



# Levee System Summary

## New Orleans East Bank Levee System

### Pontchartrain, East Jefferson, Orleans, and Lake Borgne Levee Districts

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

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**Project Description:**

The New Orleans East Bank Levee System is approximately 176 miles and is made up of Mississippi River Levees (MRL) and the Hurricane and Storm Damage Risk Reduction System (HSDRRS). The MRL was federally funded and constructed. The MRL is locally operated and maintained; however, the U.S. Army Corps of Engineers (USACE) has major maintenance responsibility. The HSDRRS is 100% locally operated and maintained except for the Bonnet Carre guide levee which is maintained by USACE. The HSDRRS levees were federally constructed but cost share funded. The Levee System is made up of 12 segments extending through 4 different parishes and maintained by 4 different levee districts. The Bonnet Carre lower guide levee segment which makes up the far western end of the system is maintained by USACE. The system totals approximately 99 miles of levees and 77 miles of floodwalls. USACE began to construct the MRL in 1927, while the HSDRRS levees began construction anywhere from 1960's to the 1980's. The new HSDRRS levees were completed to 100-year risk reduction in 2011. The highest loading for a riverine event took place in 1927 and for a hurricane event was Hurricane Katrina in 2005.



The population of the leveed area is 677,686 and total assets valued at \$129 billion.

**Risk Characterization:** The New Orleans East Bank Levee System is classified as Moderate to High risk due to the high consequences associated with the system in combination with the likelihood of overtopping or breach. Risks are driven by the fact that, if overtopped or breached, both commercial and residential areas in St. Charles, Orleans, Jefferson, and St. Bernard parishes would be inundated with water. Another risk driver of the levee system is a breach prior to overtopping due to the lack of armoring. Armoring for all of the HSDRRS levees with High Performance Turf Reinforcement Mats are currently being installed to add resiliency to the levees. There were breach points to the HSDRRS system during Hurricane Katrina in 2005. Refurbishments to the system were completed in 2011. The system is designed to reduce the risk associated with a storm surge event that has a one-percent chance of occurring every year, or a 100-year storm surge. The levees are in good condition and expected to perform well under future loads.

**What is driving the risk?  
(Listed in order of priority)**

**What is being/ should be being done about it?  
(Risk Management)**

Consequences: With a population of 677,686 people and total assets valued at \$129 billion, the high potential consequences in the event of a failure is a major risk driver for this system.

The Louisiana Governor's Office for Homeland Security and Emergency Preparedness (GOHSEP) has a comprehensive evacuation plan, the unified shelter plan, which oversees all parishes in the state.

**What is driving the risk?  
(Listed in order of priority)**

**What is being/ should be being done about it?  
(Risk Management)**

<p><i>A breach prior to overtopping due to erosion and scour potential leading to instability.</i></p>	<p><i>Armoring with High Performance Turf Reinforcement Mats on all HSDRRS levees to add resiliency to the system against land side overtopping erosion concerns.</i></p>
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**What Is Important to Know?** *Residents within the leveed area should have a working knowledge of flood warning and evacuation procedures. Residents should be aware of evacuation routes to exit the levee system. Major highways exiting the system include I-10, I-12, I-55, Hwy 3213 across the Veterans Memorial Bridge, Hwy 70 across the Sunshine Bridge. Residents should also stay well informed through television, radio, and text messaging during periods of high water. If flooding were to take place as a result of levee breach or overtopping, traffic congestion may prevent safe evacuation. Residents should plan ahead and know whether sheltering in place would be safer.*

**PREPARE**

- Prepare an emergency kit that includes: flashlights, radio, batteries, candles, matches, first-aid kit and a list and supply of all medications, blankets, water, food, etc.
- Keep important documents and valuable possessions on an upper level of the structure or as high as possible.
- Make a list of items to take with you and have a plan for your pets. Establish a family meeting place.
- Know how to safely shut off your utilities.
- Listen for emergency instructions from authorities.
- Prepare and practice your evacuation plan with your family.

**PREVENT**

- Keep storm drains, gutters and ditches clear.
- Check with the Parish flood control district to see if a permit is required if you plan to build on, fill, alter or re-grade your property.
- Never excavate, modify, landscape, or build anything on any levee or flood control easement without permits from the appropriate Parish, state, and federal agencies.

**PROTECT**

- Never drive through flooded streets or roads: more people are trapped and die in their vehicles than anywhere else during floods.
- Never try to escape rising floodwater by going into the attic unless you have roof access or no other safe options.
- Consider buying flood insurance.

<p><b>Latest Inspection and Rating:</b></p>	<p><i>The system is comprised of 12 levee segments. The most recent inspections for all 12 segments were routine inspections done in 2017. The inspections were conducted by a team comprised of members from USACE, the levee sponsors, and Coastal Protection and Restoration Authority. The 12 segments of the levee system were given a Minimally Acceptable rating. A rating of Minimally Acceptable signifies that one or more items were noted during the inspection that requires maintenance, however these items will not prevent the system from performing as intended during the next flood event.</i></p>
<p><b>Rehabilitation Program Eligibility Status:</b></p>	<p><i>The Mississippi River Levees are part of the Mississippi River and Tributaries (MR&amp;T) project and federally authorized by the Flood Control Act of 15 May 1928. Levee projects under the MR&amp;T authorization are not included in the Rehabilitation Program; however, the levee segments classified as HSDRRS are in the Rehabilitation Program.</i></p>
<p><b>National Flood Insurance Program Status:</b></p>	<p><i>The levee system is currently shown as accredited on the Flood Insurance Rate Maps. FEMA sent accreditation letter for HSDRRS on 2/20/2014. This information is current as of July 20, 2018. FEMA is aware of the ongoing collaborative efforts by local governments and technical support by the Corps of Engineers and has currently not scheduled a date for remapping.</i></p> <p><i>Access NFIP flood hazard mapping products, including Flood Insurance Rate Maps, at the FEMA Flood Map Service Center website: <a href="https://msc.fema.gov/">https://msc.fema.gov/</a></i></p>

**Ongoing Activities and Studies:** *All HSDRRS levees are getting armored with High Performance Turf Reinforcement Matting (HPTRM) to add resiliency to the levee systems. Some levees are getting lifted before the HPTRM is placed. Armoring for all of the HSDRRS levees is expected to be completed in 2020.*

