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Mitigation in Action



The State of Louisiana supports numerous successful mitigation efforts statewide. These include efforts at the local and regional level. This section details some of the successful mitigation efforts implemented in the state including the Louisiana Department of Transportation and Development's (LADOTD) risk mapping, assessment, and planning, the planning and outreach work of the Coastal Protection and Restoration Authority (CPRA), the implementation of LA SAFE - a regional adaptation strategy implemented by the Office of Community Development (OCD) with local partners, a statewide watershed plan called the Louisiana Watershed Initiative (LWI) and continuing state and local efforts to implement the Community Rating System (CRS).

DOTD as a FEMA Cooperating Technical Partner (CTP) for Risk MAP



On March 11, 2015, the Louisiana Department of Transportation and Development (LADOTD) signed a partnership agreement with FEMA Region VI to become a Cooperating Technical Partner (CTP) for Risk MAP. Pam Lightfoot manages this program under the direction of the State Coordinator, Susan Veillon, for the National Flood Insurance Program (NFIP), which resides in the LADOTD Public Works/Water Resources Section within the Engineering Division.

Since becoming a CTP with FEMA Region VI, LADOTD has been diligently planning and working toward the release of updated flood risk information for Louisiana. Historically, LADOTD mapping partners have focused on Risk MAP Phases 1 and 2 while FEMA focused on Phase 3. Moving forward, LADOTD will align our planned project areas with the FEMA Region VI Multi-Year Investment Plan.



PROJECT UPDATE

In 2018, LADOTD's CTP contractor was issued a Task Order to do Phase 2-Analysis & Mapping, work for West Feliciana Parish. That work was then pushed to FEMA to complete Phase 3-Preliminary Flood Map Release, and Phase 4-Map Adoption, to get updated Flood Insurance Rate Maps (FIRM) for the parish. Phase 3 has been completed by FEMA and has now moved on to Phase 4, which is the final phase. West Feliciana Parish's Letter of Final Determination (LFD) is set to go out on January 31, 2024. This gives the communities 6 months to adopt the maps.

In 2019, LADOTD's CTP contractor was issued a Task Order to do Phase 2 work for Allen Parish. That work was then pushed to FEMA to complete Phase 3 and Phase 4 to get updated FIRMs for the parish. On January 9, 2024, FEMA conducted the Consultation Coordination Officer (CCO) Meeting, which is a step in Phase 3. This will trigger the 90-Day Appeal Period. After the appeal period FEMA will make changes, if necessary, and move on to Phase 4.

The CTP contractor has recently completed Phase 1-Discovery, in six (6) watersheds (Lower Red-Lake Iatt, Tensas, Upper Calcasieu, Toledo Bend, Whiskey Chitto, and Bayou Macon) and is currently working on Phase 1 in nine (9) watersheds (Lower Sabine, Cross Bayou, Middle Red-Coushatta, Black Lake Bayou, Bodcau Bayou, Loggy Bayou, Red Chute, Bayou Pierre, and Saline Bayou) along with a Phase 2 project in Rapides Parish.

The Louisiana Watershed Initiative (LWI) has made a significant investment in the development of flood hazard identification information. The hope is that this data can be leveraged through the CTP program to provide FEMA with significant impact to their metrics while providing communities with much needed flood risk data.

Flood Risk &
Resilience Program



**Coastal Protection and
Restoration Authority**

As a part of the 2017 Coastal Master Plan, the Coastal Protection and Restoration Authority (CPRA) began work to implement a Flood Risk and Resilience Program, focused on reducing the impacts of storm surge based flooding on Louisiana's



coastal communities. The program emphasizes planning for and implementation of nonstructural risk reduction projects and recommends the implementation of large-scale nonstructural risk reduction projects. These projects work to support the Coastal Master Plan.

The Flood Risk and Resilience Program works at the local level to support local decision making through parish prioritization of structures to be mitigated. It also promotes higher standards of risk reduction by recommending the elevation of residential structures to 100 year flood depths plus two feet above grade. Unlike other nonstructural programs, it provides reduced cost requirements, with 90% CPRA funding and up to 100% full state funding when certain requirements are met. It further functions as part of the multiple lines of defense strategy, by complementing other structural risk reduction measures, such as levees and flood gates. Additionally, it helps the most vulnerable, by requiring the prioritization of low to moderate income households. The nonstructural projects included in this program are activities that do not stop floodwaters but reduce the impacts of flooding to buildings and infrastructure by floodproofing, elevation, or voluntary acquisition. The program recommends floodproofing for non-residential structures in areas where flood depths are less than 3 feet, elevation for residential structures in areas where flood depths are between 3 and 14 feet, and voluntary acquisition for residential structures in areas where flood depths are greater than 14 feet. See the following graphic from the 2023 Coastal Master Plan that continues to support the program first mentioned in the 2017 Plan. The 2023 Coastal Master Plan argues for a \$50 billion investment in coastal Louisiana over the next 50 years. It includes 61 restoration projects, 12 structural risk reduction projects, and earmarks \$11 billion for nonstructural risk reduction (Wilson, et. al, 2023).

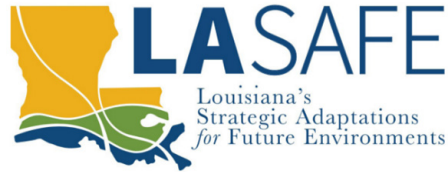


Figure 4.2: Nonstructural Risk Reduction Project Type Visualization.

Figure 2 - https://coastal.la.gov/wp-content/uploads/2023/06/230531_CPRA_MP_Final-for-web_spreads.pdf



LA SAFE - Update



In coastal Louisiana, subsidence, and sea level rise, plus the threat of hurricanes and flooding, combine to create one of the highest rates of relative sea level rise in the world. This relative sea level rise and continual damage from hurricanes and flooding has an acute effect on coastal communities in southeast Louisiana. To help address these issues, the National Disaster Resilience Competition (NDRC), sponsored by the U.S. Department of Housing and Urban Development (HUD) and the Rockefeller Foundation, awarded funding for LA SAFE – Louisiana’s Strategic Adaptations for Future Environments. The LA SAFE program, a partnership between the La Office of Community Development (OCD) and the Foundation for Louisiana (FFL), supported an inclusive public process to identify adaptation strategies to enhance the resilience of coastal Louisiana, and provided funding for at least one project in each of six identified parishes. These parishes were impacted by Hurricane Isaac in 2012 and included Jefferson, Lafourche, Plaquemines, St. John the Baptist, St. Tammany, and Terrebonne.

LA SAFE was discussed in the 2019 Plan Update and a significant amount of progress has been made since then. Here are updates on some of the projects identified through LA SAFE.



Jefferson Parish

Gretna Resilience District Kickstart & Louisiana Wetland Education Center

The Gretna Resilience District was established in 2017 by the Gretna City Council to position resources to promote low-impact design infrastructure features that support community scale flood risk reduction while satisfying long standing demands for other neighborhood amenities. The District centers around improvements to the 25th St. Canal and Gretna City Park. Improvements to the park included greater stormwater retention, enhanced entryways, pathways and signage, additional seating and pavilions, and the installation of a tiered dock that will connect visitors to the water.



Figure 3 - Gretna Resilience District - City Of Gretna - City Of Gretna (gretnala.com)

Status: The Gretna City Park was completed and opened to the public in April 2023.

The Louisiana Wetland Education Center will be an educational asset serving the citizens of the region with programs geared for all ages. The 3,500 square foot facility, located in Jean Lafitte, will promote preservation, conservation, and adaptation related to wetland ecosystems by using the Lafitte area as an outdoor classroom.

Status: The education center is in the construction phase.



St. Tammany Parish

Safe Haven Blue-Green Campus & Trails

Safe Haven Campus provides a collaborative healing environment focused on behavioral health. The Safe Haven Blue-Green Campus & Trails project is a community nonstructural mitigation/flood risk reduction and public services project that will enhance detention capabilities in a critical drainage area adjacent to Cane Bayou, protecting campus facilities and surrounding neighborhood residences.

Status: Construction expected to start at the end of January 2024; Estimated construction end date is August 31, 2024.



St. John the Baptist

Airline & Main Complete Streets

This is a resilient infrastructure and community nonstructural mitigation/flood risk reduction project to provide both green infrastructure and transportation improvements along both Airline Highway and Main Street in LaPlace, LA. This project serves as a model of how the Parish can plan for a future of heightened flood risk in a low risk area by incorporating stormwater management strategies into public infrastructure projects while providing residents with enhanced transportation options. Once complete, the project will consist of streetscape improvements on a 1.6 mile stretch of Airline Highway between Tiffany Drive and Main Street and 0.3 miles of improvements along Main Street between Airline Highway and West 5th. Features will include green infrastructure installations to hold and filter stormwater runoff, sidewalks, permeable parking, native plantings, and bike lanes.


Status: The projected completion date for the Airline and Main Complete Streets project is June 30, 2024. More information can be found at:

<https://www.sjbparish.gov/Departments/Planning-and-Zoning/Resilience-Projects#section-3>.



Terrebonne Parish

Lake Boudreaux Living Mitigation Terraces



This project operates as one of multiple lines of defense that will work together to protect the people and property of Terrebonne Parish to reduce the impacts of storm surge. These improvements are designed to reduce the velocity and wave action of the flow of water above Lake Boudreaux and the surrounding area during future major storm events.

Status: Construction of over 13 miles of marsh terraces is complete; Phase I – vegetation planting is complete; and Phase II – education component of project is underway.



Plaquemines Parish

Harbor of Refuge

The seafood industry is one of the leading employers in Louisiana, producing millions of pounds of shrimp, oysters, crabs, and fish annually. However, as flood risk increases and land loss continues to occur, this industry's viability faces a significant threat – specifically as it relates to vital equipment and infrastructure. This project creates a harbor of refuge for 50+ vessels to shelter in place during disaster events. The parish-operated harbor will incorporate marina amenities, wet-and dry-docking facilities as well as green infrastructure to help manage storm water.



Figure 5 -Harbor of Refuge Design & Construction – Infinity Engineering Consultants, LLC. (infinityec.com)

Status: This project is near completion.



Louisiana Watershed Initiative (LWI)



LOUISIANA
WATERSHED
INITIATIVE
working together for sustainability and resilience

The widespread disaster caused by the Great Floods of 2016 emphasized how vulnerable Louisiana is to floods. In 2018, the state launched the Louisiana Watershed Initiative (LWI), introducing a new watershed-based approach to reducing flood risk in Louisiana, guided by the following principles:

- ▶ **Using scientific tools and data**
- ▶ **Enabling transparent, objective decision-making**
- ▶ **Maximizing the natural function of floodplains**
- ▶ **Establishing regional, watershed-based management of flood risk**

During the 2017 Regular Legislative Session, Senate Resolution 172 (SR172) was passed and directed state agencies to “provide recommendations to establish, implement, and enforce floodplain management plans for each watershed in Louisiana.” An executive order (EO JBE18-16) further defined a level of interagency collaboration through the establishment of the Council on Watershed Management to oversee and coordinate Louisiana’s progress toward a statewide vision for sustainability and resilience. The Council is working to implement a statewide, watershed-based floodplain management program. Since the 2019 Plan Update, significant work has taken place across the following LWI programs:

- ▶ **Local and Regional Projects and Programs**
- ▶ **Regional Capacity Building Grant Program**
- ▶ **Statewide Data and Modeling Program**
- ▶ **State Projects and Programs**
- ▶ **Statewide Buyout Program**
- ▶ **Nature-Based Solutions Program**
- ▶ **Non-Federal Cost Share Assistance Program**
- ▶ **PRO Louisiana**

Project funding, disbursed in three rounds, is designed to encourage regional collaboration and prioritization of mitigation projects. Overall, \$570 million will be awarded over three rounds. Round 1 awarded \$100 million to 28 flood mitigation projects



submitted by local and regional public entities. This round focused on implementation-ready, low-risk projects that address flood risks through a watershed-based approach. As depicted in the below figure, the projects are located around the State.

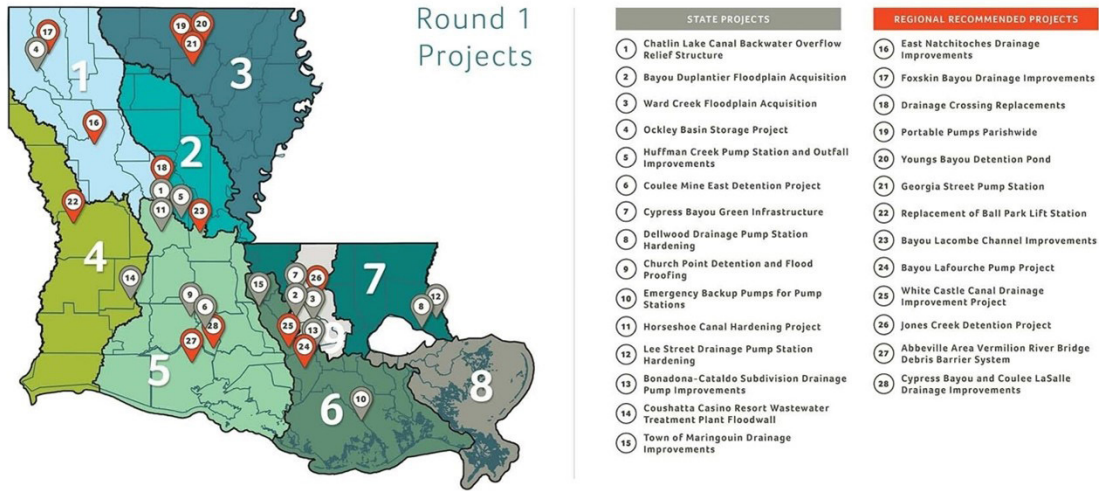


Figure 6 - <https://watershed.la.gov/local-and-regional-projects>

Round 2 project awards were made on a conditional basis at the end of 2023. State agencies reviewed and recommended 40 projects across nine regions, totaling \$221.8 million, to the Council on Watershed Management. The funding awards are contingent on applicants completing, and receiving state approval of a final, completed application. The state will provide technical assistance, including engineering services, such as hydrologic and hydraulic modeling, and project scoping support to complete the applications (<https://watershed.la.gov/local-and-regional-projects>).

Local Community Rating System (CRS) Efforts Continue

The Community Rating System (CRS) is a voluntary program, which provides incentives for communities to implement floodplain management activities that exceed those required by the National Flood Insurance Program (NFIP). The goals of the CRS are to (1) reduce flood damage to insurable property; (2) strengthen and support the insurance aspects of the NFIP; and (3) encourage a comprehensive approach to floodplain management. Beyond flood reduction, another incentive for communities to participate in the CRS is discounts on flood insurance premiums for local policyholders. A community earns points for each CRS activity completed; the number of points determines the amount of the flood insurance premium discount given. Louisiana’s CRS



Program Manager resides within the Public Works/Water Resources Section of the Louisiana Department of Transportation and Development and supports community participation in the CRS from the state level, providing resources, training, and assistance visits to participating communities. Currently, 39 Louisiana communities participate in the CRSA which equals 12% of the NFIP communities statewide. Most of these communities participate in one of the four active CRS users groups located across Southern Louisiana. CRS users groups are informal groups of neighboring cities and parishes who meet regularly to discuss CRS activities and sometimes implement multijurisdictional activities. Often, meetings focus on how one or more communities implemented a specific activity for credit. This section describes those groups and how they support CRS activity in Louisiana.

For more details on the implementation of the CRS in Louisiana, refer to the **2024 Community Rating System Strategy Update** found in the Appendix.

CRAFT

Formed in 2012, the Capital Region Area Floodplain Task-force (CRAFT) continues to be a network of parish and municipal partners that support each other in the implementation of the CRS. CRAFT includes the following communities: Ascension Parish, East Baton Rouge, City of Central, City of Denham Springs, City of Gonzales, City of Walker, and the City of Zachary. Representatives of the Louisiana Department of Transportation and Development



(DOTD), Verisk/ISO, and the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) are also often in attendance at CRAFT meetings. CRAFT meetings are held monthly and are facilitated by the University of New Orleans' Center for Hazards Assessment, Response & Technology (UNO-CHART). Meeting locations are currently rotated among CRAFT member communities, and group members or guest speakers present on various CRS activities. CRAFT communities work on multijurisdictional activities to include the development of a multijurisdictional Program for Public Information (PPI) as well as multiple outreach projects.



FLOAT

The Flood Loss Outreach & Awareness Task force (FLOAT) is a CRS Users Group that provides support and educational resources for local communities who participate in or are interested in participating in the CRS. Essentially, FLOAT is a space for community officials to come together and share their best practices and greatest struggles with the CRS program. In 2011, the member jurisdictions formed FLOAT with support from the State of Louisiana's Floodplain Management Office, the CRS Specialist for the SE Louisiana Region for the Insurance Services Office (ISO), and the University of New Orleans' Center for Hazards Assessment, Response and Technology (UNO-CHART). Since that time, FLOAT continues to work together to increase outreach to the public regarding natural hazard preparation, and to continue planning for sustainable communities. FLOAT currently includes 12 participating communities: St. Tammany Parish, the City of Slidell, the City of Mandeville, the City of Covington, Tangipahoa Parish, St. Charles Parish, St. James Parish, St. John the Baptist Parish, Terrebonne Parish, the City of Houma, Orleans Parish, and Lafourche Parish. FLOAT member communities hold 42% of the NFIP Policies in the State of Louisiana.

FLOAT members have developed educational and outreach projects over the years with input and support from numerous stakeholders. With such aggressive outreach programs spread out over multiple jurisdictions composed of eight parishes and four municipalities, several FLOAT members chose to coordinate and build upon their outreach activities to create a strategy for flood reduction related outreach for the future.

JUMP

Jefferson United Mitigation Professionals (JUMP), our CRS users group, continues to be a valuable tool for all the CRS communities in Jefferson Parish. JUMP helps to facilitate the planning, drafting, and implementation of multiple multijurisdictional plans; collaboratively performs Repetitive Loss Area Analyses, and share appropriate and important resources and information. JUMP acted as a training classroom for non-CRS communities in Jefferson that wanted to (and did) eventually join the CRS, and



JUMP has played a major role in improving class ratings for five CRS communities. More than anything, JUMP has allowed us to depend and rely on each other, professionally and personally, especially in chaotic times like those following major disaster events like Hurricane Ida and the Gretna tornados. Our jobs are stressful and challenging, but we cannot let that prevent us from providing our communities with the services they expect and deserve. JUMP helps us make sure that happens.

RAIN – The Newest CRS Users Group in Louisiana

The CRS User Group, RAIN (Regional Acadiana Information Network), had its first meeting in April 2021. RAIN was created through Region 5 of the Louisiana Watershed Initiative (LWI). The LWI Region 5 Steering Committee, formed in the fall of 2019, originally had three subcommittees: 1) Capital Improvement Program Subcommittee, 2) Governance and Long-Term Sustainability Subcommittee and 3) Floodplain Management Subcommittee. The Floodplain Management Subcommittee's goal was to establish a regional CRS User Group in Acadiana. That goal came to fruition in April 2021.

RAIN is comprised of the 16 parishes in LWI Region 5, but not limited to these parishes. The participants include floodplain managers, floodplain administrators, and emergency operations directors. With regional watershed management comes regional floodplain coordination and management. The main goal of establishing RAIN is to have more municipal and parish participation in CRS to lower flood insurance premiums, educate citizens and elected officials, and help to better manage local flooding. LWI Region 5, now the Acadiana Watershed District, will continue to promote best practices for development for inclusion in the CRS and create public awareness of the CRS program and its benefits.

