



The Flood Protection Authority-East

News of Your Flood Defense System

July 1, 2018



Permanent Canal Closure and Pumps at London Avenue

Message from The Flood Protection Authority President Joe Hassinger

Over the past couple of years, the Flood Protection Authority has undergone an internal reorganization and culture change that have resulted in the transformation of every department. Consequently, the Authority is the strongest and most capable it has ever been.

The success we have experienced is due, in large part, to the support and confidence we continually receive from the citizens who live in our jurisdiction, including those in East Jefferson, Orleans and St. Bernard. So, I take a moment to simply say thank you. Thank you for your encouragement, for your appreciation, and for your ideas. Thank you for your feedback, and for your partnership. Thank you for challenging us.

Your support is invaluable to the 200+ men and women who work hard every day to help keep us all safe.

Joe Hassinger



East Jefferson Lakefront Levee Armoring: (left) Homestead Ramp looking east and (right) Earlinger Ramp looking west

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Status of Flood Defense System

The Permanent Canal Closures and Pumps (PCCP), which replace the interim closures and temporary pumps constructed by the U.S. Army Corps of Engineers (Corps) after Hurricane Katrina, is the final structural element in the Flood Protection Authority's circle of defense. The PCCP, located at or near the mouth of the 17th Street, Orleans Avenue and London Avenue Outfall Canals, consist of gated storm surge barriers and pump stations. A Cooperative Endeavor Agreement executed by the Coastal Protection and Restoration Authority (CPRA), Sewerage & Water Board of New Orleans (S&WB) and Flood Protection Authority (FPA) designates the FPA as the entity responsible for management, operation and maintenance of the PCCP. In advance of an approaching tropical storm when Lake Pontchartrain stages are elevated, the gates will be closed to prevent storm surge from the lake from entering into the canals. The PCCP pump stations will be operated, in conjunction with the interior pump stations operated by the S&WB, to move rain-water pumped into the canals past the gates into the lake. The gated closures effectively take approximately eight and one-half miles of outfall canal floodwalls and levees, which proved to be vulnerable during Hurricane Katrina, off the perimeter system.



Top: Levee Maintenance Crew
Bottom: Levee Armoring

The PCCP are just one structural feature of the \$14+ billion dollar Hurricane and Storm Damage Risk Reduction System constructed by the Corps after Hurricane Katrina. Joe Hassinger, FPA President, remarked at the PCCP ribbon cutting ceremony, "With these barriers online, the metro area now has the most robust flood defense system it has ever had. And we're thankful for that. I can assure the public that with the Flood Protection Authority operating these structures, the barriers will be properly manned, the barriers will be properly maintained, and when the water comes, they will perform."

The Corps is in the process of armoring the earthen levees that form the hurricane perimeter defense system to increase resiliency in the event of overtopping and reduce the risk of erosion. The earthen levees that were projected would fall below the necessary elevation for FEMA recertification due to subsidence or sea level rise by the end of 2016 have been or are in the process of being lifted. The FPA recently lifted the levees along the East Jefferson lakefront from the St. Charles Parish line to the Orleans Parish line from six to eighteen inches and the Corps has followed up with armoring. Segments of New Orleans East levees will be lifted as part of the Corps' armoring projects in eastern New Orleans. The status of the Armoring/Levee Lift Projects is provided on Page 6.

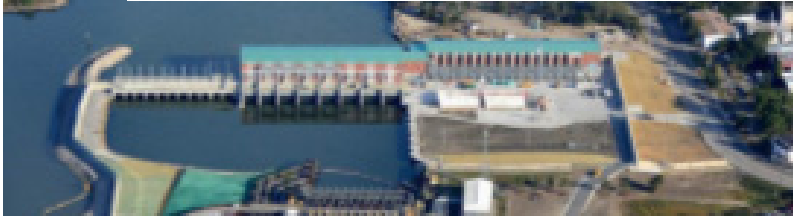


Above: Floodgate Crew Closing Gates

The FPA has one of the most extensive and vigorous Operations and Maintenance programs which, in addition to the Corps' Annual Inspection, includes formal quarterly, semi-annual, and periodic inspections by internal staff, CPRA staff, and the Corps. Earlier this year, the FPA retained a third party engineering firm to independently inspect system components on a quarterly basis. The FPA also has staff on the system every day, performing operations, maintenance and patrols to identify any conditions that need to be addressed.

The Flood Protection Authority has a team of knowledgeable, experienced, well-trained employees committed to the mission of flood protection working seamlessly together to ensure the integrity, operation, maintenance and management of our flood defense system.

The Flood Protection Authority Hosts PCCP Ribbon Cutting



The Flood Protection Authority hosted the Ribbon Cutting Ceremony for the Permanent Canal Closures and Pumps (PCCP) at the 17th Street Canal Pump Station on May 31st. The ceremony took place just inside the massive pump station with a tour of the facility provided after the event.



Public officials and guests were welcomed by Flood Protection Authority President Joe Hassinger and Commissioner Herbert Miller. Speakers included Col. Michael N. Clancy, P.E., New Orleans District Commander, U.S. Army Corps of Engineers; Ignacia Harrouch, P.E., Chief of Operations, Coastal Protection and Restoration Authority; Joe Sensebe, P.E., Interim Operations Manager, New Orleans Sewerage and Water Board; and Derek Boese, FPA Chief Administrative Officer.



Inside the 17th Street Canal Pump Station

Pictured below from left to right are the 17th Street Canal PCCP pumps (two 900 CFS pumps and six 1,800 CFS pumps), 15 Caterpillar generators and fuel storage tanks.

Pictured Right: 17th Street Canal protected side trash rakes, which screen out trash and debris when the pumps are running.



I-STORM Peer Reviews Critical Flood Defense Complex Structures



I-STORM Peer Review Team



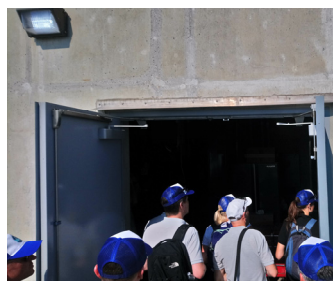
The Flood Protection Authority joined I-STORM, the International Network for Storm Surge Barriers, in 2012. The I-Storm Network brings together professionals that build, manage, operate and maintain Storm Surge Barriers. Its goal is to continuously improve standards of operation, management and performance in order to reduce the risk of severe flooding by facilitating knowledge exchange amongst members through international peer reviews, working groups, technical knowledge exchange visits, and other means of knowledge exchange. I-Storm members also build a network of colleagues around the world that can be called upon to discuss and assist with issues that arise.

Member agencies include the Environment Agency, England; Rijkswaterstaat, The Netherlands; Venice Water Authority and Consorzio Venezia Nuova, Italy; and the U.S. Army Corps of Engineers.



In the fall of 2017, the FPA requested an I-STORM peer review of its major storm defense complex structures. The barriers selected for the peer review consisted of the IHNC Storm Surge Barrier Sector Gate and Barge Gate, the Seabrook Complex Sector Gate and Vertical Lift Gates, and the Bayou Bienvenue Vertical Lift Gate. The control rooms for the structures were also part of the review.

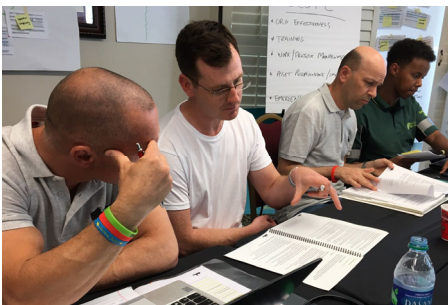
The peer review began with team members taking part in webinar training on May 4th covering the itinerary, plan and overview of the process. Team members arrived in New Orleans on May 10th and 11th. FPA staff was trained on May 11th on hosting the review. Peer review activities took place over the period May 12 – 20, and concluded on May 21st with a presentation of the findings to the FPA.



I-STORM Peer Reviews Critical Flood Defense Complex Structures

The goals of an I-STORM peer review are to promote the highest level of excellence in operation, maintenance and management of storm surge barrier assets by identifying areas for improvement, strengths and best practices, and to continue the development of an international network of surge barrier professionals through which knowledge, expertise and experience can be shared.

The team included twelve members from the United Kingdom and the Netherlands, along with three members of U.S. Army Corps of Engineers and three FPA staff members. The peer review was divided into three distinct phases: 1) data collection, 2) data analysis, and 3) preparation and presentation of findings. The team spent three days in the field, in record breaking heat, inspecting and collecting data on the Surge Barrier Sector and Barge Gates, Bayou Bienvenue Sector Gate, and the Seabrook Complex Sector and Vertical Lift Gates. Team members inspected every part of the structures, taking pictures to document findings, and speaking with FPA maintenance and operations staff. The team developed a list of over 600 on-site facts identifying areas that need improvement, strengths and best practices that can be shared with I-STORM members.



The team met over the next several days pouring over and evaluating the facts that were collected with the skill, expertise and seriousness consistently exercised by this unique group of professionals that included environmental scientists, and electric/electronic, civil, mechanical, hydraulic and coastal engineers. The team developed a fifty page draft report with 203 pages of appendices. A final report will be submitted to the FPA by I-STORM.

I-STORM team members were able to find some time during their visit to New Orleans to enjoy the local culture and cuisine.

The FPA is truly grateful for the opportunity to receive such a thorough professional evaluation of its critical flood defense infrastructure. I-STORM team members expressed their appreciation for the knowledge and information that they are able to take back to their countries as a result of participating in the peer review.



Updates on Armoring / Levee Lift Projects

Current status of U.S. Army Corps of Engineers projects:

East Jefferson Lakefront:

LPV-ARM-08 [St. Charles Parish line to Duncan Canal] - Contractor completed installation of the High Performance Turf Reinforcement Mat (HPTRM), placement of sod and ramps. The grass growing phase will extend through mid to late summer. Projected completion date: 10/01/18

LPV-ARM-10 [Duncan Canal to Suburban Canal] - Contractor is currently installing HPTRM from West to East and following up with placement of sod. Projected completion date: 12/26/18

LPV-ARM-07 [Suburban Canal to 17th Street Canal] - Contractor has completed about 75% of the HPTRM installation and 20% of the sod placement. Projected completion date: 01/21/19

New Orleans East:

LPV-ARM-04 [Paris Road east to South Point then south to I-10 (north side)] - Contractor completed HPTRM installation and placement of sod. Turf establishment and root testing will take place over the summer. Projected completion date: 08/21/18

LPV-ARM-05 [south side of I-10, south along the levee and across Hwy. 11 and Hwy. 90 to the north side of the CSX tracks] - Advertisement of project is anticipated to take place in late July, 2018. Levee will be raised prior to the installation of armoring. Project duration is 690 calendar days.

LPV-ARM-09 [south side of CSX tracks, south to the GIWW then west along GIWW to the Surge Barrier wall] - Project advertised on 03/28/18 and contract awarded to Circle Construction on 05/02/18. Levee will be raised prior to the installation of armoring. Project duration is 590 calendar days.



At Stairs to Treasure Chest



ARM-10 - Week Old Sod



At Homestead ramp looking west

Updates on Construction of New Facilities



Top: The East Jefferson Levee District Safe Room and Consolidated Facility being constructed at 11000 Reverend Richard Wilson Drive in Kenner is anticipated to be completed by the end of

December, 2018. The 27,000 sq. ft. facility includes a safe room, office space for administrative, maintenance and police personnel and an 11,000 sq. ft. maintenance shop.

Below: The new state of the art 10,000 sq. ft. Orleans Levee District Police Complex being constructed at the intersection of Elysian Fields Avenue and Lakeshore Drive in New Orleans is anticipated to be completed this fall. The site will be secured with fencing and have a storage garage for police vehicles.



Area Students Learn About Geosciences & Flood Defense

AAG Annual Meeting—Emerging Workforce Scholars Program

The American Association of Geographers (AAG), a nonprofit scientific and educational society, held its Annual Meeting in New Orleans on April 10-14. The AAG Annual Meeting is the largest gathering of Geographers and Geoscientists in the world.

As part of AAG's Advancing Diversity initiative, local students and young adults (18 to 24 years old) from New Orleans' ethnically and financially diverse communities were invited to participate in the Emerging Workforce Scholars Program and be an integral part of the annual meeting. The young New Orleanians visited unique critical area infrastructure, including the IHNC-Lake Borgne Surge Barrier, 17th Street Canal PCCP, New Orleans Sewerage and Water Board Carrollton Water Treatment Facility and Lakefront Airport, to learn first-hand from facility operators and hiring managers how to apply for jobs, about career pathways and skills needed for entry and success, and talked with educators about where to get real-world skills training. Mayor Latoya Cantrell met with and inspired the AAG's 2018 Emerging Workforce Scholars and spoke at the opening Plenary session.

During the tour the Scholars learned about the Flood Protection Authority's critical flood defense system. At the AAG conference, students met practicing geoscience professionals, attended technical sessions, visited 60+ exhibits, and participated in professional skills workshops.



Top left: Mayor Cantrell welcomes AAG attendees to New Orleans at the plenary session.

Center: Mayor Cantrell speaking with Emerging Workforce Scholars and program supporters.

Right: On Closing Day Participants received their Scholarship Stipend.

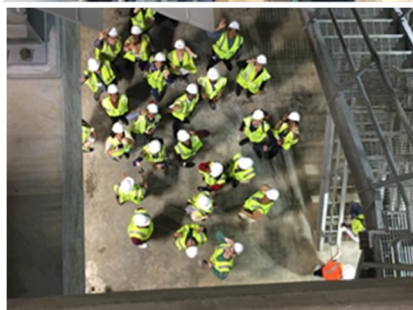


Scholars touring infrastructure:

Left and right: IHNC Lake Borgne Surge Barrier

Bottom left and center: 17th Street Canal PCCP Pump Station.

Bottom right: Enjoying lunch at the historic Lakefront Airport while touring the Airport facility.

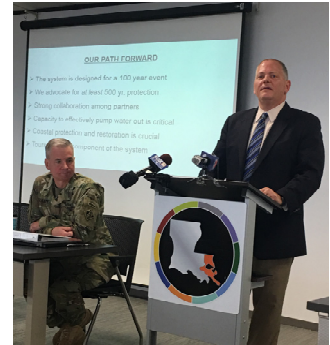


State of Flood Protection Hosted by Business Council of New Orleans & the River Region



Flood Protection Agencies briefed the media and public on June 13, 2018 concerning the state of flood protection for the greater metropolitan New Orleans area. The event was hosted by the Business Council of New Orleans and the River Region.

Presentations were provided by Col. Michael N. Clancy, P.E., New Orleans District Commander, U.S. Army Corps of Engineers, Ignacio Harrouch, P.E., Chief of Operations, Coastal Protection and Restoration Authority, Susan MacClay, Chair, Southeast Louisiana Flood Protection Authority-West, and Joe Hassinger, President, Southeast Louisiana Flood Protection Authority-East. A question and answer session was conducted after the presentations.



Educating the Next Generation About Flood Protection

Know Your Flood Protection System

Keepin' Your Head Above Water



Middle School Science Curriculum

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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. This education program targets public and private middle school science classes in the Flood Protection Authority's regional jurisdiction of Orleans, East Jefferson and St. Bernard Parishes. The middle school science program educates through the originally-developed curriculum, *Keepin' Your Head Above Water: Know Your Flood Protection System*, which 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 curriculum guide will be available for teachers on the Flood Protection Authority's website before the beginning of the new school year.

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.

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