

Investing in Louisiana's Future

A decade of progress through partnerships

Louisiana Repairs and Rebuilds Safer, Stronger and Smarter

Hurricanes Katrina and Rita caused billions of dollars in damage to Louisiana infrastructure in 2005. However, FEMA-funded rebuilding strategies over the last decade have made affected communities stronger for the future.

The agency has worked with the Governor's Office of Homeland Security and Emergency Preparedness to provide more than **\$296 million** in Section 406 mitigation as part of **\$3.4 billion** in repair projects and an estimated **\$686 million** in codes and standards mitigation as part of **\$4.5 billion** in replacement projects. The mitigation projects are designed to minimize or eliminate damage if disaster events similar to 2005 happen again. Many storm-damaged facilities are now safer and more resilient because of these efforts.

The funds are part of FEMA's Public Assistance program, which has provided **\$12.38 billion** in recovery grants for local, tribal and state government entities and certain private nonprofit organizations in Louisiana. The program can fund prevention of future damage to a damaged facility in addition to its reconstruction or repair.

FEMA supports opportunities to enhance projects during Louisiana recovery and mitigate future damage. From using smarter building materials to elevating critical components, FEMA and the state have implemented a variety of improvements in recovery projects across the state. The improvements often cost a fraction of the better protected facility's total value. Here is a snapshot of FEMA-funded projects designed to save lives, keep structures dry, withstand strong winds and save tax dollars when future disasters occur.

Note: Mitigation funding cited in the examples was utilized to prevent future damage to components or parts of the facility, as needed, and not its entirety.

"The improvements to FEMA-funded damaged facilities are invaluable investments because they eliminate or significantly reduce costly repairs should events like the ones in 2005 ever happen again. Louisiana is safer, stronger and better equipped than ever to survive disasters like Katrina and Rita."

Mike Womack
Director, Louisiana Recovery Office

Louisiana Superdome

What happened?

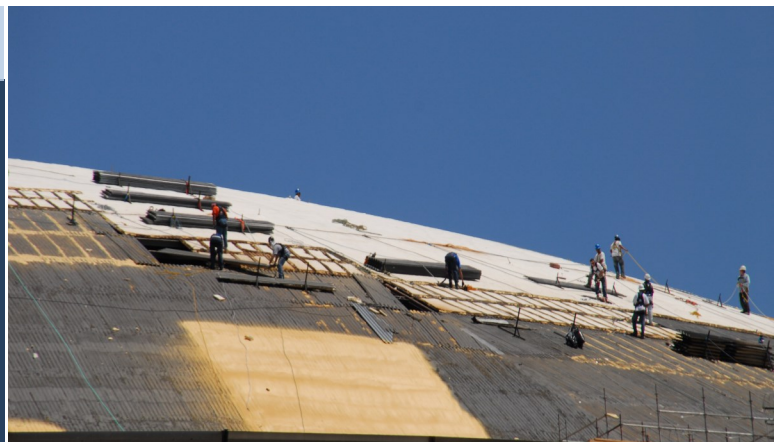
The **79,000-seat** multipurpose venue and home of the NFL's New Orleans Saints has been one of the city's most visible landmarks since it was constructed in the 1970s. Hurricane winds blew debris strong enough to puncture the iconic white roof and damage smoke evacuation vents. The damage caused water to leak into the interior and contributed to nearly \$88.7 million in damage. After an insurance settlement, FEMA provided **more than \$23.4 million** to repair the Superdome.

What improvement strategy was used?

FEMA funded approximately **\$16.3 million** to upgrade the roof and vents to endure stronger load resistances like debris projected by hurricane-force winds.

How does that help?

The upgrade strengthens the roof and vents to withstand winds and flying debris beyond building code requirements. The enhancements will reduce or prevent roof and interior damage during an event similar to Hurricane Katrina.



Aug. 6, 2015

East Jefferson General Hospital



What happened?

The Metairie hospital has more than **420** beds, **650** physicians and **3,000** employees. Strong winds propelled the roof's gravel coating, or ballast, and other debris, shattering windows at the 855,000 square-foot facility. Rain water entered the building during the storm and caused costly interior damage. FEMA provided more than **\$1.8 million** to repair the facility.

What improvement strategy was used?

A membrane design consisting of synthetic rubber replaced the gravel ballasted roof. Additionally, more than **80** protective storm screens were installed. These measures cost about **\$307,000**.

How does that help?

The synthetic rubber roof eliminates the use of heavy, potentially damaging, materials like gravel that can become windborne during strong wind events. The storm screens protect windows from debris so they remain intact and the interior stays dry during future storms.

Buras Wastewater Treatment Plant

What happened?

Hurricane Katrina's winds and flood waters damaged the wastewater treatment plant for the Plaquemines Parish community of Buras. A 20-foot storm surge flooded its electrical control building. It remained flooded for approximately three weeks and valuable components were destroyed. FEMA provided nearly **\$3.7 million** to repair the facility.

What improvement strategy was used?

FEMA funded more than **\$333,000** to elevate a new electrical system building onto the treatment plant's roof.

How does that help?

The elevated building and the vital components inside are worth \$730,000. This facility is now better protected from flood damage because it is set at a higher elevation, helping ensure the community's water wastewater treatment remains uninterrupted after flooding events.



Cameron Parish Courthouse and Jail

What happened?

Hurricane Rita flooded the Cameron Parish Courthouse and Jail, located in southwestern Louisiana. Water swamped the basement and ground floor, destroying electrical and mechanical equipment. FEMA provided approximately **\$1.6 million** to repair damage.

What improvement strategy was used?

FEMA provided nearly **\$304,000** to enlarge a platform to accommodate the elevation of electrical and mechanical equipment to a height of 15 feet.

How does that help?

Essential equipment at the courthouse now has enhanced from Gulf of Mexico storm surges and will increase the ability of the courthouse and jail to stay operational.



Northshore Harbor Event Center

What happened?

Slidell's multipurpose event center on Lake Pontchartrain was under water for days following Hurricane Katrina. Flood water destroyed parking lots, sidewalks and loading dock access. The flood control retention pond was compromised and may have contributed to the flood damage of the exterior structures. FEMA funded nearly **\$4 million** to repair the facility including the building and external structures.

What improvement strategy was used?

The storm surge eroded and displaced gravel essential to the center's water retention basin used for flood control. FEMA provided nearly **\$750,000** to replace gravel with larger, heavier and sturdier stones called riprap.

How does that help?

The increased size and weight of riprap protects the crest and perimeter walls of the retention basin against erosion and failure from a similar storm surge.



FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain and improve our capability to prepare for, protect against, respond to, recover from and mitigate all hazards.

For more information, visit <https://beta.fema.gov/Katrina10>. News Desk: 225-907-7534