

3

State Mitigation Capabilities



Chapter 3: State Mitigation Capabilities

This chapter describes and evaluates the state of Louisiana’s capabilities to reduce risk and increase resilience through the implementation of its mitigation strategy. This section explores both pre- and post-disaster capabilities, including authorities, policies, programs, staff, funding, and other available resources that aid mitigation efforts and demonstrate its commitment to mitigation. Information is also included on non-state stakeholder agents that collaborate with the state to reduce the impact of hazards. This Capability Assessment not only summarizes the resources available to support mitigation, but it also identifies changes since the last plan update as well as opportunities for the state to improve its current capacity to reduce risk. As FEMA recognizes the connections between community resilience and areas such as emergency management, economic development, land use and development, housing, health and social services, infrastructure, and natural and cultural resources, these areas are addressed to the extent possible.

Overall, this chapter addresses the following requirement per the State Mitigation Planning Policy Guide (2022):

S8. Does the plan discuss the evaluation of the state’s hazard management policies, programs, capabilities, and funding sources to mitigate the hazards identified in the risk assessment? [44 CFR § 201.4(c)(3)(ii)]

State Authorities, Policies, and Programs

This section describes the legal framework that supports hazard mitigation in Louisiana. It includes summaries of laws, planning and development authorities, state agencies, programs and policies, and other tools that directly or indirectly support statewide mitigation.

Overall, hazard mitigation directives originate mostly from the Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP) and the Coastal Protection and Restoration Authority (CPRA). Other state entities with planning and development related authority and programs in hazard-prone areas include:



- Department of Administration (DOA) - Office of Facility Planning and Control (FPC): regulation of state-owned property**
- Department of Agriculture & Forestry (LDAF): enforcement of timber laws**
- Department of Environmental Quality (DEQ): permitting programs**
- Department of Natural Resources (DNR): Louisiana Coastal Resources Program (LCRP) and Coastal Use Permit (CUP)**
- Department of Public Safety and Correction (DPS): Uniform Construction Code**
- Department of Transportation and Development (DOTD): Statewide Flood Control Program; National Flood Insurance Program (NFIP) and the Community Rating System (CRS): building permits**
- Department of Wildlife and Fisheries (LDWF): Scenic Rivers Program**

The mitigation related activities of these state agencies as well as others are summarized in the next sections on plans, policies, and programs. According to FEMA, there are four types of hazard mitigation actions or activities. These include

- ▶ Plans and regulations: government authorities or codes that guide the way we develop land and buildings.**
- ▶ Natural systems protection: actions that minimize damage and loss or preserve and restore natural systems.**
- ▶ Structure and infrastructure projects: actions that change structures and infrastructure to protect them from a hazard or remove them from a hazard area.**
- ▶ Education and outreach: actions that teach the public about hazards and mitigation.**

All four types of actions or activities were considered when identifying agencies to include in this assessment.



Plans and Policies

The State of Louisiana has many mitigation related acts, plans, executive orders, and policies that support pre- and post-disaster hazard mitigation. Although some are integrated and take a holistic approach to hazard mitigation throughout the state, there is room for more coordination.

Examples of current mitigation related documents and responsible agencies include:

Louisiana's Comprehensive Master Plan for a Sustainable Coast (CPRA)

Louisiana State Continuity of Operations Plan (GOHSEP)

Louisiana State Emergency Operations Plan (GOHSEP)

Louisiana State Hazard Mitigation Plan (GOHSEP)

Louisiana State Public Assistance Administrative Plan (GOHSEP)

Louisiana State Uniform Construction Code (Department of Public Safety and Correction; Louisiana State Uniform Construction Code Council)

Louisiana Unified Shelter Plan (GOHSEP)

Executive Order NO. JBE 2016-09, signed on April 4, 2016, directs all state agencies to operate in a manner consistent with Louisiana's Comprehensive Master Plan for a Sustainable Coast. This Plan was recently updated in 2023.

The Louisiana Homeland Security and Emergency Assistance and Disaster Act (Louisiana Disaster Act) R.S. 29:721-739 remains the driving legislation that affects preparedness, response, recovery, and mitigation programs. The Act provides structure and empowers the State and local governments to act in these phases of emergency management in the event of a natural or manmade disaster. Overall, the Louisiana Disaster Act defines roles for state, parish, local governments, and non-governmental agencies and requires that emergency management functions be coordinated with those of the federal government and other states. Additionally, the Act provides guidance related to shelters, evacuations and curfews, financing, assistance identification, interstate and intrastate cooperation, liability limitations and immunity of personnel responding to disasters.



The goals of the Louisiana Disaster Act related to mitigation remain as follows:

- ▶ **To reduce vulnerability of people and communities of this state to damage, injury, and loss of life and property resulting from natural or man-made catastrophes, riots, or hostile military or paramilitary action;**
- ▶ **To authorize and provide for cooperation in emergency or disaster prevention, mitigation, preparedness, response, and recovery; and**
- ▶ **To authorize and provide for management systems represented by coordination of activities relating to emergency or disaster prevention, mitigation, preparedness, response, and recovery by agencies and officers of this state, and similar state-local, interstate, and foreign activities in which the state and its political subdivisions may participate.**

Among its many functions, the Louisiana Disaster Act established GOHSEP and its responsibilities. The Act authorizes GOHSEP's Hazard Mitigation Section within its Disaster Recovery Division to administer the Hazard Mitigation Grant Program and the Non-Disaster Hazard Mitigation Assistance Grants. The Hazard Mitigation Section, managed by the State Hazard Mitigation Officer and a Hazard Mitigation Section Chief, conducts outreach to communities, provides technical assistance to applicants, and manages grants to sub-grantees. Sub-grantees include state agencies, local governments, federally recognized Native American tribes, and private non-profit organizations.

Another significant policy is the establishment of the Coastal Zone Boundary in Louisiana Revised Statutes Article 49, §214.24. The Coastal Zone Boundary provides for state management of coastal resources in areas with a high level of coastal influence, ensures consistency with the Coastal Master Plan, and allows for reduction of coastal hazards and wetland impacts through permit review of development proposals. This work is conducted by DNR's Office of Coastal Management - Permits & Mitigation Division and demonstrates Louisiana's strong commitment to coastal sustainability and improves the state's chances for federal funding for mitigation.



Programs

In addition to GOHSEP, various state departments implement programs and activities that support mitigation efforts throughout the state. Many of these programs are summarized here and although the programs often complement each other, they are not all implemented in coordination or support of one another.

Various offices under the Division of Administration (DOA) support mitigation activities throughout the state. These include the following offices:

- ▶ **Facility Planning and Control (FPC)**
- ▶ **Office of Community Development (OCD)**
- ▶ **Office of Risk Management (ORM)**

The Office of Facility Planning and Control (FPC) is responsible for administration of the state's capital outlay budget process, which includes preparation of a preliminary state construction plan. The state construction plan outlines state and local projects for possible funding. FPC is an effective mechanism for influencing the location of state-owned facilities within hazard areas. The DOA's regulation of state-owned property via capital outlay is effective because the funds are appropriated to FPC, and the design of the buildings is under that office's direction. For example, the FPC's location of new construction outside flood hazard areas and/or above base flood elevations actively supports the state's overall efforts to mitigate risk through land development. As the building code authority for state-owned property, FPC also enforces the International Building Code for all state buildings, whether or not they are funded through capital outlay. As the central leasing authority for all state-owned property, FPC further enforces standards in the procurement of leases and has the authority to set the geographic limits for the bidding of leases. FPC has less control over decisions related to construction of state-owned facilities because such construction usually takes place on existing state-owned sites. Decisions for such facilities are usually guided by proximity to existing facilities and similar functional concerns.



The Disaster Recovery Unit within the Division of Administration's Office of Community Development (OCD-DRU) is dedicated to helping Louisiana's residents recover from hurricanes Katrina, Rita, Gustav, Ike, Isaac, Ida and the Great Floods of 2016. As the state's central point for disaster recovery, OCD-DRU manages the most extensive rebuilding efforts in American history, working closely with local, state, and federal partners to ensure that Louisiana's recovery is safer, stronger, and smarter. Since the last plan update, OCD-DRU continues to implement the Restore Louisiana Homeowner Assistance Program in response to the significant flooding that occurred in 2016. Applicants of Restore Louisiana, who are required to elevate their homes, must agree to elevate to either the local jurisdiction's elevation height requirement or two feet above the Advisory Base Flood Elevation (ABFE), whichever is higher. OCD-DRU also administers two new planning efforts, LA SAFE and the relocation of Isle de Jean Charles (see Mitigation in Action for more details on the implementation of LA SAFE). OCD-DRU also oversees the Louisiana Watershed Initiative (LWI) which coordinates funding, data and resources among five state agencies to reduce flood risk through a watershed-based approach (see the Mitigation in Action for details on the implementation of LWI). The Office of Risk Management (ORM) administers the state's self-insurance program. ORM is responsible for managing all state insurance coverage covering property and liability exposure. It offers risk management training resources through conference presentations and on its website.

The National Flood Insurance Program (NFIP) is another tool used by the State to mitigate the impacts of flooding through the regulation of development in vulnerable areas. All parishes in the state of Louisiana participate in the NFIP; a total of 316 communities participate in the program. LA DOTD houses Louisiana's Floodplain Management Office, which is a statewide resource for floodplain management activities to include the NFIP. Floodplain Management Office staff also serve as liaisons with FEMA Region VI and the regional NFIP office. Participation in the NFIP is required for a community to apply for Flood Mitigation Assistance (FMA) funds (administered by GOHSEP). As of January 2024, there were 454,053 NFIP policies in force across the state; a decrease of close to 8% or 35,207 properties from June 2018. LA DOTD also supports the participation of Louisiana communities in the NFIP's Community Rating System (CRS). The CRS is a voluntary program that rewards communities that implement floodplain management activities that go beyond those required by the NFIP. Thirty-nine Louisiana NFIP communities participate in the CRS. These 39 communities represent 78% of the state's NFIP policies – a slight decrease from the last 2019 Plan Update. Table 1 provides information on Louisiana communities that participate in the CRS along with their class ratings and the number of NFIP policies.



Community	Class	Number of Policies
Ascension Parish	7	13,754
City of Baker	9	738
Bossier City	9	3,017
Caddo Parish	8	610
Calcasieu Parish	8	7,493
City of Carencro	7	476
City of Central	7	4,859
City of Covington	8	1,375
City of Denham Springs	8	1,970
East Baton Rouge Parish	7	37,764
City of Gonzales	8	1,278
City of Gretna	6	2,848
City of Houma	7	3,101
Town of Jean Lafitte	7	407
Jefferson Parish	5	73,557
City of Kenner	6	14,221
City of Lafayette	7	7,738
Lafayette Parish	7	7,970
City of Litcher	8	231
City of Mandeville	5	2,931
Morgan City	9	1,286
Orleans Parish	7	74,945
Ouachita Parish	8	1,993
City of Rayne	9	236
City of Ruston	8	86
City of Scott	7	1,051
City of Shreveport	8	4,141
City of Slidell	6	6,111
City of Sorrento	9	290
St. Charles Parish	7	11,405
St. James Parish	8	1,038
St. John the Baptist Parish	7	6,474
St. Tammany Parish	7	35,832
Tangipahoa Parish	8	6,861
Terrebonne Parish	7	10,766
City of Walker	8	1,067
West Baton Rouge Parish	8	972
City of Westwego	7	1,174
City of Zachary	8	1,017
Total		353,083



The State Hazard Mitigation Officer (SHMO) demonstrates support of LA DOTD and NFIP/CRS communities by attending field deployed NFIP/CRS classes, participating in CRS Users group meetings, and plans to participate in substantial damage trainings as well. In addition, the State has again collaborated with the University of New Orleans' Center for Hazards assessment, Response and Technology (UNO-CHART) to update the CRS Strategy for the State, first developed under the 2019 Plan Update. See Appendix for the 2024 CRS Strategy Update.

La DOTD also implements the Statewide Flood Control Program. This program supports flood risk reduction through the construction of flood control infrastructure. With funds allocated annually by the Legislature, La DOTD constructs projects that reduce or eliminate the incidence of flooding or damages in specific areas. Types of projects include channel modifications; levee, canal, and spillway construction; stormwater detention; floodproofing of structures; regulation of floodplains; relocation assistance; or other structural or non-structural measures.

FEMA is working with federal, state, tribal and local partners across the nation to identify flood risk and promote informed planning and development practices to help reduce that risk through the Risk Mapping, Assessment and Planning (Risk MAP) program. Since the last mitigation plan update, the State of Louisiana continues to be an active participant in Risk MAP through the Cooperating Technical Partners (CTP) Program. DOTD – State Floodplain Management Office manages the CTP program with support from contractors. 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. The goal is for data collected through the Louisiana Watershed Initiative (LWI) 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. More information on both programs can be found in Ch. 5 - Mitigation in Action.

In 2015, the Water Institute was also selected as CTP and awarded funding for the following activities: the creation and annual updates of the Institute's CTP 5-year Business Plan, implementation of flood risk mapping through watershed discovery projects, special communication projects, and creation of training materials for university engineering students and local engineering practitioners.

Following Hurricanes Katrina and Rita in 2005, the Coastal Protection and Restoration Authority (CPRA) was established as the single state entity with authority to articulate a clear statement of priorities to achieve comprehensive coastal protection and create a more sustainable Louisiana. The Louisiana State Legislature charged CPRA with responsibility for “hurricane protection and the protection, conservation, restoration, and enhancement of coastal wetlands and barrier shorelines or reefs” throughout southern Louisiana's coastal zone, which is comprised of the contiguous areas subject to storm



or tidal surge. CPRA's mandate is to develop, implement, and enforce a comprehensive, long-term coastal protection and restoration strategy. This is done through the Louisiana's Comprehensive Master Plan for a Sustainable Coast, a document with a 50-year planning horizon (updated every 6 years) and the Integrated Ecosystem Restoration and Hurricane Protection in Coastal Louisiana Annual Plan, a projection of expenditures (updated yearly). CPRA acts in direct response to both legislative and executive orders. According to the Louisiana Revised Statutes §214.1(C),

the State must act to conserve, restore, create, and enhance wetlands and barrier shorelines or reefs in coastal Louisiana while encouraging use of coastal resources and recognizing that it is in the public interest of the people of Louisiana to establish a responsible balance between development and conservation.

Management of renewable coastal resources must proceed in a manner that is consistent with and complementary to the efforts to establish a proper balance between development and conservation. Moreover, Executive Order No. 2016-09 highlights the need for the master plan to drive and expedite state action across agencies. The same need applies to the state's partners at the local and federal levels, consistent with their mandates and missions. Given the coastal erosion emergency facing Louisiana, it is imperative that all government agencies act quickly and in accordance with CPRA's Coastal Master Plan. To help achieve this, CPRA continues to work closely with other entities on coastal issues, including local and parish governments; the state legislature; the Governor's Advisory Commission on Coastal Protection, Restoration, and Conservation; and Louisiana citizens and coastal stakeholders.

Since the last Update, former state representative and former Terrebonne Parish President, Gordon Dove, was appointed as Chair of the CPRA Board. Agency representatives on the CPRA Board include the secretaries of the: Department of Natural Resources (DNR), Department of Transportation and Development (DOTD), Department of Environmental Quality, Department of Wildlife and Fisheries, Department of Economic Development; the commissioners of the Department of Agriculture and Forestry, Department of Insurance, Division of Administration; and the Director of the Governor's Office of Homeland Security and Emergency Preparedness. Additionally, CPRA Board membership includes levee district presidents from coastal Louisiana, and designees of the Senate President and Speaker of the House.

CPRA also administers the Flood Risk and Resilience Program, which is described in Chapter 5 – Mitigation in Action.



Coordination between state and local authorities is vital to the implementation of hazard mitigation activities. For instance, although the Louisiana Uniform Construction Code (UCC) may be enforced at the state level through the Office of State Fire Marshal (upon request for commercial construction), local education regarding the UCC is coordinated and supported by DPS through the Louisiana State Uniform Construction Code Council (LSUCCC). Since it went into effect in 2007, the UCC has had a significant impact on lowering risk by reducing exposure to wind- and flood-related hazards in hazard areas through the direct regulation of land use and development. Additionally, the UCC is adopted on the state level and all parishes are required to provide enforcement of the UCC. There remains an issue regarding a small percentage of local officials are either not aware of UCC-enforcement, or they are inadequately equipped to provide proper enforcement. Continuing education of local officials is still needed.

Since the last plan update the LSUCCC adopted the 2021 International Codes with Louisiana Amendments and the 2020 National Electrical Code with Louisiana Amendments that are in effect for all projects submitted on or after January 1, 2023. Moreover, LSUCCC voted to adopt the freeboard recommendation from the International Residential Code starting on August 1, 2023. While many local jurisdictions do enforce at least one foot of freeboard, this is the first time Louisiana will have a statewide freeboard requirement. Moreover, this will help CRS communities with the new prerequisite for achieving CRS Class 8; communities must adopt and enforce at least one foot of freeboard for residential buildings in all numbered zones of the Special Flood Hazard Area (SFHA).

Many mitigation programs operate effectively and are integral to agency objectives. The permanent protection of wildlife habitat through cash sale acquisitions, donations, or conservation easements in the Land Acquisition Program is a way to help accomplish the DWF's mission and to advance hazard mitigation goals. Since its inception, the program has acquired almost 610,000 acres of wildlife habitat through fee title acquisitions, donations, or land transfers. An additional 516,167 acres are under variable-length, lease agreements between DWF and private corporations, governmental agencies, and non-governmental organizations. The leased properties represent unprotected fish and wildlife habitat. The owned and leased properties collectively make up the 61 Wildlife Management Areas and Refuges managed by DWF. The WMAs and refuges provide a wide variety of habitats that help fulfill DWF's mission. The success of the land acquisition programs depends upon several factors. Funding is the primary limiting factor and therefore, it is extremely important to have a sufficient and sustained funding source. Land prices continue to escalate, particularly within the past few years as competing interests from land development, alternative fuels, and environmental projects such as carbon sequestration have emerged. Unfortunately, DWF's funding source has been static, thereby severely limiting its ability to acquire habitat from willing sellers.



Another program related to mitigation and mission is the Scenic Rivers Program at DWF, which is responsible for preserving, protecting, developing, reclaiming, and enhancing the wilderness qualities, scenic beauties, and ecological regimes of certain free-flowing Louisiana streams. DWF identifies projects requiring Scenic River Permits by (1) conducting routine surveillance of these streams; (2) responding to information provided by the public and local governing authorities; and (3) reviewing notices published by those seeking other state and federal permits for potential impacts to these streams. Channelization, clearing and snagging, channel realignment, reservoir construction, commercial clear cutting of trees within 100 feet of the ordinary low water mark, and use of motor vehicles within the stream are prohibited on designated Scenic Rivers in Louisiana. By imposing restrictive permit conditions, modifying proposed activities in ways that minimize or eliminate impacts, and enforcing the provisions of the Scenic Rivers Act to ensure compliance, DWF has been very effective in preserving vegetated stream buffers, protecting water quality, and minimizing the encroachment of development and protecting the natural character and flood-mitigation capacity of these streams. There are currently approximately 61 streams, rivers and bayous in Louisiana's Natural and Scenic Rivers System, which includes approximately 3,000 linear stream miles.

Established in 1980, the DNR's Louisiana Coastal Resources Program (LCRP) requires permits for activities which have direct and significant impacts on coastal waters. Coastal Use Permit (CUP) applications are processed with respect to the consistency of the proposed use with the LCRP. Impacts to wetlands and coastal protective features, as well as hazard potentials, are elements which are evaluated during the CUP review process. The DNR developed a strategic plan pursuant to state law that requires the creation of performance measures. The LCRP's major performance measure is wetland mitigation. The goal is for the LCRP to obtain 100% compensatory habitat mitigation for permitted wetland impacts. This allows for the state to be eligible for a 10% reduction in its cost-share for major coastal restoration projects. The performance measure is reported to the Legislature on a quarterly basis, is subject to auditing, and is available to the public. The LCRP mitigation performance measure has never been less than 100% and is usually greater than 100%.

The Louisiana Coastal Wetland Conservation Plan also provides documentation of the state's mitigation requirements through the conditional use permit (CUP) process managed by DNR. The documentation takes the form of a biannual report to Congress composed by the U.S. Fish and Wildlife Service, EPA, and USACE. Louisiana's Coastal Zone Inland boundary was modified in the 2012 Regular Session of the Louisiana Legislature with the passage of House Bill 656 (Act 588). Boundary changes are based on the recommendations of a scientific study conducted for and approved by CPRA.



Since the last Plan Update, the Office of the Governor for Coastal Activities directed the development of Louisiana's 2022 Climate Action Plan which lays out measures the state can take to mitigate and adapt to global climate change. As the climate crisis threatens the wellbeing of Louisiana's communities, economies, ecosystems and infrastructure, this plan sets out a path to reduce GHG emissions to net zero by 2050. Decreasing carbon emissions is paramount to minimizing the severity of global climate change, and its impacts on Louisiana's residents. The plan includes diverse strategies including the creation of economic incentives to expand the availability of renewable energy, as well as support for the restoration of wetlands which serve as natural carbon sinks.

In addition to decreasing the state's emissions, the actions proposed have the potential to mitigate anticipated climate risks, such as rising sea levels and increasingly severe storms. One key strategy involves the restoration and conservation of coastal wetlands which play a crucial role in buffering against rising sea levels, hurricanes, and severe storms, benefiting both communities and ecosystems. Another strategy focuses on preserving and expanding natural lands and urban green spaces. The expansion of green infrastructure, such as urban tree canopy, can reduce the heat island effect and improve stormwater management, decreasing localized flooding. In supporting the preservation, conservation and expansion of natural lands and urban green spaces, including coastal wetlands, the Climate Action Plan endeavors to mitigate the consequences of natural hazards such as flooding, heat, hurricanes, and severe storms.

Overall, these findings demonstrate the State's commitment to mitigation, pre- and post-disaster as well as through regulation of development, by numerous state entities. While many of the programs focus on mitigation through coastal zone monitoring, permitting and restoration, a variety of programs focus on risk reduction related to riverine and backwater flooding as well as high winds, wildfires, drought, and other hazards. While many of the programs included in this table are quite successful, many are impacted by limited resources (e.g., staff, funding, and/or technical support).



Agency / **CPRA**

Pre-Disaster

Planning and implementation of structural and nonstructural protection programs and projects throughout coastal Louisiana

- ▶ Quarterly and annual inspection of federal, state, and local levees and other flood protection projects in Louisiana coastal area
- ▶ Local cost-share partner for levee construction and other structural protection measures
- ▶ Provide technical assistance, training, and certification for levee inspectors and levee owners
- ▶ Review of permits on riverine and hurricane protection activities
- ▶ Development and prioritization of nonstructural projects in 2023 Coastal Master Plan
- ▶ Support of land use planning through: CPRA's Flood Risk and Resilience Program, publication of Best Practices Manual for Development in Coastal Louisiana and the Louisiana Coastal Land Use Toolkit

Planning, engineering, design, construction, operation, maintenance, and monitoring of coastal restoration projects

- ▶ State-funded coastal restoration projects (e.g., sediment diversions, marsh creation, barrier island restoration, ridge restoration, hydrologic restoration, shoreline protection, bank stabilization, oyster barrier reefs, and others)
- ▶ Obtains federal cost-share funding for and implements coastal restoration programs, feasibility studies, and projects.

Public outreach and education

- ▶ 4-H Youth Wetlands Education and Outreach Program
- ▶ Coastal Science Assistantship Program (CSAP)
- ▶ LSU Center for River Studies
- ▶ Master Plan Data Viewer

Post-Disaster

- ▶ **None**

Regulation of Development

- ▶ **None**



Agency / **GOHSEP**

Pre-Disaster

- ▶ State administration of federal grant programs
- ▶ Coordination of state and local mitigation planning
- ▶ Community Education and Outreach
- ▶ Training Programs

Post-Disaster


State administration of federal grant programs:

- ▶ HMGP
- ▶ Individual Assistance (IA)
- ▶ Public Assistance (PA)
- ▶ PA/406 HMGP
- ▶ State Emergency Operations Center (SEOC)

Regulation of Development

- ▶ **None**



Agency / **LA Department of Agriculture and Forestry (LDAF)**

Pre-Disaster

- ▶ Fire weather forecasting
- ▶ Soil and water conservation
- ▶ Animal Health Services (food security)
- ▶ Formosan Termite Initiative
- ▶ Louisiana Project Learning Tree (K-12 environmental education)
- ▶ Partner with CPRA in pre-disaster exercises
- ▶ Hazard Mitigation is taken into consideration as part of planning, development projects, and timber management

Post-Disaster

- ▶ Production of reforestation seedlings
- ▶ Livestock recovery information and activities, working with CPRA

Regulation of Development

- ▶ Enforcement of timber laws



Agency / **LA Department of Corrections (DOC)**

Pre-Disaster

- ▶ Mass care and evacuation support for municipal and parish correctional facilities.
- ▶ Loss Prevention Unit (employee injury, property and records loss)
- ▶ State and local emergency management planning (ESF-6, housing, feeding, medical and mental healthcare)

Post-Disaster

- ▶ General Support
- ▶ EOC Task Force
- ▶ DOC HQ Incident Management Center
- ▶ Continued mass care and evacuation support for municipal and parish correctional facilities
- ▶ Backup power generation

Regulation of Development

- ▶ **None**



Agency / **Louisiana Economic Development (LED)**

Pre-Disaster

- ▶ LED's Community Competitiveness initiative offers support to community adherence to emergency preparedness principles including mitigation and emphasizes its importance in an "economic development" capacity building program. Additionally, the Community Development Toolkit provides public information on emergency preparedness and management.

Post-Disaster

- ▶ Post-Disaster Economic Impact
- ▶ Analysis in coordination with LSU
- ▶ Work closely with Small Business Administration (SBA) and Small Business Development Centers to provide post-disaster support

Regulation of Development

- ▶ **None**



Agency / **LA Department of Environmental
Quality (DEQ)**

Pre-Disaster

- ▶ Nuclear Power Plant Off-site
- ▶ Emergency Preparedness Program
- ▶ Radiological Emergency Planning and Response
- ▶ Remediation program
- ▶ Ozone Action
- ▶ Drinking Water Well Protection Program
- ▶ Motor Vehicle Inspection and Enforcement Program
- ▶ EnviroFlash

Post-Disaster

- ▶ Underground Storage Tank and Remediation Division (USTRD)

Regulation of Development

- ▶ Permitting Programs (Air, Water, Waste)



Agency / **LA Department of Health (LDH)**

Pre-Disaster

- ▶ Fight the Bite Program (West Nile Virus)
- ▶ Bioterrorism Unit (training)
- ▶ Pandemic program

Post-Disaster

- ▶ Disaster Case Management
- ▶ Regional Response Team
- ▶ Mobile Field Units
- ▶ Immunization Teams
- ▶ Evacuation Planning Requirement for Licensing Nursing Homes and Home Health Agencies
- ▶ Special Needs Shelters

Regulation of Development

- ▶ **None**



Agency / **LA Department of Insurance (LDI)**

Pre-Disaster

- ▶ Consumer 101 public education includes oversight “watchdog” functions for protecting policyholders with private insurance companies and providing information on the NFIP. Also is proactive in storm mitigation education via press conferences, news releases and a mitigation brochure.
- ▶ Manages the Fortify Homes Program and helps connect homeowners to approved evaluators and contractors.

Post-Disaster

- ▶ Office of Consumer Advocacy receives inquiries and complaints from consumers; prepares and disseminates information to inform and assist consumers; and may provide direct assistance and advocacy via one on one presentations and consultations. Office of Property and Casualty also receives complaints from consumers and seeks to resolve complaints in a timely manner with insurance companies.

Regulation of Development

- ▶ Performs regulatory permit functions and mitigation activities related to the State’s coastal zone; issues Coastal Use permits



Agency / **LA Department of Natural Resources (DNR)**

Pre-Disaster

- ▶ Digital Mapping (Geographic Information System (GIS))
- ▶ Distributes information on causes of coastal and wetland erosion and methodologies to restore coastal and wetland areas
- ▶ Coastal Zone Management program and grants
- ▶ Coastal Wetlands Reserve Program
- ▶ Parish Coastal Wetlands Restoration program
- ▶ Prepares and plans for large scale evacuations and/or disruptions to the public fuel supply

Post-Disaster

- ▶ Surveys coastal restoration projects for damages and seeks FEMA funding as appropriate for needed repairs
- ▶ Digital Mapping (GIS)

Regulation of Development

- ▶ Performs regulatory permit functions and mitigation activities related to the State's coastal zone; issues Coastal Use permits



Agency / **LA Department of Public Safety (DPS)**

Pre-Disaster

- ▶ Provides for the administration of the Louisiana State Uniform Construction Code Council (LSUCCC)
- ▶ Provides assistance to the LSUCCC and supports local education and training of the UCC

Post-Disaster

- ▶ OSFM Urban Search and Rescue and Rapid Response teams assist local efforts
- ▶ Louisiana Traffic Safety Incident Management System (ICS)
- ▶ Oil Spill Coordinator's Office manages the response to oil related environmental disasters

Regulation of Development

- ▶ OSFM reviews all new construction and renovation of existing structures statewide for compliance with life safety, fire protection, and accessibility regulations
- ▶ OSFM provides enforcement of the LSUCC where requested by parishes and municipalities or individuals



Agency / **LA Department of Culture,
Recreation and Tourism (CRT)**

Pre-Disaster

- ▶ Public education on disaster related topics included in agency nature programs

Post-Disaster

- ▶ Extended Recreation Sites operational hours for possible housing locations
Sites used as staging areas

Regulation of Development

- ▶ **None**



Agency / **LA Department of Transportation and Development (DOTD)**

Pre-Disaster

- ▶ State management of NFIP
- ▶ Statewide Flood Control Program
- ▶ Ports Construction and Development Program
- ▶ Dam Safety Program
- ▶ Floodplain Management Program
- ▶ FEMA Cooperating Technical Partner (CTP)
- ▶ Supports CRS communities
- ▶ Educates and encourages working relationships between local NFIP staff and local HMGP POCs
- ▶ Plans and conducts educational workshops for local officials to include substantial damage planning
- ▶ Produces and distributes a quarterly NFIP newsletter
- ▶ LA. Emergency Evacuation Plan, including highway

Post-Disaster

- ▶ Floodplain Management Staff contacts each community within the declared disaster area to discuss the rules and regulations of the NFIP with a special emphasis on the community's post-disaster responsibilities
- ▶ Ports Construction and Development Program
- ▶ Post-disaster damage assessments
- ▶ State Substantial Damage Plan

Regulation of Development

- ▶ Permitting for all state roads and highways including road access and easements
- ▶ Permitting for all new construction and modifications to dams in Louisiana



Agency / **LA Wildlife and Fisheries (WLF)**

Pre-Disaster

- ▶ Environmental Education
- ▶ Commission Courses and Programs
- ▶ Woodworth & Waddill Outdoor Education Centers
- ▶ La Green Schools Program

Post-Disaster

- ▶ Operates staging facilities for Search and Rescue (Enforcement Division)
- ▶ Utilizes building elevation and hardening in reconstruction effort

Regulation of Development

- ▶ Land Acquisition for Wildlife
- ▶ Management Program
- ▶ Scenic Rivers Program



Agency / **LA Division of Administration (DOA)**

Pre-Disaster

- ▶ Construction of state-owned structures via Facility Planning and Control (FPC)
- ▶ Integrating mitigation design features when feasible
- ▶ Enforcement of State and Federal regulations for design and construction of State buildings
- ▶ Loss Prevention Unit provides safety and health audits and training to other state agencies (ORM)
- ▶ Maintenance of Facilities
- ▶ Management database
- ▶ LA SAFE (OCD)
- ▶ Louisiana Watershed Initiative (LWI)

Post-Disaster

- ▶ Disaster Recovery projects for state facilities (FPC)
- ▶ Designated applicant for public assistance to FEMA for all permanent repairs for Katrina and Rita (FPC)
- ▶ Administers Restore Louisiana
- ▶ Homeowner Assistance Program (OCD)
- ▶ Elevation, Pilot Reconstruction, and Individual Mitigation Measures (OCD)
- ▶ Administers CDBG infrastructure grants through the Office of Community Development
- ▶ Information/Business Continuity– (DOA)
- ▶ Disaster Recovery Program (LDRP)

Regulation of Development

- ▶ FPC is the Building Code authority for all State owned buildings (with limited exceptions)
- ▶ FPC administers development activities of all non-DOTD State owned property through administration of the capital outlay bill
- ▶ FPC is the central leasing authority for all State agencies



Hazard Mitigation Capabilities

This section describes the state's hazard mitigation capabilities, which include dedicated staff, technical expertise, and financial resources.

Mitigation Personnel

Since the 2019 Plan Update, GOHSEP continues to streamline internal processes and maintains a relatively small staff. The total number of employees in the Hazard Mitigation Division is 50; this number includes only seven contractors or about 16% of the staff. The relatively low number of contractors on staff reflects the continued building of internal capacity within the Mitigation Division.

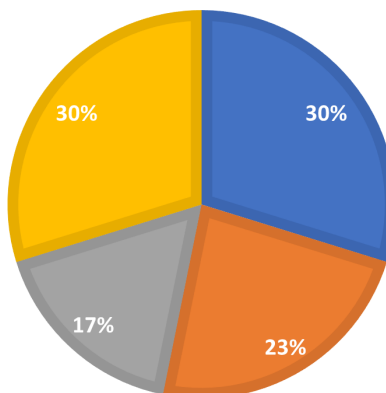
Staff members as are assigned as follows:

Assistant Director:	1 State Staff
Executive Officer:	2 State Staff
Grants Management:	14 State Staff / 0 contractors
Closeout:	10 State Staff / 1 Contract Staff
Technical Services:	5 State Staff / 3 Contract Staff
State Applicant Liaisons:	11 State Staff / 3 contract Staff

The following figure shows the staff divided by focus area. The allocation has not changed significantly since the last update however, the largest groups include grants management and the state applicant liaisons followed by the closeout staff. The technical services team remains the smallest of the groups.

HAZARD MITIGATION STAFF BY FOCUS AREA

■ Grants Management ■ Closeout ■ Technical Services ■ State Applicant Liaisons



Although there are no plans for additional staff at this time, there is still a need for additional capacity to review and perform benefit cost analysis. One issue that has remained constant since the last plan update relates to salary. Salary levels for mitigation staff remain non-competitive with salaries for similar work in the private sector and at federal levels. This remains a challenge for the state to maintain staff levels.

The Mitigation Division continues to participate with FEMA in the annual State Mitigation Program Consultation. The State Hazard Mitigation Officer attends the meeting along with various state agencies. This annual meeting allows GOHSEP to check-in with its FEMA partners and to review strengths and weaknesses. Mitigation staff also attend federal and state sponsored training and professional development classes, in person and online. Staff plan to also participate in Substantial Damage Training with LaDOTD in support of the Substantial Damage planning at the local and state levels.

Although many mitigation programs are implemented at the local level (e.g., floodplain management, Uniform Construction Code (UCC) enforcement, coastal zone management, etc.), the State is prepared to offer technical assistance in various areas related to mitigation, as referenced in the list of mitigation related programs. GOHSEP leads the development, implementation, and maintenance of the Hazard Mitigation Plan Updates. In addition, it is the lead agency in the administration and management of FEMA related grants. Since the last Plan update, GOHSEP continues to use LouisianaHM.com (LAHM), a web-based tool designed to manage all aspects of a State's activities relative to FEMA's Hazard Mitigation Assistance (HMA) grant programs. GOHSEP uses LouisianaHM.com for all open disasters as a tool to manage the relationship between a State or recipient and its applicants or subrecipients, and to serve as a central repository to track all data, documents, and activities relative to a State's fiduciary responsibility to administer FEMA HMA grant funding. This tool also integrates with the State financial system so that payments approved and generated in the system trigger payments from the State to the subrecipients. The system provides audit and history logs, and permissions based workflows and triggers. In addition to staff within GOHSEP, various other state agencies and departments have staff dedicated to mitigation planning and project implementation. These include CPRA, DOTD, DNR, and OCD. Since the 2019 Update, there is a new State Planning Office within the Office of Planning & Budget; the State Planning Manager participated in the 2024 Plan Update process.

Technical Capacity

Various state agencies collect, maintain, and share GIS data that support hazard mitigation activities. These agencies include CPRA, DOTD, DOA, DNR, DEQ and others. Additionally, there are regional entities, universities, and local jurisdictions that maintain and share GIS data with the State. The Louisiana Geographic Information Council (LAGIC), composed of representatives from various state agencies and several local, regional, and federal organizations, also supports the coordination of data. CPRA makes



its coastal protection and restoration data publically available through CIMS (Coastal Information Management System). CIMS provides geospatial, tabular database and document access to CPRA's suite of protection and restoration projects, Coastwide Reference Monitoring System (CRMS) stations, the 2017 Master Plan, geophysical data, and coastal community resiliency information. There are three options for viewing CPRA's spatial data: a main spatial viewer, a coastal project map portal, and the Master Plan Data Viewer. The Master Plan Data Viewer is an interactive tool that connects coastal Louisiana residents with more information about their current and future risk. The Viewer includes data collected for the 2017 Coastal Master Plan and includes information on land change, flood risk and economic damage, coastal vegetation change, social vulnerability, 2017 Coastal Master Plan projects, and resources that direct homeowners to potential actions that can reduce risk. In addition, all the information in the Master Plan Data Viewer is available to download and serve as a powerful resource for hazard mitigation.

Virtual Louisiana is a Google Earth Enterprise platform that serves as an information-sharing gateway for emergency management. It is available to various state agencies but is not widely used. Additional infrastructure to allow for GIS data sharing includes a Geospatial portal built by the Stephenson Disaster Management Institute (SDMI) at Louisiana State University. SDMI also developed a Geospatial portal for GOHSEP; the portal hosts all hazard mitigation related infrastructure data. The Geospatial portal is a one-stop shop; however, this may change as DOTD has also started a new GIS initiative. Although the state's capacity to manage GIS data regarding risk and hazard mitigation continues to improve, areas for improvement still remain since the last plan update. GOHSEP still relies on the GIS capabilities of other state agencies, as there is currently only one part-time staffer with GIS expertise. Overall, recommendations to provide better technical support for future mitigation planning and implementation remain since the last plan update:

- ▶ **Increase skill-specific professional development opportunities for hazard mitigation staff**
- ▶ **Increase funding for GIS and hazard modeling software maintenance and licensing**
- ▶ **Build an internship program to support staffing needs**
- ▶ **Participate in EMAC events to share and implement best practices**



GOHSEP should continue to pursue collaborations with Louisiana universities and other state, regional and local entities to implement these recommendations and to address gaps in its technical capacity. In addition, the State should support the interest of some GOHSEP staff to pursue professional certification under programs such as the Certified Floodplain Management administered by the Association of State Floodplain Managers (ASFPM).

Financial Capacity

The State continues to implement hazard mitigation projects using both federal and state funding sources. These sources vary across federal and state agencies and are summarized below beginning with federal programs upon which the state relies. Much of our funding supports hazard mitigation through coastal programs and projects and are included in this section.

Federal Sources of Funding

FEMA provides funding for eligible mitigation planning and projects through the following Hazard Mitigation Assistance (HMA) programs: the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance (FMA) Program, the Pre-Disaster Mitigation (PDM) Program, and the Building Resilient Infrastructure and Communities (BRIC) Program. HMA funds support the State of Louisiana in its implementation of mitigation activities that protect lives and property, and support hazard resilience across the state. Activities that may be funded under HMA programs are described in FEMA's 2022 Hazard Mitigation Assistance Guidance and are summarized below.

Since the last mitigation plan update, the State of Louisiana has successfully applied for millions of dollars in HMA funds. FEMA's Hazard Mitigation Grant Program (HMGP) provides grants to states and local governments/private non-profits (through the state) to implement long-term hazard mitigation measures following a presidential disaster declaration. The purpose of the program is to reduce the loss of life and property due to natural disasters and to enable implementation of mitigation measures during the recovery phase. Mitigation projects for which the state has received funding include drainage projects, structure elevations, floodwalls, road elevations, property acquisitions, development of mitigation plans, development of land-use regulations, safe rooms, and more.



Figure 2 - Eligible Activities by FEMA program (Hazard Mitigation Assistance Program and Policy Guide, March 23, 2023)

Eligible Activities	HMGP	HMGP Post-Fire	BRIC	FMA
1. Capability and Capacity-Building				
New Plan Creation and Updates	X	X	X	X*
Planning-Related Activities	X	X	X	
Project Scoping/Advance Assistance	X	X	X	X
Financial Technical Assistance				X
Direct Non-financial Technical Assistance			X	
Partnerships			X	X
Codes and Standards	X	X	X	
Innovative Capability and Capacity-Building [^]	X	X	X	
2. Mitigation Projects				
Property Acquisition	X	X	X	X
Structure Elevation	X	X	X	X
Mitigation Reconstruction	X	X	X	X
Localized Flood Risk Reduction	X	X	X	X
Non-Localized Flood Risk Reduction	X	X	X	X ^{**}
Stabilization	X	X	X	X
Dry Floodproofing Non-Residential Building	X	X	X	X
Safe Room	X	X	X	
Wildfire Mitigation	X	X	X	
Retrofit	X	X	X	X [^]
Secondary Power Source	X	X	X	
Warning System (excluding earthquake early warning system)	X	X	X	
Aquifer Recharge, Storage, and Recovery	X	X	X	X ^{***}
Innovative Mitigation Project ^{^^}	X	X	X	X
3. Management Costs	X	X	X	X



The goal of FEMA's Flood Mitigation Assistance (FMA) is to reduce or eliminate claims under the NFIP. FMA provides funding to assist states and NFIP-participating communities in implementing plans, projects, and programs to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insurable under the NFIP. This includes acquisitions and elevations. In 2015, the University of New Orleans, in partnership with the State successfully applied for FMA funds to develop a CRS Strategy for the State of Louisiana as part of the 2019 Plan Update. This Strategy has been updated as part of the 2024 Plan Update (See Appendix).

The state also successfully participates in FEMA's Pre-Disaster Mitigation (PDM) program, designed to reduce overall risk to people and structures from future hazard events, while also reducing reliance on federal funding in future disasters. This program awards planning and project grants focused on reducing future losses before disasters occur. Louisiana continues to compete for PDM funds to update current mitigation plans and to fund projects such as flood and wind retrofits.

Since the last update, Louisiana was awarded funds from the Building Resilient Infrastructure and Communities (BRIC) program which was established as part of Section 1234 of the Disaster Recovery Reform Act. The goal of the BRIC program is to "fund effective and innovative activities that will reduce risk, increase resilience, and serve as a catalyst to encourage the whole community to invest in and adopt mitigation policies."

Another new funding mechanism utilized by Louisiana since the last update is the Flood Mitigation Assistance (FMA) Swift Current (Swift Current) program. Swift Current provides funding to state, local, tribal and territorial governments to mitigate buildings insured through the NFIP following a presidentially declared disaster to reduce flood risk. It focuses funding for individual residential buildings when policyholders are in the recovery process; this differs from the competitive FMA program that grants awards on a competitive basis once a year.

The following table provides a summary of the funding awarded from the aforementioned FEMA programs received by the state of Louisiana since the last Plan update. Most of the funds were awarded by HMGP followed by FMA.



Figure 3 - FEMA Funding Per Program

	Total Project Cost	Federal Obligated
HMGP		
2019	\$505,749,930.92	\$137,666,123.26
2020	\$496,713,834.19	\$40,384,317.65
2021	\$348,573,028.05	\$35,267,266.88
2022	\$204,827,535.41	\$29,495,829.85
2023	\$1,285,836,392.88	\$131,665,265.12
BRIC		
2022	\$1,716,934.00	\$1,290,563.00
2023	\$89,523.00	\$89,523.00
FMA		
2019	\$12,451,579.52	\$12,451,579.52
2020	\$46,497,223.88	49,592,356.78
2021	\$111,535,511.86	\$103,662,865.32
2022	\$87,121,871.67	\$80,062,345.74
2023	\$43,179,863.22	\$42,232,861.00
LPDM		
2023	\$3,787,000.00	\$2,520,000.00
PDM		
2020	\$3,192,217.65	\$2,393,157.75
2021	\$4,871,776.54	\$3,653,832.40
2023	\$14,516,220.00	\$10,887,165.10
Swift Current		
2022	\$3,025,682.00	\$2,978,762.00
2023	\$42,016,284.52	\$35,670,893.62



FEMA's Public Assistance (PA) also includes a mitigation program. PA provides supplemental federal disaster grant assistance for the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain private, non-profit organizations. Eligible projects include debris removal, emergency protective measures, repair to transportation infrastructure, repair to utility infrastructure, and more. PA covers a share of the costs, up to 75%. The PA program contains a mitigation component wherein eligible damaged infrastructure can be mitigated if mitigation measures are deemed cost-effective and environmentally-sound. Since the last Update, the State of Louisiana continued to administer a significant amount of PA funding. The following table summarizes the Public Assistance funds, Category C-G, obligated since the;

Year	Sum of Eligible Amt	Sum of Federal Obligated	Sum of Admin Obligated	Sum of State Obligated	Sum of Total Amount Paid
2019	\$77,612,034.28	\$73,914,476.07	\$205,300.72	\$0.00	\$32,333,239.98
2020	\$72,492,500.79	\$55,382,339.54	\$12,525.81	\$0.00	\$42,023,149.95
2021	\$151,972,200.64	\$136,294,447.48	\$44,800.04	\$0.00	\$57,207,075.15
2022	\$536,330,327.29	\$483,489,423.29	\$68,979.23	\$0.00	\$298,998,242.20
2023	\$1,127,091,886.20	\$1,014,445,605.86	\$16,520.04	\$0.00	\$359,387,756.55
Grand Total	\$1,965,498,949.20	\$1,763,526,292.24	\$348,125.84	\$0.00	\$789,949,463.84

The Emergency Support Function #14, Long Term Recovery (ESF #14 LTRC) provides a structure under the National Response Framework (NRF) to promote successful long-term recoveries for tribes, territories, states, and communities suffering extraordinary damages, where local capacity to implement a recovery process is limited. ESF #14 LTRC provides coordination and technical assistance to support federal, state, and local recovery processes.

The Office of Community Development (OCD) continues to rely on grants awarded by the U.S. Department of Housing and Urban Development to improve quality of life for Louisiana residents. These funds support mitigation through two specific programs - the Community Development Block Grant (CDBG) Program and the Disaster Recovery Unit (DRU). CDBG funds help communities provide a suitable living environment and expand economic opportunities for their residents, particularly in low to moderate income areas. The state's program awards and administers these funds to local governments



for improvements to public facilities, economic development, demonstrated needs projects and LaSTEP projects, which funds materials for local community projects while citizens provide a portion of the labor. OCD-DRU administers disaster recovery grants to help residents recover from hurricanes Katrina, Rita, Gustav, Ike and Isaac. Funds are distributed through other state agencies, local governments, businesses and nonprofit organizations to support and improve housing, infrastructure, economic development, planning and resilience. As such, OCD-DRU manages the most extensive rebuilding effort in American history and works closely with local, state and federal partners to ensure that Louisiana recovers safer, stronger and smarter than before. Since the 2019 Update, Louisiana has been allocated more than \$3.1 billion in federal CDBG-DR funds to administer recovery through homeowner and rental assistance, economic revitalization, infrastructure and community resilience programs for areas impacted by Hurricanes Laura, Delta, Ida and the May 2021 Severe Storms.

Louisiana's Office of Rural Development (ORD), funded through the US Department of Agriculture, has a mission to reach all of Louisiana's rural communities with resources to help them grow and benefit the lives of their citizens. The organization serves as the single point of contact for rural government service providers, state and federal agencies, and individuals interested in rural policies and programs of the State. As such, it can play an integral role in the dissemination of mitigation actions.

State Sources of Funding

The following entities and/or programs are implemented by the State but are funded by state and/ or federal funding sources. Those programs with a statewide reach are listed first, followed by those that focus on Louisiana's coastal area.

The Capital Outlay Section of DOA prepares the capital outlay bill that contains state budget General Fund expenditures for acquiring lands, buildings, equipment, or other properties, or for their preservation or development or permanent improvement. Capital outlay planning and budgeting are directed toward the acquisition or renovation of fixed assets.

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating water quality standards for surface waters. The CWA makes it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained. Violations can result in both civil and criminal prosecutions and penalties.



The Louisiana Department of Environmental Quality (DEQ) administers the Clean Water State Revolving Fund (CWSRF) Program. This program provides financial assistance in the form of low interest loans to finance eligible projects, bringing them into compliance with the requirements of the Clean Water Act. Funding for this program is provided by federal grants and match funds generated by the program's interest and loan repayments. Interest and loan repayments provide a permanent source for funding in future Louisiana projects.

As mentioned, the Department of Transportation and Development (DOTD) houses Louisiana's Floodplain Management Office, which is a statewide resource for floodplain management activities to include the NFIP. This office promotes local government compliance with NFIP regulations to ensure the availability of low-cost flood insurance and to minimize loss of life and property due to catastrophic flooding. This is accomplished through on-site assessments, distribution of a quarterly newsletter, conducting workshops, providing technical assistance on local government ordinance development, and participation in post-disaster flood hazard mitigation activities. The program is jointly funded by FEMA and the state based on a 75:25 cost share.

DOTD's statewide Flood Control Program provides an average of \$10 million annually to parish and municipal governments, levee boards, and drainage districts to support projects that (1) reduce existing flood damages, (2) discourage additional development in flood-prone areas, (3) do not increase upstream or downstream flooding, and (4) have a total construction cost of \$100,000 or more. Eligible projects include channel enlargement, levees, pump stations, relocation of dwellings and business structures, reservoirs, and other flood damage reduction measures.

The Natural Resources Damage Assessment (NRDA) is the legal process used by the Louisiana Oil Spill Coordinator's Office (LOSCO) to seek compensation for damages to waterways, vegetation, or wildlife by oil spills.

Supplemental Environmental Projects (SEPs) are tools used by the EPA and DOJ in civil settlements in environmental enforcement actions. The EPA describes SEPs as environmentally beneficial projects that a violator agrees to undertake when settling an enforcement action. The purpose of a SEP is to provide environmental or public health benefits beyond those required to remediate environmental damages.



The Water Resources Development Act (WRDA) refers to any of a set of public laws enacted by Congress to address various aspects of water resources including environmental, structural, navigation, flood protection, and hydrologic issues. The state is partnered with the USACE on multiple large-scale protection and restoration projects that have been authorized through past WRDA bills. Because WRDA projects are generally dependent upon Congressional appropriation for construction funding, federal fund procurement is the principal issue that affects project implementation. Other issues affecting WRDA projects include cost-share agreement issues with federal partners, land rights issues, and permitting issues.

Berm to Barrier is one of many coastal programs that support CPRA projects. As a result of the Deepwater Horizon oil in 2010, a significant amount of sand was pumped along Louisiana's barrier island chain to create berms to block oil threatening our marshes. CPRA continues to utilize that foundation of sand to build more substantial and sustainable barrier islands that can serve as our first line of defense against storm surge and ecosystem degradation.

The Coastal Protection and Restoration (CPR) Trust Fund was established in 1989 by the Louisiana Legislature to provide a dedicated source of funding for coastal restoration. Income for the fund is a dedication of a percentage of the state's mineral income and severance taxes from oil and gas production on state lands. This trust fund pays for the coastal program's ongoing operating expenses and for continuing state efforts in coastal restoration and protection, including activities such as the CPRA/NRCS/Soil and Water Conservation Committee Vegetation Planting Program, upfront costs for projects funded through federal grant programs (e.g., CIAP, NFWF, and RESTORE), and state cost-share through programs like CWPPRA or LCA. DWH settlement payments dispersed to the state are also deposited in a trust fund that pays for NRDA project implementation and OM&M as well as NRDA-funded adaptive management efforts. CPRA is charged with developing an annual plan for these expenditures, managing, and administering the funds, and implementing coastal restoration and protection activities.

The Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) was authorized by Congress in 1990 to identify, prepare, and fund the construction of coastal wetlands restoration projects. CWPPRA is managed by a Task Force comprised of the State and five Federal agencies, including the EPA, the U.S. Fish and Wildlife Service (USFWS), the Natural Resources Conservation Service (NRCS), the National Marine Fisheries Service (NMFS), and the USACE. The CWPPRA Task Force evaluates projects proposed for inclusion in the CWPPRA program and prepares a ranked list of candidate projects based on cost-effectiveness, longevity, risk, supporting partnerships, public support, and support of CWPPRA goals. From this ranked list, the Task Force annually selects a final list of projects, the Priority Project List, for implementation.



The CPRA/NRCS/Soil and Water Conservation Committee Vegetation Planting Program ensures that native marsh vegetation is planted and monitored throughout the coastal zone of Louisiana. CPRA enters into annual cooperative agreements with the Louisiana Department of Agriculture and Forestry (DAF). It is through the DAF and the Soil and Water Conservation Committee, Soil and Water Conservation Districts (SWCD) that the planting tasks are selected, planned, evaluated, planted, and monitored. Each NRCS District Conservationist provides technical assistance to their respective SWCD throughout the planting task process.

The Gulf of Mexico Energy Security Act (GOMESA), signed into law in 2006, provides four Gulf States, including Louisiana, with a share of revenues generated by oil and gas leasing in specific offshore areas of the Gulf of Mexico. GOMESA funds provide Louisiana with a consistent source of funding to address land loss. Louisiana voters constitutionally dedicated GOMESA funds to coastal protection through the Coastal Protection and Restoration Trust Fund. Louisiana was allocated (in millions of dollars), \$94.7 in 2019, \$155.7 in 2020, \$109.9 in 2021, and \$111.8 in 2022.

Following Hurricane Katrina, the U.S. Army Corps of Engineers constructed the \$14.5 billion Hurricane and Storm Damage Risk Reduction System (HSDRRS). It is one of the most technically advanced coastal flood protection systems in the world. The HSDRRS includes a system of barriers, sector gates, floodwalls, floodgates and levees that provide a veritable “wall” around the New Orleans Metropolitan area. The System significantly reduces the risk of flooding for over 1 million residents from a 100- year storm. The system was authorized by Public Law 109 - 234 - Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 and requires non-federal cost share to pay for operation and maintenance. The state along with the local flood authorities serve as the non-federal sponsors.

As reported in the 2014 Plan, the Deepwater Horizon oil spill of 2010 resulted in significant funding for Gulf Coast states including Louisiana. Under terms set by the US Department of Justice, BP and Transocean agreed to pay \$2.394 billion and \$150 million respectively. These payments were directed to the National Fish and Wildlife Foundation (NFWF) for natural resources restoration in the Gulf of Mexico. Approximately \$1.2 billion of the funds directed to NFWF is dedicated to targeting Louisiana impacts by using the funds to “create or restore barrier islands off the coast of Louisiana and/or to implement river diversion projects on the Mississippi and/or Atchafalaya Rivers for the purpose of creating, preserving and restoring coastal habitat.” The agreement states that NFWF must consider the Coastal Master Plan and the Mississippi River Hydrodynamic and Delta Management Study “to identify the highest priority projects, and to maximize the environmental benefits of such projects.” Final payments were made in January 2018 but work continues to restore coastal areas damaged by the oil spill.



The Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act of 2012 (the RESTORE Act) dedicates 80% of the administrative and civil penalties paid under the Federal Water Pollution Control Act related to the Deepwater Horizon oil spill to the Trust Fund for the restoration and protection of the Gulf Coast region. The RESTORE Act also outlines a structure by which the funds can be utilized to restore and protect the natural resources, ecosystems, fisheries, marine and wildlife habitats, beaches, coastal wetlands, and economy of the Gulf Coast region. The RESTORE Act sets forth the following framework for allocation of the Trust Fund: 35% to be divided equally between the five Gulf States (to include Louisiana) for ecological and economic restoration efforts in the region; 30% through the Gulf Coast Ecosystem Restoration Council to implement a comprehensive plan for ecosystem and economic recovery of the Gulf Coast; 30% for states' plans based on impacts from the Deepwater Horizon oil spill; 2.5% to create the Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Program within the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA); and 2.5% to the Centers of Excellence Research grants, which will each focus on science, technology, and monitoring related to Gulf restoration. In 2017, the Gulf Coast Ecosystem Restoration Council and the U.S. Department of Treasury accepted the CPRA's First Amended Multiyear Implementation and State Expenditure Plan (RESTORE Plan). Since the 2019 Plan Update, a plan was put in place that allocates \$91.034 million to be paid out every year until 2031.

Since the last update, **The Coastal Impact Assistance Program (CIAP)** no longer exists as it was completed in 2017 and is no longer available.

As many of Louisiana's mitigation programs focus on the coastal area, CPRA is integral to the state's mitigation strategy. CPRA projects are funded by numerous sources, federal and/or state, to include Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA), Water Resources Development Act (WRDA), Capital Outlay, CDBG, Natural Resource Damage Assessment (NDRA) Restoration, BP and Transocean Settlements, Restore Act funding, and the Gulf of Mexico Energy Security Act (GOMESA). The following table lists current projects, funding sources, and demonstrates the capacity of the state through CPRA to administer several projects that will play an integral role in hazard reduction across Louisiana's coastal zone.



Figure 4 - CPRA Project and Funding Sources

Project Name	Program	Mobilization Date	Total	State Dollars
Northwest Turtle Bay Marsh Creation	CWPPRA	5/28/2019	\$33,664,671	\$5,049,700
Queen Bess Island Restoration	NRDA	8/5/19	\$18,710,000	\$18,710,000
Grand Isle & Vicinity Breakwater	WRDA	10/1/2019	\$15,000,000	\$5,250,000
40 Arpent Canal Levee-Lockport Company Canal to Butch Hill Station	GOMESA	10/15/2019	\$10,386,418	\$6,500,000
Levee Improvements For Gheens Community	GOMESA	10/17/2019	\$2,127,992	\$1,000,000
Grand Isle Bayside Breakwater	State	10/25/2019	\$6,500,000	\$6,500,000
Magnolia Ridge Levee Lift and Road	GOMESA	1/17/2020	\$3,500,000	\$3,500,000
Island Road Fishing Piers	NRDA	2/3/2020	\$2,400,193	\$2,400,193
Terrebonne Basin Barrier Island and Beach Nourishment	NFWF	2/10/2020	\$160,147,615	\$160,147,615
Cameron-Creole Freshwater Introduction	CWPPRA	2/10/2020	\$26,776,735	\$4,016,510
Des Allemands FDA Pump Station Rehabilitation	GOMESA	2/18/2020	\$762,595	\$400,000
Bayou Terre Aux Boeufs Ridge	State	2/24/20	\$2,000,000	\$2,000,000
West Grand Terre Beach Nourishment and Stabilization	NRDA	3/17/2020	\$102,009,216	\$101,759,216
Pass a Loutre Crevasses NRDA	NRDA	3/19/2020	\$920,260	\$920,260
Pass a Loutre Campgrounds NRDA	NRDA	3/19/2020	\$1,911,740	\$1,911,740
Rockefeller Piers and Signage	NRDA	3/24/2020	\$690,000	\$690,000
Storm Surge Risk Reduction for US-90 at Bayou Folse	GOMESA	4/6/2020	\$1,804,148	\$1,500,000
Bayou Chene Floodgate	GOMESA	5/15/2020	\$80,000,000	\$80,000,000
LaCache Pump Station	State	6/1/2020	\$2,000,000	\$2,000,000
Paradis Canal Gate	RESTORE	6/15/2020	\$5,367,874	\$2,827,150
Grand Bayou Floodgate	GOMESA	7/1/2020	\$20,000,000	\$20,000,000
Atchafalaya Delta WMA Boat Access Project	NRDA	9/28/2020	\$920,450	\$920,450
Violet Canal Repairs	State	11/2/2020	\$500,000	\$500,000
Bayou De Cade Ridge & Marsh Creation	CWPPRA	11/10/2020	\$24,781,121	\$3,717,168



Bayou De Cade Ridge & Marsh Creation	CWPPRA	11/10/2020	\$24,781,121	\$3,717,168
Rockefeller Shoreline Protection	State	11/23/2020	\$9,270,263	\$5,000,000
Rabbit Island Restoration Project	NRDA	12/1/2020	\$16,440,000	\$16,440,000
Pointe-Aux-Chenes Wildlife Management Area Enhancement	NRDA	1/11/2021	\$5,000,000	\$5,000,000
Cameron Meadows Marsh Creation and Terracing	CWPPRA	1/12/2021	\$32,081,560	\$3,296,439
Barataria Basin Ridge and Marsh Creation Spanish Pass Increment	NRDA	3/15/2021	\$100,290,142	\$100,290,142
Section D South Floodwall	GOMESA	3/16/2021	\$1,800,000	\$1,800,000
Middle River Pearl River Wildlife Management Area Boat Launch	NRDA	7/12/2021	\$775,000	\$775,000
North Lafourche Levee Improvements	State	10/30/2021	\$3,000,000	\$3,000,000
Atchafalaya Delta WMA Campground Improvements	NRDA	2/7/2022	\$4,207,807	\$4,207,807
South Grand Chenier Marsh Creation	CWPPRA	3/21/2022	\$23,873,346	\$3,393,502
Biloxi Marsh Living Shoreline	NRDA	7/11/2022	\$69,820,460	\$66,600,000
Freshwater Bayou Shoreline	State	4/24/2023	\$3,671,432	\$3,671,432
South Pass Bird Island Enhancement Project	State	5/22/2023	\$1,893,000	\$725,000
Henderson Lake Water Management Spoil Bank Gapping	State	7/15/2023	\$1,500,000	\$1,500,000

Other Resources

Fortunately, numerous stakeholders support and collaborate with the state to plan for and implement mitigation activities. Activities of these stakeholders enhance the hazard mitigation capabilities of the state. While many are listed in this section, others are highlighted in Chapter 5 – Mitigation in Action.

APA Louisiana, a chapter of the American Planning Association (APA), promotes the practice of community and regional planning in Louisiana by enhancing the effectiveness of planners in impacting public policy. Its' mission is carried out through community service and members services such as newsletters and professional development opportunities such as workshops and an annual state conference. Workshop and conference topics that support statewide mitigation efforts at the state and local levels include managing stormwater, coastal inundation mapping, green infrastructure, resilience and sustainability planning.



The Capital Region Planning Commission (CRPC) is a Council of Governments serving eleven Louisiana parishes: Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Pointe Coupee, St. Helena, Tangipahoa, Washington, West Baton Rouge, and West Feliciana. Through planning and communication, CRPC coordinates and collaboratively addresses regional issues related to transportation, land use, economic development, and the environment. CRPS has worked with FEMA to produce a series of webinars/ seminars focused on flood risk and resiliency. Seemingly, there is room for more coordination and collaboration between the state and regional planning entities, such as CRPC, as they provide training for planning commissioners and planning materials parishes. These trainings and materials could include more information provided by state agencies, such as GOHSEP, on mitigation.

The Coastal Land Use Toolkit, a document made for public use by the non-profit CPEX, has been used in numerous Louisiana communities to guide development code amendments. The Toolkit explains the national and local best management practices (BMPs) in coastal development for Louisiana on a range of scales. It also has recommendations based on geological land types. Strategies in the Toolkit include the following: natural resource protection; wetland restoration; streetscape/ parking lot design, maintaining networks of infrastructure, and designing infrastructure in a resilient way while preserving local character. Specific zoning suggestions include the following: elevation standards, impervious land cover limitations, on-site design of elements to deal with stormwater management, and erosion control standards

Community Rating System Users Groups (CRS Users Groups) are informal organizations that support community representatives interested in the CRS. Four CRS Users groups currently exist in Louisiana including CRAFT, FLOAT, JUMP, and SWIFT. The Capital Region Area Floodplain Taskforce (CRAFT) includes the following communities: Ascension Parish, East Baton Rouge, West Baton Rouge Parish, City of Central, City of Denham Springs, City of Gonzales, City of Walker, and the City of Zachary. The Flood Loss Outreach & Awareness Task force (FLOAT) is made up of communities in the Greater New Orleans area including Lafourche Parish, Orleans Parish, St. Charles Parish, St. John the Baptist Parish, St. Tammany Parish, Tangipahoa Parish, Terrebonne Parish, City of Covington, City of Mandeville, and City of Slidell. The Jefferson United Mitigation Professionals (JUMP) is a Jefferson Parish based group, comprised of Unincorporated Jefferson Parish, the Cities of Gretna, Harahan, Kenner, Westwego, and the Town of Jean Lafitte. RAIN is a new group since the last Plan Update and is composed of SWIFT is composed of 16 parishes of Region 5 of the Louisiana Watershed Initiative.

The Louisiana Business Emergency Operations Center (LABEOC) is a partnership between LED, GOHSEP, and the National Incident Management Systems & Advanced Technologies (NIMSAT) Institute at the University of Louisiana at Lafayette. LABEOC focuses on providing situational awareness and resource support, supporting community recovery, mitigation, and economic stabilization within the business community.



The Louisiana Floodplain Management Association (LFMA) serves as a forum for parish and municipal employees, state and federal officials, and the private sector to meet and share experiences, ideas, and solutions to common flooding problems. LFMA supports comprehensive floodplain management, advocates for coordination among all levels of government and existing programs and provides and promotes training and assistance to local governance. LFMA's activities include an annual state conference, semi-annual workshops, a newsletter known as "Floodwatch", and an active website.

Louisiana Sea Grant, part of the National Oceanic and Atmospheric Administration's (NOAA) National Sea Grant Program, works to promote stewardship of the state's coastal resources through a combination of research, education, and outreach. Louisiana Sea Grant's strategic initiatives address four issues identified as especially pertinent to state, regional, and national needs: healthy coastal ecosystems, sustainable fisheries and aquaculture, resilient communities and economies, and environmental literacy and workforce development. Through educational programs and practical assistance, Sea Grant Extension agents serve Louisiana's coastal population – about 70 percent of the state's residents and connect residents to research in various areas such as coastal and wetland management. Sea Grant publications, such as the Louisiana Homeowners Handbook to Prepare for Natural Hazards, help citizens prepare for natural hazards so that risks to families and property may be reduced.

SBP, formerly known as the St. Bernard Project, is a national organization headquartered in New Orleans, LA. In addition to its recovery work, SBP provides free resilience training for households and businesses in communities facing disaster risks, equipping participants with information and tools to proactively identify and mitigate risks to life safety, property, and finances.

The Stephenson Disaster Management Institute (SDMI) at Louisiana State University conducts applied research with a focus on crisis and disaster management. Following the 2016 flooding, SDMI supported GOHSEP through its Disaster Lab. Specifically, SDMI provided statistical analyses highlighting the potential impacts of reported flooding for more than 20 parishes to help GOHSEP better understand the extent of the flooding. Additionally, SDMI, in partnership with Louisiana Sea Grant, is working to integrate SDMI's Storm Surge Consequence Modeling into LSU's CERA website which provides emergency managers with accurate extends and depths of storm surge. The CERA website is currently being updated. SDMI, in collaboration with GOHSEP, also supports Mitigation Plan updates for parishes throughout Louisiana.

The mission of the Louisiana State University Agricultural Center (LSU AgCenter) is to provide the people of Louisiana with research-based educational information. The LSU AgCenter includes the Louisiana Agricultural Experiment Station, which conducts



agricultural-based research, and the Louisiana Cooperative Extension Service, which extends knowledge derived from research to Louisiana residents. The LSU AgCenter plays an integral role in supporting agricultural industries, enhancing the environment, and improving the quality of life through its 4-H youth, family and consumer sciences, and community development programs. The Louisiana Cooperative Extension Service offers online and in-person classes, seminars, workshops, field days, publications and news releases to residents throughout Louisiana. Education efforts focus on various areas, with sustainable housing and coastal restoration as those that most support mitigation activities. The LSU AgCenter's Louisiana Home and Landscape Resource Center, also known as LaHouse, provides a model for how to build sustainable housing in the Deep South. The AgCenter also developed GIS Web Applications such as a wind speed map and elevation map and flood insurance rate maps, all of which are widely used by local and state officials as well as residents and are accompanied by related floodplain management education. LSU AgCenter's Forestry Management Extension and Research Program conducts research and workshops focused on selection of species and genotypes resilient to drought, ice, and hurricanes. Additionally, LSU AgCenter developed the Resilient Communities and Economies Initiative Economic; administers a Master Farmer Program; and developed a youth program in hazard mitigation. LSU AgCenter staff also participate in local CRS committees and collaborate with LDAF in pre-disaster exercises.

In post-disaster times, LSU AgCenter provides general information and support regarding post-disaster recovery and related mitigation activities generated at the state level, using printed publications, web and social media; distributes recovery info by social media and to local government; state and local personnel participate in high- water mark studies; participates in Ag Crop and Animal commodity losses and damage assessments; provides food safety information; and provides livestock recovery information and activities in coordination with LDAF.

The University of New Orleans' Center for Hazards Assessment, Response & Technology (UNO-CHART) is an applied social science hazards research center that collaborates with and supports Louisiana communities in efforts to achieve disaster resilience with a focus on mitigation. UNO-CHART's applied research efforts address repetitive flooding, disaster mitigation planning, community resilience, coastal restoration, community continuity, risk literacy, risk management, adaptation planning and hurricane evacuation of vulnerable populations. UNO-CHART is currently the leading expert in conducting repetitive flood loss area analyses and facilitates two CRS Users groups.

The Water Institute is a not-for-profit, independent applied research and technical services institution with a mission to help coastal and deltaic communities thoughtfully prepare for an uncertain future. The Institute's focus areas include integrated watershed management; resilience lab; dynamics of rivers, deltas and coasts; ecosystem based management; and human and natural systems modeling. The Water Institute plays



various roles in regional and statewide risk reduction including contributions to the Louisiana Coastal Master Plan; functions as a FEMA Cooperating Technical Partner; conducts real-time flood forecasting, flood modeling, critical facility identification, and nature-based defense planning and design. Technical data provided to the state in support of mitigation activities include 1-D, 2-D, and 3-D models, stakeholder participatory mapping, and real-time flood forecasting.

Conclusion

The State of Louisiana has great capacity to develop and implement mitigation projects that reduce the impact of hazards throughout the state. Louisiana has various plans, policies, and programs that are necessary to implement a successful mitigation program. In addition to the state's own resources, there are many stakeholders mentioned in this Chapter and in Chapter 5 that enhance the state's capacity to implement the mitigation strategy proposed in this plan update.

This State Mitigation Capability Assessment not only summarizes the resources available to support mitigation, it identifies changes since the last plan update as well as opportunities for the state to improve its current capacity to reduce risk. As FEMA recognizes the connections between community resilience and areas such as the economy, housing, health and social services, infrastructure, and natural and cultural resources, these areas are addressed to the extent possible.

Overall, the State of Louisiana continues to demonstrate its capacity to implement its mitigation strategy. Although there are opportunities for improvement mentioned in this chapter, the State of Louisiana has many examples of mitigation success throughout the state. Specific examples of successful mitigation projects are included in Chapter 5 – Mitigation in Action.

