicated and committed to the mission of flood protection, which includes the professional, skilled management, operation and maintenance of the flood defense system, investigation of new programs or methods to manage residual risks, public education programs and providing the best information possible to public officials and citizens so that they can make informed decisions and take the appropriate actions.

The levee inspections currently in place will continue and include, the Corps' annual Routine Levee Inspections and Periodic Levee Inspections (five year) with participation by the FPA and CPRA, and the Quarterly Levee Inspections conducted by the FPA. *However, the most important step in the levee inspection process takes place daily by the skilled, trained FPA team members who are our "eyes on the ground" identifying and reporting problems or unusual situations discovered while performing their operation and maintenance duties. The dedicated men and women of the FPA are our "first line of defense" in ensuring the integrity of the flood defense system.*

FPA on Heightened Alert During Hurricane Season



Crews close Floodgate S-01 (above) at Southern Scrap on the Industrial Canal and Floodgate E-13 (below)



Above: Closing Caernarvon Sector Gate Below: Closing valve; Erecting Hesco baskets near 17th Street Canal PCCP

The FPA monitors all weather disturbances and remains on heighted alert during hurricane season. Staff monitored the path of Tropical Storm (TS) Gordon and took action as weather conditions warranted.

On Wednesday, August 29th, Hesco baskets were erected in a low spot of lakefront levee Reach 5 on the west side of the 17th Street Canal Permanent Canal Closure and Pumps (PCCP). The small section of levee was part of the right-ofway provided to the U.S. Army Corps of Engineers (Corps) for the construction of the PCCP. The Hesco baskets are being used as a short-term measure until the spot is raised by the Corps when the Interim Closure Structure is demolished.

Crews began closing low sill floodgates as early as Thursday, August 30. By Saturday, September 1, crews had closed 22 floodgates. The IHNC Surge Barrier Barge Gate was closed at 11:00 a.m. and the Bayou Bienvenue and Bayou Dupre Sector Gates were closed by noon on Sunday, while boaters were encouraged to use the Caernarvon structure for shelter until the following morning. A number of valves and additional floodgates were closed on Monday and Tuesday. On Tuesday the Caernarvon Sector Gate was closed.

The FPA operates and maintains a total of 253 land based floodgates, 100 valves, 56 miles of canals, 5.4 miles of seawall, the Permanent Canal Closures and Pumps (PCCP), and eight navigation flood control structures (IHNC Surge Barrier Sector and Barge Gates; Bayou Bienvenue Vertical Lift Gate and Sector Gate; Seabrook Complex; and Bayou Bienvenue, Bayou St. John and Caernarvon Sector Gates.)

A total of 41 floodgates and 17 valves were closed in the Orleans Levee District and 13 floodgates were closed in the Lake Borgne Basin Levee District in response to TS Gordon, which made landfall near the Alabama-Mississippi boarder.

The Flood Protection Team conducted an After Action Review for TS Gordon on September 12th to review actions, discuss lessons learned and implement best practices.



Preparing Educators on Flood Protection Curriculum

Know Your Flood Protection System

Keepin' Your Head Above Water



Middle School Science Curriculum



The curriculum and lessons were developed by Anne Rheams, Education Consultant, and Gena Asevado, St. Bernard Parish Schools Science Curriculum Director. The program will be adapted for Orleans and East Jefferson Parish schools.

The online version of the Curriculum is posted on **floodauthority.org/teacher-resources**.

Middle School Science Program

Teaching students about the Hurricane and Storm Damage Risk Reduction System will help future generations understand its importance and share this information with their families and friends. All 8th grade science teachers in St. Bernard Parish Public Schools attended a Flood Protection Authority-sponsored workshop to prepare them to teach the originally-developed curriculum, *Keepin' Your Head Above Water: Know Your Flood Protection System*. The curriculum includes lessons and activities on geographical orientation (where do I live and where is the water), the Flood Protection Authority's flood protection system (where is it and what is it) and ways students can reduce risk related to tropical storms and hurricanes for their families and homes.

The teachers were very grateful for the opportunity to learn how to educate their students about these important topics that directly influence their lives. Bob Turner had the idea to create this curriculum and approached St. Bernard Parish Public Schools Superintendent, Doris Voitier to pilot the education program. After the success of the pilot program, she approved that the curriculum be adopted parish-wide.



The Permanent Canal Closures and Pumps (PCCP) Appear in History Channel's New Engineering Series, Project Impossible

HISTORY's new documentary series, "Project Impossible" kicked off its ten-episode first season this summer. Inspired by one of History's most successful series of all time, "Modern Marvels," "Project Impossible" investigates the challenges that face humanity and the projects that will solve it. Filmed across 17 countries, from the arctic to the equator, each episode investigates a new generation of projects that are crucial to our future.

The Permanent Canal Closures and Pumps appeared in Engineering America, which examined the new generation of projects that are reshaping the country's infrastructure. The production team filmed crews finishing the flood gates, working on the climber screens, and driving sheet pile. The series premiered at the end of August on History.

Pre-Final Inspection Held on Orleans Canal East Bank L-Wall Retrofit



Newly Retrofitted Orleans Canal East Bank L-Wall

The pre-final inspection of the Orleans Canal East Bank L-Wall Retrofit took place on August 28th.

The U.S. Army Corps of Engineers recently evaluated the floodwalls along the 17th Street, London and Orleans Avenue Outfall Canals using the latest guidelines for the analysis and design of I-walls. The study revealed that the only section of I-wall requiring additional work was located along the east side of the Orleans Avenue Outfall Canal between Lakeshore Drive and the Permanent Canal Closure and Pump (PCCP) facility.



The Corps awarded a \$2.1 million contract to APC Construction, LLC on January 31, 2018 for the construction of an L-wall at this location. The project converted 300 feet of existing I-wall between Lakeshore Drive and the PCCP structure to a much stronger L-wall. The conversion to L-wall required creating a base for the floodwall by driving a row of vertical piles and a row of battered piles. Fill was added to the area adjacent to the base in order to ensure a smooth transition between the existing ground surface and the new wall.



July 24, 2018 Placement of concrete for scour protection along the wall

Update on Construction of New Facilities

Construction of the East Jefferson Levee District Safe Room and Consolidated Facility (pictured right) is about 65% complete.

The facility is anticipated to be completed this winter.





The construction of the O.L.D. Police Complex (pictured right) is 85% complete.

The facility is schedule for completion at the end of October.

FPA Permits Go High-Tech

The FPA's web-based Permitting Software Management System went live on July 23rd. The permitting software developed by Vinformatix was funded by a Community Development Block Grant. The System allows applicants to electronically submit and track permit applications.

The first step requires applicants to provide coordinates for the proposed work and applicants are automatically informed whether or not a permit is required. A progress bar walks the applicant through each step of the process, and provides instructions and anticipated timeframe for the process. Notifications are sent to the Corps of Engineers, CPRA and the FPA Permitting Office so that the review and appropriate actions take place. Approved permits can be downloaded by applicants. The FPA plans to expand the software's capabilities and features over time.



G.G. Mumfrey, Vinformatix Project Manager, informs the FPA Operations Committee about the features and capabilities of the Permits Management Software

WEF's Emerging Water Quality Scholars Program

The Water Environment Federation (WEF) held its 91^{st} Annual Technical Exhibition and Conference in New Orleans September 29 thru October 3, 2018. The conference drew 20,000 water quality professionals and 1,000 exhibitors from around the world to the Crescent City. Founded in 1928, WEF is a 501(c)(3) technical/ educational nonprofit focused on ensuring clean drinking water, groundwater and stormwater in communities nationwide.

This year the WEF launched its *Emerging Water Quality Scholars Program, which introduced 15 young adults (18-24) from New Orleans' underserved communities, community and 4-year colleges to careers in water related environmental infrastructure. The goals of the stipended program include:

- Engage qualified, aspirational members of NOLA's underserved communities in a meaningful training experience.
- Interact with working professionals and active employers; gain paid work experience at an international conference; and get usable professional skills training.

The program is patterned after the American Association of Geographers (AAG) Emerging Workforce Scholars Program, which was part of the AAG's Annual Meeting in New Orleans in April, 2018. The Program allowed 17 students from Delgado Community College, UNO, Southern University and Landry-Walker High School to interact and network with geoscience professionals, and participate in professional skills workshops and technical sessions.

*The cost of running this program is \$1,000 per student. For Sponsorship Information contact: Drew Lehman at **drewlehmanwork@gmail.com** or (201) 965-7739.

The Flood Protection Authority urges everyone to become informed about their flood defense system and encourages organizations and business and community groups to schedule a tour of the IHNC-Lake Borgne Surge Barrier and Permanent Canal and Closure Pump Stations. Contact Glenda Boudreaux at 504-262-8910 or gboudreaux@floodauthority.org to arrange your visit to one on or both of these extraordinary facilities that are part of the critical flood defense system protecting your community.

Editor: Glenda Boudreaux Associate Editor: Wilma Heaton Comments can be submitted to: gboudreaux@floodauthority.org