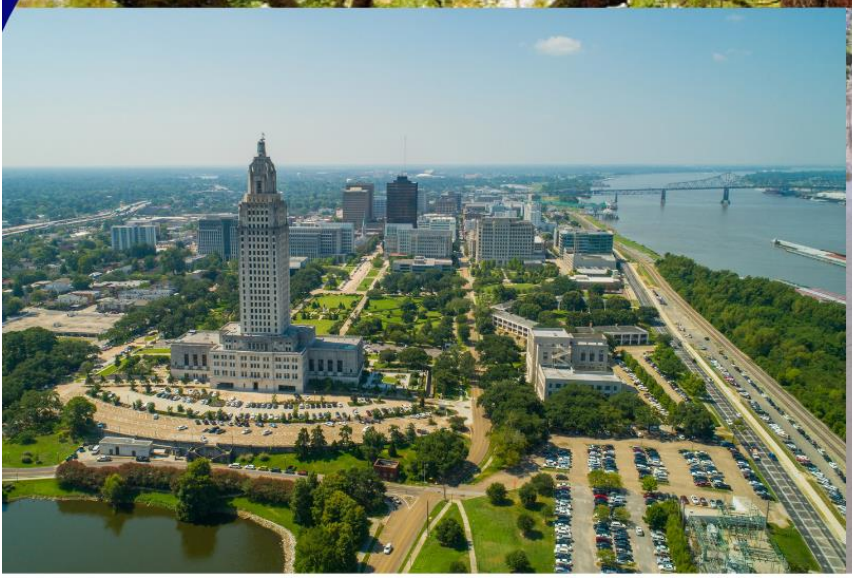
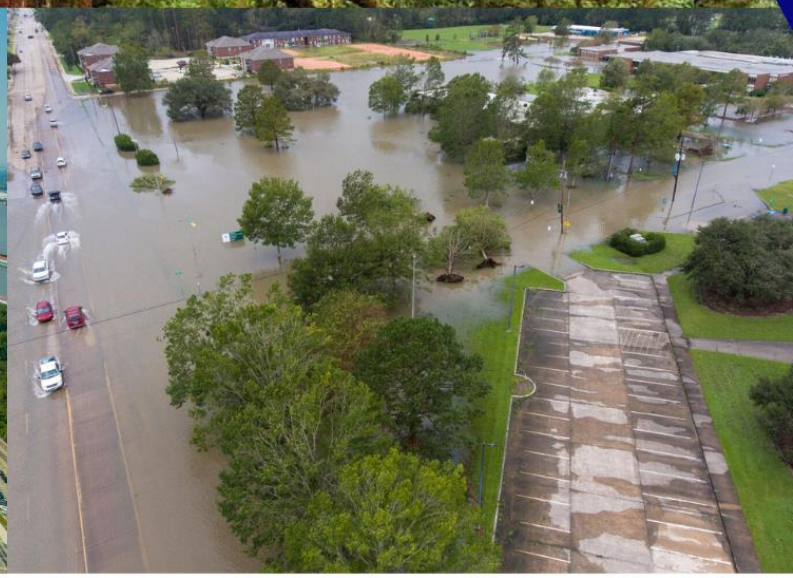
2023 EAST BATON ROUGE PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

BATON ROUGE, BAKER, CENTRAL, ZACHARY, UNINCORPORATED EAST BATON ROUGE PARISH





EAST BATON ROUGE PARISH
MULTI-JURISDICTIONAL
HAZARD MITIGATION PLAN UPDATE

Prepared for:

East Baton Rouge Parish

Prepared by:

Stephenson Disaster Management Institute

Mr. Brant Mitchell, CEM
Mrs. Lauren Morgan, MEPP
Mr. Chris Rippetoe, CFM
Dr. Joseph B. Harris, PhD
Mr. Jason Martin

Louisiana State University – Louisiana Emerging Technology Center
Baton Rouge, LA 70803

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This 2023 East Baton Rouge Parish Hazard Mitigation Plan Update was coordinated by the East Baton Rouge Parish Hazard Mitigation Plan Update Planning Committee, in collaboration with community stakeholders and the general public. The participating jurisdictions are made up of the following communities:

Unincorporated East Baton Rouge Parish
City of Baker
City of Baton Rouge
City of Central
City of Zachary

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Clay Rives	MOHSEP
Harry St. Pierre	MOHSEP
Darcee Bulliard	MOHSEP
Kellie McGaha	MOHSEP
Jacie Maples	GOHSEP
Sharon Weston Broome	EBR Parish Consolidated Government
Darnell Waites	City of Baker
Wade Evans	City of Central
David McDavid	City of Zachary
Rachael Lambert	EBR Dept. of Development
Robert Joyner	EBR Dept. of Development
Warren Kron	Dept. of Information Services

The 2023 East Baton Rouge Parish Hazard Mitigation Plan Update was written by the Stephenson Disaster Management Institute, Louisiana State University. Further comments should be directed to the East Baton Rouge Mayor's Office of Homeland Security and Emergency Preparedness: 3773 Harding Blvd, Baton Rouge, LA 70807.

Contents

1. Introduction

Hazard Mitigation is defined as sustained actions taken to reduce or eliminate long-term risk from hazards and their effects. Hazard Mitigation Planning is the process through which natural hazards that threaten communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies that would lessen the impacts are determined, prioritized, and implemented.

In that regard, this plan (a) documents the East Baton Rouge Parish Hazard Mitigation Plan Update (HMPU) process; (b) identifies natural hazards and risks within the parish; and (c) identifies the parish's hazard mitigation strategy to make East Baton Rouge Parish and its jurisdictions less vulnerable and more disaster resilient. It also includes mitigation project scoping to further identify scopes of work, funding sources, and implementation timing requirements of proposed selected mitigation projects. Information in the plan will be used to help guide and coordinate mitigation and local policy decisions affecting future land use.

The East Baton Rouge Parish Hazard Mitigation Plan is a multi-jurisdictional plan that includes the following jurisdictions which participated in the planning process:

- East Baton Rouge Parish
- City of Baker
- City of Baton Rouge
- City of Central
- City of Zachary

The Federal Emergency Management Agency (FEMA), now under the Department of Homeland Security, has made the reduction of losses related to natural disasters one of its primary goals. The Hazard Mitigation Plan (HMP) and subsequent implementation of recommended projects, measures, and policies is the primary means to achieving these goals. Mitigation planning and project implementation has become even more significant in a post-Katrina/Rita, Gustav/Ike, and Laura/Delta environment in south Louisiana.

This Hazard Mitigation Plan is a comprehensive plan for disaster resiliency in East Baton Rouge Parish. The parish is subject to natural hazards that threaten life and health and have caused extensive property damage. To better understand these hazards and their impacts on people and property, and to identify ways to reduce those impacts, the parish's Office of Homeland Security and Emergency Preparedness undertook this Natural Hazards Mitigation Plan. "Hazard mitigation" does not mean that all hazards are stopped or prevented. It does not suggest complete elimination of the damage or disruption caused by such incidents. Natural forces are powerful and most natural hazards are well beyond our ability to control. Mitigation does not mean quick fixes. It is a long-term approach to reduce hazard vulnerability. As defined by FEMA, "hazard mitigation" means any sustained action taken to reduce or eliminate the long-term risk to life and property from a hazard event.

Every community faces different hazards, and every community has different resources and interests to bring to bear on its problems. Because there are many ways to deal with natural hazards and many agencies that can help, there is no one solution for managing or mitigating their effects. Planning is one of the best ways to correct these shortcomings and produce a program of activities that will best mitigate the impact of local hazards and meet other local needs. A well-prepared plan will ensure that all possible

activities are reviewed and implemented so that the problem is addressed by the most appropriate and efficient solutions. It can also ensure that activities are coordinated with each other and with other goals and programs, preventing conflicts and reducing the costs of implementing each individual activity.

Under the Disaster Mitigation Act of 2000 (42 USC 5165), a mitigation plan is a requirement for Federal mitigation funds. Therefore, a mitigation plan will both guide the best use of mitigation funding and meet the prerequisite for obtaining such funds from FEMA. FEMA also recognizes plans through its Community Rating System (CRS), a program that reduces flood insurance premiums in participating communities. This program is further described in Section Three: Capability Assessment.

This plan identifies activities that can be undertaken by both the public and the private sectors to reduce safety hazards, health hazards, and property damage caused by natural hazards. It fulfills the Federal mitigation planning requirements, qualifies for CRS credit, and provides East Baton Rouge Parish and its communities with a blueprint for reducing the impacts of these natural hazards on people and property.

Geography, Population and Economy

Geography

East Baton Rouge Parish is located in the southeast region of Louisiana and is roughly 90 miles north of the Gulf of Mexico. It is located on the eastern bank of the Mississippi River, making it a major river port and industrial center. The parish is bordered by Iberville and Ascension Parishes to the south, St. Helena and Livingston Parishes to the east, West Baton Rouge and Pointe Coupee Parishes to the west, and East Feliciana Parish to the north. The City of Baton Rouge is the parish seat and Louisiana's state capital. East Baton Rouge Parish consists of an area of approximately 471 square miles, or 301,440 acres.

Figure 1-1: Location of East Baton Rouge Parish in the State of Louisiana

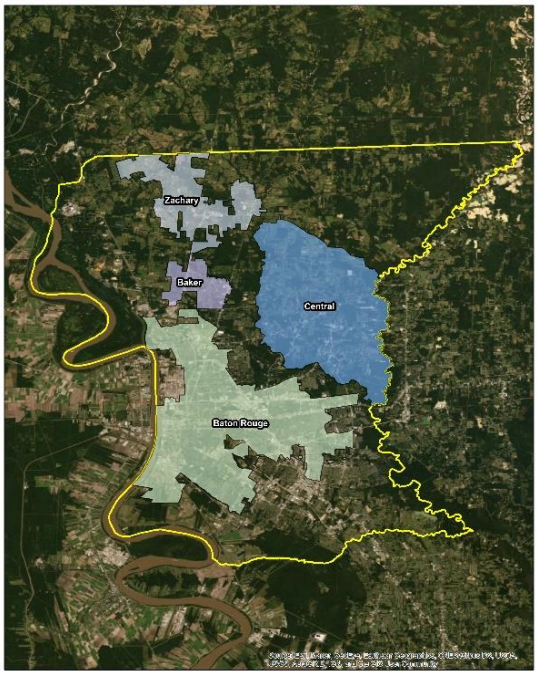

Figure 1-2: Incorporated Jurisdictions within East Baton Rouge Parish

East Baton Rouge Parish weather is a humid subtropical climate. Variations in daily temperature are determined by distance from the Gulf of Mexico and, to a much lesser degree, by differences in elevation. The average annual temperature for the state as a whole is 68ºF. January is typically the coldest month for Louisiana, averaging approximately 54ºF, while July is typically the warmest at an average of 83ºF. Winter months are usually mild with cold spells of short duration. For East Baton Rouge Parish in particular, the summer months are usually quite warm, with an average daily maximum temperature in July and August of 92°F. Winters are typically mild. Snowfall averages zero inches per year. Average annual rainfall for the area is 63 inches. East Baton Rouge Parish is susceptible to the normal weather dangers, such as thunderstorms and flooding, but due to its location within the state and its proximity to the Gulf of Mexico, the parish is highly susceptible to tropical cyclones. Hurricane season lasts from June 1st to November 30th, with most hurricanes forming in August, September, and October.

East Baton Rouge Parish is located in Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) Region 2 (*Figure 1-3*).

As noted previously, East Baton Rouge Parish is located in the south-eastern region of Louisiana.

Figure 1-3: Louisiana Homeland Security Regions

Population

The population of East Baton Rouge Parish is estimated at 456,781 (*2020 census*) with a population percent change from April 1, 2010 – April 1, 2020 of 3.63%. East Baton Rouge Parish is the most populated parish in the state of Louisiana.

Table 1-1: East Baton Rouge Parish Population
(Source: US Census)

	2010 Census	2014 Estimate	2020 Census	Percent Change 2010 - 2020
Total Population	440,178	446,042	456,781	3.63%
Population Density (Pop/Sq. Mi.)	966.6		1,002.8	3.61%
Total Households	187,353	191,203	206,850	9.43%
Persons Per Household			2.64	-------

Economy

The City of Baton Rouge, one of the fastest-growing cities in the South, lies along the eastern banks of the Mississippi River. It's the site of the governor's mansion, the state capitol building, the Louisiana Arts & Science Museum, and the River Center, a venue for large events such as concerts, theater performances, tradeshows, and conferences. Also downtown is the Shaw Center for the Arts, which features art exhibits, performances, and rooftop dining with spectacular views.

In addition to the downtown area, the City of Baton Rouge includes many established neighborhoods, such as Mid-City, with its eclectic mix of local shops and restaurants; the Garden District, with its beautiful older homes; and Spanish Town, known for its flamboyant Mardi Gras parades. Outside the city limits, the parish is booming with both residential and commercial development. Subdivisions, planned communities, upscale shopping areas, restaurants, and new movie theaters are springing up throughout the parish.

East Baton Rouge Parish has two very important natural resources – farmland and timber. The floodplain in the eastern half of the parish provides fertile soil for agriculture. About 26% of the Parish's land is cultivated cropland. The number of farm related jobs is difficult to tabulate because farm labor is seasonal and often temporary. The hilly terrain of the western half of the Parish provides optimum growing conditions for pine trees. (*2017 Census of Agriculture*)

Table 1-2: East Baton Rouge Parish Business Patterns
(Source: US Census, CBP)

Business Description	Number of Establishments	Number of Employees	Annual Payroll ($1,000)
Retail Trade	1,724	25,980	773,145
Manufacturing	307	9,917	786,262
Health Care and Social Assistance	1,424	36,341	1,904,268
Transportation and Warehousing	243	7,578	372,349
Construction	880	45,972	2,666,908
Administration/Support and Waste Management/Remediation Services	632	13,778	540,061
Real Estate and Rental and Leasing	654	3,466	165,638
Wholesale Trade	652	8,999	601,534
Other Services (except Public Administration)	1,228	10,626	366,333
Accommodation and Food Services	1,115	24,679	406,505
Financial and Insurance	927	11,914	1,019,365
Professional, Scientific, and Technical Services	1,789	22,360	1,669,753
Agriculture, Forestry, Fishing and Hunting	9	36	1,575
Mining, Quarrying, and Oil and Gas Extraction	21	63	7,549
Utilities	24	1,154	113,144
Arts, Entertainment, and Recreation	160	3,664	58,099
Educational Services	219	5,769	210,860
Information	200	5,379	279,285
Management of Companies and Enterprises	96	9,755	638,884

Hazard Mitigation

To fully understand hazard mitigation efforts in East Baton Rouge Parish and throughout Louisiana, it is first crucial to understand how hazard mitigation relates to the broader concept of emergency management. In the early 1980s, the newly-created Federal Emergency Management Agency (FEMA) was charged with developing a structure for how the federal, state, and local governments would respond to disasters. FEMA developed the *four phases of emergency management*, an approach which can be applied to all disasters. The four phases are as follows:

- **Hazard Mitigation**—described by FEMA and the Disaster Mitigation Act of 2000 (DMA 2000) as "any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event." The goal of mitigation is to save lives and reduce property damage. Besides significantly aiding in the obviously desirous goal of saving human lives, mitigation can reduce the enormous cost of disasters to property owners and all levels of government. In addition, mitigation can protect critical community facilities and minimize community disruption, helping communities return to usual daily living in the aftermath of disaster. Examples of mitigation involve a range of activities and actions including the following: land-use planning, adoption and enforcement of building codes, and construction projects (e.g., flood proofing homes through elevation, or acquisition or relocation away from floodplains).

- **Emergency Preparedness**—includes plans and preparations made to save lives and property and to facilitate response operations in advance of a disaster event.

- **Disaster Response**—includes actions taken to provide emergency assistance, save lives, minimize property damage, and speed recovery immediately following a disaster.
- **Disaster Recovery**—includes actions taken to return to a normal or improved operating condition following a disaster.

Figure 1-4 illustrates the basic relationship between these phases of emergency management. While hazard mitigation may occur both before and after a disaster event, it is significantly more effective when implemented before an event occurs. This is one of the key elements of this plan and its overall strategy: reduce risk before disaster strikes in order to minimize the need for post-disaster response and recovery.

As *Figure 1-4* demonstrates, mitigation relies on updating in the wake of disaster. This can give the appearance that mitigation is only reactive rather than proactive. In reality, post-disaster revision is a vital component of improving mitigation. Each hazardous event affords an opportunity to reduce the consequences of future occurrences.

Unfortunately, this cycle can be painful for a community. For instance, the risks of disasters that could create catastrophic incidents in Louisiana were thought to be relatively well-understood prior to 2005. However, the impact of the 2005 hurricane season on the Gulf Coast region of the United States prompted a new level of planning and engagement related to disaster response, recovery, and hazard mitigation. Hurricanes Katrina and Rita hit three weeks apart and together caused astonishing damage to human life and to property. The two storms highlighted a hurricane season that spawned 28 storms—unparalleled in American history. The 2005 hurricane season confirmed Louisiana's extreme exposure to natural disasters and both the positive effects and the concerns resulting from engineered flood-protection solutions. More recently, the historically impactful 2020 hurricane season reinforced the need for proper planning and mitigation strategies.

Figure 1-4: The Four Phases of Emergency Management and their Relation to Future Hazard Mitigation (Source: Louisiana State Hazard Mitigation Plan 2014)

The catastrophic tropical events of 2005 and 2020, coupled with the unprecedented flooding events of 2016 have had profound impacts on emergency management and hazard mitigation throughout Louisiana. As detailed later in this document, significant funding has been made available to the State of Louisiana and its parishes for the purpose of hazard mitigation planning. The storms also raised awareness of the importance of hazard mitigation among decision-makers and the general population, which has been particularly important since natural hazards will likely be increasing in frequency, magnitude, and impact in the coming years due to climate change.

General Strategy

During the last update to the Louisiana State Hazard Mitigation Plan, the State Hazard Mitigation Team (SHMT) began a long-term effort to better integrate key components of all plans with hazard mitigation implications in Louisiana to ensure that the programs, policies, recommendations, and implementation strategies are internally consistent. As each of these documents has been adopted by various agencies within the state, the SHMT has worked to incorporate this information into the decision process.

Part of the ongoing integration process is that the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) encourages the parishes and the local communities with independent hazard mitigation plans to utilize the same plan format and methodologies as the State Hazard Mitigation Plan in order to create continuity of information from local to state mitigation plans and programs.

The 2023 East Baton Rouge Parish Hazard Mitigation Plan (HMP) maintains much of the information from the 2017 plan version, but it now incorporates the order and methodologies of the 2019 Louisiana State Hazard Mitigation Plan.

The sections in the 2017 East Baton Rouge Parish HMP were as follows:

- Section One Introduction
- Section Two Hazard Identification and Parish-Wide Risk Assessment
- Section Three Capability Assessment
- Section Four Mitigation Strategy
- Appendix A Planning Process
- Appendix B Plan Maintenance
- Appendix C Essential Facilities
- Appendix D Plan Adoption
- Appendix E State Required Worksheets

This plan update also coheres with the Plain Writing Act of 2010, which requires federal agencies to use clear communication that is accessible, consistent, understandable, and useful to the public. While the State of Louisiana and its political subdivisions are not required to meet such standards, the Act aligns with best practices in hazard mitigation. Since successful hazard mitigation relies on full implementation and cooperation at all levels of government and community, a successful hazard mitigation plan must also be easily used at all of these levels. Nevertheless, the East Baton Rouge Parish Hazard Mitigation Planning Committee recognized the benefits from the successful analysis and mitigation planning executed in previous plan updates, as well as improvements to be made in the 2023 update. This plan update remains coherent with those documents, retaining language and content when needed, deleting it when appropriate, and augmenting it when constructive.

2023 Plan Update

This 2023 plan update proceeds with the previous goals of the East Baton Rouge Parish Hazard Mitigation Plan. The current goals are as follows:

1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities
3. To promote an all-hazards public awareness campaign that focuses on preparing for and mitigating against natural disasters that may affect our community
4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish

This plan update makes a number of textual changes throughout, but the most obvious changes are data related and structural edits. First, the National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information's (NCEI) Storm Events Database was used in the analysis, which provides historical hazard data from 1950 to 2022. The planning committee was also instrumental in providing detailed data where appropriate to more accurately reflect hazard impacts on the parish and jurisdictions. Furthermore, all of the sections were updated to reflect the most current information and the most current vision of the plan update. The most significant changes are the newly developed hazard profiles and risk assessments, as well as the removal of much repetition between sections from the previous plan updates.

The 2023 plan update is organized in the same format as the 2017 update, with one minor change to this 2023 update as outlined below:

- Section One Introduction
- Section Two Hazard Identification and Parish-Wide Risk Assessment
- Section Three Capability Assessment
- Section Four Mitigation Strategies
- Appendix A Planning Process
- Appendix B Plan Maintenance
- Appendix C Critical Facilities
- Appendix D Plan Adoption
- Appendix E State Required Worksheets

Table 1-3: 2023 Plan Update Crosswalk

Plan Update Crosswalk	
2017 Update	**2023 Update**
Section 1: Introduction	Section 1: Introduction
Section 2: Hazard Identification and Parish-Wide Risk Assessment	Section 2: Hazard Identification and Parish-Wide Risk Assessment
Section 3: Capability Assessment	Section 3: Capability Assessment
Section 4: Mitigation Strategy	Section 4: Mitigation Strategy
Appendix A: Planning Process	Appendix A: Planning Process
Appendix B: Plan Maintenance	Appendix B: Plan Maintenance
Appendix C: Essential Facilities	Appendix C: Critical Facilities
Appendix D: Plan Adoptions	Appendix D: Plan Adoptions
Appendix E: State Required Worksheets	Appendix E: State Required Worksheets

Despite numerous changes in this plan update, the plan remains consistent in its emphasis on the types of hazards that pose the most risk to loss of life, injury, and property in East Baton Rouge Parish and its communities. The extent of this risk is dictated primarily by its geographic location. Most significantly, East Baton Rouge Parish remains at high risk of water inundation from various sources, including flooding and tropical cyclone activity. The entire parish is also at high risk of damages from high winds and wind-borne debris. The 2016 flooding events, along with the 2020 hurricane season were both felt heavily in all parts of East Baton Rouge Parish. Other hazards threaten the parish and/or its communities, although not to such great degrees and not in such widespread ways. In all cases, the relative social vulnerability of areas threatened and affected plays a significant role in how governmental agencies and their partners (local, parish, state and federal) prepare for and respond to disasters.

Mitigation efforts related to particular hazards are highly individualized by jurisdiction. Flexibility in response and planning is essential. The most important step forward to improve hazard management capability is to improve coordination and information sharing between the various levels of government regarding hazards.

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2. Hazard Identification and Parish-Wide Risk Assessment

Overview

The risk assessment identifies and assesses a large variety of threats and hazards that impact the parish to identify a strategy for mitigation. Having identified the categories of hazards, emergencies, disasters, and catastrophes, this section describes the risks associated with each identified hazard of concern. Each section (1) defines the hazard, (2) explains how each hazard is measured, (3) provides the hazard's geographic extent, (4) analyzes the previous occurrences, (5) evaluates each hazard's future likelihood of occurrence, and (6) identifies the worst-case scenario for each hazard.

The following steps were used to define the risk of each hazard:

- Profile and describe each hazard
  - Geographic areas most affected by the hazard
  - Previous occurrences and detailed description of events occurring in the last 5 years
  - Occurrence probability/frequency estimates
  - Worst-case scenarios
- Determine exposure to each hazard
  - Exposure was determined by overlaying hazard maps with an inventory of structures, facilities, and systems to determine which of them would be exposed to each hazard
  - Vulnerability analysis for people and infrastructure

The primary source for historical data used throughout the risk assessment is the National Centers for Environmental Information (NCEI) Storm Events Database, which provides natural hazard event data from 1950 to the present. In staying consistent with climatological studies, the NCEI Storm Events Database was evaluated for the past 30 years (1993 – 2022) to determine the future probability and frequency of a hazard occurring when data was available.

Data Limitations

Throughout the planning process, every effort was made to use the best available data. Much of the historic natural-hazard occurrence information was obtained through the National Oceanic and Atmospheric Administration's (NOAA) NCEI. The NCEI Storm Events Database contains data from January 1950 to the present (i.e., within the past few months); however, there are some issues with events recorded prior to 1996. From the years 1950 to 1954, the NCEI Storm Events Database only contains information on tornado events, until thunderstorm wind and hail events were added to the database for the time period between 1955 and 1992. All event types identified in the National Weather Service (NWS) Directive 10-1605 (48 in total) are recorded from 1996 to the present. For these hazards, only 27 years (1996 – 2022) worth of data was evaluated to determine the future probability and frequency of a hazard occurring. Additionally, property damage and crop damage estimates from the NCEI Storm Events Database are a "best guess" based on all available data at the time of the event publication.

The NCEI Storm Events Database does not record all events, only occurrences that have sufficient intensity to cause loss of life, injuries, significant property damage, and/or disruption to commerce. Even then, there are events that may not be covered due to changes in data collection and processing procedures over time. Also, events such as tornadoes or hailstorms rely heavily on eye-witness accounts which creates a reporting bias in urban areas. The inception of Doppler radar in 1980 significantly decreased

this bias, especially for tornado events, but records prior to 1980 are not as detailed or complete as post-1980 records.

The Storm Prediction Center (SPC) National Severe Weather Database browser examines convective/thunderstorm-related winds only and does not include wind data from hurricane or non-thunderstorm wind damage. This data contains measured and estimated wind gusts including wind damage without estimated wind speeds. For many observations, this results in several thunderstorm wind events with no estimated or actual wind speed estimates.

The vulnerability estimates provided herein use the best data currently available, and the methodologies applied result in an approximation of risk. These estimates may be used to understand the relative risk from hazards and potential losses. However, uncertainties are inherent in any loss estimation methodology, arising in part from incomplete scientific knowledge concerning hazards and their effects on the built environment, as well as approximations and simplifications that are necessary for a comprehensive analysis.

Identifying Hazards

Several emergency management and hazard mitigation documents at the state and local levels were reviewed to identify a comprehensive list of hazards that may impact the parish. These documents addressed a wide range of hazards including natural, technological, and human-caused. The two main documents referenced in finalizing the parish's comprehensive hazard list were the 2017 Hazard Mitigation Plan for the parish and the state of Louisiana's 2019 Hazard Mitigation Plan. Typically, unless otherwise noted in the plan, all hazards previously identified in the parish's 2017 Hazard Mitigation Plan and all hazards in the state of Louisiana's 2019 Hazard Mitigation Plan identified as medium or high risk by the state are profiled in the risk assessment. The table below provides a comprehensive list of the hazards selected based on the above criteria.

Table 2-1: Hazard Profile Summary.

Hazard	Profiled in Previous Plan	Considered Medium or High Risk in the State's HM Plan	Profiled in the 2023 Update
Dam Failure	X		+
Drought	X		X
Flooding	X	X	X
Levee Failure	X		+
Thunderstorms (Hail, Lightning, & Wind)	X	X	X
Tornadoes	X	X	X
Tropical Cyclones	X		X
Wildfires	X		X
Winter Weather	X		X

+ Data Deficiency

Historical Context and Previous Occurrences

The following table and figures display past Presidential Declaration occurrences and provides background on the type of natural disasters that have affected the parish in the past.

Table 2-2: Major Disaster Declarations in East Baton Rouge Parish.

Disaster Number	Year	Declaration
208	9/10/1965	Tropical Cyclone – Hurricane Betsy
315	10/13/1971	Tropical Cyclone – Hurricane Edith
374	4/27/1973	Severe Storms and Flooding
534	5/2/1977	Severe Storms and Flooding
584	5/2/1979	Severe Storms and Flooding
679	4/20/1983	Severe Storms and Flooding
833	6/16/1989	Severe Storms and Tornadoes
835	7/17/1989	Tropical Storm Allison
956	8/26/1992	Tropical Cyclone – Hurricane Andrew
978	2/2/1993	Severe Storms and Flooding
1380	6/11/2001	Tropical Storm Allison
1435	9/27/2002	Tropical Storm Isidore
1437	10/3/2002	Tropical Cyclone – Hurricane Lili
3172	2/1/2003	Loss of Space Shuttle Columbia
1548	9/15/2004	Tropical Cyclone – Hurricane Ivan
1603	8/29/2005	Tropical Cyclone – Hurricane Katrina
1607	9/24/2005	Tropical Cyclone – Hurricane Rita
1786	9/2/2008	Tropical Cyclone – Hurricane Gustav
3322	5/6/2011	Flooding
4015	8/18/2011	Flooding
4080	8/29/2012	Tropical Cyclone – Hurricane Isaac
4277	8/14/2016	Severe Storm and Flooding
4458	8/27/2019	Tropical Cyclone – Hurricane Barry
4484	03/24/2020	COVID-19 Pandemic
3535	6/7/2020	Tropical Cyclone – Tropical Storm Cristobal
3538	8/23/2020	Tropical Cyclone – Tropical Storms Laura and Marco
4559	8/28/2020	Tropical Cyclone – Hurricane Laura
3543	9/14/2020	Tropical Cyclone – Hurricane Sally
4570	10/16/2020	Tropical Cyclone – Hurricane Delta
4577	1/12/2021	Tropical Cyclone – Hurricane Zeta
3556	2/18/2021	Severe Winter Weather
4590	3/9/2021	Severe Winter Weather
4606	6/2/2021	Severe Storms, Tornadoes, and Flooding
4611	8/29/2021	Tropical Cyclone – Hurricane Ida
3574	9/13/2021	Tropical Cyclone – Tropical Storm Nicholas

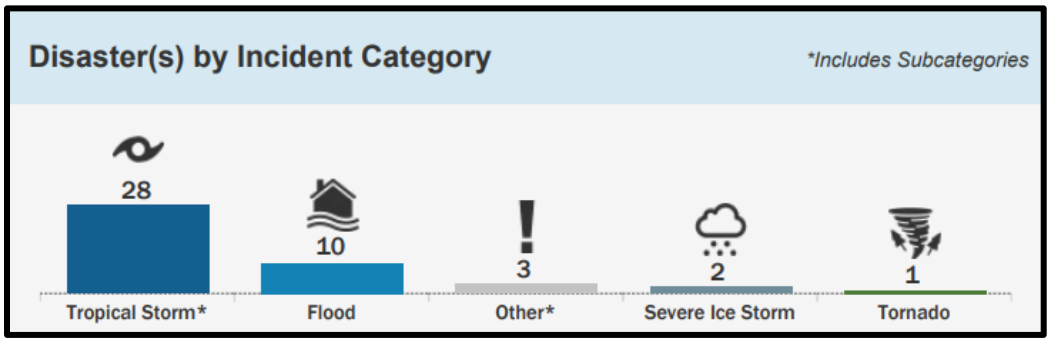


Figure 2-1: Presidential Disaster Declarations for the Parish by Disaster Type Since 1950. (Source: FEMA Disaster Declarations Summary: Open Government Dataset)

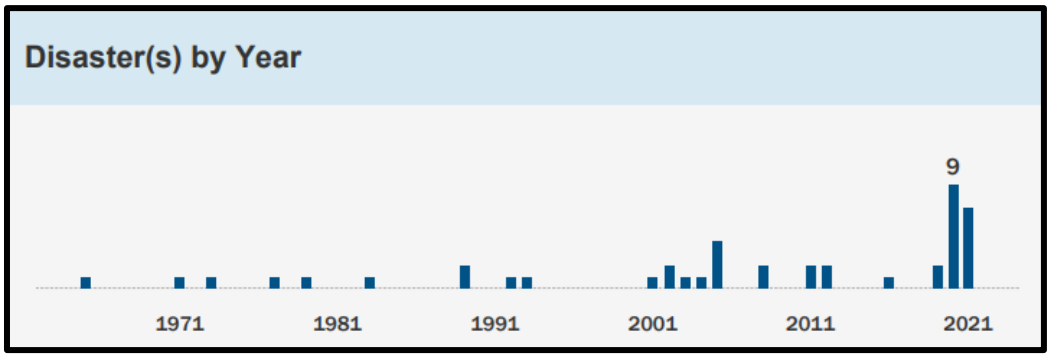


Figure 2-2: Total Presidential Disaster Declarations Yearly Totals for the Parish from 1950 to 2022. (Source: FEMA Disaster Declarations Summary: Open Government Dataset)

Probability of Future Threats and Hazards

The probability of each hazard occurring in the parish is estimated in the following table:

Table 2-3: Probability of Future Hazard Reoccurrence.

Hazard	Probability				
	Unincorporated EBR Parish	Baker	Baton Rouge	Central	Zachary
Dam Failure	< 1%	< 1%	< 1%	< 1%	< 1%
Drought	11%	11%	11%	11%	11%
Flooding	100%	19%	59%	19%	22%
Levee Failure	< 1%	< 1%	< 1%	< 1%	< 1%
Thunderstorms - Hail	100%	100%	100%	100%	100%
Thunderstorms - Lightning	100%	100%	100%	100%	100%
Thunderstorms - Winds	100%	100%	100%	100%	100%
Tornadoes	67%	67%	67%	67%	67%
Tropical Cyclones	50%	50%	50%	50%	50%
Wildfires	< 1%	< 1%	< 1%	< 1%	< 1%
Winter Weather	15%	15%	15%	15%	15%

As shown in the table on the previous page, flooding for the unincorporated area of the parish, hail, lightning, and winds have the highest chance of occurrence in the parish (100%). These are followed by tornadoes (67%), flooding for the incorporated area of Baton Rouge (59%), tropical cyclones (50%), flooding for the incorporated area of Zachary (22%), flooding for the incorporated areas of Baker and Central (19%), winter weather (15%), and drought (11%). Wildfires, dam failure, and levee failure have an annual chance of occurrence of less than 1%.

Assessing Vulnerability Overview

The purpose of assessing vulnerability is to quantify and/or qualify exposure and determine how various threats and hazards impact life, property, the environment, and critical operations of the parish. Vulnerability can be defined as the manifestation of the inherent states of the system (e.g., physical, technical, organizational, cultural) that can be exploited to adversely affect (cause harm or damage to) that system. For example, identifying areas within the parish that suffer disproportional damage compared to other areas, or overall exposure of the entire parish to flooding. Identifying and understanding vulnerability to each threat and hazard provides a strong foundation for developing and pursuing mitigation actions.

The vulnerability analysis builds upon the information provided in the risk assessment by assessing the potential impact and amount of damage that each hazard can inflict on the parish. To complete the analysis, the best available data were collected from a variety of sources, including local, state, and federal agencies and multiple analyses were performed qualitatively and quantitatively. The estimates provided in the vulnerability analysis should be used to understand the relative risk from each hazard and the potential losses that may be incurred; however, uncertainties are inherent in any loss estimation methodology, arising in part from incomplete scientific knowledge concerning specific hazards and their effects on the built environment, as well as incomplete datasets and from approximations and simplifications that are necessary to provide a meaningful and complete analysis. Further, most datasets used in this assessment contain relatively short periods of records, which increases the uncertainty of any statistically based analysis.

Vulnerability Analysis Methodology

To direct the vulnerability analysis effort for the parish, two distinct methodologies were applied. The first includes a quantitative analysis that relies upon the best available data and technology, while the second methodology includes a qualitative analysis that relies more on local knowledge and rational decision-making. Upon completion, the methodologies are combined to create a vulnerability analysis that allows for some degree of quality control and assurance. The quantitative assessment focuses on potential hazard loss estimates, while the qualitative assessment is comprised of a scoring system built around values assigned by the Planning Team as to the likelihood of occurrence, spatial extent, and potential impact of each hazard.

Quantitative Methodology

The quantitative methodology consists of utilizing Hazus, a geographic information system (GIS)-based loss estimation software available from the Federal Emergency Management Agency (FEMA), as well as a detailed GIS-based approach independent of the Hazus software. These two GIS-based studies together help form a quantitative vulnerability analysis. GIS technology allows for the identification and analysis of potentially at-risk community assets such as people and infrastructure. This analysis was completed for hazards that can be spatially defined in a meaningful manner (i.e., hazards with an official and scientifically determined geographic extent) and for which GIS data were readily available.

Additionally, the National Risk Index developed by FEMA was utilized to determine the composite risk to 18 natural hazards to include avalanche, coastal flooding, cold wave, drought, earthquake, hail, heat wave, hurricane, ice storm, landslide, lightning, riverine flooding, strong wind, tornado, tsunami, volcanic activity, wildfire, and winter weather. Historic loss ratio, expected annual loss, and overall risk factor for any of the above hazards which are profiled in this plan are provided in the vulnerability analysis to provide further context on the risk associated to the hazard. Expected annual loss and the risk factor are calculated using the following formulas:

- **Expected Annual Loss** = Exposure * Annualized Frequency * Historic Loss Ratio
- **Risk Index** = Expected Annual Loss * Social Vulnerability / Community Resilience

Qualitative Methodology

The qualitative assessment relies less on technology, but more on historical and anecdotal data regarding expected hazard impacts. The qualitative assessment completed for the parish is based on the Priority Risk Index (PRI). The purpose of the PRI is to prioritize all potential hazards, and then group them into three categories of high, moderate, or low risk to identify and prioritize mitigation opportunities.

Using the PRI is a good practice when prioritizing hazards because it provides a standardized numerical value for which hazards may be compared. Adapted PRI scores were calculated using five categories:

- Probability
- Impact
- Spatial Extent
- Warning Time
- Duration

Each degree of risk is assigned a value (1-4) and a weighting factor. To calculate the Risk Factor for a given hazard, the assigned risk value for each category is multiplied by the weighted factor, and the sum of all five categories is totaled together for a final score. The highest possible Risk Factor is a 4.0.

Risk Factor = [(Probability * 0.25) + (Impact * 0.25) + (Spatial Extent * 0.20) + (Warning Time *0.15) + (Duration * 0.15)]

Priority Risk Index and Hazard Risk

Hazard risk is determined by calculating the Risk Factor for each hazard impacting the parish. A summary of the PRI is found in the table on the following page. The conclusions drawn from the qualitative and quantitative assessments are fitted into three categories based on High, Moderate, or Low designations. Hazards identified as high risk have a risk factor of 2.5 or greater. Risk factors ranging from 2.0 to 2.4 are deemed moderate risk hazards while hazards with risk factors less than 2.0 are considered low risk.

Table 2-4: Summary of the Priority Risk Index.

PRI Category	Degree of Risk			Assigned Weighting Factor
	Level	Criteria	Index Value	
Probability	Unlikely	Less than 1% annual probability	1	25%
	Possible	Between 1 and 10% annual probability	2	
	Likely	Between 10 and 100% probability	3	
	Highly Likely	100% annual probability	4	
Impact	Minor	Very few injuries, if any. Only minor property damage and minimal disruption on quality of life. Temporary shutdown of critical facilities.	1	25%
	Limited	Minor injuries only. More than 10% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than one day.	2	
	Critical	Multiple deaths/injuries possible. More than 25% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for more than a week.	3	
	Catastrophic	High number of deaths/injuries possible. More than 50% of property in affected area damaged or destroyed. Complete shutdown of critical facilities for 30 days or more.	4	
Spatial Extent	Negligible	Less than 1% of area affected	1	20%
	Small	Between 1 and 10% of area affected	2	
	Moderate	Between 10 and 50% of area affected	3	
	Large	Between 50 and 100% of area affected	4	
Warning Time	More than 24 hours	Self-explanatory	1	15%
	12 to 24 hours	Self-explanatory	2	
	6 to 12 hours	Self-explanatory	3	
	Less than 6 hours	Self-explanatory	4	
Duration	Less than 6 hours	Self-explanatory	1	15%
	Less than 24 hours	Self-explanatory	2	
	Less than one week	Self-explanatory	3	
	More than one week	Self-explanatory	4	

Table 2-5: Associated Risk Factor with PRI Value Range.

Risk Factor	PRI Range
High Risk	2.5 to 4.0
Moderate Risk	2.0 to 2.4
Low Risk	0 to 1.9

Vulnerability Analysis (NRI & PRI)

The first table is the overall risk associated with each threat and hazard, with 2.5 or above deemed high risk, 2.0 to 2.4 deemed medium risk, and less than 2.0 deemed low risk. The subsequent table summarizes the composite risk of 18 natural hazards outlined previously on the parish by expected annual loss, social vulnerability, community resilience, and overall risk rating.

Table 2-6: PRI Vulnerability Analysis for the Parish.

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Dam Failure	1	2	1	4	2	**1.85**
Drought	3	2	4	2	3	**2.8**
Flooding	4	4	3	4	3	**3.65**
Levee Failure	1	2	1	4	2	**1.85**
Thunderstorms - Hail	4	2	3	3	1	**2.7**
Thunderstorms - Lightning	4	2	2	3	1	**2.5**
Thunderstorms - Wind	4	2	3	3	1	**2.7**
Tornadoes	3	3	2	4	3	**2.95**
Tropical Cyclones	3	4	4	1	4	**3.3**
Wildfires	1	3	4	1	2	**2.25**
Winter Weather	3	3	4	1	2	**2.75**

Table 2-7: National Risk Index (NRI) Summarization of Risk to Eighteen Natural Hazards for the Parish. (Source: National Risk Index)

Expected Annual Loss	Social Vulnerability	Community Resilience	Overall Risk Rating
Relatively High	Very High	Relatively High	Relatively High

Inventory of Assets for the Entire Parish

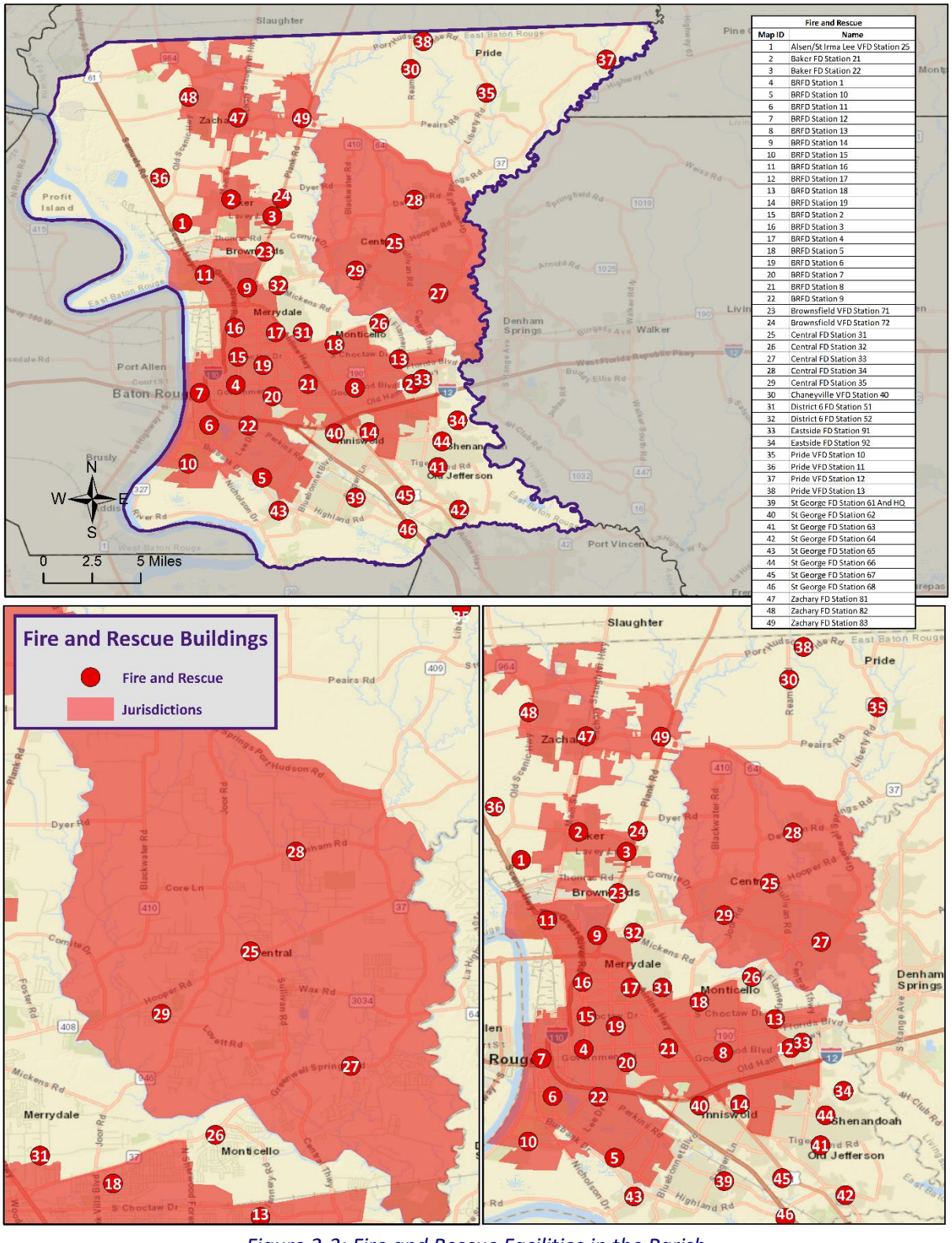
As part of the Risk Assessment, the planning team identified essential facilities throughout the parish. Within the entire planning area, there is an estimated value of $80,345,905,000 in structures throughout the parish. The table below provides the total estimated value for each type of structure by occupancy.

Table 2-8: Estimated Total of Potential Losses throughout the Parish.

Occupancy	EBR Parish Total	Unincorporated Area	Baker	Baton Rouge	Central	Zachary
Agricultural	$142,816,000	$58,910,000	$1,808,000	$67,684,000	$8,024,000	$6,390,000
Commercial	$15,747,167,000	$4,655,414,000	$274,014,000	$9,976,169,000	$399,312,000	$442,258,000
Government	$1,179,537,000	$99,769,000	$16,836,000	$1,028,515,000	$5,215,000	$29,202,000
Industrial	$2,707,651,000	$1,195,734,000	$62,558,000	$1,308,176,000	$95,920,000	$45,263,000
Religion	$1,763,292,000	$388,722,000	$59,458,000	$1,191,892,000	$71,364,000	$51,856,000
Residential	$57,789,290,000	$22,709,827,000	$1,355,155,000	$28,220,169,000	$3,710,012,000	$1,794,127,000
Education	$1,016,152,000	$122,067,000	$12,405,000	$854,128,000	$10,444,000	$17,108,000
Total	**$80,345,905,000**	**$29,230,443,000**	**$1,782,234,000**	**$42,646,733,000**	**$4,300,291,000**	**$2,386,204,000**

Critical Facilities of the Parish

The following figures show the locations and names of the essential facilities within the parish:



Fire and Rescue	
Map ID	Name
1	Alsen/St Irma Lee VFD Station 25
2	Baker FD Station 21
3	Baker FD Station 22
4	BRFD Station 1
5	BRFD Station 10
6	BRFD Station 11
7	BRFD Station 12
8	BRFD Station 13
9	BRFD Station 14
10	BRFD Station 15
11	BRFD Station 16
12	BRFD Station 17
13	BRFD Station 18
14	BRFD Station 19
15	BRFD Station 2
16	BRFD Station 3
17	BRFD Station 4
18	BRFD Station 5
19	BRFD Station 6
20	BRFD Station 7
21	BRFD Station 8
22	BRFD Station 9
23	Brownsfield VFD Station 71
24	Brownsfield VFD Station 72
25	Central FD Station 31
26	Central FD Station 32
27	Central FD Station 33
28	Central FD Station 34
29	Central FD Station 35
30	Chaneyville VFD Station 40
31	District 6 FD Station 51
32	District 6 FD Station 52
33	Eastside FD Station 91
34	Eastside FD Station 92
35	Pride VFD Station 10
36	Pride VFD Station 11
37	Pride VFD Station 12
38	Pride VFD Station 13
39	St George FD Station 61 And HQ
40	St George FD Station 62
41	St George FD Station 63
42	St George FD Station 64
43	St George FD Station 65
44	St George FD Station 66
45	St George FD Station 67
46	St George FD Station 68
47	Zachary FD Station 81
48	Zachary FD Station 82
49	Zachary FD Station 83

Figure 2-3: Fire and Rescue Facilities in the Parish.

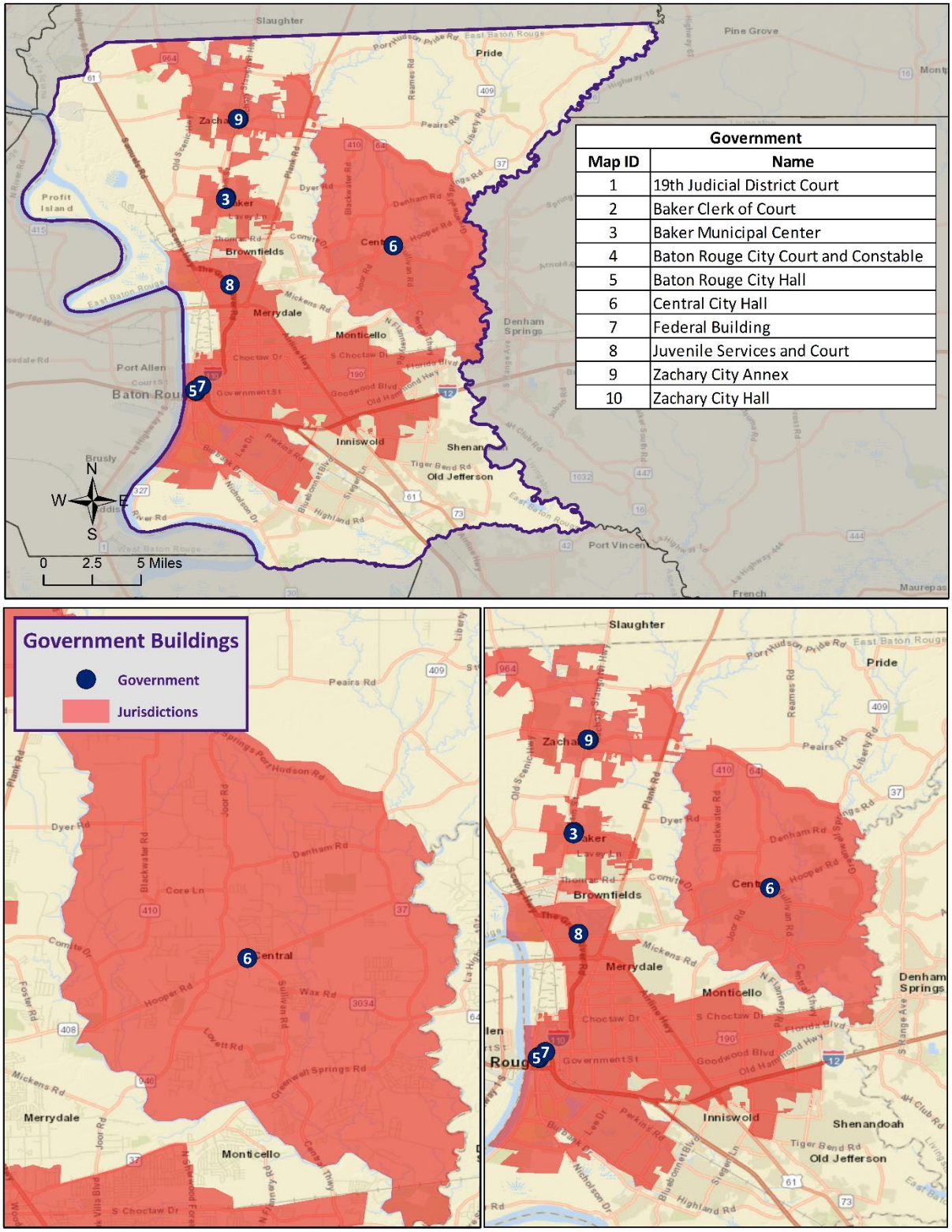
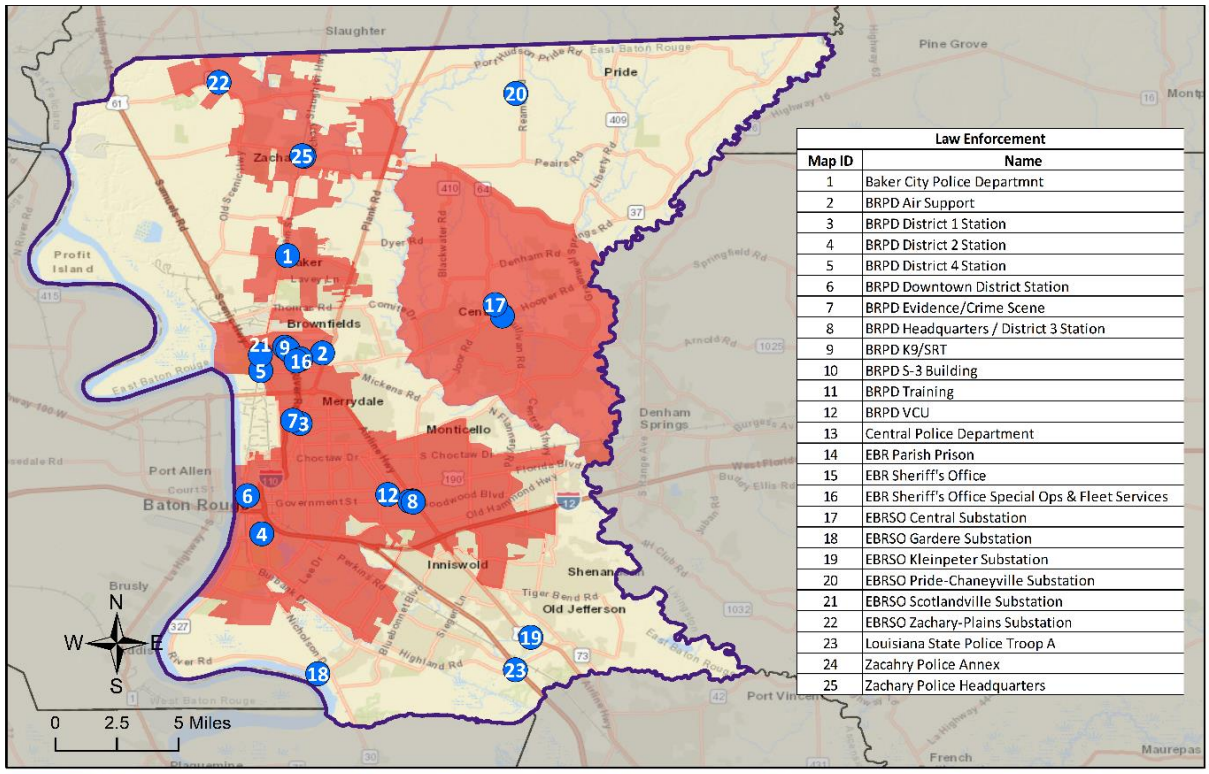


Figure 2-4: Government Buildings in the Parish.



Law Enforcement	
Map ID	Name
1	Baker City Police Departmnt
2	BRPD Air Support
3	BRPD District 1 Station
4	BRPD District 2 Station
5	BRPD District 4 Station
6	BRPD Downtown District Station
7	BRPD Evidence/Crime Scene
8	BRPD Headquarters / District 3 Station
9	BRPD K9/SRT
10	BRPD S-3 Building
11	BRPD Training
12	BRPD VCU
13	Central Police Department
14	EBR Parish Prison
15	EBR Sheriff's Office
16	EBR Sheriff's Office Special Ops & Fleet Services
17	EBRSO Central Substation
18	EBRSO Gardere Substation
19	EBRSO Kleinpeter Substation
20	EBRSO Pride-Chaneyville Substation
21	EBRSO Scotlandville Substation
22	EBRSO Zachary-Plains Substation
23	Louisiana State Police Troop A
24	Zacahry Police Annex
25	Zachary Police Headquarters

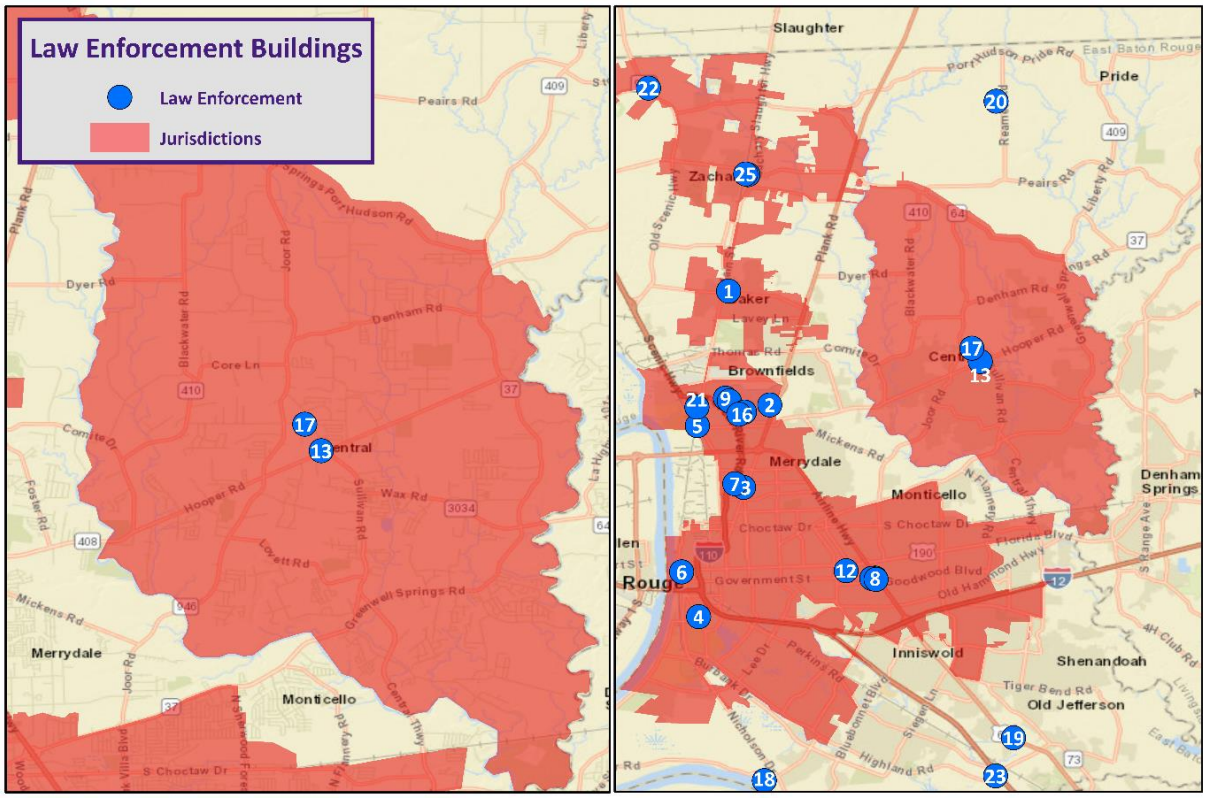


Figure 2-5: Law Enforcement in the Parish.

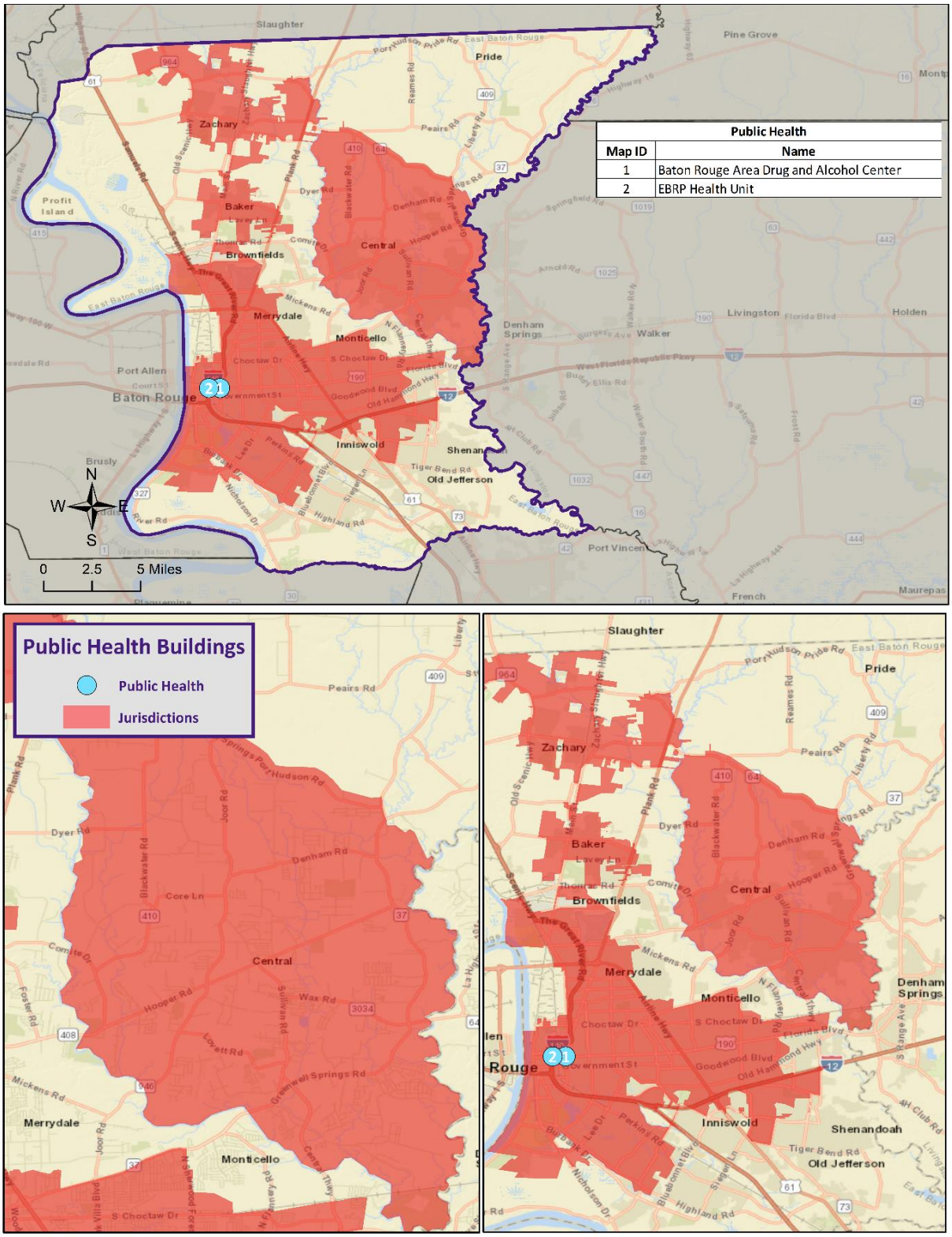
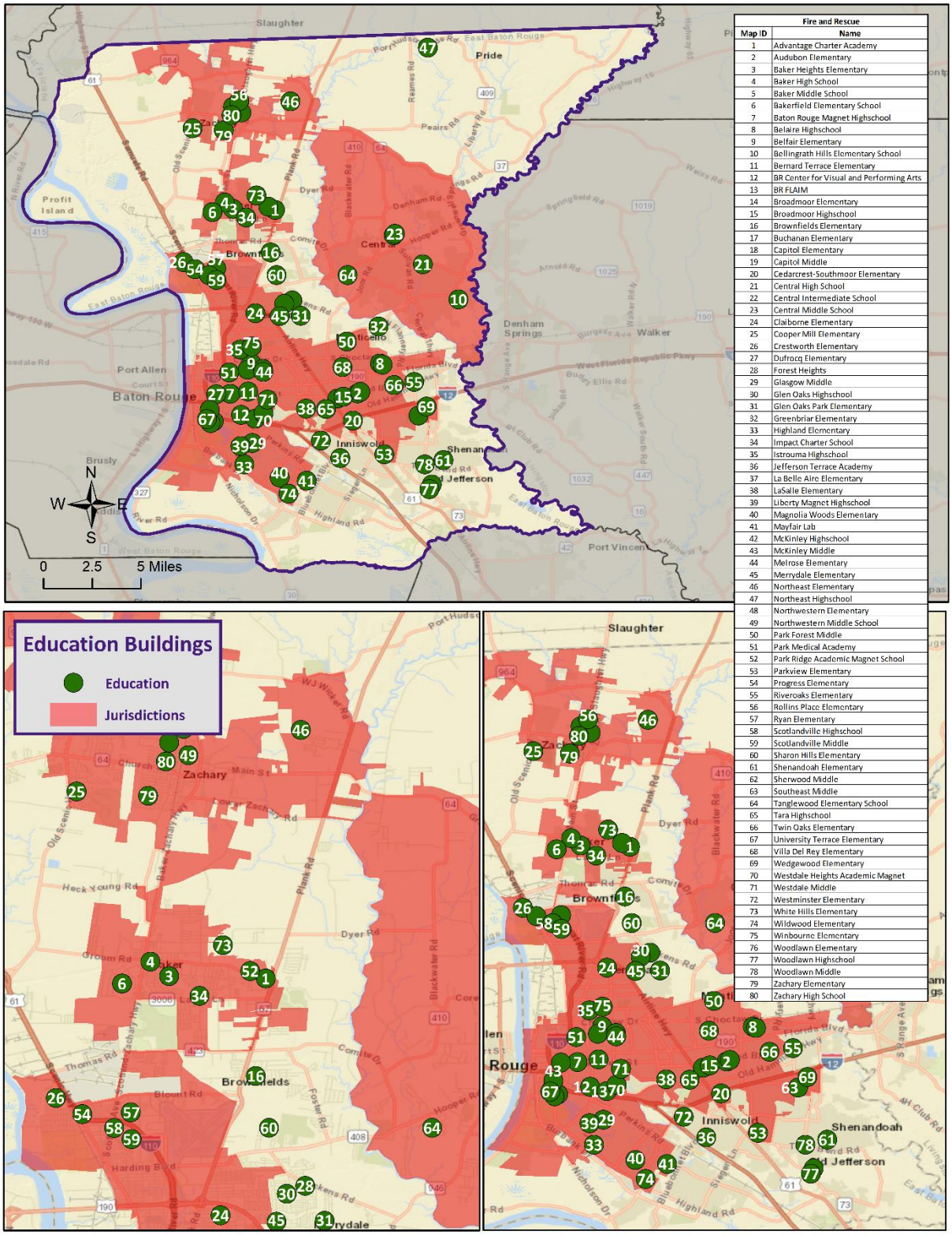


Figure 2-6: Public Health Facilities in the Parish.



Fire and Rescue	
Map ID	Name
1	Advantage Charter Academy
2	Audubon Elementary
3	Baker Heights Elementary
4	Baker High School
5	Baker Middle School
6	Bakerfield Elementary School
7	Baton Rouge Magnet Highschool
8	Belaire Highschool
9	Belfair Elementary
10	Bellingrath Hills Elementary School
11	Bernard Terrace Elementary
12	BR Center for Visual and Performing Arts
13	BR FLAIM
14	Broadmoor Elementary
15	Broadmoor Highschool
16	Brownfields Elementary
17	Buchanan Elementary
18	Capitol Elementary
19	Capitol Middle
20	Cedarcrest-Southmoor Elementary
21	Central High School
22	Central Intermediate School
23	Central Middle School
24	Claiborne Elementary
25	Cooper Mill Elementary
26	Crestworth Elementary
27	Dufrocq Elementary
28	Forest Heights
29	Glasgow Middle
30	Glen Oaks Highschool
31	Glen Oaks Park Elementary
32	Greenbriar Elementary
33	Highland Elementary
34	Impact Charter School
35	Istrouma Highschool
36	Jefferson Terrace Academy
37	La Belle Aire Elementary
38	LaSalle Elementary
39	Liberty Magnet Highschool
40	Magnolia Woods Elementary
41	Mayfair Lab
42	McKinley Highschool
43	McKinley Middle
44	Melrose Elementary
45	Merrydale Elementary
46	Northeast Elementary
47	Northeast Highschool
48	Northwestern Elementary
49	Northwestern Middle School
50	Park Forest Middle
51	Park Medical Academy
52	Park Ridge Academic Magnet School
53	Parkview Elementary
54	Progress Elementary
55	Riveroaks Elementary
56	Rollins Place Elementary
57	Ryan Elementary
58	Scotlandville Highschool
59	Scotlandville Middle
60	Sharon Hills Elementary
61	Shenandoah Elementary
62	Sherwood Middle
63	Southeast Middle
64	Tanglewood Elementary School
65	Tara Highschool
66	Twin Oaks Elementary
67	University Terrace Elementary
68	Villa Del Rey Elementary
69	Wedgewood Elementary
70	Westdale Heights Academic Magnet
71	Westdale Middle
72	Westminster Elementary
73	White Hills Elementary
74	Wildwood Elementary
75	Winbourne Elementary
76	Woodlawn Elementary
77	Woodlawn Highschool
78	Woodlawn Middle
79	Zachary Elementary
80	Zachary High School

Figure 2-7: Educational Facilities in the Parish.

Population and Development Trends

East Baton Rouge Parish experienced an increase in population and housing between the years 2000 and 2020, increasing in population from 412,958 with 169.073 housing units in the year 2000 to a population of 456,781 with 205,673 housing units in the year 2020. Zachary experienced the largest population increase within the parish increasing from a populace of 14,985 in 2010 to 19,316 in 2020 (28.9% overall increase). This is followed by the incorporated area of Central with a 9.9% overall increase and the unincorporated area of the parish with an 8.2% overall increase. The incorporated areas of Baker and Baton Rouge both experienced a decline in population during this time period.

Zachary also experienced the largest growth of housing units from 2010 to 2020 increasing from 5,407 in 2010 to 7,314 in 2020. This is followed by the unincorporated area of the parish with a 16.4% overall increase, the incorporated area of Central with a 12.4% overall increase, and the incorporated area of Baton Rouge with a 1.2% overall increase. The incorporated area of Baker experienced a decline in housing units during this same time period. The future population and number of buildings can be estimated using U.S. Census Bureau housing and population data. The following tables show population and housing unit estimates from 2000 to 2020:

Table 2-9: Population Growth Rate for the Parish.

Total Population	EBR Parish	Unincorporated EBR Parish	Baker	Baton Rouge	Central	Zachary
1-Apr-00	412,958	135,310	13,501	226,370	26,606	11,171
1-Apr-10	440,909	155,224	13,919	229,871	26,910	14,985
1-Apr-20	456,781	167,975	12,455	227,470	29,565	19,316
Population Growth between 2000 – 2010	6.8%	14.7%	3.1%	1.5%	1.1%	34.1%
Average Annual Growth Rate between 2000 – 2010	0.7%	1.5%	0.3%	0.2%	0.1%	3.4%
Population Growth between 2010 – 2020	3.6%	8.2%	-10.5%	-1.0%	9.9%	28.9%
Average Annual Growth Rate between 2010 – 2020	0.36%	0.82%	-1.05%	-0.10%	0.99%	2.89%

Table 2-10: Housing Growth Rate for the Parish.

Total Population	EBR Parish	Unincorporated EBR Parish	Baker	Baton Rouge	Central	Zachary
1-Apr-00	169,073	62,220	5,389	97,388	N/A	4,076
1-Apr-10	187,353	65,257	5,314	100,801	10,574	5,407
1-Apr-20	205,673	75,955	5,242	105,272	11,890	7,314
Housing Growth between 2000 – 2010	10.8%	4.9%	-1.4%	3.5%	N/A	32.7%
Average Annual Growth Rate between 2000 – 2010	1.1%	0.5%	-0.1%	0.4%	N/A	3.3%
Housing Growth between 2010 – 2020	9.8%	16.4%	-1.4%	4.4%	12.4%	35.3%
Average Annual Growth Rate between 2010 – 2020	1.0%	1.6%	-0.1%	0.4%	1.2%	3.5%

Land Use

The Parish Land Use table is provided below. Residential, commercial, and industrial areas account for 36% of the parish's land use. Agricultural and wetlands are the second largest categories with both accounting for 26% of land in the parish. The parish also consists of forested land (9%) and water areas (4%).

Table 2-11: Parish Land Use.
(Source: USGS Land Use Map)

Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	78,037	26%
Wetlands	77,809	26%
Forest Land (Not including forested wetlands)	27,480	9%
Urban/Development	107,307	36%
Water	10,876	4%

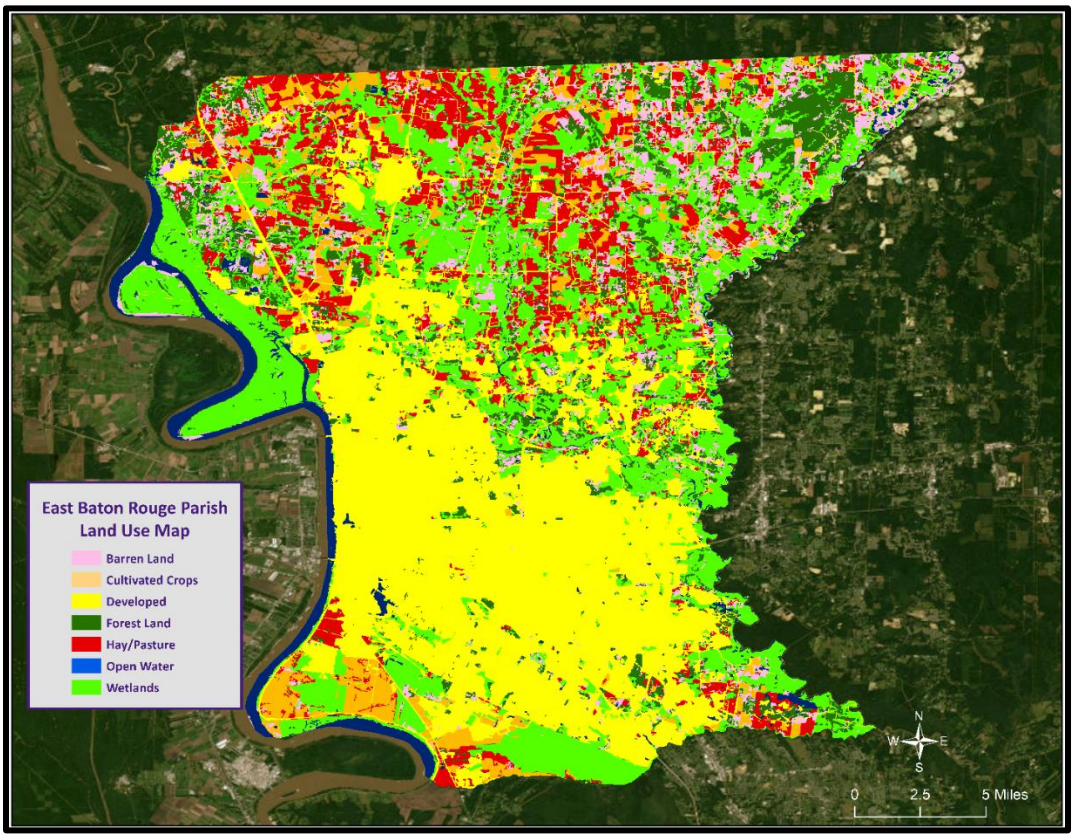


Figure 2-8: East Baton Rouge Parish Land Use Map.
(Source: USGS Land Use Map)

Future Hazard Impacts

Hazard impacts for flood and tropical cyclones were estimated for the years 2025 and 2030. Yearly population and housing growth rates were applied to parish inventory assets for composite flood and tropical cyclones. Based on a review of available information, it is assumed that population and housing units will grow within the parish from the present until 2030. A summary of estimated future impacts is shown in the table below. Dollar values are expressed in future costs and assume an annual rate of inflation of 1.02%

Table 2-12: Estimated Future Impacts, 2020 - 2030.
(Source: Hazus, US Census Bureau)

Hazard / Impact	Total in Parish (2020)	Hazard Area (2020)	Hazard Area (2025)	Hazard Area (2030)
Flood Damage				
Structures	207,684	48,182	50,584	52,592
Value of Structures	$81,959,095,855	$19,014,290,489	$21,001,348,597	$22,739,495,813
# of People	458,425	106,353	108,282	109,849
Tropical Cyclone Damage				
Structures	207,684	207,684	218,039	226,693
Value of Structures	$81,959,095,855	$81,959,095,855	$90,524,100,478	$98,016,200,925
# of People	458,425	458,425	466,736	473,493

Population within East Baton Rouge Parish has increased by more than 40,000 since April 2000 and by almost 10,000 since the last plan update in 2017. Housing numbers have also increased by around 35,000 units since April 2000 and by more than 10,000 since the last plan update in 2017. With that in mind, East Baton Rouge Parish is mindful in offsetting any new development around the parish with appropriate mitigative actions. Initiatives such as active floodplain management have regulated the development of flood prone areas to continue supporting and encouraging safer communities within East Baton Rouge Parish. The amount of development that has occurred since 2017 has not in any knowing way altered the parish's vulnerability to natural hazards. East Baton Rouge Parish will continue to monitor the rise of development and ensure that any new planning project is within the limitations of this hazard mitigation plan and for the best interest of the public, especially socially vulnerable populations.

Vulnerability with Future Development

Population increase and development can have various impacts on natural disasters and extreme weather events. The following sections below detail hazards profiled for East Baton Rouge Parish and how population and development trends can affect the areas vulnerability to said hazards.

Dam Failure

a) Population Increase: With a growing population, there may be an increased demand for water resources, leading to the construction of more dams. If not adequately designed and maintained, the increase in dam construction could lead to a higher risk of dam failures due to potential engineering flaws, lack of proper maintenance, or inadequate safety measures.
b) Development: Rapid development in areas near dams can increase the potential consequences of a dam failure. If there are more homes, infrastructure, and businesses downstream, a dam failure could result in more significant property damage and loss of life.

Drought

a) Population Increase: As the population grows, the demand for water resources also increases, leading to higher water consumption. This can exacerbate drought conditions, especially in regions already experiencing water scarcity.
b) Development: Land development can alter natural landscapes, leading to reduced water retention and increased runoff. This alteration of the natural hydrological cycle can worsen drought conditions by reducing groundwater recharge and surface water availability.

Levee Failure

a) Population Increase: A higher population density in flood-prone areas may lead to more extensive levee systems to protect these communities. However, if these levees are not properly designed or maintained to handle increased stress, they become more susceptible to failure during extreme flooding events.
b) Development: Construction and urbanization in floodplains can increase the pressure on existing levees, reducing their effectiveness and increasing the likelihood of levee breaches during floods.

Thunderstorms and Tornadoes

a) Population Increase: A higher population density in tornado-prone regions increases the potential for casualties and property damage during severe thunderstorms and tornado events.
b) Development: Urbanization can lead to the creation of heat islands, altering local atmospheric conditions and potentially influencing thunderstorm development. Additionally, more infrastructure can obstruct natural wind patterns, potentially enhancing localized wind damage during tornadoes.

Wildfires

a) Population Increase: As more people move into wildland-urban interface areas (where human development meets natural vegetation), the risk of wildfires and their impacts on communities increase. Human activities can also inadvertently trigger wildfires.
b) Development: Construction in fire-prone areas may lead to an accumulation of combustible materials, such as buildings, which can serve as fuel sources during wildfire events.

Winter Weather

a) Population Increase: Higher populations in regions with cold climates can lead to increased demand for energy resources, such as electricity and heating. This higher demand can strain energy infrastructure during severe winter weather events, leading to power outages and potential hazards.
b) Development: Urbanization and changes in land use can disrupt local microclimates, leading to altered patterns of snow accumulation and melt. Additionally, increased impervious surfaces in urban areas can lead to more rapid runoff during snowmelt, potentially causing flooding.

In conclusion, population increase and development can exacerbate the impacts of natural disasters and extreme weather events. Proper urban planning, infrastructure maintenance, and responsible land-use decisions are essential to mitigate these risks and build resilient communities.

Hazard Profile, Risk Assessment, and Vulnerability Analysis

Dam Failure

Profile

A dam is defined as an artificial barrier with the ability to impound water, wastewater, or any liquid-borne material, for the purpose of storage or control of water. A dam failure is a catastrophic type of failure characterized by the sudden, rapid, and uncontrolled release of impounded water or the likelihood of such an uncontrolled release. It is recognized that there are lesser degrees of failure and that any malfunction or abnormality outside the design assumptions and parameters that adversely affect a dam's primary function of impounding water is properly considered a failure. These lesser degrees of failure can progressively lead to or heighten the risk of a catastrophic failure. Dam failures are usually a secondary effect of massive rainfall and flooding and occur when too much water enters the spillway system. This will occur with little or no warning. Spring thaws, severe thunderstorms, and heavy rainfall are also contributory factors. Additionally, poor engineering or poor maintenance may also cause dam failures. According to the Federal Emergency Management Agency, dams can fail for one or a combination of the following reasons:

- overtopping caused by floods that exceed the capacity of the dam;
- deliberate acts of sabotage;
- structural failure of materials used in dam construction;
- movement and/or failure of the foundation supporting the dam;
- settlement and cracking of concrete or embankment dams;
- piping and internal erosion of soil in embankment dams; and
- inadequate maintenance

The National Inventory of Dams is a registry that captures information about structures that are greater than or equal to 25 feet in height or impounding 50-acre-feet or more of water (an acre-foot is equal to 325,851 gallons of water) and includes structures above six feet in height, where failure would potentially cause damage downstream. The dams are classified in terms of hazard potential as "high," "significant," or "low". The location of high-hazard dams for the parish is shown in the figure located on the next page.

Table 2-13: Classification of Dams.

Classification	Definition
Low	No probable loss of human life and low economic and/or environmental losses are expected. Losses are principally limited to the owner's property.
Significant	Loss of human life is not probable, but economic loss, environmental damage, and/or disruption of lifeline facilities can be expected.
High	Failure or maloperation will probably cause loss of human life.

In Louisiana, there are 513 dams included in the Army Corps of Engineers National Inventory of Dams. Of these, 41 are considered high hazard, 63 are significant hazard, and 409 are low hazard potential dams.

Risk Assessment

Geographic Extent

According to the National Inventory of Dams, the parish has one high hazard dam which is located in the incorporated areas of the City of Baton Rouge. Dam hazards pose no threat to the incorporated areas of Baker, Central, Zachary, and the unincorporated areas of East Baton Rouge Parish. The areas of inundation will generally be directly downstream of the dam and the low-lying areas surrounding the area of dam failure, but a working group will be established to determine the specific locations of inundation (See City of Baton Rouge New Mitigation Action 4). The dams located in the parish are shown in the following figure:

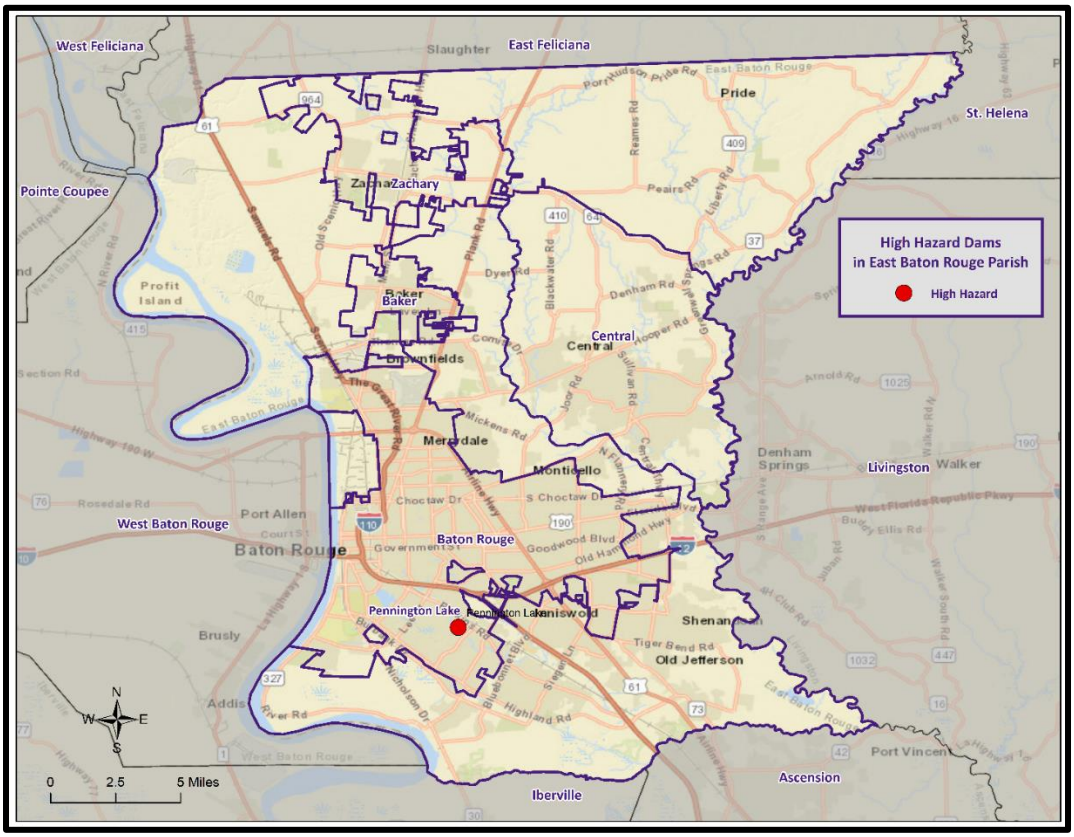


Figure 2-9: National Inventory of Dam Locations in East Baton Rouge Parish.

Previous Occurrences

The National Performance of Dams Program (NPDP), a database of dam incidents maintained by Stanford University, lists one dam incident in Louisiana, which occurred at Kisatchie Lake Dam in Grant Parish in 1991. However, there have been no dam failures within the boundaries of the parish and the jurisdictions. The parish claims a data deficiency on the extent of dam failure for the high hazard dam located in Baton Rouge. This data deficiency includes potential inundation areas and subsequent impacts related to the overtopping, collapse, or breaching of the dams located within the parish. As these inundation zones have yet to be identified, the parish will continue to develop an extent and additional relevant data associated with this hazard.

Probability

It is nearly impossible to predict and model dam failure and its impact on the parish. Due to the unpredictability of dam failures, it is calculated that the probability of a dam failure is less than 1% annually for the unincorporated areas of the parish and its jurisdictions.

Climate Change Impacts

Extreme precipitation, primarily the type that contributes to flash flooding and not widespread areal flooding, is expected to increase due to climate change in East Baton Rouge Parish and its jurisdictions. While this may not contribute to the traditional definition of a dam failure, it could increase the chances of a dam overtopping.

Climate change disproportionately affects vulnerable populations, including those living in low-lying areas, impoverished communities, and areas with inadequate infrastructure. Dam failures can have severe consequences for these populations leading to loss of life, displacement, and the destruction of homes, livelihoods, and critical infrastructure such as water supply systems and power generation facilities. Vulnerable populations may lack the resources or means to respond effectively to dam failures or cope with their aftermath, exacerbating the impact of climate change on their lives and well-being.

To address these challenges, it is essential to incorporate climate change considerations into dam design, construction, maintenance practices, and future land use plans. This includes assessing the potential impacts of climate change on dam safety, implementing adaptive measures to strengthen dam infrastructure, and developing early warning systems to ensure the timely evacuation and protection of vulnerable populations in the event of a dam failure.

Vulnerability Analysis

Estimated Impact and Potential Loss

Determining the annualized loss as a result of a dam failure is difficult in the parish due to availability of data on past dam failure events. The National Inventory of Dams was utilized to determine the dams within the parish, the risk level, and storage capacity of the reservoir. The NLD is a congressional authorized database that documents dams in the United States and its territories and is maintained by the U.S. Army Corps of Engineers (USACE). The following table provides an extensive list of the dams in the parish with the risk associated with each system.

Table 2-14: Dams and Risk Associated with each in East Baton Rouge Parish. (Source: National Inventory of Dams)

System	Rating	Height (ft)	Storage (Acre-Feet)	Dam Type	Last Inspection Date
Pennington Lake	High	21	205	Earth	12/21/2022

Vulnerable Populations

There have been no reported fatalities or injuries due to dam failure in the parish. However, the failure of dams can have devastating consequences on the population, leading to significant loss of life, displacement, and long-term socio-economic impacts. When a dam fails, it can result in uncontrolled flooding, posing a grave threat to the safety and well-being of the population living in the affected areas in the low-lying areas immediately surrounding and downstream from the dam.

One of the immediate impacts of dam failures is the risk of drowning and physical harm to individuals. The sudden release of a large volume of water can inundate communities, trapping people in their homes

or forcing them to seek refuge on rooftops or higher ground. Swift-moving floodwaters can sweep away individuals, making rescue and evacuation efforts extremely challenging. The loss of life due to drowning and other water-related incidents is a tragic consequence of such failures.

Moreover, the failure of dams can lead to widespread displacement of the population. Residents in affected areas may be forced to evacuate their homes and seek temporary shelter in emergency facilities or with friends and relatives. Displacement disrupts lives, separates families, and strains the resources and capacities of hosting communities. It can also result in long-term homelessness and the need for extensive efforts to provide adequate housing and support for the affected population.
In addition to the immediate physical risks, dam failures can have long-term socio-economic impacts on the affected population. The loss of homes, businesses, and infrastructure disrupts local economies and livelihoods. Individuals may lose their jobs, and businesses may be unable to operate, leading to financial instability and hardship. The recovery and reconstruction process can be lengthy, causing prolonged economic disruptions and affecting the overall well-being of the population.

Furthermore, the psychological and emotional toll on the affected population cannot be overlooked. Dam failures are traumatic events that can cause immense stress, anxiety, and grief among survivors. The loss of loved ones, possessions, and a sense of security can have long-lasting psychological impacts on individuals and communities. Mental health support and counseling become crucial in helping the population cope with the trauma and rebuild their lives.

Vulnerability Score

Table 2-15: Dam Failure Vulnerability Score for East Baton Rouge Parish.

Dam Failure Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	1	2	1	4	2	**1.85**

Drought

Profile

A drought is a deficiency in water availability over an extended period of time, caused by precipitation totals and soil water storages that do not satisfy the environmental demand for water, either by evaporation or transpiration through plant leaves. It is important to note that the lack of precipitation alone does not constitute drought; the season during which the precipitation is lacking has a major impact on whether drought occurs. For example, a week of no precipitation in July, when the solar energy to evaporate water and vegetation's need for water to carry on photosynthesis are both high, may trigger a drought, while a week of no precipitation in January may not initiate a drought.

Drought is a unique and insidious hazard. Unlike other natural hazards, no specific threshold of "dryness" exists for declaring a drought. In addition, the definition of drought depends on stakeholder needs. For instance, the onset (and demise) of agricultural drought is quick, as crops need water every few days; once they get rainfall, they improve. But hydrologic drought sets in (and is alleviated) only over longer time periods. A few dry days will not drain a reservoir, but a few rain showers cannot replenish it either. Moreover, different geographical regions define drought differently based on the deviation from local, normal precipitation. Drought can occur anywhere, triggered by changes in the local-to-regional-scale atmospheric circulation over an area, or by broader-scale circulation variations such as the expansion of semi-permanent oceanic high-pressure systems or the stalling of an upper-level atmospheric ridge in place over a region. The severity of a drought depends upon the degree and duration of moisture deficiency, as well as the size of the affected area. Periods of drought also tend to be associated with other hazards, such as wildfires and/or heat waves. Lastly, drought is a slow onset occurrence, causing less direct—but tremendous indirect—damage. Depletion of aquifers, crop loss, and livestock and wildlife mortality rates are examples of direct impacts. Since the groundwater found in aquifers is the source of about 38% of all county and city water supplied to households (and comprises 97% of the water for all rural populations that are not already supplied by cities and counties), droughts can potentially have direct, disastrous effects on human populations. The indirect consequences of drought, such as unemployment, reduced tax revenues, increased food prices, reduced outdoor recreation opportunities, higher energy costs as water levels in reservoirs decrease and consumption increases, and water rationing, are not often fully known. This complex web of impacts causes drought to affect people and economies well beyond the area physically experiencing the drought.

This hazard is often measured using the Palmer Drought Severity Index (PDSI, also known operationally as the Palmer Drought Index). The PDSI, first developed by Wayne Palmer in a 1965 paper for the U.S. Weather Bureau, measures drought through recent precipitation and temperature data with regard to a basic supply-and-demand model of soil moisture. It is most effective in long-term calculations. Three other indices used to measure drought are the Palmer Hydrologic Drought Index (PHDI), the Crop Moisture Index (CMI), which is derived from the PDSI, and the Keetch-Byram Drought Index (KBDI), created by John Keetch and George Byram in 1968 for the U.S. Forest Service. The KBDI is used mainly for predicting the likelihood of wildfire outbreaks. As a compromise, PDSI is used most often for droughts since it is a medium-response drought indicator. The objective of the PDSI is to provide measurements of moisture conditions that are standardized so that comparisons using the index can be made between locations and between months. The tables on the following page display the range and Palmer classifications of the PDSI index, as well as the United States Drought Monitor Intensity scale.

Table 2-16: Palmer Drought Severity Index Classification and Range.

Range	Palmer Classification
4.0 or more	Extremely Wet
3.0 to 3.99	Very Wet
2.0 to 2.99	Moderately Wet
1.0 to 1.99	Slightly Wet
0.5 to 0.99	Incipient Wet Spell
0.49 to -0.49	Near Normal
-0.5 to -0.99	Incipient Dry Spell
-1.0 to -1.99	Mild Drought
-2.0 to -2.99	Moderate Drought
-3.0 to -3.99	Severe Drought
-4.0 or less	Extreme Drought

Table 2-17: U.S. Drought Monitor Drought Intensity Scale.
(Source: National Drought Mitigation Center)

Range/Category	Description	PDSI Equivalent
D0	Abnormally Dry	-1.0 to -1.99
D1	Moderate Drought	-2.0 to -2.99
D2	Severe Drought	-3.0 to -3.99
D3	Extreme Drought	-4.0 to -4.99
D4	Exceptional Drought	-5.0 or less

The figure on the following page displays the drought conditions in the state of Louisiana. Data compiled by the National Drought Mitigation Center indicates normal conditions exist in the parish at the time this plan went to publication.

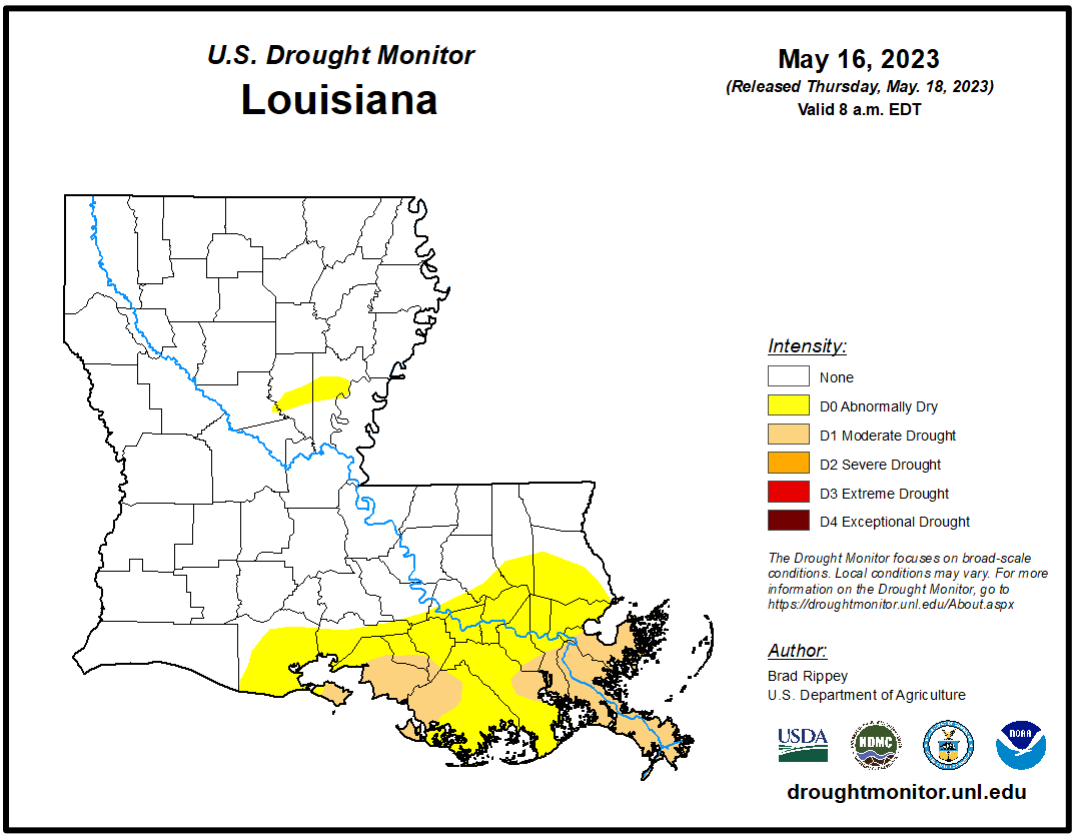


Figure 2-10: United States Drought Monitor for the State of Louisiana and its Parishes. (Source: The National Drought Mitigation Center)

Risk Assessment

Geographic Extent

Drought typically impacts a region and not one specific parish or jurisdiction. While the entire planning area can experience drought, the major impact of a drought occurrence in the parish is on the agricultural community. The worst-case drought scenario for the parish and the jurisdictions of the parish would be an extreme drought (D3).

Previous Occurrences

The parish experienced three drought occurrences between the years 1996 and 2022. Since the last update in 2017, there has been one drought occurrence within the boundaries of the parish.

Table 2-18: Historical Droughts in the Parish since the 2017 Update.

Date	Impacts	Crop Damage	Magnitude
November 2022	The parish was in a D2 drought through most of the month after a prolonged period of minimal rainfall.	$0	D2

Probability

The annual return rate (frequency) for periods of drought in the parish is 0.03 (3% annual probability) or approximately 1 drought occurrence every 27 years.

Climate Change Impacts

Climate change is expected to increase the number and intensity of droughts in East Baton Rouge Parish and its jurisdictions. Drought can be caused by both a reduction in precipitation, as well as by heat that results in increased evaporation. Changes in temperature and types of precipitation in East Baton Rouge Parish will affect drought characteristics. An increase in rain and a decrease in winter weather events with increased temperatures will cause peak streamflow to occur earlier in the year. This change in the hydrologic cycle will have significant impacts on natural systems in Louisiana including the intensity, duration, and frequency of droughts.

Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The following table provides an overview of each category at the parish level for drought.

Table 2-19: National Risk Index (NRI) Summarization of Drought Occurrences for the Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Relatively Low	Relatively Low

Estimated Impact and Potential Loss

The parish and the jurisdictions of the parish are vulnerable to drought by means of soil desiccation (drying out), which causes foundation damage to structures as well as buckling of roads. However, the main impact of a drought occurrence is on the agricultural community. The following table presents an analysis of agricultural exposure that is susceptible to drought by major crop type for the parish.

Table 2-20: Agricultural Exposure by Crop Type for Droughts in the Parish. (Source: LSU Ag Center 2020 Parish Totals)

Agricultural Exposure by Type for Drought						
Forestry	Hay	Home Gardens	Nursery Crops	Soybeans	Vegetables	Total
$2,221,597	$1,083,355	$32,438,312	$2,704,499	$143,955	$256,703	**$38,848,421**

Vulnerable Population

As mentioned previously, the main impact of drought is on the agricultural community and certain infrastructure. There is no direct impact on the populace of the parish. There have been no reported deaths or injuries as a result of drought within the parish and the jurisdictions of the parish.

Vulnerability Score

Table 2-21: Drought Vulnerability Score for East Baton Rouge Parish.

Drought Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	3	2	4	2	3	**2.8**

Flooding

Profile

A flood is the overflow of water onto land that is usually not inundated. The National Flood Insurance Program defines a flood as:

> A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from overflow of inland or tidal waves, unusual and rapid accumulation or runoff of surface waters from any source, mudflow, or collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above.

Factors influencing the type and severity of flooding include natural variables such as precipitation, topography, vegetation, soil texture, and seasonality, as well as anthropogenic factors such as urbanization (extent of impervious surfaces), land use (agricultural and forestry tend to remove native vegetation and accelerate soil erosion), and the presence of flood-control structures such as levees and dams.

Extreme precipitation, produced from mid-latitude cyclones, thunderstorms, or hurricanes, is often the major initiating condition for flooding. During the cooler months, slow-moving frontal weather systems produce heavy rainfalls, while the summer and autumn seasons produce major precipitation in isolated thunderstorm occurrences (often on warm afternoons) that may lead to localized flooding. During these warmer seasons, floods are overwhelmingly of the flash flood variety, as opposed to the slower-developing river floods caused by heavy stream flow during the cooler months.

Six specific types of flooding are of main concern: riverine, flash, ponding, backwater, urban, and coastal.

- **Riverine flooding** occurs along a river or smaller stream. It is the result of runoff from heavy rainfall or intensive snow or ice melt. The speed with which riverine flood levels rise and fall depends not only on the amount of rainfall, but even more on the capacity of the river itself, as well as the shape and land cover of its drainage basin. The smaller the river, the faster that water levels rise and fall. For example, the Mississippi River levels rise and fall slowly due to its large capacity. Generally, elongated and intensely developed drainage basins will reach faster peak discharges and faster falls than circular-shaped and forested basins of the same area.
- **Flash flooding** occurs when locally intense precipitation inundates an area in a short amount of time, resulting in local stream flow and drainage capacity being overwhelmed.
- **Ponding** occurs when concave areas (e.g., parking lots, roads, and clay-lined natural low areas) collect water and are unable to drain.
- **Backwater flooding** occurs when water slowly rises from a normally unexpected direction where protection has not been provided.
- **Urban flooding** is similar to flash flooding but is specific to urbanized areas. It takes place when storm water drainage systems cannot keep pace with heavy precipitation, and water accumulates on the surface. Most urban flooding is caused by slow-moving thunderstorms or torrential rainfall.
- **Coastal flooding** can appear similar to any of the other flood types, depending on its cause. It occurs when normally dry coastal land is flooded by seawater, but may be caused by direct inundation (wen the sea level exceeds the elevation of the land), overtopping of a natural or artificial barrier, or the breaching of a natural or artificial barrier (i.e., when the barrier is broken down by the sea water). Coastal flooding is typically caused by storm surge, tsunamis, or gradual sea level rise.

Based on stream gauge levels and precipitation forecasts, the NWS posts flood statements, watches, and warnings. The NWS issues the following weather statements with regard to flooding:

- Flood Categories
  - Minor Flooding: Minimal or no property damage, but possibly some public threat.
  - Moderate Flooding: Some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations.
  - Major Flooding: Extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.
  - Record Flooding: Flooding which equals or exceeds the highest stage or discharge at a given site during the period of record keeping.
- Flood Warning
  - Issued along larger streams when there is a serious threat to life or property.
- Flood Watch
  - Issued when current and developing hydrometeorological conditions are such that there is a threat of flooding, but the occurrence is neither certain nor imminent.

Floods are measured mainly by probability of occurrence. A 10-year flood occurrence, for example, is an occurrence of small magnitude (in terms of stream flow or precipitation) but with a relatively high annual probability of recurrence (10%). A 100-year flood occurrence is larger in magnitude, but it has a smaller chance of recurrence (1%). A 500-year flood is significantly larger than both a 100-year occurrence and a 10-year occurrence, but it has a lower probability than both to occur in any given year (0.2%). It is important to understand that an X-year flood occurrence does not mean an occurrence of that magnitude occurs only once in X years. Instead, it means that on average, we can expect a flood occurrence of that magnitude to occur once every X years. Given that such statistical probability terms are inherently difficult for the general population to understand, the Association of State Floodplain Managers (ASFPM) promotes the use of more tangible expressions of flood probability. As such, the ASFPM also expresses the 100-year flood occurrence as having a 25% chance of occurring over the life of a 30-year mortgage.

The 100-year flood occurrence is of particular significance since it is the regulatory standard that determines the obligation (or lack thereof) to purchase flood insurance. Flood insurance premiums are set depending on the flood zone, as modeled by National Flood Insurance Program (NFIP) Rate Maps. The NFIP and FEMA suggest insurance rates based on Special Flood Hazard Areas (SFHAs), as diagrammed in the figure on the next page.

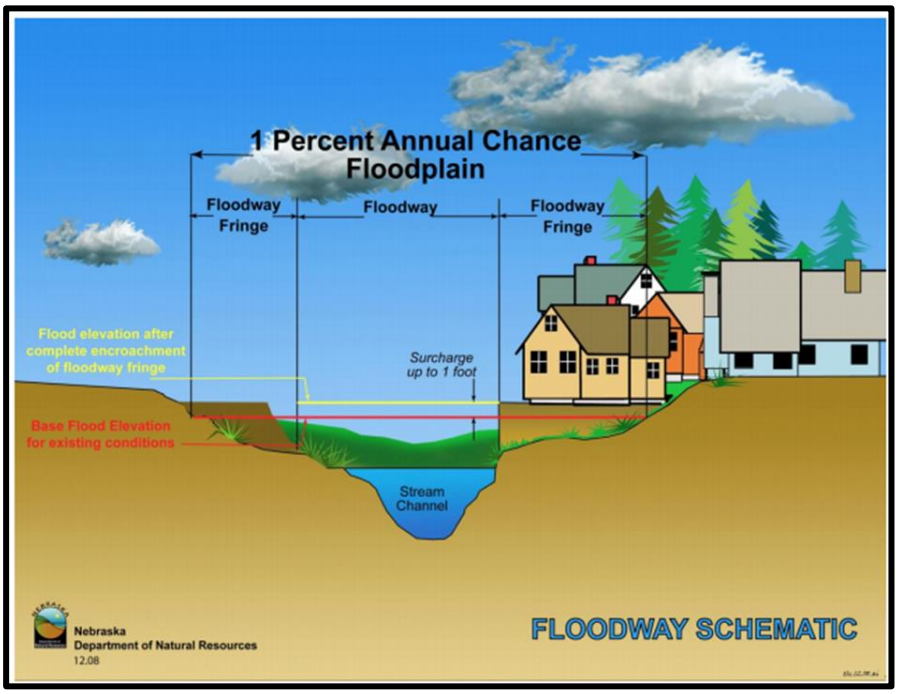


Figure 2-11: Schematic of 100-Year Floodplain.
(Source: Nebraska Department of Natural Resources)

A SFHA is the land area covered by the floodwaters of the base flood (red line in the above figure), where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. Flood zones for the parish are shown in the figures below and on the following pages.

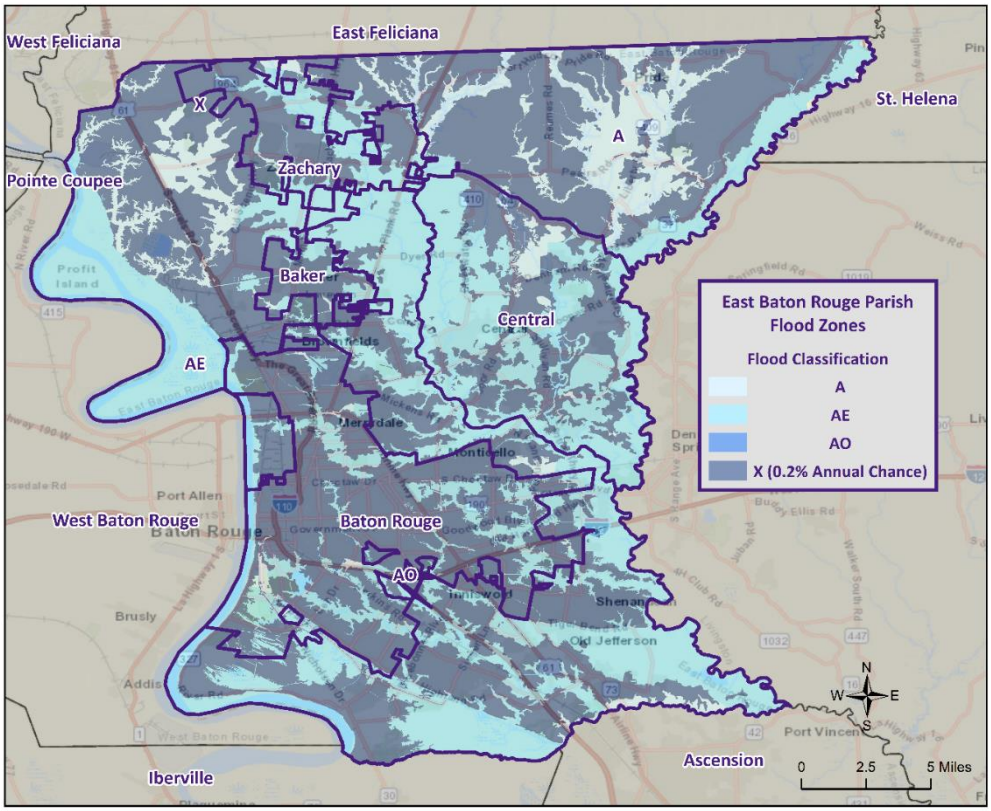


Figure 2-12: Flood Zones within the East Baton Rouge Parish Area.

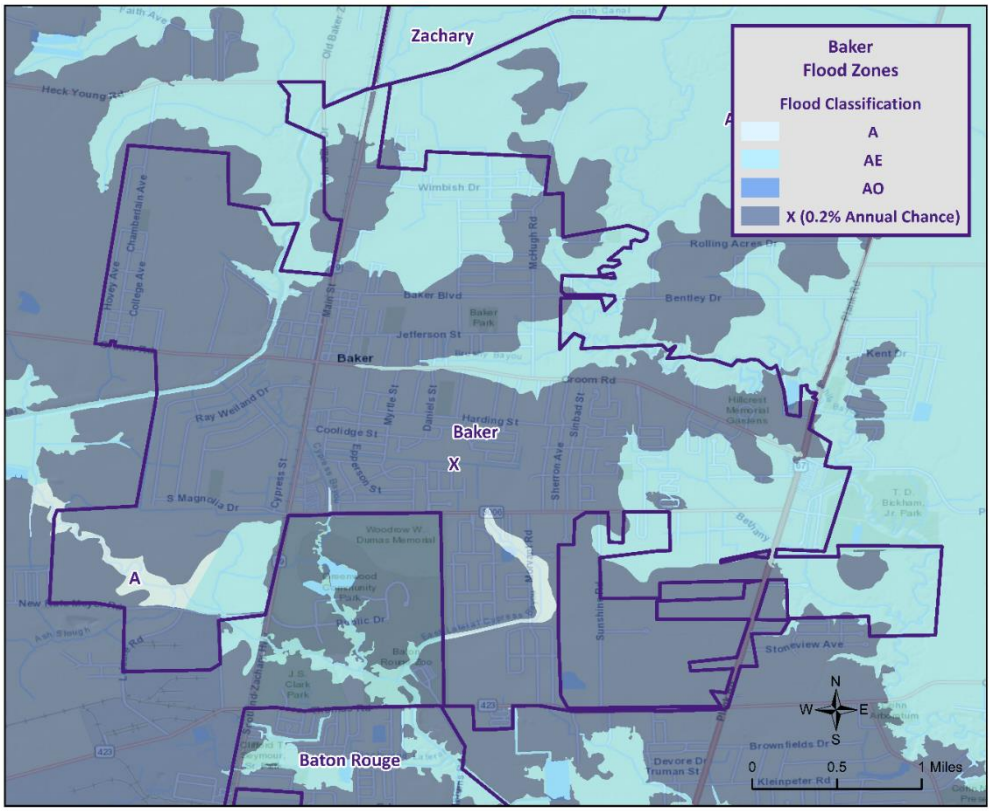


Figure 2-13: Flood Zones within the Baker Area.

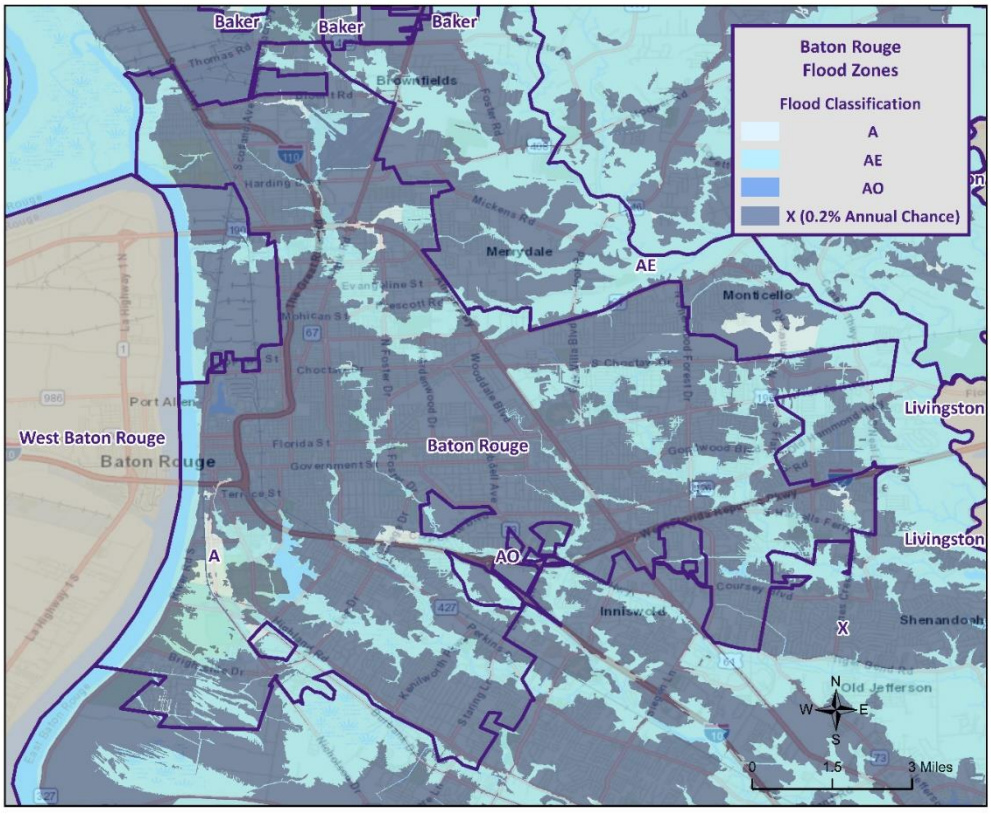


Figure 2-14: Flood Zones within the Baton Rouge Area.

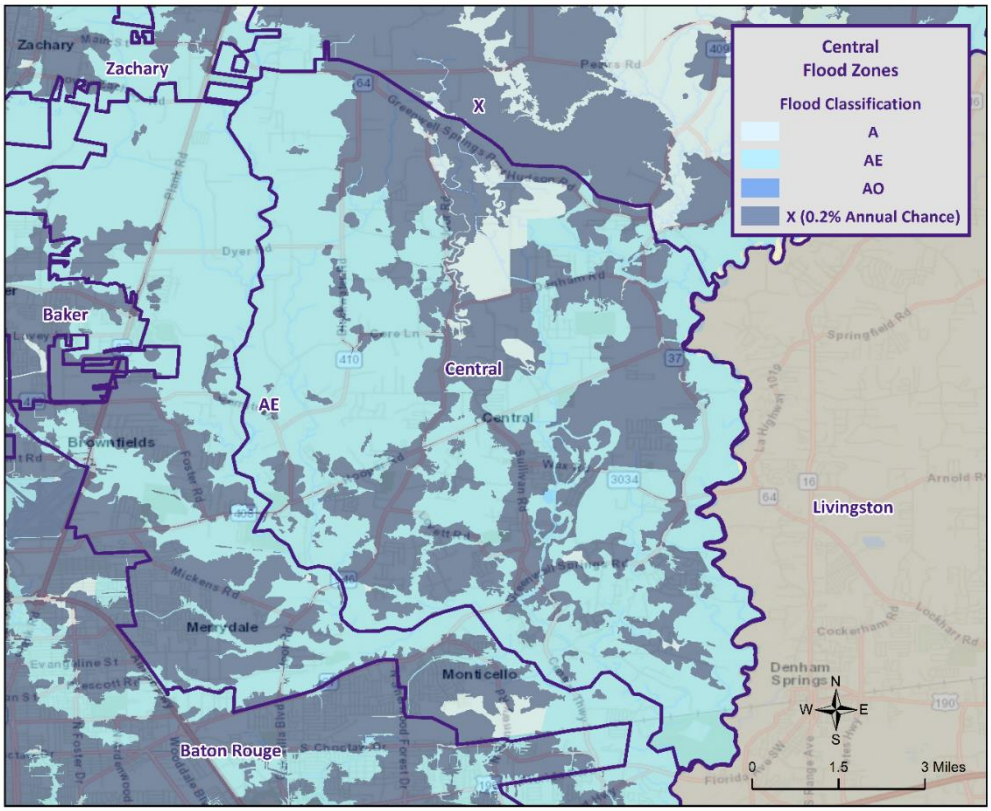


Figure 2-15: Flood Zones within the Central Area.

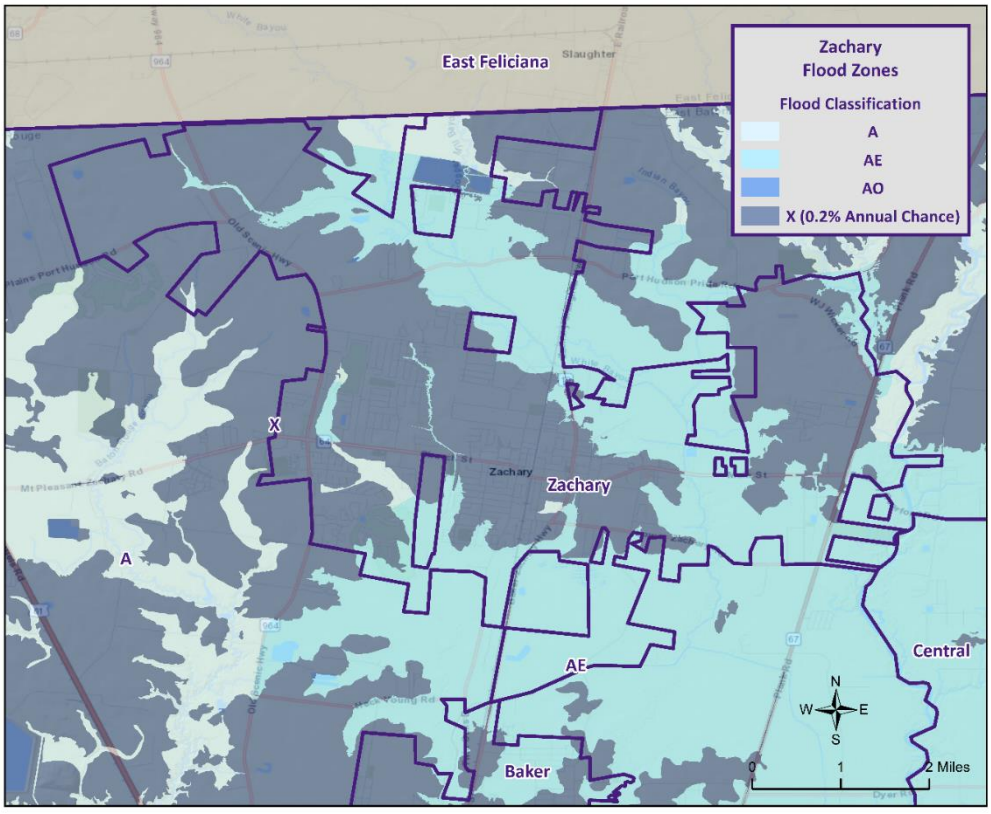


Figure 2-16: Flood Zones within the Zachary Area.

Property Damage

The depth and velocity of flood waters are the major variables in determining property damage. Flood velocity is important because the faster water moves, the more pressure it puts on a structure and the more it will erode stream banks and scour the earth around a building's foundation. In some situations, deep and fast-moving waters can push a building off its foundation. Structural damage can also be caused by the weight of standing water (hydrostatic pressure).

Another threat to property from a flood is called "soaking". When soaked, many materials change their composition or shape. Wet wood will swell, and if dried too quickly, will crack, split, or warp. Plywood can come apart and gypsum wallboard can deteriorate if it is bumped before it has time to completely dry. The longer these materials are saturated, the more moisture, sediment, and pollutants they absorb.

Soaking can also cause extensive damage to household goods. Wooden furniture may become warped, making it unusable, while other furnishings such as books, carpeting, mattresses, and upholstery usually are not salvageable. Electrical appliances and gasoline engines will flood, making them worthless until they are professionally dried and cleaned.

Many buildings that have succumbed to flood waters may look sound and unharmed after a flood, but water has the potential to cause severe property damage. Any structure that experiences a flood should be stripped, cleaned, and allowed to dry before being reconstructed. This can be an extremely expensive and time-consuming effort.

Repetitive Loss Properties

Repetitive loss structures are structures covered by a contract for flood insurance made available under the NFIP that:

a. Have incurred flood-related damage on two occasions, in which the cost of the repair, on average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event; and
b. At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

Severe repetitive loss (SRL) is defined by the Flood Insurance Reform Act of 2004 and updated in the Biggert-Waters Flood Insurance Reform Act of 2012. For a property to be designated SRL, the following criteria must be met:

a. It is covered under a contract for flood insurance made available under the NFIP; and
b. It has incurred flood related damage –
    1) For which four or more separate claims payments have been made under flood insurance coverage with the amount of each claim exceeding $5,000 and with the cumulative amount of such claim's payments exceeding $20,000; or
    2) For which at least two separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

Figures regarding repetitive loss structures for the parish are provided in the table below:

Table 2-22: Repetitive Loss Structures for the Parish.

Jurisdiction	Number of Structures	Residential	Commercial	Government	Total Claims	Total Claims Paid	Average Claim Paid
East Baton Rouge Parish	1,154	1,108	46	0	3,226	$154,379,706	$47,855
Baker	27	26	1	0	82	$2,416,096	$29,465
Baton Rouge*	0	0	0	0	0	$0	$0
Central	72	72	0	0	229	$10,303,675	$44,994
Zachary	54	53	1	0	138	$6,147,227	$44,545
Total	**1,307**	**1,259**	**48**	**0**	**3,675**	**$173,246,704**	**$47,142**

*Baton Rouge repetitive loss structures are included within the East Baton Rouge Parish category.

All 1,307 repetitive loss structures were geocoded in order to provide an overview of where the repetitive loss structures are located throughout the parish. The following figures show the approximate locations of the structures and where the highest concentration of repetitive loss structures is located. Through the repetitive loss maps below and on the following page, it is clear the primary concentration of repetitive loss structures is focused in and around the incorporated area of Baton Rouge.

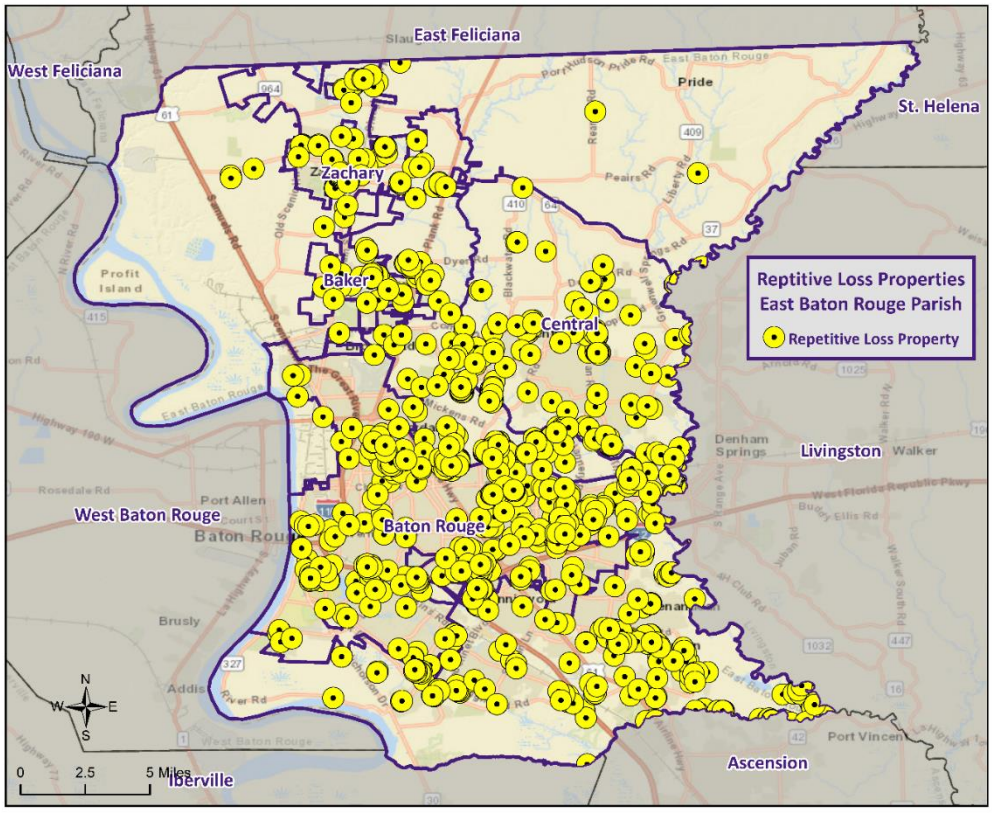


Figure 2-17: Repetitive Loss Properties in the Parish.

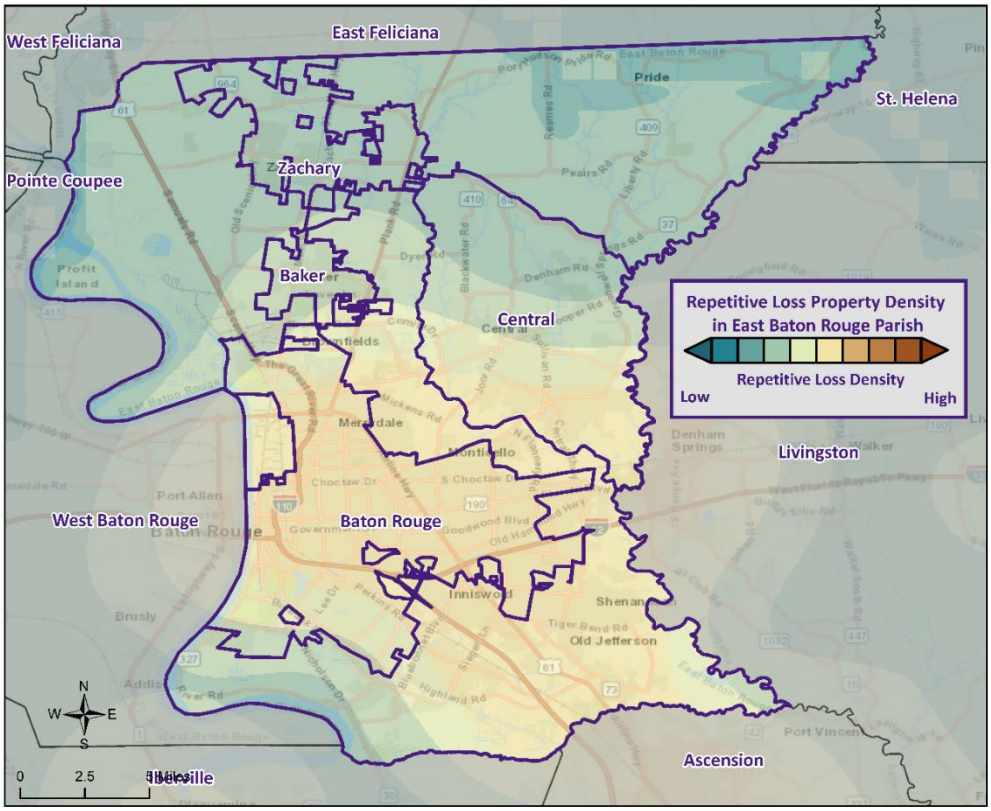


Figure 2-18: Repetitive Loss Property Densities in the Parish.

National Flood Insurance Program

Flood insurance statistics indicate that the Parish has 40,063 flood insurance policies with the NFIP, with total annual premiums of $25,734,827. The parish and the jurisdictions of Baker, Baton Rouge, Central, and Zachary are all participants in the NFIP. The parish and all of its jurisdictions will continue to adopt and enforce floodplain management requirements, including regulating new construction Special Flood Hazard Areas, making substantial improvement and/or damage determinations, or determining the necessary permits required of owners to bring a substantially improved/damaged structure back into compliance. The parish will also will continue to monitor activities including local requests for new map updates. Flood insurance statistics and additional NFIP participation details for the parish and its jurisdictions are provided in the tables to follow.

Table 2-23: Summary of NFIP Policies for the Parish.

Location	No. of Insured Structures	Total Insurance Coverage Value	Annual Premiums Paid	No. of Insurance Claims Filed Since 1978	Total Loss Payments
EBR Parish*	33,635	$9,652,592,400	$20,784,008	18,768	$1,086,701,998
Baker	725	$183,059,900	$624,658	494	$18,386,602
Central	4,695	$1,295,020,000	$3,592,074	1,895	$175,645,193
Zachary	1,008	$305,034,100	$734,087	418	$18,560,016
Total	**40,063**	**$11,435,706,400**	**$25,734,827**	**21,575**	**$1,299,293,809**

*East Baton Rouge Unincorporated and Baton Rouge NFIP policies are included in the East Baton Rouge Parish category.

Table 2-24: Summary of Community Flood Maps for the Parish.

CID	Community Name	Adoption Date	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Date Joined the NFIP	Tribal
225193#	Baker	5/2/2008	9/9/1970	9/11/1970	5/2/2008	10/19/1973	No
220060#	Central	6/19/2012	-	7/2/1979	6/19/2012	4/6/2007	No
220058#	East Baton Rouge Parish*	6/19/2012	11/22/1974	7/2/1979	6/19/2012	7/2/1979	No
220061#	Zachary	6/19/2012	-	11/18/1977	6/19/2012	9/15/1977	No

*East Baton Rouge Unincorporated and Baton Rouge NFIP policies are included in the East Baton Rouge Parish category.

According to the Community Rating System (CRS) list of eligible communities, the unincorporated area of East Baton Rouge Parish and the jurisdictions Baker, Baton Rouge, Central, and Zachary all participate in the CRS program.

Table 2-25: Areas within the Parish Participating in the Community Rating System.

CID	Community Name	CRS Entry Date	Current Effective Date	Current Class	% Discount for SFHA	% Discount for Non-SFHA	Status
225193	Baker	10/1/1991	5/1/2016	9	5	5	C
220060	Central	5/1/2014	10/1/2020	7	15	5	C
220058	East Baton Rouge Parish*	10/1/1991	10/1/2016	7	15	5	C
220061	Zachary	10/1/1992	5/1/2019	8	10	5	C

*East Baton Rouge Unincorporated and Baton Rouge NFIP policies are included in the East Baton Rouge Parish category.

Threat to People

Just as with property damage, depth and velocity are major factors in determining the threat posed to people by flooding. It takes very little depth or velocity for flood waters to become dangerous. A car will float in less than two feet of moving water, and can be swept downstream into deeper waters, trapping passengers within the vehicle. Victims of floods have often put themselves in perilous situations by entering flood waters that they believe to be safe, or by ignoring travel advisories.

Major health concerns are also associated with floods. Flood waters can transport materials such as dirt, oil, animal waste, and chemicals (e.g., farm, lawn, and industrial) that may cause illnesses of various degrees when coming in contact with humans. Flood water can also infiltrate sewer lines and inundate wastewater treatment plants, causing sewage to back up and creating a breeding ground for dangerous bacteria. This infiltration may also cause water supplies to become contaminated and undrinkable.

Elevations in the Parish

The digital elevation model (DEM) for East Baton Rouge Parish is instructive in visualizing where the low-lying and high-risk areas are for the parish. Elevations in the parish range from near sea level to over 140 feet (NAVD88). The highest elevations in the parish are approximately 140 feet, located in the unincorporated areas of the parish. These higher elevations are located in the northern portions of the

parish. The incorporated areas range in elevation from 56 feet (NAVD88) to 102 feet (NAVD88), with Baton Rouge averaging 56 feet (NAVD88), Central averaging 66 feet (NAVD88), Baker averaging 79 feet (NAVD88), and Zachary averaging 102 feet (NAVD88).

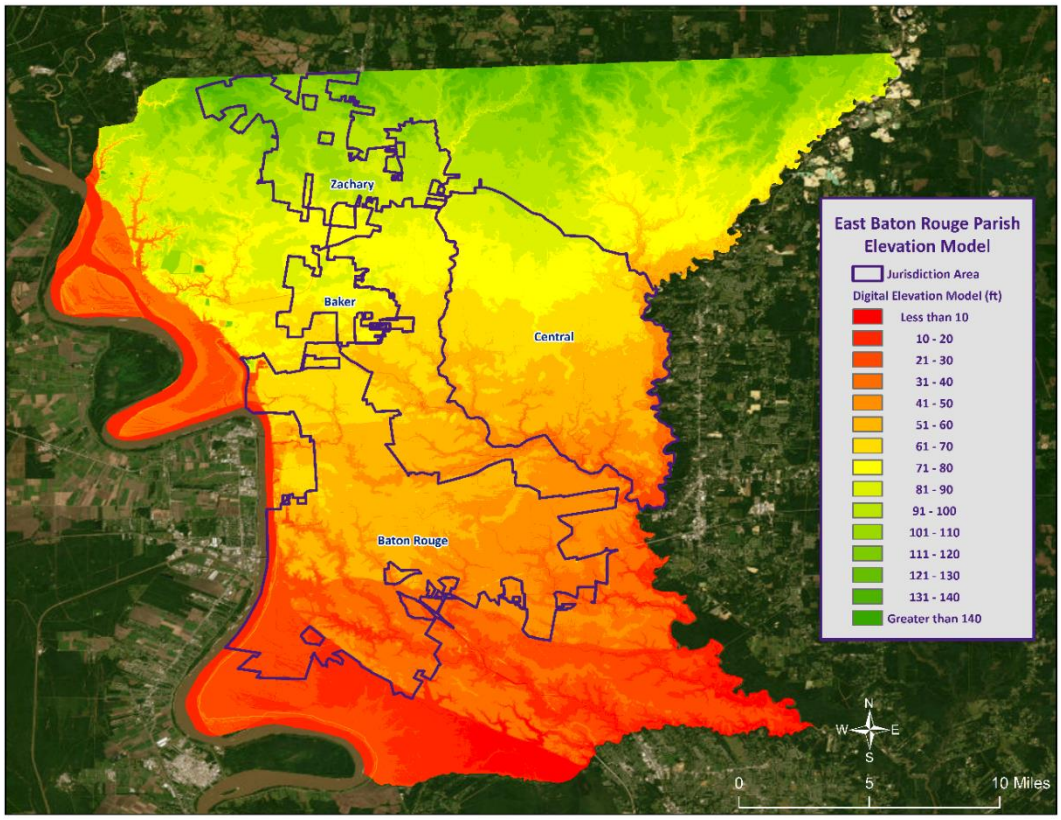


Figure 2-19: Elevation throughout the Parish.

Risk Assessment

Geographic Extent

East Baton Rouge Parish has experienced significant flooding in its history and can expect more in the future. The parish is bordered on the west by the Mississippi River, and a series of creeks and bayous provide natural drainage from Baton Rouge to the east and to the southeast. Hurricane Creek provides drainage from the Scotlandville area and the industrial district in Baton Rouge's northern section. Since World War II, urban expansion has encroached on low-lying and poorly drained areas in the parish. The principal flooding in the parish is caused by backwater flooding along the Amite and Comite Rivers and their tributaries.

The worst-case scenarios are based on several different types of flooding events. Storm water excesses and riverine flooding primarily affect the low-lying areas of the parish, and flood depths of up to eight feet can be expected in the unincorporated areas of the parish. The incorporated areas of Baton Rouge and Central can expect flood depths of approximately three to six feet, while the incorporated areas of Baker and Zachary can expect flooding levels of approximately two to four feet.

Previous Occurrences

The parish experienced 74 flooding occurrences between the years 1996 and 2022. Since the last update in 2017, there have been 51 flood occurrences within the boundaries of the parish.

Table 2-26: Historical Flooding Events in the Parish since the 2017 Update.

Date	Area	Type of Flood	Property Damage	Fatalities	Injuries
1/19/2017	NORTH BATON ROUGE	Flash Flood	$0	0	0
1/27/2018	UNIVERSITY	Flash Flood	$0	0	0
1/27/2018	ESSEN	Flash Flood	$0	0	0
1/27/2018	PUCKETT	Flash Flood	$0	0	0
6/12/2018	UNIVERSITY	Flash Flood	$0	0	0
7/30/2018	GORDERE	Flood	$0	0	0
9/10/2018	FOREST OAKS	Flood	$0	0	0
12/27/2018	PORT HUDSON	Flash Flood	$0	0	0
4/18/2019	MAGNOLIA WOODS	Flash Flood	$0	0	0
5/9/2019	SCOTLAND	Flash Flood	$0	0	0
5/10/2019	PUCKETT	Flash Flood	$0	0	0
6/6/2019	ALSEN	Flash Flood	$750,000	1	0
10/8/2020	NORTH BATON ROUGE	Flash Flood	$0	0	0
10/8/2020	COMITE	Flash Flood	$0	0	0
10/9/2020	UNIVERSITY	Flash Flood	$0	0	0
10/9/2020	MARYLAND	Flash Flood	$0	0	0
10/9/2020	MILLERVILLE	Flash Flood	$0	0	0
10/9/2020	COMITE	Flash Flood	$0	0	0
5/17/2021	INNISWOLD	Flash Flood	$3,000	0	0
5/17/2021	ESSEN	Flash Flood	$1,000	0	0
5/17/2021	WESTMINSTER	Flash Flood	$0	1	0
5/17/2021	FOREMAN	Flash Flood	$3,000	0	0
5/17/2021	WOODLAWN	Flash Flood	$0	0	0
5/17/2021	ESSEN	Flash Flood	$0	0	0
5/17/2021	MILLERVILLE	Flash Flood	$0	0	0
5/17/2021	ARLINGTON	Flash Flood	$5,000	0	0
5/18/2021	UNIVERSITY	Flash Flood	$100,000	0	0
5/20/2021	ZION CITY	Flash Flood	$0	0	0
5/20/2021	KLEINPETER	Flash Flood	$0	0	0
5/20/2021	GREENWELL SPGS	Flash Flood	$0	0	0
7/27/2021	NORTH BATON ROUGE	Flash Flood	$75,000	0	0
7/27/2021	NORTH BATON ROUGE	Flash Flood	$0	0	0
9/14/2021	ESSEN	Flash Flood	$0	0	0
12/6/2021	BATON ROUGE	Flash Flood	$0	0	0
3/22/2022	UNIVERSITY	Flash Flood	$0	0	0
7/22/2022	MAGNOLIA	Flash Flood	$0	0	0
7/22/2022	MAGNOLIA WOODS	Flash Flood	$0	0	0
7/22/2022	NORTH BATON ROUGE	Flash Flood	$0	0	0
7/22/2022	ISTROUMA	Flash Flood	$0	0	0

Date	Area	Type of Flood	Property Damage	Fatalities	Injuries
7/22/2022	NORTH BATON ROUGE	Flash Flood	$0	0	0
7/26/2022	MARYLAND	Flash Flood	$0	0	0
7/26/2022	NORTH BATON ROUGE	Flash Flood	$0	0	0
7/28/2022	INNISWOLD	Flash Flood	$0	0	0
8/3/2022	ISTROUMA	Flash Flood	$0	0	0
8/3/2022	UNIVERSITY	Flash Flood	$0	0	0
8/3/2022	UNIVERSITY	Flash Flood	$10,000	0	0
8/3/2022	BROADMOOR	Flash Flood	$0	0	0
8/11/2022	MAGNOLIA WOODS	Flash Flood	$0	0	0
9/3/2022	MAGNOLIA WOODS	Flash Flood	$10,000	0	0
9/3/2022	MAGNOLIA WOODS	Flash Flood	$0	0	0
9/3/2022	BROADMOOR	Flash Flood	$0	0	0

Probability

The annual return rate (frequency) for periods of flooding in the parish is 2.74 (100% annual probability) or approximately 2 to 3 flood occurrences every year. The table below shows the probability and return frequency for each jurisdiction in the parish.

Table 2-27: Annual Flood Probabilities for Each Jurisdiction in East Baton Rouge Parish.

Jurisdiction	Annual Probability	Return Frequency
Unincorporated EBR Parish	100%	2 to 3 occurrences every year
Baker	19%	1 occurrence every 5 to 6 years
Baton Rouge	59%	1 occurrence every 1 to 2 years
Central	19%	1 occurrence every 5 to 6 years
Zachary	22%	1 occurrence every 1 to 2 years

Climate Change Impacts

Atmospheric moisture, precipitation, and atmospheric circulation can be affected by climate change, since radiative forcing alters heating which affects evaporation and sensible heating at the Earth's surface. This process alters the amount, frequency, intensity, duration, and type of precipitation which is part of the hydrological cycle. The Intergovernmental Panel on Climate Change reports that over 105-year period (1901 – 2005) precipitation has increased 5 to 10%. Additionally, water resource managers observed the following:

- Historical hydrological patterns can no longer be solely relied upon to forecast the water future.
- Precipitation and runoff patterns are changing, increasing the uncertainty for water supply quality, flood management, and ecosystem functions.
- Extreme climatic events will become more frequent, necessitating improvement in flood protection and emergency response.

Climate change poses significant threats to both infrastructure and vulnerable populations in the context of flooding. Rising global temperatures have led to the intensification of extreme weather events, such as heavy rainfall and storms, which increase the frequency and severity of floods. Infrastructure, such as roads, bridges, and buildings, designed to withstand historical weather patterns, is now facing greater stress and damage due to the increased volume and intensity of floodwaters.

One of the most pressing impacts of climate change on infrastructure is the increased risk of damage and disruption to critical lifeline systems, such as water supply networks, energy grids, and transportation systems. Floods can compromise the integrity of these systems, leading to widespread power outages, disrupted water access, and road closures, hindering emergency response and recovery efforts. As floods become more frequent and severe, the cost of repairing and reinforcing infrastructure becomes a significant burden on governments and communities.

Furthermore, climate change disproportionately affects vulnerable populations, including low-income communities, the elderly, and those with limited mobility or access to resources. These communities often reside in flood-prone areas with inadequate infrastructure and limited capacity to adapt to changing conditions. Floods can exacerbate existing social inequalities, displacing vulnerable populations and exposing them to health risks, property loss, and economic hardship. Lack of access to timely information and limited evacuation resources can further endanger their lives during extreme flooding events.

Additionally, climate change can disrupt local economies in flood-affected regions. Agricultural lands can be damaged, leading to reduced crop yields and affecting livelihoods. Businesses, particularly those without insurance or financial resilience, may face bankruptcy due to flood-related losses. The overall economic impacts ripple beyond immediate flood-affected regions, affecting supply chains and markets globally.

Addressing the impacts of climate change on infrastructure and vulnerable populations requires a comprehensive approach. Building more resilient infrastructure, incorporating climate adaptation measures, and enforcing zoning regulations to prevent development in flood-prone areas are essential steps. Additionally, governments must prioritize support and resources for vulnerable communities, providing them with better access to early warning systems, evacuation plans, and social safety nets to cope with flood-related challenges. Long-term climate change mitigation efforts are also necessary to reduce the severity and frequency of floods, ultimately safeguarding both infrastructure and vulnerable populations from the detrimental effects of flooding.

Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The following table provides an overview of each category at the parish level for flooding.

Table 2-28: National Risk Index (NRI) Summarization of Riverine Flood Occurrences for EBR Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Very High	Very High

Estimated Impact and Potential Loss

Using the Hazus Flood Model, the 100-year flood scenario was analyzed to determine losses from this scenario. The following table shows the total economic losses that would result from a 100-year flood occurrence.

Table 2-29: Estimated Losses in East Baton Rouge Parish from a 100-Year Flood Event. (Source: Hazus)

Jurisdiction	Estimated Loss
Unincorporated EBR Parish	$323,954,000
Baker	$57,166,000
Baton Rouge	$233,256,000
Central	$96,158,000
Zachary	$20,429,000
Total	**$730,963,000**

The Hazus Flood Model also provides a breakdown by jurisdiction for seven primary categories (Hazus occupancy) throughout the parish. The losses for each jurisdiction by sector are listed in the following tables:

Table 2-30: Estimated 100-year Flood Losses for Unincorporated East Baton Rouge Parish by Sector. (Source: Hazus)

Unincorporated EBR Parish	Estimated Total Losses from 100-Year Flood Event
Agricultural	$232,000
Commercial	$62,960,000
Government	$1,883,000
Industrial	$21,726,000
Religious / Non-Profit	$10,302,000
Residential	$226,536,000
Schools	$315,000
Total	**$323,954,000**

Table 2-31: Estimated 100-year Flood Losses for Baker by Sector. (Source: Hazus)

Baker	Estimated Total Losses from 100-Year Flood Event
Agricultural	$218,000
Commercial	$6,422,000
Government	$643,000
Industrial	$734,000
Religious / Non-Profit	$910,000
Residential	$48,039,000
Schools	$200,000
Total	**$57,166,000**

Table 2-32: Estimated 100-year Flood Losses for Baton Rouge by Sector. (Source: Hazus)

Baton Rouge	Estimated Total Losses from 100-Year Flood Event
Agricultural	$812,000
Commercial	$61,914,000
Government	$1,687,000
Industrial	$9,540,000
Religious / Non-Profit	$6,078,000
Residential	$151,860,000
Schools	$1,365,000
Total	**$233,256,000**

Table 2-33: Estimated 100-year Flood Losses for Central by Sector. (Source: Hazus)

Central	Estimated Total Losses from 100-Year Flood Event
Agricultural	$944,000
Commercial	$8,595,000
Government	$14,000
Industrial	$3,019,000
Religious / Non-Profit	$3,389,000
Residential	$79,772,000
Schools	$425,000
Total	**$96,158,000**

Table 2-34: Estimated 100-year Flood Losses for Zachary by Sector. (Source: Hazus)

Zachary	Estimated Total Losses from 100-Year Flood Event
Agricultural	$145,000
Commercial	$8,568,000
Government	$342,000
Industrial	$702,000
Religious / Non-Profit	$723,000
Residential	$9,934,000
Schools	$15,000
Total	**$20,429,000**

Vulnerable Population

The total population within the parish that is susceptible to a flood hazard is shown in the table below:

Table 2-35: Vulnerable Populations Susceptible to a 100-year Flood Event. (Source: Hazus)

Number of People Exposed to Flood Hazards			
Location	**# in Community**	**# in Hazard Area**	**% in Hazard Area**
Unincorporated EBR Parish	161,738	52,580	32.5%
Baker	12,455	4,298	34.5%
Baton Rouge	227,470	29,337	12.9%
Central	29,565	14,604	49.4%
Zachary	19,302	3,706	19.2%
Total	**450,544**	**104,525**	**23.2%**

The Hazus Flood model was also extrapolated to provide an overview of the vulnerable populations throughout the jurisdictions in the following tables:

Table 2-36: Vulnerable Populations Susceptible to a 100-year Flood Event in East Baton Rouge Parish. (Source: Hazus)

Unincorporated EBR Parish		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	**52,580**	**32.5%**
Persons Under 5 Years	**3,260**	**6.2%**
Persons Under 18 Years	**11,936**	**22.7%**
Persons 65 Years and Over	**8,045**	**15.3%**
White	**24,818**	**47.2%**
Minority	**27,762**	**52.8%**

Table 2-37: Vulnerable Populations Susceptible to a 100-year Flood Event in Baker. (Source: Hazus)

Baker		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	4,298	34.5%
Persons Under 5 Years	430	10.0%
Persons Under 18 Years	1,087	25.3%
Persons 65 Years and Over	447	10.4%
White	447	10.4%
Minority	3,851	89.6%

Table 2-38: Vulnerable Populations Susceptible to a 100-year Flood Event in Baton Rouge. (Source: Hazus)

Baton Rouge		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	29,337	12.9%
Persons Under 5 Years	1,966	6.7%
Persons Under 18 Years	6,278	21.4%
Persons 65 Years and Over	4,166	14.2%
White	10,913	37.2%
Minority	18,424	62.8%

Table 2-39: Vulnerable Populations Susceptible to a 100-year Flood Event in Central. (Source: Hazus)

Central		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	14,604	49.4%
Persons Under 5 Years	949	6.5%
Persons Under 18 Years	3,812	26.1%
Persons 65 Years and Over	2,410	16.5%
White	12,370	84.7%
Minority	2,234	15.3%

Table 2-40: Vulnerable Populations Susceptible to a 100-year Flood Event in Zachary. (Source: Hazus)

Zachary		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	3,706	19.2%
Persons Under 5 Years	185	5.0%
Persons Under 18 Years	1,075	29.0%
Persons 65 Years and Over	367	9.9%
White	1,694	45.7%
Minority	2,012	54.3%

Vulnerability Score

Table 2-41: Flood Vulnerability Score for East Baton Rouge Parish.

Flood Vulnerability Score						
	Probability	**Impact**	**Spatial Extent**	**Warning Time**	**Duration**	**Risk Factor**
Risk Level	4	4	3	4	3	**3.65**

Levee Failure

Profile

Levees and floodwalls are flood control barriers constructed of earth, concrete, or other materials. For the purposes of this plan, levees are distinguished from smaller flood barriers (such as berms) by their size and extent. Berms are barriers that only protect a small number of structures, or at times only a single structure. Levees and floodwalls are barriers that protect significant areas of residential, commercial, or industrial development; at a minimum, they protect a neighborhood or small community. Levee failure involves the overtopping, breach, or collapse of the levee. Levee failure is especially destructive to nearby development during flood and hurricane events.

The northern half of Louisiana is protected by levees on the Ouachita River, under the authority of the Vicksburg District of the United States Army Corp of Engineers (USACE). The Vicksburg District encompasses 68,000 mi^2 in the states of Arkansas, Mississippi and Louisiana. They manage seven drainage basins, including the Yazoo, Pearl, Big Black, Red, Ouachita, and Mississippi Rivers; 12 locks and dams on the Pearl, Red, and Ouachita Rivers; 1,808 miles of levees, including 468 miles along the Mississippi River; and multiple lakes with 1,709 miles of shoreline.

Coastal and southern Louisiana are protected by an extensive levee system under the authority of the New Orleans District of the USACE. This system includes 30,000 mi^2 of Louisiana south of Alexandria, including 961 miles of river levees in the Mississippi River and Tributaries Project, 449 miles of river levees in the Atchafalaya Basin, and 340 miles of hurricane-protection levees. Other levees have been built along stretches of rivers throughout Louisiana by local levee districts and private citizens. The data regarding these non-federal levees are managed by the individual entity responsible for construction and subsequent maintenance and are not kept in a consistent format for comprehensive hazard analysis.

The effects of a levee failure on property are similar to that of a flood, as discussed in the flooding section. One major difference is that the velocity of the water is increased in the area of the breach, so the potential for property damage is higher in these areas.

A levee failure occurs during high water events, so the populace is normally alerted to the potential danger. Levees are normally monitored during these events and the population in danger is alerted to a possible levee failure. However, if people consider themselves safe once a levee has been breached and do not evacuate, the results could be deadly.

The Mississippi River levee system is constantly monitored during high water events by federal, state, and parish officials. Any potential failure of the Mississippi River levee would be observed long before a failure took place. Once observed, it would be mitigated to prevent any failure in the levee. As a slowly developing hazard, there is significant lead time to warn and evacuate the population in the event of a potential failure. The more likely scenario involving a potential level failure would be an overtopping event for a major precipitation event taking place during a tropical cyclone, similar to Tropical Storm Allison in 2001. An event of this nature is less likely to produce an early warning and most likely to subject more people to flooding.

Risk Assessment

Geographic Extent

Per the National Inventory of Levees, there is one levee system located within the unincorporated areas of East Baton Rouge Parish and the incorporated areas of the City of Baton Rouge. The incorporated areas of Baker, Central, and Zachary are not susceptible to levee failure. The areas of inundation will generally be directly adjacent of the levee failure and the low-lying areas surrounding the area of levee failure, but a working group will be established to determine the specific locations of inundation (See East Baton Rouge Parish New Mitigation Action 5 and City of Baton Rouge New Mitigation Action 4). The following figure displays the levee system located in the parish:

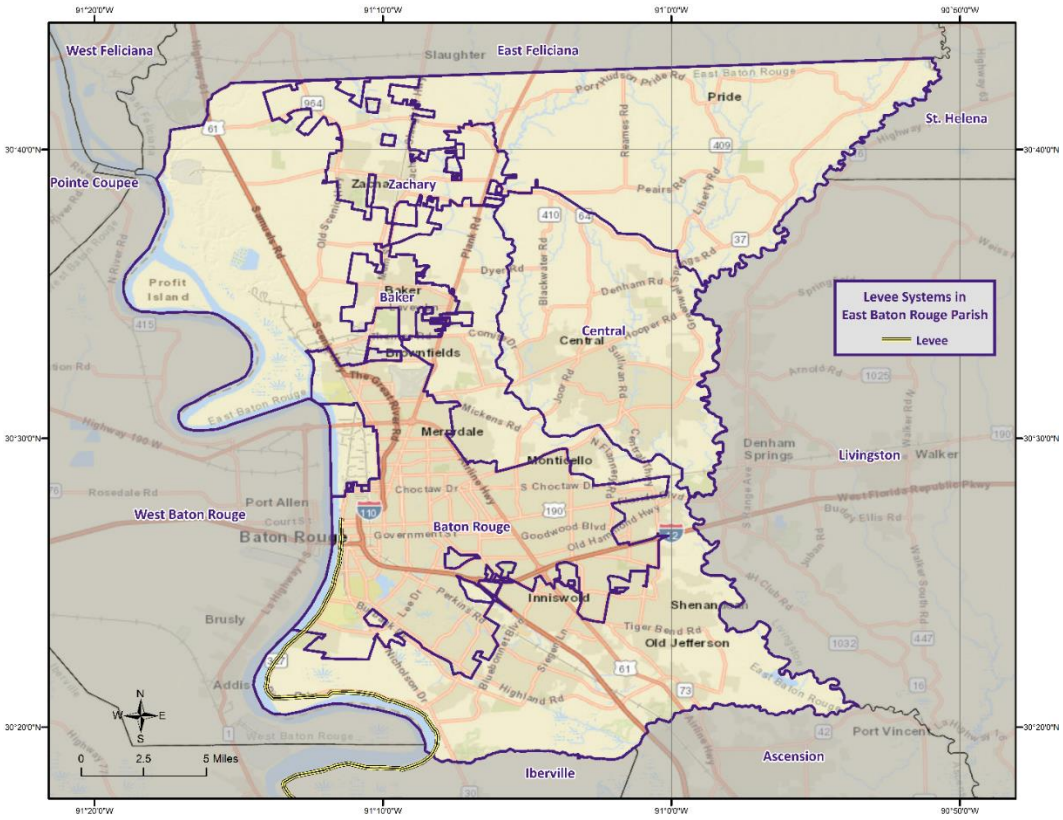


Figure 2-20: Levee Systems in East Baton Rouge Parish.

Previous Occurrences

There have been no reported levee failure occurrences within the parish and the jurisdictions. The parish claims a data deficiency on the extent of dam failure for the levee system located in the parish. This data deficiency includes potential inundation areas and subsequent impacts related to the overtopping, collapse, or breaching of the levee located within the parish. As these inundation zones haven't yet been identified, the parish will continue to develop an extent and additional relevant data associated with this hazard.

Probability

It is nearly impossible to predict and model levee failure and its impact on the parish. Due to the unpredictability of levee failures, it is calculated that the probability of a levee failure is less than 1% annually for the unincorporated areas of the parish and its jurisdictions.

Climate Change Impacts

As mentioned previously in dam failures, extreme precipitation, primarily the type that contributes to flash flooding and not widespread areal flooding, is expected to increase due to climate change. While this may not contribute to the traditional definition of a levee failure, it could increase the chances of a levee overtopping.

Climate change is contributing to the increased risk of levee failure, with severe consequences for both infrastructure and vulnerable populations. Rising global temperatures are intensifying precipitation patterns, leading to heavier rainfall events and increased pressure on levees designed to protect against flooding. As a result, the likelihood of levee breaches and failures has significantly risen, endangering critical infrastructure and communities situated in flood-prone areas.

Infrastructure is particularly vulnerable to levee failures, as many essential facilities, such as power plants, transportation systems, and industrial complexes, are often located near rivers and coastal regions protected by levees. When these flood barriers fail, floodwaters can inundate and damage these key facilities, causing widespread disruptions to electricity supply, transportation networks, and industrial operations. The financial costs of repairing and rebuilding damaged infrastructure can be enormous, putting a strain on regional economies and taxpayer resources.

However, the impacts of levee failure extend far beyond infrastructure and have dire consequences for vulnerable populations. Low-income communities and marginalized groups often reside in flood-prone areas, as these locations tend to offer more affordable housing options. When levees fail, these vulnerable populations are at a higher risk of experiencing catastrophic losses. Their homes and properties are more likely to be submerged, leading to displacement, property damage, and loss of livelihoods. Access to healthcare and emergency services can also be severely limited during flooding, further endangering vulnerable individuals' lives.

Moreover, levee failure can result in loss of life due to sudden and unpredictable inundation of floodwaters. Vulnerable populations, such as the elderly, disabled, and those without means of transportation, may find it challenging to evacuate in time, leading to tragic outcomes. Lack of access to reliable information and inadequate emergency response plans can exacerbate the risks faced by vulnerable communities during levee failures.

Addressing the impacts of climate change on infrastructure and vulnerable populations concerning levee failure necessitates urgent action. Investing in robust monitoring and maintenance of levee systems is crucial to reduce the risk of failures. Additionally, comprehensive risk assessments can help identify areas with the highest vulnerabilities and guide targeted efforts to protect and support vulnerable communities. Climate change mitigation strategies, such as reducing greenhouse gas emissions and promoting sustainable land use practices, are essential to address the root causes of levee failure and minimize its impacts on both infrastructure and vulnerable populations in the long run.

Vulnerability Analysis

Estimated Impact and Potential Loss

Determining the annualized loss as a result of a levee failure is difficult in the parish due to availability of data on past levee failure events. The National Inventory of Levees was utilized to determine the levees within the parish, the risk level, and storage capacity of the reservoir. The table on the following page provides an extensive list of the dams in the parish with the risk associated with each system.

Table 2-42: Levees and Risk Associated with each in East Baton Rouge Parish.
(Source: National Inventory of Levees)

System	Risk	Height (ft)	Population	Buildings	Property Value
Mississippi River East Bank	High	25	429,480	178,846	$62.8 Billion

Vulnerable Population

There have been no reported fatalities or injuries due to levee failure in East Baton Rouge Parish. However, the failure of levees can have devastating consequences on the population, leading to significant loss of life, displacement, and long-term socio-economic impacts. When a levee fails, it can result in uncontrolled flooding, posing a grave threat to the safety and well-being of the population living in the affected areas immediately adjacent to and in the low-lying areas surrounding where the levee failed.

One of the immediate impacts of levee failures is the risk of drowning and physical harm to individuals. The sudden release of a large volume of water can inundate communities, trapping people in their homes or forcing them to seek refuge on rooftops or higher ground. Swift-moving floodwaters can sweep away individuals, making rescue and evacuation efforts extremely challenging. The loss of life due to drowning and other water-related incidents is a tragic consequence of such failures.

Moreover, the failure levees can lead to widespread displacement of the population. Residents in affected areas may be forced to evacuate their homes and seek temporary shelter in emergency facilities or with friends and relatives. Displacement disrupts lives, separates families, and strains the resources and capacities of hosting communities. It can also result in long-term homelessness and the need for extensive efforts to provide adequate housing and support for the affected population.

In addition to the immediate physical risks, levee failures can have long-term socio-economic impacts on the affected population. The loss of homes, businesses, and infrastructure disrupts local economies and livelihoods. Individuals may lose their jobs, and businesses may be unable to operate, leading to financial instability and hardship. The recovery and reconstruction process can be lengthy, causing prolonged economic disruptions and affecting the overall well-being of the population.

Furthermore, the psychological and emotional toll on the affected population cannot be overlooked. Levee failures are traumatic events that can cause immense stress, anxiety, and grief among survivors. The loss of loved ones, possessions, and a sense of security can have long-lasting psychological impacts on individuals and communities. Mental health support and counseling become crucial in helping the population cope with the trauma and rebuild their lives.

Vulnerability Score

Table 2-43: Levee Vulnerability Score for East Baton Rouge Parish.

Levee Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	1	2	1	4	2	**1.85**

Thunderstorms (Hail, Lightning, & Thunderstorm Wind)

Overview

The term "thunderstorm" is usually used as a catch-all term for several kinds of storms. Here "thunderstorm" is defined to include any precipitation occurrence in which thunder is heard or lightning is seen. Thunderstorms are often accompanied by heavy rain and strong winds, and occasionally, depending on conditions, by hail or snow. Thunderstorms form when humid air masses are heated, which causes them to become convectively unstable. Consequently, the air masses rise. Upon rising, the air masses' water vapor condenses into liquid water and/or deposits directly into ice when they rise sufficiently to cool to the dew-point temperature.

Thunderstorms are classified into four main types (single-cell, multi-cell, squall line, and supercell) depending on the degree of atmospheric instability, the change in wind speed with height (called wind shear), and the degree to which the storm's internal dynamics are coordinated with those of adjacent storms. There is no such interaction for single-cell thunderstorms, but there is significant interaction with clusters of adjacent thunderstorms in multi-cell thunderstorms, and with a linear "chain" of adjacent storms in squall line thunderstorms. Though supercell storms have no significant interactions with other storms, they have very well-organized and self-sustaining internal dynamics, which allows them to be the longest-lived and most severe of all thunderstorms.

The life of a thunderstorm proceeds through three stages: the developing (or cumulus) stage, the mature stage, and the dissipation stage. During the developing stage, the unstable air mass is lifted as an updraft into the atmosphere. This sudden lift rapidly cools the moisture in the air mass, releasing latent heat as condensation and/or deposition occurs, which warms the surrounding environment, thus making it less dense than the surrounding air. This process intensifies the updraft and creates a localized lateral rush of air from all directions into the area beneath the thunderstorm to feed continued updrafts. At the mature stage, the rising air is accompanied by downdrafts caused by the shear of falling rain (if melted completely), or hail, freezing rain, sleet, or snow (if not melted completely). The dissipation stage is characterized by the dominating presence of the downdraft as the hot surface that gave the updrafts their buoyancy is cooled by precipitation. During the dissipation stage, the moisture in the air mass largely empties out.

The Storm Prediction Center, in conjunction with the National Weather Service (NWS), has the ability to issue advisory messages based on forecasts and observations. The following are the advisory messages that may be issued, along with definitions of each:

- **Severe Thunderstorm Watch**: Issued to alert people to the possibility of a severe thunderstorm developing in the area. Expected time frame for these storms is three to six hours.

- **Severe Thunderstorm Warning**: Issued when severe thunderstorms are imminent. This warning is highly localized and covers parts of one to several counties.

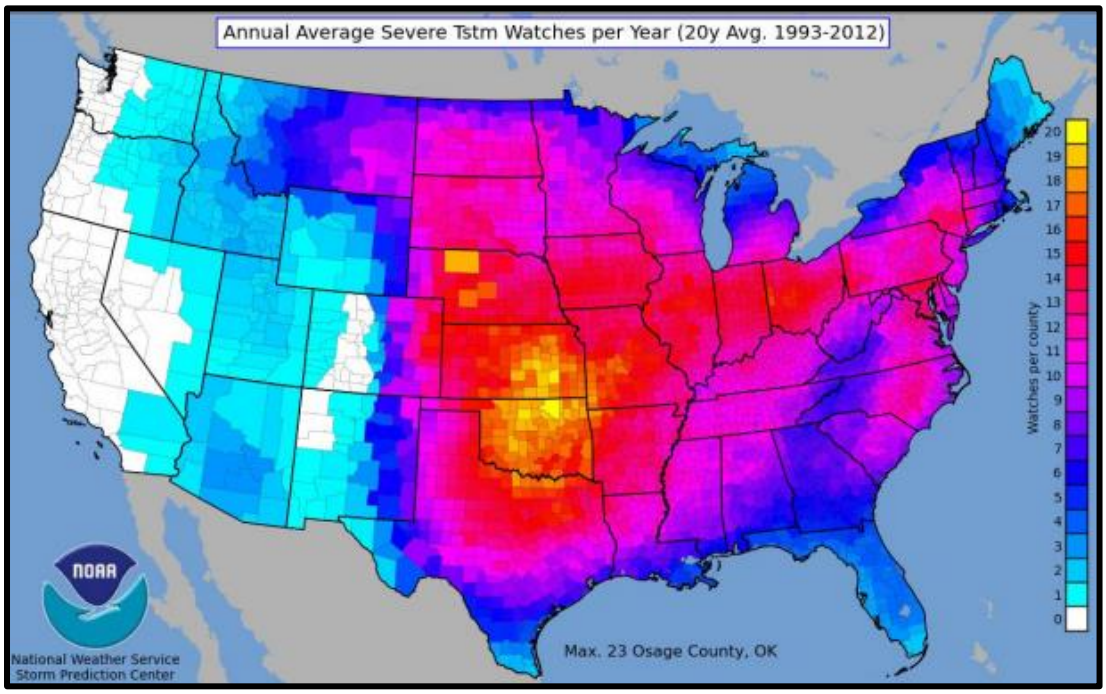


Figure 2-21: Parish-Level Severe Thunderstorm Watches Issued Per Year on Average.

A variety of hazards might be produced by thunderstorms, including lightning, hail, tornadoes or waterspouts, flash flooding, and high-speed winds called downbursts. Nevertheless, given the criteria, the National Oceanic and Atmospheric Administration (NOAA) characterize a thunderstorm as severe when it produces one or more of the following:

- Hail of one inch in diameter or larger
- Wind gusts to 58 mph or greater
- One or more tornadoes

Tornadoes and flooding hazards have been profiled individually within this report; therefore, for the purpose of thunderstorms, the sub-hazards of hail, high winds, and lightning will be profiled.

Thunderstorms occur throughout the United States at all times of the year, although the types and severity of these storms vary greatly depending on a wide variety of atmospheric conditions. Severe thunderstorms occur more frequently during the late spring and early summer and late summer and early fall when extreme variations exist between ground surface temperatures and upper atmospheric temperatures.

Climate Change Impacts

The impact of climate change on thunderstorms is not well understood at this time. However, thunderstorms are complex, dynamic systems fueled by heat and moisture which can be measured with CAPE (convective available potential energy). It is predicted that CAPE will increase across the Eastern United States by the second half of the 21st century, meaning there is more energy to fuel severe thunderstorms. In this same time frame, there would be a small decrease in vertical wind shear, which helps produce long-lived severe storms. However, the increase in energy outweighs the decreasing shear to produce a net increase in environmental favorability for severe thunderstorms by the end of the century. Some climate models maintained by the Goddard Institute for Space Studies indicate that the

number of severe thunderstorms will not change much, but the severe storms that do occur would have stronger winds and more intense precipitation.

Climate change is influencing the frequency and severity of thunderstorms, resulting in significant impacts on infrastructure and vulnerable populations. As global temperatures rise, the atmosphere becomes more energized, leading to an increase in the intensity of thunderstorm activity. Thunderstorms bring heavy rainfall, strong winds, hail, and lightning, all of which can cause substantial damage to various types of infrastructure.

One of the most significant impacts of thunderstorms on infrastructure is the damage to power and communication lines. Strong winds and lightning strikes can lead to power outages, disrupting essential services and communication networks. This can have severe consequences for communities that rely on electricity for medical equipment, communication, and daily living. Additionally, damage to power infrastructure can result in economic losses due to business interruptions and increased repair costs.

Furthermore, heavy rainfall associated with thunderstorms can lead to flash flooding, overwhelming stormwater drainage systems and causing road and bridge damage. This not only disrupts transportation networks but also poses a safety hazard for motorists and pedestrians. Flooded roads can isolate communities and hinder emergency response efforts, leaving vulnerable populations at higher risk during and after thunderstorm events.

Vulnerable populations, such as low-income communities and the elderly, often lack access to resources and live in areas with inadequate infrastructure. They are disproportionately affected by the impacts of thunderstorms. For instance, substandard housing in flood-prone regions can suffer severe damage during storms, displacing already marginalized individuals and families. The elderly and people with limited mobility may face difficulties evacuating during severe weather events, putting their lives at risk.

Moreover, thunderstorms can lead to an increase in lightning-related accidents and wildfires. Lightning strikes can cause fires that spread rapidly, threatening communities and posing additional risks to vulnerable populations living in areas prone to wildfires. These events not only endanger lives but also strain emergency response resources and increase the financial burden on affected communities.

To address the impacts of climate change on infrastructure and vulnerable populations concerning thunderstorms, several measures are crucial. Investment in resilient infrastructure, such as strengthening power grids and stormwater drainage systems, can help mitigate damage and improve response capabilities. Additionally, raising awareness and providing resources to vulnerable communities can enhance preparedness and evacuation plans. Climate change mitigation efforts to reduce greenhouse gas emissions are also essential in curbing the intensification of thunderstorms, ultimately safeguarding both infrastructure and vulnerable populations from the adverse effects of these severe weather events.

Hail Profile

Hailstorms are severe thunderstorms in which balls or chunks of ice fall along with rain. Hailstorm densities and reports vary spatially across Louisiana. Hail initially develops in the upper atmosphere as ice crystals that are bounced about by high-velocity updraft winds. The ice crystals grow through deposition of water vapor onto their surface. They then fall partially to a level in the cloud where the temperature exceeds the freezing point, melt partially, and then get caught in another updraft whereupon re-freezing and deposition grows another concentric layer of ice. After several trips up and down the cloud, they develop enough weight to fall. The size of hailstones varies depending on the severity and size

of the thunderstorm. Higher surface temperatures generally mean stronger updrafts, which allow more massive hailstones to be supported by updrafts, leaving them suspended longer. This longer suspension time results in larger hailstone sizes. The tables below and on the next page display the TORRO Hailstorm Intensity Scale, along with a spectrum of hailstone diameters and their everyday equivalents.

Table 2-44: TORRO Hailstorm Intensity Scale.

Intensity Category		Hail Diameter (mm)	Probable Kinetic Energy	Typical Damage Impacts
H0	Hard Hail	5	0 - 20	No damage
H1	Potentially Damaging	5 - 15	>20	Slight general damage to plant, crops
H2	Significant	10 - 20	>100	Significant damage to fruit, crops, vegetation
H3	Severe	20 - 30	>300	Severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	25 - 40	>500	Widespread glass damage, vehicle body work
H5	Destructive	30 - 50	>800	Wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40 - 60		Bodywork of grounded aircraft dented; brick walls pitted
H7	Destructive	50 - 75		Severe roof damage, risk of serious injuries
H8	Destructive	60 - 90		Severe damage to aircraft bodywork
H9	Super Hailstorms	75 - 100		Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	>100		Extensive structural damage. Risk of severe or even fatal injuries to persons caught in the open

Table 2-45: Spectrum of Hailstone Diameters and their Everyday Description. (Source: National Weather Service)

Spectrum of Hailstone Diameters	
Hail Diameter Size	**Description**
1/4”	Pea
1/2”	Plain M&M
3/4”	Penny
7/8”	Nickle
1” (severe)	Quarter
1 1/4”	Half Dollar
1 1/2”	Ping Pong Ball / Walnut
1 3/4”	Golf Ball
2”	Hen Egg / Lime
2 1/2"	Tennis Ball
2 3/4"	Baseball
3”	Teacup / Large Apple
4”	Softball
4 1/2"	Grapefruit
4 3/4” – 5”	Computer CD-DVD

Hailstorms can cause widespread damage to homes and other structures, automobiles, and crops. While the damage to individual structures or vehicles is often minor, the cumulative cost to communities, especially across large metropolitan areas, can be quite significant. Hailstorms can also be devastating to crops. Thus, the severity of hailstorms depends on the size of the hailstones, the length of time the storm lasts, and where it occurs. Hail rarely causes loss of life, although large hailstones can cause bodily injury.

Lightning Profile

Lightning is defined by the National Weather Service as any and all of the various forms of visible electrical discharge caused by thunderstorms. Thunderstorms and lightning are usually (but not always) accompanied by rain. Cloud-to-ground lightning can kill or injure people by direct or indirect means. Objects can be struck directly, which may result in an explosion, burn, or total destruction. Damage may also be indirect which occurs when the current passes through or near an object.

Intra-cloud lightning is the most common type of discharge. This occurs between oppositely charged centers within the same cloud. Usually it transpires inside the cloud and looks from the outside of the cloud like a diffuse brightening that flickers. However, the flash may exit the boundary of the cloud, and a bright channel, similar to a cloud-to-ground flash, can be visible for many miles.

Cloud-to-ground lightning is the most damaging and dangerous type of lightning, though it is also less common. Most flashes originate near the lower-negative charged center and deliver negative charge to the earth. However, a large minority of flashes carry a positive charge to earth. These positive flashes often occur during the dissipating stage of a thunderstorm. Positive flashes are also more common as a percentage of total ground strikes during the winter months. This type of lightning is particularly dangerous for several reasons. It frequently strikes away from the rain core, either ahead or behind the thunderstorm. It can strike five to ten miles from the storm in areas that most people do not consider a

threat. Positive lightning also has a longer duration, so fires are more easily ignited. When positive lightning strikes, it usually carries a high peak electrical current, which can potentially result in greater damage.

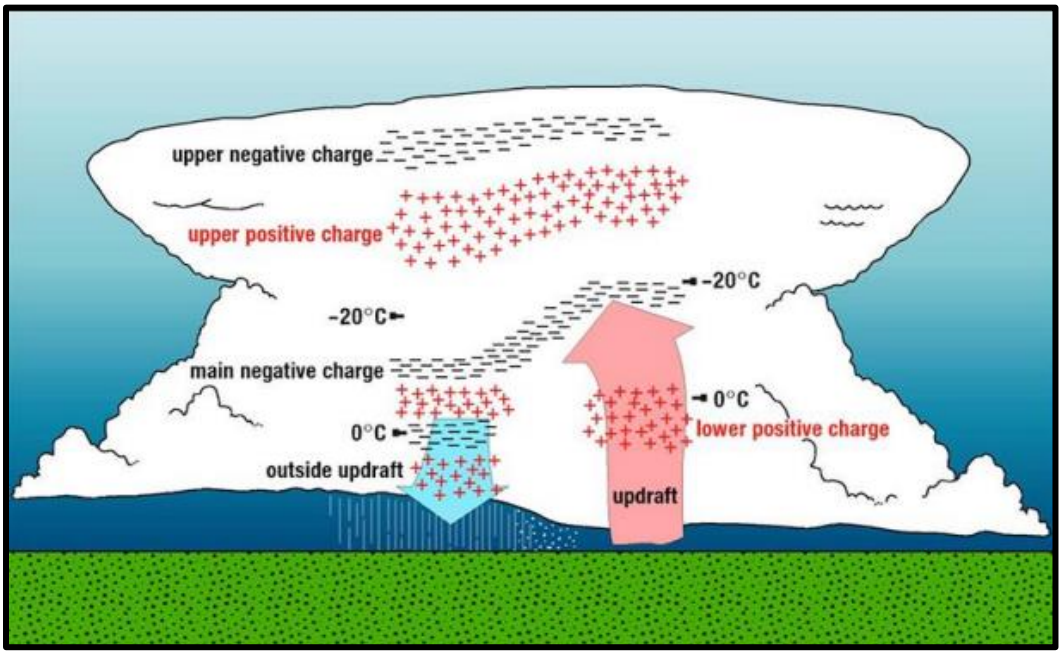


Figure 2-22: Charge Distribution in a Typical Storm Cloud.
(Source: The National Severe Storms Laboratory)

Lightning continues to be one of the top three storm-related killers in the United States per FEMA, but if not fatal it also has the ability to cause negative long-term health effects to the individual that is struck. The following table outlines the lightning activity level and intensity scale:

Table 2-46: Lightning Activity Level (LAL) Grids.

LAL	Cloud and Storm Development	Lightning Strikes/15 Min
1	No thunderstorms.	-
2	Cumulus clouds are common but only a few reaches the towering cumulus stage. A single thunderstorm must be confirmed in the observation area. The clouds produce mainly virga, but light rain will occasionally reach the ground. Lightning is very infrequent.	1-8
3	Towering cumulus covers less than two-tenths of the sky. Thunderstorms are few, but two to three must occur within the observation. Light to moderate rain will reach the ground, and lightning is infrequent.	9-15
4	Towering cumulus covers two to three-tenths of the sky. Thunderstorms are scattered and more than three must occur within the observation area. Moderate rain is common, and lightning is frequent.	16-25
5	Towering cumulus and thunderstorms are numerous. They cover more than three-tenths and occasionally obscure the sky. Rain is moderate to heavy and lightning is frequent.	>25
6	Similar to LAL 3 except thunderstorms are dry	

Thunderstorm Wind Profile

In general, high winds occur in a number of different ways, with and without thunderstorms. Similar to hailstorms (and often associated with the same storm), high wind damage densities and reports resulting from severe thunderstorms vary spatially across Louisiana. The only high winds of present concern from the following table are thunderstorm winds and downbursts. Straight-line winds are common but are a relatively insignificant hazard (on land) compared to other high winds. Downslope winds are relatively insignificant in Louisiana. Nor'easters are cyclonic low-pressure systems that have a minimal impact if any on Louisiana while hurricane winds have a significant impact on the state due to its location.

Table 2-47: High Winds Categorized by Source.
(Source: Making Critical Facilities Safe from High Wind, FEMA)

High Wind Type	Description
Straight-Line Winds	Wind blowing in straight line; usually associated with intense low-pressure area
Downslope Winds	Wind blowing down the slope of a mountain; associated with temperature and pressure gradients
Thunderstorm Winds	Wind blowing due to thunderstorms, and thus associated with temperature and pressure gradients
Downbursts	Sudden wind blowing down due to downdraft in a thunderstorm; spreads out horizontally at the ground, possible forming horizontal vortex rings around the downdraft.
Northeaster (Nor'easter) Winds	Wind blowing due to cyclonic storm off the east coast of North America; associated with temperature and pressure gradients between the Atlantic Oceanand land
Hurricane Winds	Wind blowing in spirals, converging with increasing speed toward eye; associated with temperature and pressure gradients between the Atlantic Ocean, Gulf of Mexico, and land
Tornado Winds	Violently rotating column of air from base of thunderstorm to the ground with rapidly decreasing winds at greater distances from center; associated with extreme temperature gradient

Major damage directly caused by thunderstorm winds is relatively rare, while minor damage is common and pervasive, and most noticeable when it contributes to power outages. These power outages can have major negative impacts such as increased tendency for traffic accidents, increased vulnerability to fire, food spoilage, and other losses that might be sustained by a loss of power. The table on the following page presents the Beaufort Wind Scale, first developed in 1805 by Sir Francis Beaufort, which aids in determining relative force and wind speed based on the appearance of wind effects:

Table 2-48: Beaufort Wind Scale.
(Source: NOAA's SPC)

Beaufort Wind Scale			
Force	**Wind (MPH)**	**WMO Classification**	**Appearance of Wind Effects on Land**
			Calm, smoke rises vertically
1	1-3	Light Air	Smoke drift indicates wind direction, still wind vanes
2	4-7	Light Breeze	Wind felt on face, leaves rustle, vanes begin to move
3	8-12	Gentle Breeze	Leaves and small twigs constantly moving, light flags extended
4	13-17	Moderate Breeze	Dust, leaves, and loose paper lifted; small tree branches move
5	18-24	Fresh Breeze	Small trees in leaf begin to sway
6	25-30	Strong Breeze	Larger tree branches moving, whistling in wires
7	31-38	Near Gale	Whole trees moving, resistance felt walking against wind
8	39-46	Gale	Twigs breaking off trees, generally impedes progress
9	47-54	Strong Gale	Slight structural damage occurs, slate blows off roofs
10	55-63	Storm	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	54-73	Violent Storm	N/A
12	74+	Hurricane	N/A

Hail Risk Assessment

Geographic Extent

Because hailstorms are a climatological based occurrence that can occur anywhere, the entire planning area is at risk from hailstorms. The worst-case scenario for hailstorms is hail up to 2.75 inches in diameter.

Previous Occurrences

The parish experienced 60 hail occurrences between the years 1996 and 2022. Since the last update in 2017, there have been ten hail occurrences within the boundaries of the parish.

Table 2-49: Historical Hail Occurrences in East Baton Rouge Parish since the 2017 Update.

Date	Magnitude (inches)	Property Damage	Fatalities	Injuries
3/25/2017	0.88	$0	0	0
3/25/2017	1	$0	0	0
3/25/2017	1	$0	0	0
5/12/2017	1.5	$0	0	0
5/18/2018	1	$0	0	0
6/27/2019	0.75	$0	0	0
2/5/2020	1	$0	0	0
4/23/2020	1	$0	0	0
4/14/2021	1	$0	0	0
5/13/2022	1	$0	0	0

Probability

The annual return rate (frequency) for hail occurrences in the parish is 2.22 (100% annual probability) or approximately 2 to 3 hail occurrences every year. The following figures display the density of hailstorm events and an overview of hailstorm size based on location.

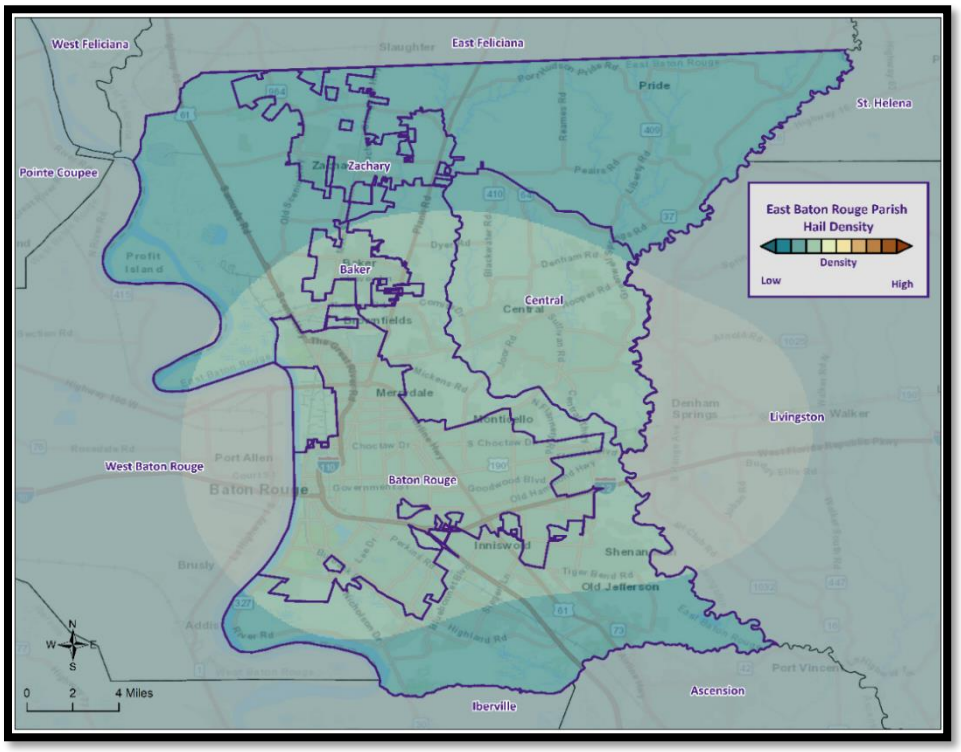


Figure 2-23: Density of Hailstorms by Diameter from 1950-2022.

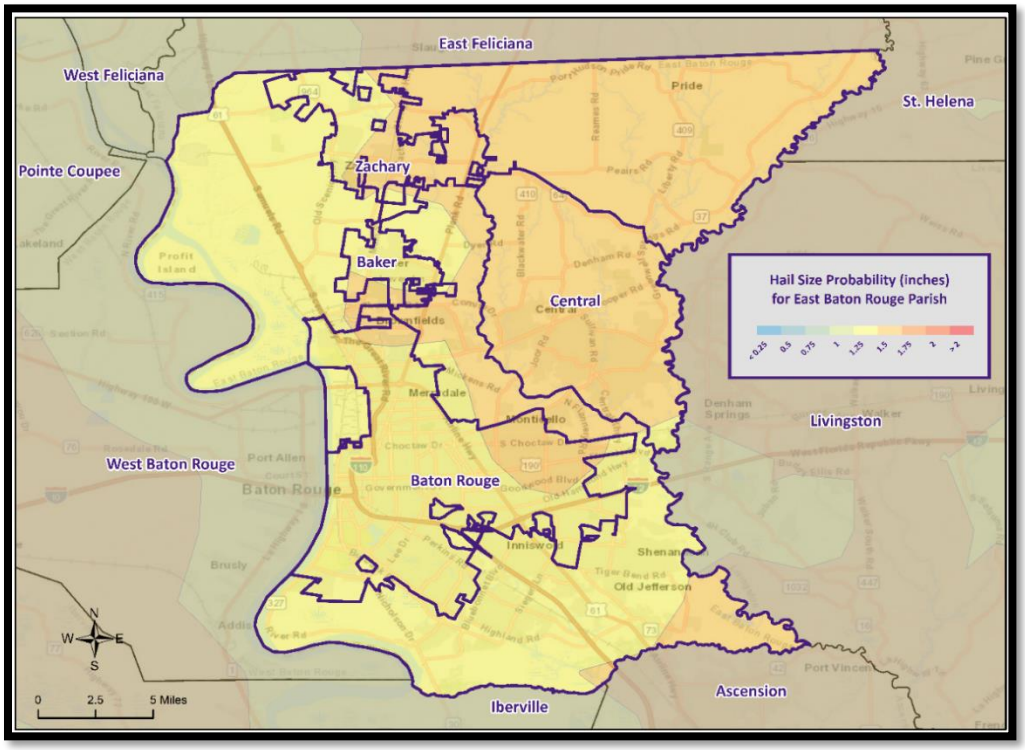


Figure 2-24: Hail Size Probability in Inches for the Parish.

Lightning Risk Assessment

Geographic Extent

Because lightning strikes are a climatological based occurrence that can occur anywhere, the entire planning area is at risk from lightning strikes. The worst-case scenario for lightning incidents is a lightning activity level of 4 which is approximately 16 to 25 lightning strikes every 15 minutes.

Previous Occurrences

The parish experienced 54 lightning occurrences between the years 1996 and 2022. Since the last update in 2017, there have been 5 lightning occurrences within the boundaries of the parish.

Table 2-50: Historical Lightning Occurrences in East Baton Rouge Parish since the 2017 Update.

Date	Property Damage	Fatalities	Injuries
5/3/2017	$50,000	0	0
11/1/2018	$10,000	0	0
8/20/2020	$20,000	0	0
5/17/2021	$2,500	0	0
7/22/2022	$300,000	0	0

Probability

The annual return rate (frequency) for lightning occurrences in the parish is 2 (100% annual probability) or approximately 2 lightning occurrences every year.

Thunderstorm Wind Risk Assessment

Geographic Extent

Because thunderstorm winds are a climatological-based occurrence that can occur anywhere, the entire planning area is at risk from thunderstorm wind. The worst-case scenario for thunderstorm wind occurrences is hail wind speeds of approximately 81 mph.

Previous Occurrences

The parish experienced 145 thunderstorm wind occurrences between the years 1996 and 2022. Since the last update in 2017, there have been 45 thunderstorm wind occurrences within the boundaries of the parish.

Table 2-51: Historical Thunderstorm Wind Occurrences in EBR Parish since the 2017 Update.

Date	Magnitude (mph)	Property Damage	Crop Damage	Fatalities	Injuries
4/3/2017	69	$0	$0	0	1
5/20/2017	46	$1,000	$0	0	0
6/18/2017	60	$0	$0	0	0
6/18/2017	60	$0	$0	0	0
10/22/2017	63	$0	$0	0	0
10/22/2017	63	$0	$0	0	0
10/22/2017	63	$0	$0	0	0
4/14/2018	63	$0	$0	0	0
4/14/2018	69	$0	$0	0	0

Date	Magnitude (mph)	Property Damage	Crop Damage	Fatalities	Injuries
6/5/2018	63	$0	$0	0	0
11/1/2018	69	$0	$0	0	0
11/1/2018	63	$0	$0	0	0
11/1/2018	69	$100,000	$0	0	0
3/25/2019	63	$0	$0	0	0
4/7/2019	58	$0	$0	0	0
4/18/2019	63	$0	$0	0	0
4/18/2019	63	$0	$0	0	0
5/8/2019	63	$0	$0	0	0
5/8/2019	69	$0	$0	0	0
5/11/2019	63	$0	$0	0	0
5/19/2019	69	$0	$0	0	0
5/19/2019	63	$0	$0	0	0
6/6/2019	75	$100,000	$0	0	0
6/6/2019	69	$10,000	$0	0	0
6/6/2019	63	$20,000	$0	0	0
6/25/2019	63	$0	$0	0	0
8/21/2019	60	$5,000	$0	0	0
9/17/2019	66	$50,000	$0	0	0
4/23/2020	60	$20,000	$0	0	0
4/23/2020	60	$0	$10,000	0	0
6/25/2020	68	$0	$0	0	0
6/25/2020	58	$0	$20,000	0	0
6/25/2020	64	$0	$0	0	0
6/25/2020	62	$0	$0	0	0
6/25/2020	58	$0	$0	0	0
3/17/2021	58	$0	$0	0	0
4/10/2021	86	$5,000	$0	0	0
4/10/2021	58	$0	$0	0	0
4/10/2021	86	$100,000	$0	0	0
4/10/2021	58	$20,000	$0	0	0
4/10/2021	58	$5,000	$0	0	0
5/17/2021	81	$0	$0	0	0
5/13/2022	58	$0	$0	0	0
6/10/2022	58	$25,000	$0	0	0
9/7/2022	58	$0	$0	0	0

Probability

The annual return rate (frequency) for thunderstorm wind occurrences in the parish is 5.37 (100% annual probability) or approximately 5 to 6 thunderstorm wind occurrences every year. The figure below displays the thunderstorm wind speed probability for the parish.

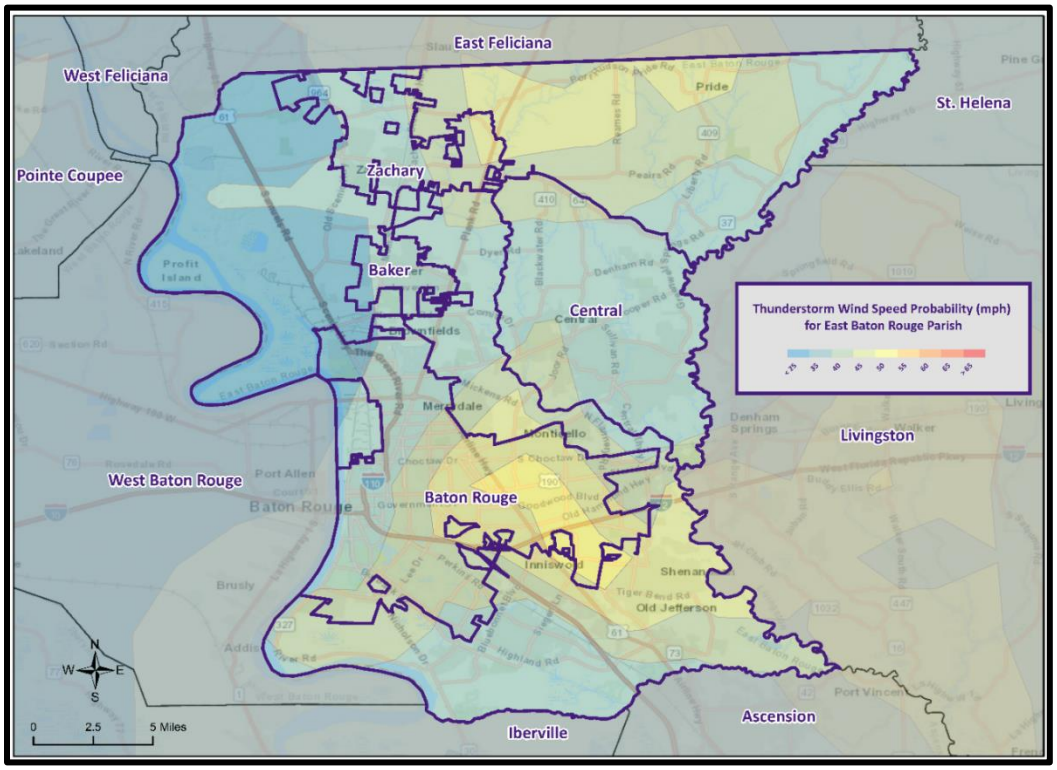


Figure 2-25: Thunderstorm High Wind Speed Probability in Miles Per Hour for EBR Parish.

Hail Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The following table provides an overview of each category at the parish level for hail.

Table 2-52: National Risk Index (NRI) Summarization of Hail Occurrences for the Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Relatively Low	Relatively Low

Estimated Impact and Potential Loss

Since 1996, there have been 60 significant hail occurrences per the NCEI Storm Events Database. The total property damage associated with these storms totaled approximately $5,000. To estimate the potential losses on an annual basis, the total damages recorded were divided by the total number of years of available data in the NCEI Storm Events Database (1996 – 2022). This provides an annual estimated potential loss of $185 and $83 per event. The table on the next page provides an estimate of potential property losses for the Parish.

Table 2-53: Estimated Annual Property Losses in East Baton Rouge Parish resulting from Hail Damage.

Unincorporated EBR Parish (35.9%)	Baker (2.8%)	Baton Rouge (50.5%)	Central (6.6%)	Zachary (4.3%)
$66	$5	$93	$12	$8

Vulnerable Populations

Per the NCEI Storm Events Database, there have been no reported injuries or fatalities as a result of hail.

Vulnerability Score

Table 2-54: Hail Vulnerability Score for the Parish.

Hail Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	4	2	3	3	1	2.7

Lightning Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The following table provides an overview of each category at the parish level for lightning.

Table 2-55: National Risk Index (NRI) Summarization of Lightning Occurrences for EBR Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Very High	Very High

Estimated Impact and Potential Loss

Since 1996, there have been 54 significant lightning occurrences per the NCEI Storm Events Database. The total property damage associated with these storms totaled approximately $6,635,000. To estimate the potential losses on an annual basis, the total damages recorded were divided by the total number of years of available data in the NCEI Storm Events Database (1996 – 2022). This provides an annual estimated potential loss of $245,741 and $122,870 per event. The following table provides an estimate of potential property losses for the Parish:

Table 2-56: Estimated Annual Property Losses in EBR Parish resulting from Lightning Damage.

Unincorporated EBR Parish (35.9%)	Baker (2.8%)	Baton Rouge (50.5%)	Central (6.6%)	Zachary (4.3%)
$88,217	$6,793	$124,069	$16,126	$10,536

Vulnerable Population

Per the NCEI Storm Events Database, there have been four reported fatalities and one injury as a result of lightning.

Vulnerability Score

Table 2-57: Lightning Vulnerability Score for East Baton Rouge Parish.

Lightning Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	4	2	2	3	1	2.5

Thunderstorm Wind Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The following table provides an overview of each category at the parish level for thunderstorm wind:

Table 2-58: National Risk Index (NRI) Summarization of Thunderstorm Wind Occurrences for EBR Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Relatively Low	Relatively Low

Estimated Impact and Potential Loss

Since 1996, there have been 145 significant thunderstorm wind occurrences per the NCEI Storm Events Database. The total property damage associated with these storms totaled approximately $5,643,000. To estimate the potential losses on an annual basis, the total damages recorded were divided by the total number of years of available data in the NCEI Storm Events Database (1996 – 2022). This provides an annual estimated potential loss of $209,000 and $38,917 per event. The following table provides an estimate of potential property losses for the Parish:

Table 2-59: Estimated Annual Property Losses in EBR Parish resulting from Thunderstorm Wind Damage.

Unincorporated EBR Parish (35.9%)	Baker (2.8%)	Baton Rouge (50.5%)	Central (6.6%)	Zachary (4.3%)
$75,028	$5,778	$105,520	$13,715	$8,960

Vulnerable Population

Per the NCEI Storm Events Database, there have been two reported injuries and no fatalities as a result of thunderstorm winds.

Vulnerability Score

Table 2-60: Thunderstorm Wind Vulnerability Score for East Baton Rouge Parish.

Thunderstorm Wind Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	4	2	3	3	1	2.7

Tornadoes

Profile

Tornadoes (also called twisters or cyclones) are rapidly rotating funnels of wind extending between storm clouds and the ground. For their size, tornadoes are the most severe storms, and 70% of the world's reported tornadoes occur within the continental United States, making them one of the most significant hazards Americans face. Tornadoes and waterspouts form during severe weather occurrences, such as thunderstorms and hurricanes, when cold air overrides a layer of warm air, causing the warm air to rise rapidly. This usually results in a counterclockwise rotation in the northern hemisphere. The updraft of air in tornadoes always rotates because of wind shear (differing speeds of moving air at various heights), and it can rotate in either a clockwise or counterclockwise direction; clockwise rotations (in the northern hemisphere) will sustain the system, at least until other forces cause it to die seconds to minutes later.

Since February 1, 2007, the Enhanced Fujita (EF) Scale has been used to classify tornado intensity. The EF Scale classifies tornadoes based on their damage pattern rather than wind speed; wind speed is then derived and estimated. This contrasts with the Saffir-Simpson scale used for hurricane classification, which is based on measured wind speed. The following table shows the EF scale in comparison with the original Fujita (F) Scale, which was used prior to February 1, 2007. When discussing past tornadoes, the scale used at the time of the hazard is used. Damage and adjustment between scales can be made using the following tables.

Table 2-61: Comparison of the Enhanced Fujita (EF) Scale to the Fujita (F) Scale.

Wind Speed (mph)	**Enhanced Fujita Scale**					
	EF0	**EF1**	**EF2**	**EF3**	**EF4**	**EF5**
	65-85	86-110	111-135	136-165	166-200	>200
	Fujita Scale					
	F0	**F1**	**F2**	**F3**	**F4**	**F5**
	<73	73-112	113-157	158-206	207-260	>261

Table 2-62: Fujita and Enhanced Fujita Tornado Damage Scale.

Scale	Typical Damage
F0/EF0	Light damage. Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
F1/EF1	Moderate damage. Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads.
F2/EF2	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars overturned; light-object missiles generated; cars lifted off ground.
F3/EF3	Severe damage. Roofs and some walls torn of well-constructed houses; trains overturned; most trees in Brusly uprooted; heavy cars lifted off the ground and thrown.
F4/EF4	Devastating damage. Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown, and large missiles generated.
F5/EF5	Incredible damage. Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 meters (109 yards); trees debarked; incredible phenomena will occur.

The National Weather Service (NWS) has the ability to issue advisory messages based on forecasts and observations. The following are the advisory messages that may be issued with definitions of each:

- ***Tornado Watch*:** Issued to alert people to the possibility of a tornado developing in the area. A tornado has not been spotted but the conditions are favorable for tornadoes to occur.
- ***Tornado Warning*:** Issued when a tornado has been spotted or when Doppler radar identifies a distinctive "hook-shaped" area within a thunderstorm line.

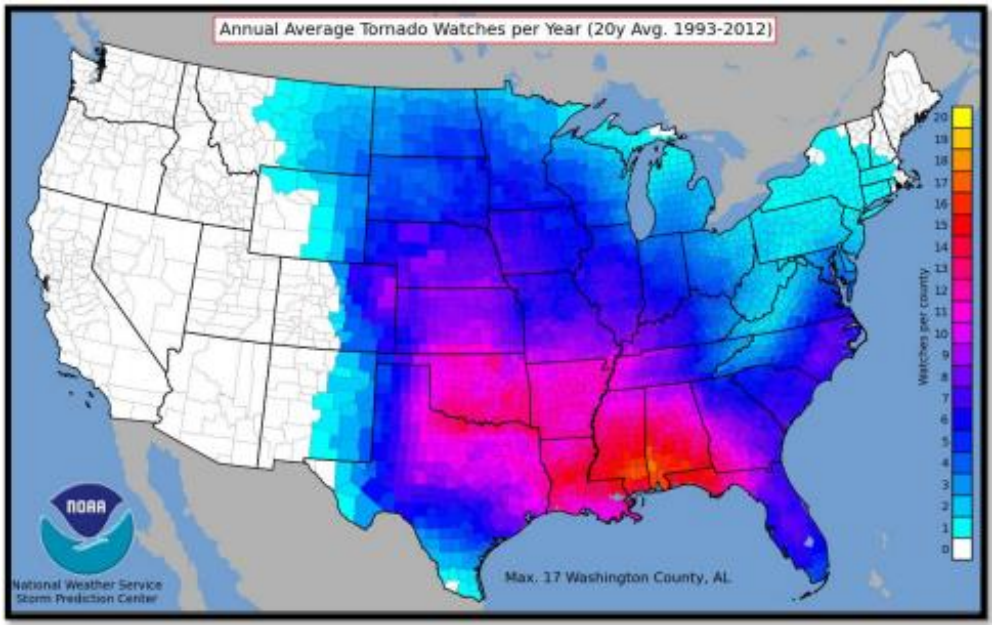


Figure 2-26: County-Level Tornado Watches Issued Per Year on Average. (Source: NOAA SPC)

Structures within the direct path of a tornado vortex are often reduced to rubble. Structures adjacent to the tornado's path are often severely damaged by high winds flowing into the tornado vortex, known as inflow winds. It is here, adjacent to the tornado's path, that the building type and construction techniques are critical to the structure's survival. Although tornadoes strike at random, making all buildings vulnerable, mobile homes, homes with crawlspaces, and buildings with large spans are more likely to suffer damage.

The major health hazard from tornadoes is physical injury from flying debris or being in a collapsed building or mobile home. Within a building, flying debris or projectiles are generally stopped by interior walls. However, if a building has no partitions, any glass, brick, or other debris blown into the interior is life threatening. Following a tornado, damaged buildings are a potential health hazard due to instability, electrical system damage, and gas leaks. Sewage and water lines may also be damaged. Tornadoes have historically impacted all areas of Louisiana.

Peak tornado activity in Louisiana occurs during the spring, as it does in the rest of the United States. Nearly one-third of observed tornadoes in the United States occur during April. About half of those in Louisiana, including many of the strongest, occur between March and June. Fall and winter tornadoes are less frequent, but the distribution of tornadoes throughout the year is more uniform in Louisiana than in locations farther north.

Risk Assessment

Geographic Extent

Tornadoes occur sporadically throughout the parish and the occurrence of a tornado in the parish is highly unpredictable making it impossible to forecast the exact time and locations of when a tornado will touch down or the path it will take. Because of this, the entire planning area is considered equally at risk for a tornadic incident. The worst-cast scenario of a tornado occurrence is an EF3 tornado.

Previous Occurrences

The parish experienced 18 tornado occurrences between the years 1996 and 2022. Since the last update in 2017, there have been five tornado occurrences within the boundaries of the parish.

Table 2-63: Historical Tornado Occurrences in EBR Parish since the 2017 Update.

Date	Location	Magnitude	Property Damage	Crop Damage	Fatalities	Injuries
4/30/2017	FRED	EF0	$0	$0	0	0
5/12/2017	CEDAR CREST	EF1	$0	$0	0	1
4/14/2018	NESSER	EF0	$0	$0	0	0
6/6/2019	ESSEN	EF1	$0	$0	0	0
6/24/2020	ESSEN	EF1	$100,000	$0	0	0

Probability

The annual return rate (frequency) for tornado occurrences in the parish is 0.66 (67% annual probability) or approximately 1 tornado occurrence every 1 to 2 years. The following figure displays the tornado density for the parish.

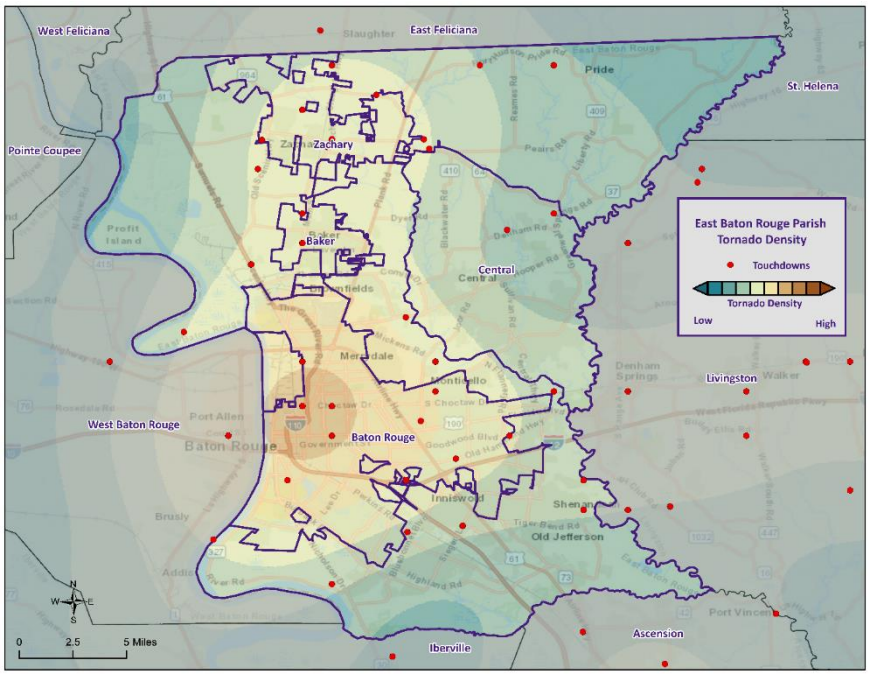


Figure 2-27: Location and Density of Tornadoes to Touchdown in East Baton Rouge Parish (Source: NOAA/SPC Severe Weather Database

Climate Change Impacts

Similar to thunderstorms, the impacts of climate change on the occurrence and strength of tornadoes is not well understood at this time, but is an area of ongoing research. While only about 1% of thunderstorms will produce a tornado, preliminary research and climate models indicate that the environmental suitability for severe thunderstorms, and therefore tornadoes, could increase over the Eastern United States by the end of the century.

Climate change is contributing to the increasing frequency and intensity of tornadoes, leading to significant impacts on both infrastructure and vulnerable populations. As global temperatures rise, the atmosphere becomes more unstable, creating conditions favorable for the development of severe thunderstorms and tornadoes. Tornadoes are powerful and destructive, capable of causing widespread damage to various types of infrastructure.

One of the most significant impacts of tornadoes on infrastructure is the destruction of buildings and critical facilities. Tornadoes can flatten homes, schools, hospitals, and businesses, leaving communities devastated and in need of urgent assistance. The damage to infrastructure disrupts essential services, such as electricity, water supply, and communication networks, exacerbating the challenges faced by affected communities during recovery and rebuilding efforts.

Vulnerable populations are particularly at risk during tornadoes. Low-income communities often live in substandard housing and lack access to proper storm shelters, leaving them more exposed to the destructive forces of tornadoes. Furthermore, elderly individuals and people with disabilities may struggle to seek shelter and escape the path of these fast-moving storms, increasing their vulnerability to injury or death. Tornadoes can also disproportionately affect marginalized communities due to limited access to emergency response services and resources.

Moreover, tornadoes can lead to economic hardships for vulnerable populations. Homes and properties are often uninsured or underinsured in these areas, leaving residents with significant financial burdens after tornadoes strike. As a result, vulnerable communities may face challenges in recovering and rebuilding their lives, perpetuating cycles of poverty and inequality.

To address the impacts of climate change on infrastructure and vulnerable populations concerning tornadoes, proactive measures are essential. Building tornado-resistant infrastructure and implementing better early warning systems can help minimize the damage caused by tornadoes. For vulnerable populations, providing accessible storm shelters and ensuring access to emergency resources and support are critical to saving lives and reducing the long-term impacts of tornadoes. Additionally, climate change mitigation efforts are crucial to addressing the root causes of tornado intensification, as reducing greenhouse gas emissions can help stabilize the climate and potentially mitigate the future increase in tornado frequency and severity.

Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The following table provides an overview of each category at the parish level for tornadoes.

Table 2-64: National Risk Index (NRI) Summarization of Tornado Occurrences for EBR Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Very High	Very High

Estimated Impact and Potential Loss

Since 1996, there have been 18 significant tornado occurrences per the NCEI Storm Events Database. The total property damage associated with these storms totaled approximately $1,790,000. To estimate the potential losses on an annual basis, the total damages recorded were divided by the total number of years of available data in the NCEI Storm Events Database (1996 – 2022). This provides an annual estimated potential loss of $66,296 and $99,444 per event. The following table provides an estimate of potential property losses for the Parish:

Table 2-65: Estimated Annual Property Losses in EBR Parish resulting from Tornado Damage.

Unincorporated EBR Parish (35.9%)	Baker (2.8%)	Baton Rouge (50.5%)	Central (6.6%)	Zachary (4.3%)
$23,799	$1,833	$33,472	$4,350	$2,842

The following table presents an analysis of building exposure that are susceptible to tornadoes by general occupancy type for the parish along with the percentage of building stock that are mobile homes.

Table 2-66: Building Exposure by General Occupancy Type for Tornadoes in EBR Parish. (Source: Hazus)

Building Exposure by General Occupancy Type for Tornadoes ($1,000)							
Residential	Commercial	Industrial	Agricultural	Religion	Government	Education	Mobile Homes (%)
57,789,290	15,747,167	2,707,651	142,816	1,763,292	1,179,537	1,016,152	24.4%

Vulnerable Population

Per the NCEI Storm Events Database, there has been one reported fatality and one injury as a result of tornadoes.

In accessing the overall risk to population, the most vulnerable population throughout the parish are those residing in manufacturing housing. Approximately 24.4% of all housing in the Parish consists of manufactured housing. The location and density of manufactured houses can be seen in the following figure.

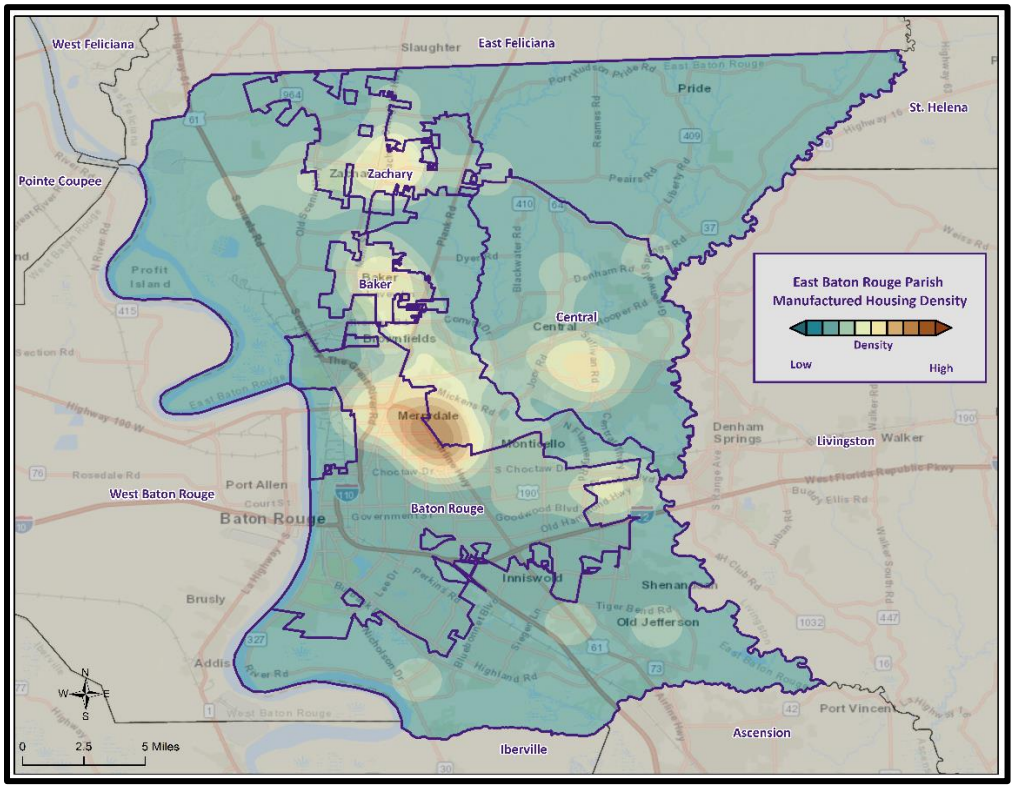


Figure 2-28: Location and Approximate Number of Units in Manufactured Housing Locations throughout East Baton Rouge Parish.

Vulnerability Score

Table 2-67: Tornado Vulnerability Score for the Parish.

Tornado Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	3	3	2	4	3	2.95

Tropical Cyclones

Profile

Hurricanes, typhoons, and cyclones are names for powerful tropical storms in which winds rotate around a closed circulation of low-pressure. In the Atlantic and eastern Pacific basins, they are known as hurricanes, in Asia (western Pacific) they are known as typhoons, and in Australia they are called cyclones. In the Northern Hemisphere, hurricane winds rotate in a counterclockwise direction (clockwise in the Southern Hemisphere). The key energy source for a hurricane is the release of latent heat energy from condensation.

This energy is found where there is a deep layer of warm water to fuel the system. Conditions for hurricane formation include warm waters, rotational force from the earth's spin (Coriolis Effect), and the absence of vertical wind shear (stability in the lower atmosphere). Tropical disturbances that affect North America typically originate off the west coast of Africa. If the tropical disturbance lowers in pressure and starts to rotate around a low pressure center, it may turn into a tropical depression. Barometric pressure (measured in millibars or inches) continues to fall in the center as these storm systems develop in intensity. When sustained wind speeds reach 39 mph, the system becomes a tropical storm and is given a name by the National Hurricane Center. When sustained wind speeds reach 74 mph, it becomes a hurricane. Hurricanes are much larger and powerful storms with an average diameter of 350 miles. The start of the official Atlantic hurricane season is June 1st and ends November 30th. Peak hurricane season is August and September in the Northern Hemisphere, when water temperatures and evaporation rates are greatest. Associated with these storms are damaging winds, heavy precipitation, and tornadoes. Coastal areas are also vulnerable to storm surge, wind-driven waves, and tidal flooding, which can cause more destruction than cyclone winds.

Hurricane intensity is classified by the Saffir-Simpson Scale, which categorizes hurricane intensity based upon maximum sustained wind speeds on a scale of one to five, with five being the most intense. Typically, higher category hurricanes have lower pressure and greater storm surge. Categories three, four, and five are classified as "major" hurricanes, and while hurricanes within this range comprise only 20 percent of total landfalls, they account for over 70 percent of the damage incurred in the United States. Hurricane (Category 1 or higher) return periods are shown in the figure on the next page.

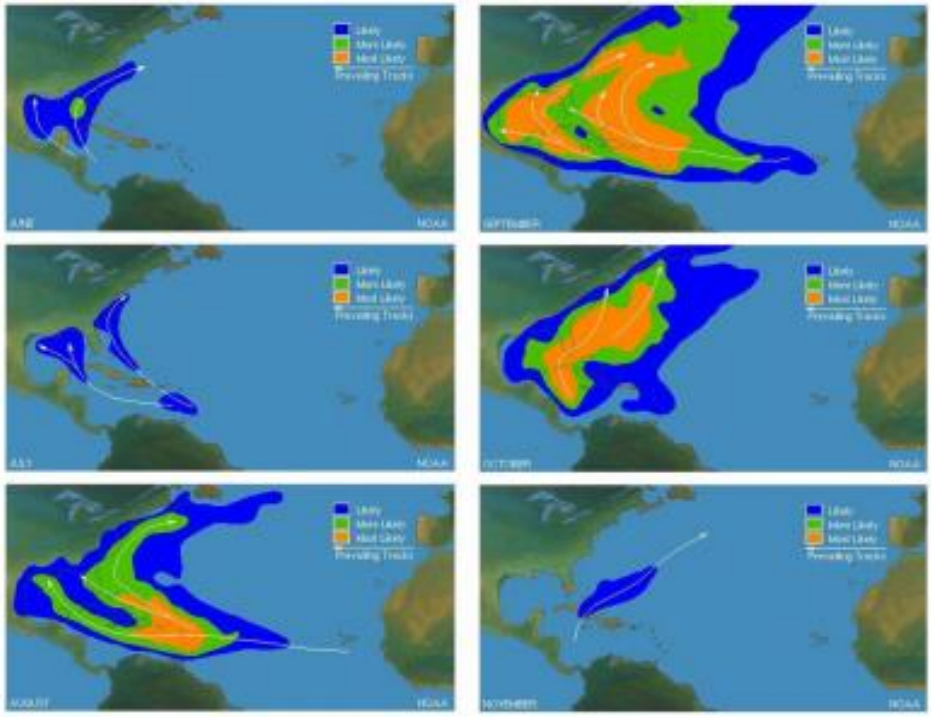


Figure 2-29: Areas of Likely Tropical Cyclone Formation and Tracking.
(Source: NOAA NHC)

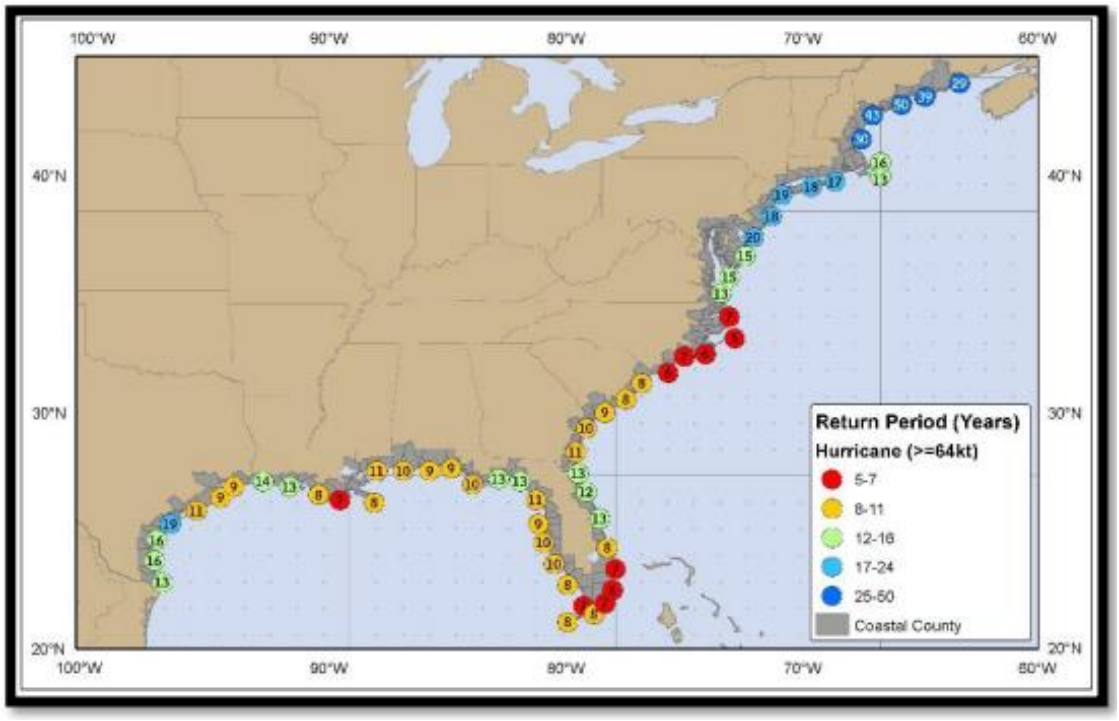


Figure 2-30: Hurricane Return Periods for the Atlantic Basin (USA).
(Source: NOAA NHC)

Table 2-68: Saffir-Simpson Hurricane Wind Scale.

Saffir-Simpson Hurricane Wind Scale			
Category	**Sustained Winds**	**Pressure**	**Types of Damage Due to Winds**
Tropical Depression	<39 mph	N/A	N/A
Tropical Cyclone	39-73 mph	N/A	N/A
1	74-95 mph	>14.2 psi	Very dangerous winds will produce some damage. Well-constructed frame homes could have damage to roof, shingles, vinyl siding, and gutters. Large branches of trees will snap, and shallow-rooted trees may be toppled, especially after the soil becomes waterlogged. Extensive damage to power lines and poles will likely result in power outages that could last several days.
2	96-110 mph	14-14.2 psi	Extremely dangerous winds will cause extensive damage. Well-constructed frame homes could sustain major roof and siding damage. Many shallow-rooted trees will be snapped or uprooted, especially after the soil becomes waterlogged, and block numerous roads. Near total power loss is expected, with outages that could last from several days to weeks.
3	111-129 mph	13.7 -14 psi	Devastating damage will occur. Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, especially after the soil becomes waterlogged, blocking numerous roads. Electricity and water may be unavailable for several days to weeks after the storm passes.
4	130-156 mph	13.3-13.7 psi	Catastrophic damage will occur. Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted, especially after the soil becomes waterlogged, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5	157 mph or higher	<13.7 psi	Catastrophic damage will occur. A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks to months.

Storm surge is elevated water level that is pushed towards the shore by the force of strong winds that result in the piling up of water. The advancing surge combines with the normal tides, which in extreme cases can increase the normal water height over 20 feet. The storm surge arrives ahead of the storm's actual landfall and the more intense the hurricane is, the sooner the surge arrives. Water rise can be very rapid and can move far inland, posing a serious threat to those who have not yet evacuated flood-prone areas. Debris carried by the waves can also contribute to the devastation. As the storm approaches shore, the greatest storm surge will be to the north of the hurricane eye, in the right-front quadrant of the direction in which the hurricane is moving. Such a surge of high water topped by waves driven by hurricane force winds can be devastating to coastal regions, causing severe beach erosion and property damage along the immediate coast. Storm sure heights, and associated waves, are dependent upon the shape of the continental shelf (narrow or wide) and the depth of the ocean bottom (bathymetry). A narrow shelf, or one that drops steeply from the shoreline and subsequently produces deep water close to the shoreline, tends to produce a lower surge but higher and more powerful storm waves. While disassociated with the Saffir-Simpson Scale, storm surge remains the leading killer of residents along immediate coastal areas. Researchers at the Southern Regional Climate Center have indicated that hurricane strength at approximately 12-18 hours prior to landfall is a better indicator of storm surge strength (compared to wind speeds at landfall).

Many other associated hazards can occur during a hurricane, including heavy rains, flooding, high winds, and tornadoes. A general rule of thumb in coastal Louisiana is that the number of inches of rainfall to be expected from a tropical cyclone is approximately 100 divided by the forward velocity of the storm in mph; so, a fast-moving storm (20 mph) might be expected to drop five inches of rain while a slow-moving (5 mph) storm could produce totals of around 20 inches. However, no two storms are alike, and such generalizations have limited utility for planning purposes.

Hurricane Beulah, which struck Texas in 1967, spawned 115 confirmed tornadoes. In recent years, extensive coastal development has increased the storm surge resulting from these storms so much that this has become the greatest natural hazard threat to property and loss of life in the state. Storm surge is a temporary rise in sea level generally caused by reduced air pressure and strong onshore winds associated with a storm system near the coast. Although storm surge can technically occur at any time of the year in Louisiana, surges caused by hurricanes can be particularly deadly and destructive. Such storm surge events are often accompanied by large, destructive waves (exceeding ten meters in some places) that can inflict a high number of fatalities and economic losses. In 2005, Hurricane Katrina clearly demonstrated the destructive potential of this hazard, as it produced the highest modern-day storm surge levels in the State of Louisiana, reaching up to 18.7 feet near Alluvial City in St. Bernard Parish.

Property can be damaged by the various forces that accompany a tropical cyclone. High winds can directly impact structures in three ways: wind forces, flying debris, and pressure. By itself, the force of the wind can knock over trees, break tree limbs, and destroy loose items, such as television antennas and power lines. Many things can be moved by high winds. As winds increase, so does the pressure against stationary objects. Pressure against a wall rises with the square of the wind speed. For some structures, this force is enough to cause failure. The potential for damage to structures is increased when debris breaks the building "envelope" and allows the wind pressure to impact all surfaces (the building envelope includes all surfaces that make up the barrier between the indoors and the outdoors, such as the walls, foundation, doors, windows, and roof). Mobile homes and buildings in need of maintenance are most subject to wind damage. High winds mean bigger waves. Extended pounding by waves can demolish any poorly or improperly designed structures. The waves also erode sand beaches, roads, and foundations. When foundations are compromised, the building will collapse.

Nine out of ten deaths during hurricanes are caused by storm surge flooding. Falling tree limbs and flying debris caused by high winds have the ability to cause injury or death. Downed trees and damaged buildings are a potential health hazard due to instability, electrical system damage, broken pipelines, chemical releases, and gas leaks. Sewage and water lines may also be damaged. Salt water and freshwater intrusions from storm surge send animals, such as snakes, into areas occupied by humans.

Risk Assessment

Geographic Extent

Tropical cyclones typically impact multiple regions and not one specific jurisdiction or campus. Because of this, the entire planning area is susceptible to the effects of tropical cyclones. Tropical cyclones are the single biggest threat to all of South Louisiana. With any single tropical cyclone event having the potential to devastate multiple parishes at once, tropical cyclones are a significant threat to the entire parish planning area. The worst-case scenario for a tropical cyclone event in the parish is a Category 4 Hurricane.

Previous Occurrences

The parish has experienced 11 tropical cyclone occurrences between the years 2002 and 2022. Since the last update in 2017, there have been three tropical cyclone occurrences within the boundaries of the parish.

Table 2-69: Historical Tropical Cyclone Occurrences in EBR Parish since the 2017 Update.

Date	Magnitude	Name	Property Damage	Crop Damage	Fatalities	Injuries
7/13/2019	Tropical Storm	Barry	$0	$0	0	0
10/9/2020	Tropical Storm	Delta	$10,000,000	$0	0	0
8/29/2021	Hurricane	Ida	$250,000,000	$0	0	0

Tropical Storm Barry (2019)

Hurricane Barry initial developed from a disturbance that moved from Georgia southwest to the northeast Gulf of Mexico on July 8-9, 2019. The weak low-pressure system continued to move west-southwest and strengthen and was eventually classified as Tropical Storm Barry on the morning of July 11th, 95 miles south-southeast of the mouth of the Mississippi River. Barry continued to move slowly west then northwest and briefly reached hurricane strength on the morning of July 13th before landfall in south-central Louisiana near Intracoastal City, Louisiana in Vermillion Parish. Tropical storm force winds reached the southeast Louisiana coast by midday on Friday, July 12th and spread slowly northwest reaching the Baton Rouge area during the evening of the 12th. Tropical storm wind impacts had ended across all of southeast Louisiana by midday on July 14th. Tropical storm force winds were primarily measured in gusts across southeast Louisiana. The exception was in Terrebonne and Assumption Parishes, close to the landfall location, where sustained tropical storm force winds and frequent gusts caused more significant power line and tree damage. A few tropical storm wind gusts were recorded in the metro New Orleans area but were not very impactful. No hurricane force wind gusts were recorded in southeast Louisiana.

Mostly minor to moderate storm surge flooding occurred across coastal southeast Louisiana, including Lake Pontchartrain, and a small part of the Mississippi Coast. Terrebonne Parish had significant storm surge flooding in the lower portion of the parish with storm tides of five to eight feet, locally up to nine feet. Several local levees were overtopped on the morning of July 13th flooding roads and a few homes.

The highest storm tide reading was 9.11 feet NAVD88 at a USGS tide gauge at Caillou Lake near Dulac, Louisiana.

Storm total rainfall was generally between four and eight inches with a maximum rainfall of 8.83 inches recorded northeast of Denham Springs, Louisiana in Livingston Parish. Isolated flash flooding of streets and secondary roadways occurred on July 13th in the greater Baton Rouge area, but flash flooding was not widespread or significant. The lower Mississippi River was at unusually high stages from late August with the state at the New Orleans Carrolton gauge near 16.5 feet. The combination of storm surge entering the lower Mississippi River with very high river stages prompted concern of potential overtopping of levees along the Mississippi River in lower Plaquemines Parish prompting some evacuations of the area.

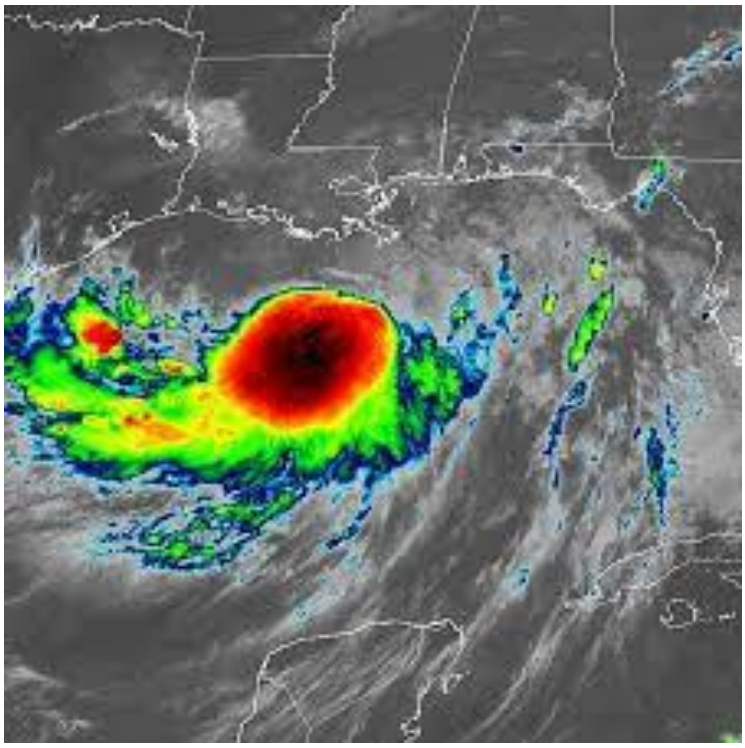


Figure 2-31: Hurricane Barry Rain Bands in the Gulf Coast Area. (Source: NOAA)

In East Baton Rouge Parish, frequent tropical storm force wind gusts resulted in minor to moderate tree damage with numerous large limbs and a few trees downed. Minor power outages were reported with a peak outage of less than 10 percent of the parish affected. Localized street flooding was reported during periods of heavy rainfall. A maximum wind gust of 49 mph was reported at Baton Rouge Airport. Rainfall across the parish ranged from 3 to 5 inches with a narrow band of 6 to 8 inches occurring across the far eastern portion of the parish.

Tropical Storm Delta (2020)

Hurricane Delta was the record-tying fourth named storm of 2020 to strike Louisiana, as well as the record-breaking tenth named storm to strike the United States in that year. The twenty-sixty tropical cyclone, twenty-fifth named storm, ninth hurricane, and third major hurricane of the record breaking 2020 Atlantic hurricane season, Delta formed from a tropical wave which was first monitored by the National Hurricane Center on October 1. As it tracked across the western Caribbean, it rapidly intensified into a Category 4

hurricane. In fact, intensifying from tropical depression to Category strength in 40 hours is the fastest rate of intensification of any storm on record in the Atlantic Basin and accomplished by Delta. Delta quickly weakened to a category 1 hurricane after making its first landfall on the Yucatan Peninsula. It gradually recurved north towards the Louisiana coastline, fluctuating in intensity between category 2 and 3.

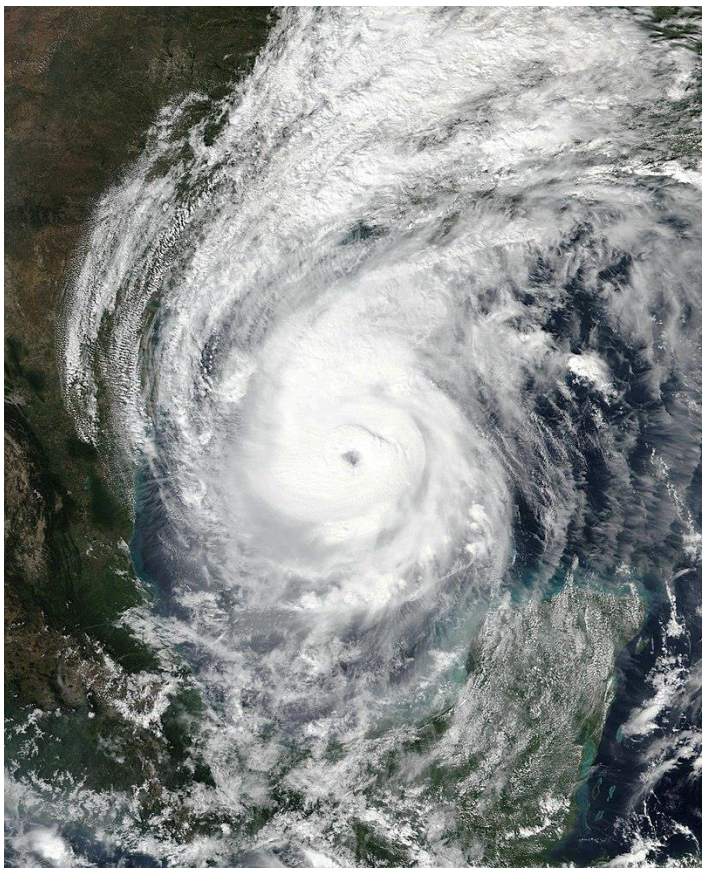


Figure 2-32: Hurricane Delta in the Gulf Coast Area. (Source: NOAA)

Hurricane Delta made landfall around 5 pm as a category 2 storm east of Cameron, Louisiana or about 15 miles east of where category 4 Hurricane Laura made landfall just a couple of months earlier of the same year. Local impacts included 50 to 70 mph wind gusts across the area, storm surge of 2 to 3 feet above ground, and widespread tree and structural damage. There were six injuries due to Hurricane Delta. In addition, outer bands of Delta produced a significant amount of rainfall on the north side of Baton Rouge Metro. Upwards of five to 10 inches of rain fell, causing street flooding in Baton Rouge and moderate river flooding in the region. Delta caused approximately $100 million worth of damage across southeast Louisiana.

In East Baton Rouge Parish, sustained tropical storm force winds with peak gusts in the 50 to 60 mph range downed numerous trees and snapped some power poles across the parish. Falling trees caused damage to a few structures and led to a widespread power outage as the trees or limbs fell on power lines. Over 140 roads were blocked by fallen trees at the peak with more than 75,000 homes and approximately 35 percent of the parish without power.

Hurricane Ida (2021)

Ida formed from a combination of multiple low-latitude weather systems, starting with a tropical wave emerging from the coast of Africa on 14 August. This wave was weak and hard to track as it moved slowly westward through the monsoon trough environment over the eastern tropical Atlantic. The wave moved into the trade wind environment west of 45°W on 21 August, accompanied by an area of convection that was elongated from east to west, and this convection increased in coverage as the wave moved through the Windward Islands on 23 August. By 24 August, the wave was near Aruba, Bonaire, and Curacao, and it began to interact with a broad area of low pressure located along the northern coast of South America. This interaction resulted in a large area of pressures near or below 1006 mb by late that day, along with widespread heavy rains over portions of Venezuela. The next day, the convection became more concentrated near a vorticity maximum on the eastern side of a broad low-pressure area over the southwestern Caribbean Sea. The disturbance turned north-northwestward on 26 August on the southwestern side of the subtropical ridge, and the associated convection became better organized while the circulation became better defined. It is estimated that a tropical depression formed near 1200 UTC that day about 150 n mi southwest of Kingston, Jamaica.

The cyclone was moving north-northwestward at the time of genesis. A few hours later, it turned northwestward as it was steered by the flow on the southwestern side of the subtropical ridge, and this general motion continued for the next three days. The cyclone strengthened to a tropical storm 6 h after genesis, and slow strengthening continued as the center passed northeast of Grand Cayman Island early on 27 August. Rapid strengthening occurred after the center passed Grand Cayman, and Ida became a hurricane with 70-kt winds before the center reached the Isle of Youth, Cuba, at 1800 UTC 27 August. After crossing the Isle of Youth, the center made landfall in mainland Cuba near Playa Dayaniguas in the province of Pinar del Rio near 2325 UTC that day. Continuing northwestward, Ida's center subsequently emerged over the southeastern Gulf of Mexico between 0100–0200 UTC 28 August. Passage over land and entrainment of dry air into the hurricane's southwestern quadrant halted intensification as Ida crossed Cuba, and little change in strength occurred during the first several hours after the hurricane reached the Gulf of Mexico. However, during this time microwave satellite imagery and radar data from Cuba showed the central core reorganizing with the formation of a convective ring around the center. This, combined with the favorable conditions of light vertical wind shear (near 10 kt) and sea surface temperatures at or above 30°C, led to a second round of rapid strengthening that started at 1200 UTC 28 August and continued for the next 24 h. During this intensification phase, the maximum winds increased from 70 kt to 90 kt in the first 12 h, and then from 90 kt a peak of 130 kt in the next 12 h. Additionally, the central pressure fell from 986 to 929 mb. By the end of this rapid intensification period, Ida had moved northwestward to a position not far southwest of the Mouth of the Mississippi River. A continued northwestward motion brought the 15-n-mi-wide eye to the Louisiana coast at Port Fourchon at 1655 UTC 29 August. The maximum winds at landfall were 130 kt – category 4 on the Saffir-Simpson Hurricane Wind Scale – and the central pressure was near 931 mb. As best as can be determined, the 130-kt landfall intensity is equal to that of Hurricane Laura of August 2020 and the Last Island Hurricane of August 1856, with these three category 4 storms tied for the strongest on record to make landfall in Louisiana west of the Mouth of the Mississippi River2.

Shortly after landfall, Ida turned north-northwestward, and this motion brought the eye across southeastern Louisiana between Houma and New Orleans. A continued north-northwestward motion early on 30 August brought the center just west of LaPlace and then between Baton Rouge and Hammond. The cyclone's intensity steadily decreased as it moved inland, and it weakened to a tropical storm before the center moved into southwestern Mississippi between 0600–1200 UTC that day. Ida then turned northeastward as it moved around the western end of the subtropical ridge, with the center passing just

west of Jackson, Mississippi, around 1800 UTC. Soon thereafter, the cyclone weakened to a tropical depression as it moved into northeastern Mississippi. The system then accelerated northeastward across northwestern Alabama, central and eastern Tennessee, and portions of Kentucky and Virginia before reaching southern West Virginia near 1200 UTC 1 September. Ida began extratropical transition as it moved through the Tennessee Valley, and the system became an extratropical low as it moved over West Virginia later that day.

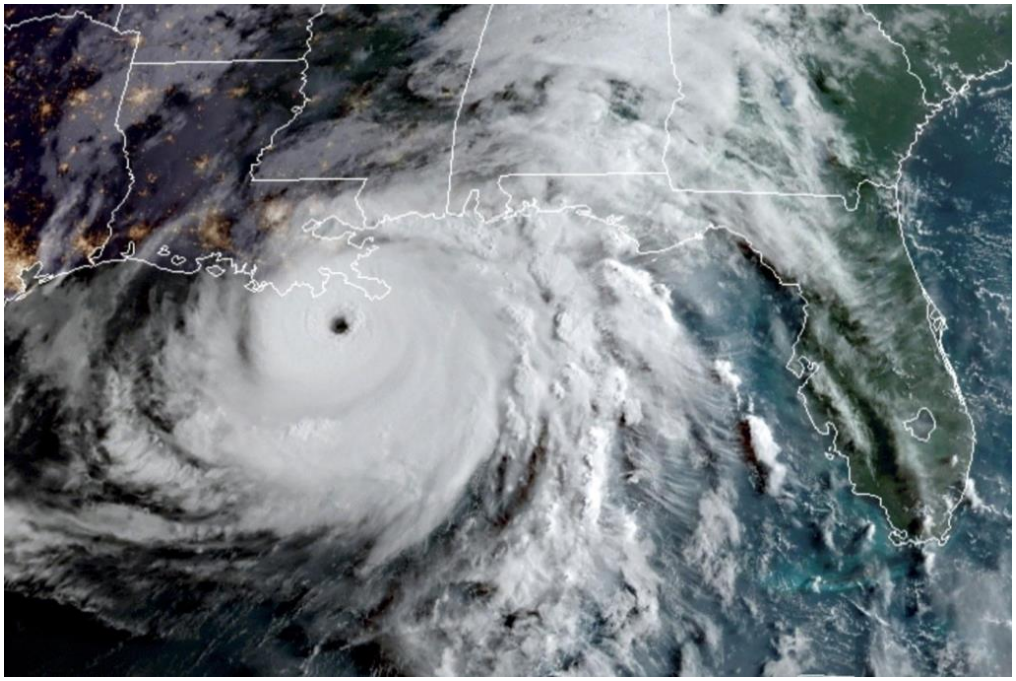


Figure 2-33: Hurricane Ida in the Gulf Coast Area.
(Source: NOAA)

In East Baton Rouge Parish, winds downed numerous trees, power lines, and power poles. Over 85 roads were closed due to downed trees, power lines, or other debris. Several structures suffered minor to moderate wind damage. Nearly 250,000 homes and businesses were without power at the peak.

Probability

The annual return rate (frequency) for tropical cyclone occurrences in the parish is 0.5 (50% annual probability) or approximately one tropical cyclone occurrence every 1 to 2 years.

Climate Change Impacts

Climate change has the potential to alter the prevalence and severity of extreme incidents such as tropical cyclones. Louisiana is expected to experience more days with temperatures above 95°F this century which means an increase in sea surface and ambient temperatures, alterations in the hydrological cycle, and an increase in seal level which collectively may increase the frequency of large storm incidents and impacts. Research indicates that the warming climate will increase the frequency of Category 4 and 5 hurricanes but decrease the frequency of less severe tropical cyclone incidents by the end of the century. This increase in the frequency of Category 4 and 5 hurricanes will lead to an increase in damage to the built environment and increased negative effects on the economy and ecosystem.

Climate change is amplifying the impacts of tropical cyclones on both infrastructure and vulnerable populations, making them more frequent and severe. As ocean temperatures rise due to global warming, tropical cyclones have access to greater energy, leading to stronger and more destructive storms. The intensification of cyclones poses significant risks to infrastructure located in coastal regions.

One of the primary impacts of tropical cyclones on infrastructure is the damage caused by strong winds and storm surges. Cyclones can rip apart buildings, topple power lines, and uproot trees, leading to widespread destruction of homes, businesses, and public facilities. Coastal areas are particularly vulnerable to storm surges, which can inundate low-lying regions and cause severe flooding, damaging roads, bridges, and critical lifeline infrastructure such as water and sewage systems.

Vulnerable populations face disproportionate risks during tropical cyclones, especially in low-lying coastal communities. People with limited mobility, the elderly, and low-income households often lack resources and access to evacuation options, making them more susceptible to the devastating impacts of cyclones. Displacement, property damage, and loss of livelihoods are common consequences for vulnerable populations affected by cyclones, exacerbating existing social inequalities and pushing them further into hardship.

Moreover, tropical cyclones can have long-lasting effects on the mental and physical health of vulnerable populations. The trauma caused by experiencing such extreme weather events can lead to long-term psychological distress. Lack of access to healthcare and resources after cyclones can also result in a higher risk of waterborne diseases and malnutrition for vulnerable communities.

To mitigate the impacts of climate change on infrastructure and vulnerable populations concerning tropical cyclones, several actions are crucial. Investing in more resilient infrastructure that can withstand stronger storms and higher storm surges is essential to minimize damage and ensure the continuity of critical services. Enhancing early warning systems and evacuation plans can save lives and improve the preparedness of vulnerable populations. Additionally, providing social safety nets and support to vulnerable communities can aid in their recovery and reduce the long-term impacts of cyclones on their well-being. Mitigating climate change by reducing greenhouse gas emissions is also vital to curbing the intensification of tropical cyclones and protecting both infrastructure and vulnerable populations from their devastating effects.

Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The table below provides an overview of each category at the parish level for tropical cyclones.

Table 2-70: National Risk Index (NRI) Summarization of Tropical Cyclone Occurrences for EBR Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Relatively High	Relatively High

Estimated Impact and Potential Loss

Using Hazus 100-Year Hurricane Model, the 100-year hurricane scenario was analyzed to determine losses from this worst-case scenario. The following table shows the total economic losses that would result from this occurrence.

Table 2-71: Total Estimated Losses for a 100-Year Hurricane Event (Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event
Unincorporated EBR Parish	$247,213,997
Baker	$19,037,272
Baton Rouge	$347,684,329
Central	$45,189,639
Zachary	$29,524,203
Total	**$688,649,440**

Total losses from a 100-year hurricane event for East Baton Rouge Parish were compared with the total value of assets to determine the ratio of potential damage to total inventory in the table below.

Table 2-72: Ratio of Total Losses to Total Estimated Value of Assets for EBR Parish. (Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event	Total Estimated Value of Assets	Ratio of Estimated Losses to Total Value
Unincorporated EBR Parish	$247,213,997	$29,230,443,000	0.8%
Baker	$19,037,272	$1,782,234,000	1.1%
Baton Rouge	$347,684,329	$42,646,733,000	0.8%
Central	$45,189,639	$4,300,291,000	1.1%
Zachary	$29,524,203	$2,386,204,000	1.2%

Based on the Hazus Hurricane Model, estimated total losses for the parish and the jurisdictions ranged from 0.8% to 1.2% of the total estimated value of all assets.

The Hazus Hurricane Model also provides a breakdown for seven primary sectors (Hazus occupancy) throughout the parish. The losses for the parish by sector are listed in the table below.

Table 2-73: Estimated Losses in Unincorporated EBR Parish for a 100-Year Hurricane Event (Source: Hazus)

Unincorporated EBR Parish	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$300,768
Commercial	$18,062,180
Government	$1,242,695
Industrial	$1,196,509
Religious / Non-Profit	$1,117,939
Residential	$224,760,810
Schools	$533,096
Total	**$247,213,997**

Table 2-74: Estimated Losses in Baker for a 100-Year Hurricane Event (Source: Hazus)

Baker	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$23,161
Commercial	$1,390,919
Government	$95,697
Industrial	$92,140
Religious / Non-Profit	$86,089
Residential	$17,308,214
Schools	$41,052
Total	**$19,037,272**

Table 2-75: Estimated Losses in Baton Rouge for a 100-Year Hurricane Event (Source: Hazus)

Baton Rouge	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$423,004
Commercial	$25,402,837
Government	$1,747,739
Industrial	$1,682,783
Religious / Non-Profit	$1,572,282
Residential	$316,105,933
Schools	$749,751
Total	**$347,684,329**

Table 2-76: Estimated Losses in Central for a 100-Year Hurricane Event (Source: Hazus)

Central	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$54,979
Commercial	$3,301,688
Government	$227,159
Industrial	$218,717
Religious / Non-Profit	$204,354
Residential	$41,085,294
Schools	$97,448
Total	**$45,189,639**

Table 2-77: Estimated Losses in Zachary for a 100-Year Hurricane Event (Source: Hazus)

Zachary	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$35,920
Commercial	$2,157,125
Government	$148,412
Industrial	$142,896
Religious / Non-Profit	$133,513
Residential	$26,842,670
Schools	$63,666
Total	**$29,524,203**

The following figure displays the wind zones that affect the parish in relation to critical facilities throughout the parish:

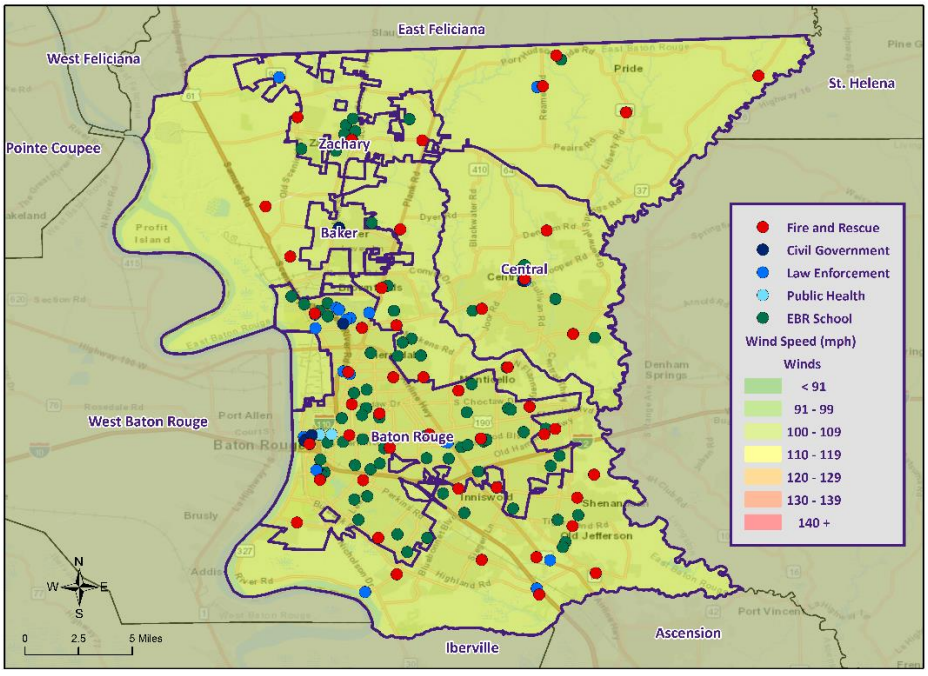


Figure 2-34: Winds Zones for the Parish in Relation to Critical Facilities

Vulnerable Population

The total population within the parish that is susceptible to a tropical cyclone hazard is shown in the table below:

Table 2-78: Number of People Susceptible to a 100-Year Hurricane Event in East Baton Rouge Parish (Source: Hazus)

Number of People Exposed to Hurricane Hazards			
Location	**# in Community**	**# in Hazard Area**	**% in Hazard Area**
Unincorporated EBR Parish	161,738	161,738	100%
Baker	12,455	12,455	100%
Baton Rouge	227,470	227,470	100%
Central	29,565	29,565	100%
Zachary	19,316	19,316	100%
Total	**450,544**	**450,544**	**100%**

The Hazus hurricane model was also extrapolated to provide an overview of vulnerable populations throughout East Baton Rouge Parish. These populations are illustrated in the following tables:

Table 2-79: Vulnerable Populations in Unincorporated EBR Parish for a 100-Year Hurricane Event (Source: Hazus)

Unincorporated EBR Parish		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	161,738	100.0%
Persons Under 5 Years	10,028	6.2%
Persons Under 18 Years	36,715	22.7%
Persons 65 Years and Over	24,746	15.3%
White	76,340	47.2%
Minority	85,398	52.8%

Table 2-80: Vulnerable Populations in Baker for a 100-Year Hurricane Event (Source: Hazus)

Baker		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	12,455	100.0%
Persons Under 5 Years	1,246	10.0%
Persons Under 18 Years	3,151	25.3%
Persons 65 Years and Over	1,295	10.4%
White	1,295	10.4%
Minority	11,160	89.6%

Table 2-81: Vulnerable Populations in Baton Rouge for a 100-Year Hurricane Event (Source: Hazus)

Baton Rouge		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	227,470	100.0%
Persons Under 5 Years	15,240	6.7%
Persons Under 18 Years	48,679	21.4%
Persons 65 Years and Over	32,301	14.2%
White	84,619	37.2%
Minority	142,851	62.8%

Table 2-82: Vulnerable Populations in Central for a 100-Year Hurricane Event (Source: Hazus)

Central		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	29,565	100.0%
Persons Under 5 Years	1,922	6.5%
Persons Under 18 Years	7,716	26.1%
Persons 65 Years and Over	4,878	16.5%
White	25,042	84.7%
Minority	4,523	15.3%

Table 2-83: Vulnerable Populations in Zachary for a 100-Year Hurricane Event (Source: Hazus)

Zachary		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	19,316	100.0%
Persons Under 5 Years	966	5.0%
Persons Under 18 Years	5,602	29.0%
Persons 65 Years and Over	1,912	9.9%
White	8,827	45.7%
Minority	10,489	54.3%

Vulnerability Score

Table 2-84: Tropical Cyclone Vulnerability Score for East Baton Rouge Parish.

Tropical Cyclone Vulnerability Score						
	Probability	**Impact**	**Spatial Extent**	**Warning Time**	**Duration**	**Risk Factor**
Risk Level	3	4	4	1	4	**3.3**

Wildfires

Profile

A wildfire is combustion in a natural setting, marked by flames or intense heat. Most frequently, wildfires are ignited by lightning or unintentionally by humans. Fires set purposefully (but lawfully) are referred to as controlled fires or burns. There are three different types of wildfires: (1) Ground fires burn primarily in the thick layers of organic matter directly on the forest floor and even within the soil. Ground fires destroy root networks, peat, and compact litter. These fires spread extremely slowly and can smolder for months. (2) Surface fires burn litter (e.g., leaves, small sticks) and vegetative matter in the underbrush of a forest. (3) Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. There are two types of crown fires: (a) passive (or dependent) crown fires rely on heat transfer from surface fire, whereas (b) active (or independent) crown fires do not require any heat transfer from below. Active crown fires tend to occur with greater tree density and drier conditions. A firestorm is a mass crown fire (also called a running crown fire, area fire, or conflagration). They are large, continuous, intense fires that lead to violent convection. They are characterized by destructively violent surface in-drafts near and beyond their perimeter. Crown fires are the most damaging and most difficult to contain. The intensity of crown fires enables the fire to produce its own wind gusts. These so-called fire whirls can move embers ahead of the fire front and ignite new fires. Fire whirls are spinning vortex columns of ascending hot air and gases rising from the fire. Large fire whirls have the intensity of a small tornado.

The conditions conducive to the occurrence of wildfires are not distributed equally across the United States. Wildfires have a much greater likelihood of occurring in the western part of the country. Although less frequent than in other areas, wildfires do occur in Louisiana. Wildfire danger can vary greatly season to season, and is exacerbated by dry weather conditions. Factors that increase susceptibility to wildfires are the availability of fuel (e.g., litter and debris), topography (i.e., slope and elevation affect various factors like precipitation, fuel amount, and wind exposure), and specific meteorological conditions (e.g., low rainfall, high temperatures, low relative humidity, and winds). The potential for wildfire is often measured by the Keetch–Byram Drought Index (KBDI), which represents the net effect of evapotranspiration and precipitation in producing cumulative moisture deficiency in the soil. The KBDI aims to measure the amount of precipitation needed to return soil to its full field capacity, with KBDI values ranging from 0 (moist soil) to 800 (severe drought).

The wildland-urban interface and intermix land cover surface, developed by the SILVIS Lab at the University of Wisconsin in Madison, can be used to determine areas at risk. Wildland-urban interface is defined as the zone of transition between unoccupied land and human development. This usually includes communities or areas of human development that are within 0.5 miles of the zone. Wildland-urban intermix is defined as areas in which human development is intermixed with wildland fuels. Intermix and interface areas are at risk of wildfires.

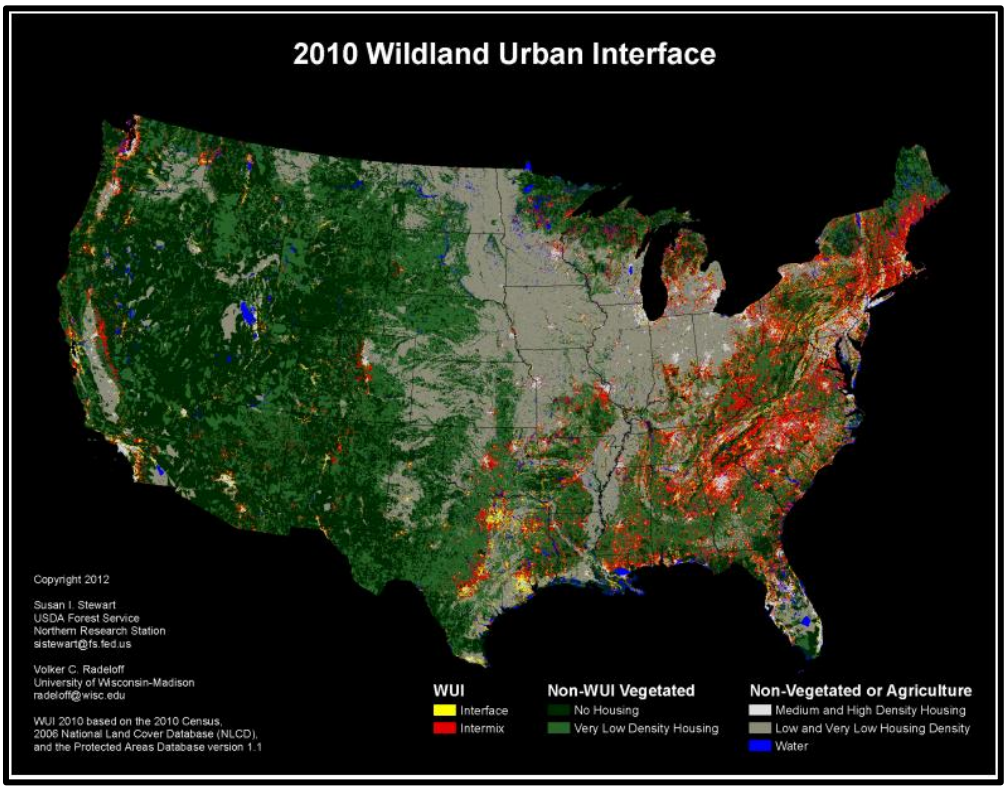


Figure 2-35: Contiguous USA Wildland Urban Interface Map.

According to the State of Louisiana Forestry Division, most forest fires in Louisiana are caused by intentional acts (arson) or carelessness and negligence committed by people, exacerbated by human confrontation with nature. The wildland–urban interface is the area in which development meets wildland vegetation, where both vegetation and the built environment provide fuel for fires. As development near wildland settings continues, more people and property are exposed to wildfire danger.

The Southern Group of State Foresters developed the Southern Wildfire Risk Assessment Portal to create awareness among the public and government sectors about the threat of wildfires in their areas. The Southern Wildfire Assessment Portal allows users to identify areas that are most prone to wildfires. The table below summarizes the intensity levels assigned to areas in the Southern Wildfire Assessment Portal.

Table 2-85: Southern Group of State Foresters Wildfire Risk Assessment Fire Intensity Scale. (Source: Southern Wildfire Assessment Portal)

Fire Intensity	
Level	**Definition**
1	Lowest Intensity: Minimal direct wildfire impacts. Location has a minimal chance of being directly impacted by a wildfire.
2	Low Intensity: Small flames usually less than two feet long; small amount of very short-range spotting possible. Fires are easy to suppress.
3	Moderate Intensity: Flames up to eight feet in length; short-range spotting is possible.
4	High Intensity: Large flames up to 30 feet in length; short-range spotting common; medium range spotting possible.
5	Highest Intensity: Very large flames up to 150 feet in length; profuse short-range spotting, frequent long-range spotting; strong fire induced winds.

Risk Assessment

Geographic Extent

Wildfires impact areas that are populated with forests and grasslands. The worst-case scenario for the unincorporated area of the parish is a level 5; Baker and Central a level 3.5, and Baton Rouge and Zachary a level 4. The following figures display the areas of wildland-urban interface and intermix in the Parish and the jurisdictions.

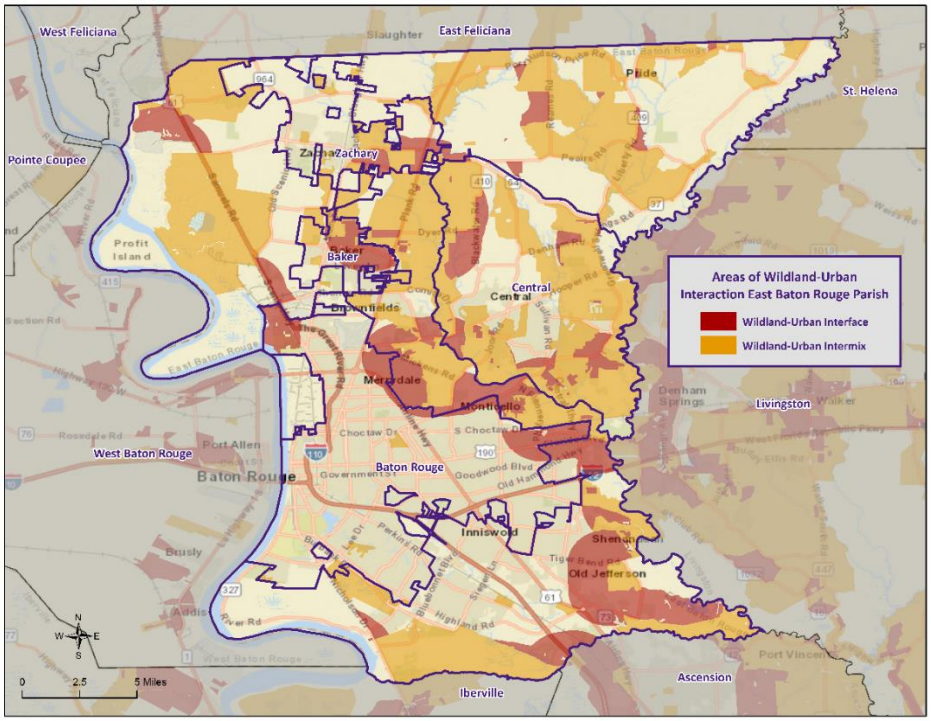


Figure 2-36: Wildland-Urban Interaction in East Baton Rouge Parish.

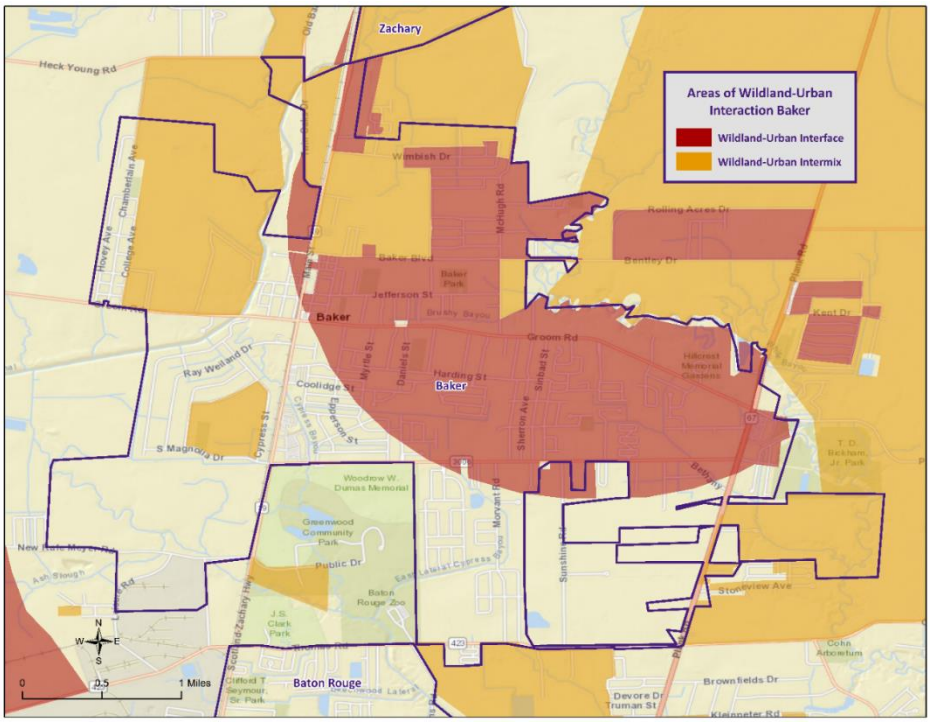


Figure 2-37: Wildland-Urban Interaction in Baker.

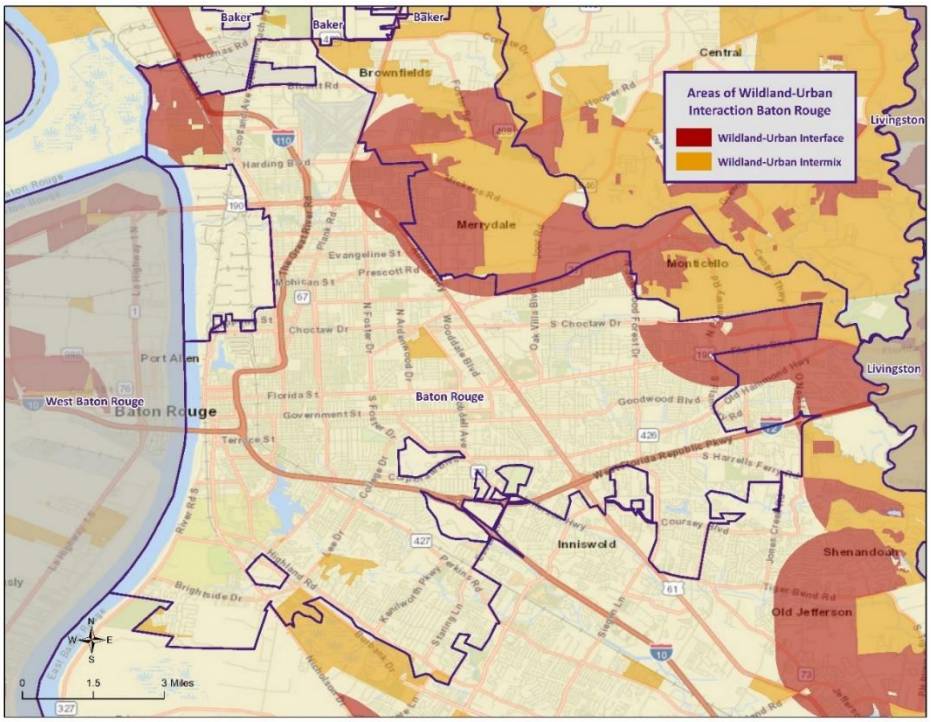


Figure 2-38: Wildland-Urban Interaction in Baton Rouge.

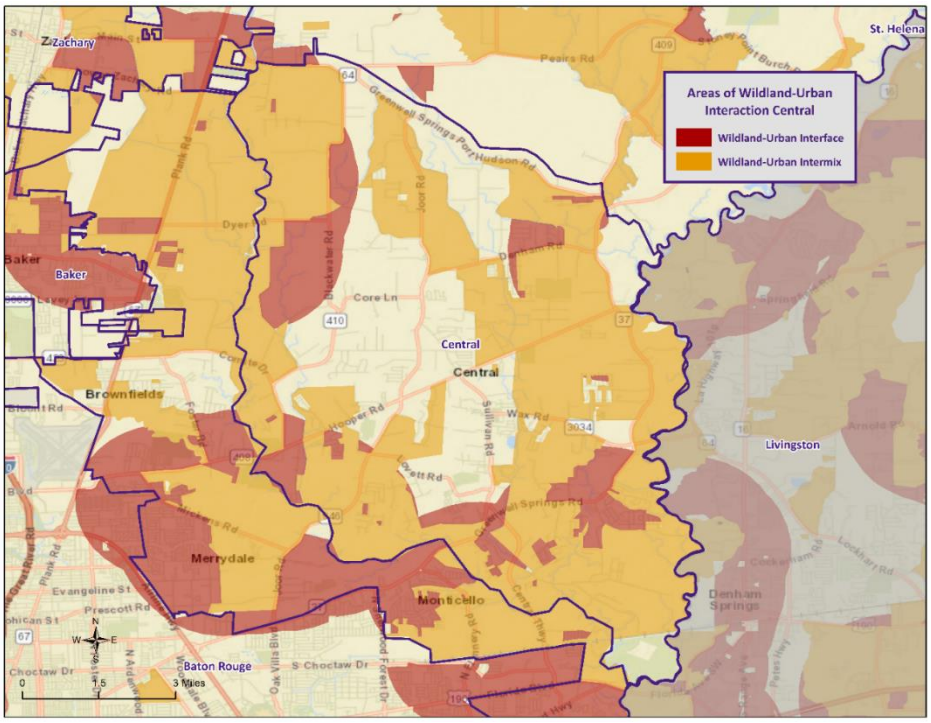


Figure 2-39: Wildland-Urban Interaction in Central.

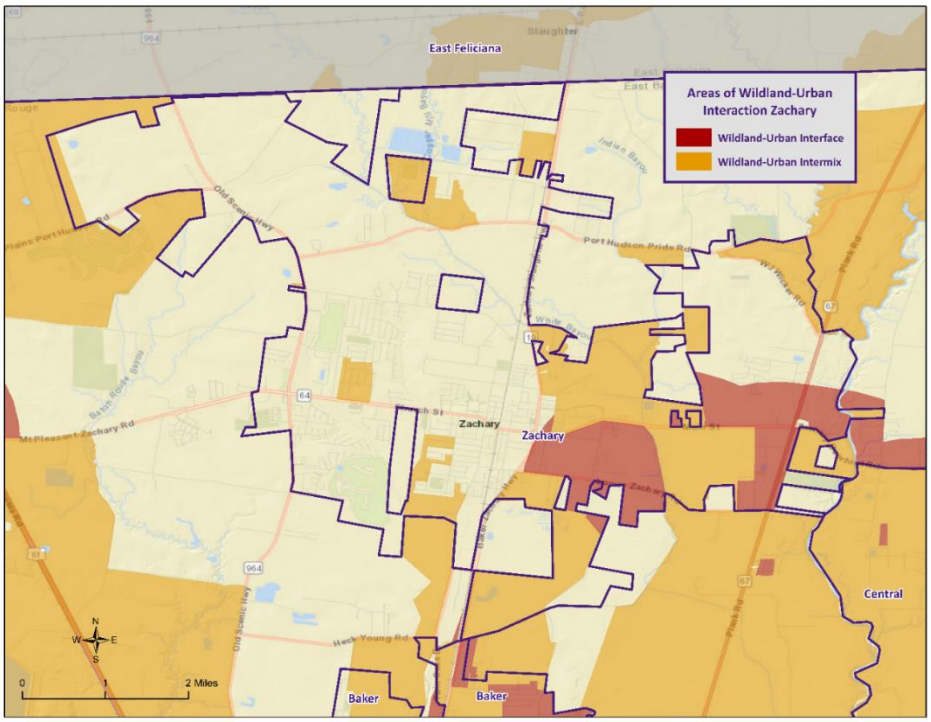


Figure 2-40: Wildland-Urban Interaction in Zachary.

Previous Occurrences

The parish has experienced no wildfire occurrences between the years 2002 and 2022 per the NCEI Storm Events Database.

Probability

The annual return rate (frequency) for wildfire occurrences in the parish is 0 (< 1% annual probability) or approximately one wildfire event every 27 years.

Climate Change Impacts

The increasing probability and intensity of drought caused by climate change across Louisiana indicates that the risk of wildfires will also increase. The presence of drought or prolonged dry spells will lead to an increase in dry grasses, brush, and forests that act as fuel for fires.

Climate change is playing a significant role in the increasing frequency and severity of wildfires, resulting in substantial impacts on infrastructure and vulnerable populations. Rising temperatures, prolonged droughts, and altered precipitation patterns create ideal conditions for wildfires to ignite and spread rapidly. The destruction of critical infrastructure is one of the most profound consequences of wildfires. Roads, power lines, telecommunication networks, and water supply systems are vulnerable to damage, hindering emergency response efforts and disrupting access to essential services for communities affected by wildfires.

Vulnerable populations face unique challenges during wildfires. Those living in fire-prone areas often lack the means to adequately protect their homes and properties, making them more susceptible to property loss and displacement. Low-income communities may also have limited access to resources for evacuation and recovery, further exacerbating the impacts of wildfires on their well-being. Additionally, the elderly,

children, and individuals with respiratory conditions are at heightened health risks due to poor air quality caused by wildfire smoke, which can lead to respiratory problems and other health issues.

Furthermore, wildfires can have long-term social and economic impacts on vulnerable populations. Displacement and property loss can force people to leave their homes and communities, leading to disruptions in education, employment, and social connections. The loss of livelihoods, particularly for those dependent on agriculture or tourism in affected regions, can exacerbate poverty and economic inequality.

To address the impacts of climate change on infrastructure and vulnerable populations concerning wildfires, various strategies are necessary. Investing in fire-resistant infrastructure and implementing better land use planning can help reduce the risk of infrastructure damage during wildfires. Creating and improving evacuation plans and warning systems can aid in ensuring the safety of vulnerable communities. Additionally, providing support and resources for those affected by wildfires, such as temporary housing, healthcare, and financial assistance, is essential for their recovery and well-being. To mitigate future wildfires and their impacts, it is imperative to take urgent action on climate change by reducing greenhouse gas emissions and implementing sustainable land management practices to protect both infrastructure and vulnerable populations from the increasing threats of wildfires.

Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The following table provides an overview of each category at the parish level for wildfires.

Table 2-86: National Risk Index (NRI) Summarization of Wildfire Occurrences for EBR Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Very Low	Very Low

Estimated Impact and Potential Loss

Using Hazus, along with wildland-urban interaction areas, the following table presents an analysis of total building exposure that is located within the wildland-urban interaction areas.

Table 2-87: Total Building Exposure by Wildland-Urban Interaction Areas. (Source: Hazus)

Jurisdiction	Estimated Total Building Exposure
Unincorporated EBR Parish	$14,889,814,000
Baker	$1,457,634,000
Baton Rouge	$6,594,300,000
Central	$3,752,266,000
Zachary	$1,178,722,000
Total	**$27,872,736,000**

Hazus also provides a breakdown by jurisdiction for seven primary sectors (Hazus occupancy) throughout the parish. Utilizing this information with the wildland-urban interaction areas allows for identifying the total exposure by jurisdiction.

Table 2-88: Estimated Exposure for Unincorporated Area of the Parish by Sector. (Source: Hazus)

Unincorporated EBR Parish	Estimated Total Building Exposure by Sector
Agricultural	$25,464,000
Commercial	$1,205,449,000
Government	$29,477,000
Industrial	$425,038,000
Religious / Non-Profit	$215,948,000
Residential	$12,930,028,000
Schools	$58,410,000
Total	**$14,889,814,000**

Table 2-89: Estimated Exposure for Baker by Sector. (Source: Hazus)

Baker	Estimated Total Building Exposure by Sector
Agricultural	$1,540,000
Commercial	$208,353,000
Government	$13,404,000
Industrial	$57,582,000
Religious / Non-Profit	$52,788,000
Residential	$1,112,840,000
Schools	$11,127,000
Total	**$1,457,634,000**

Table 2-90: Estimated Exposure in Baton Rouge by Sector. (Source: Hazus)

Baton Rouge	Estimated Total Building Exposure by Sector
Agricultural	$8,518,000
Commercial	$1,100,569,000
Government	$32,275,000
Industrial	$237,788,000
Religious / Non-Profit	$122,602,000
Residential	$4,967,919,000
Schools	$124,629,000
Total	**$6,594,300,000**

Table 2-91: Estimated Exposure for Central by Sector.
(Source: Hazus)

Central	Estimated Total Building Exposure by Sector
Agricultural	$6,118,000
Commercial	$330,869,000
Government	$5,215,000
Industrial	$84,075,000
Religious / Non-Profit	$64,866,000
Residential	$3,255,285,000
Schools	$5,838,000
Total	**$3,752,266,000**

Table 2-92: Estimated Exposure for Zachary by Sector.
(Source: Hazus)

Zachary	Estimated Total Building Exposure by Sector
Agricultural	$3,296,000
Commercial	$315,523,000
Government	$4,814,000
Industrial	$27,050,000
Religious / Non-Profit	$22,222,000
Residential	$792,045,000
Schools	$13,772,000
Total	**$1,178,722,000**

Vulnerable Populations

The total population within the parish that is located within a wildland-urban interaction area is shown in the table below:

Table 2-93: Population Located within a Wildland-Urban Interaction Areas.
(Source: 2010 U.S. Census Data)

Number of People Located in Wildland-Urban Interaction Areas			
Location	**# in Community**	**# in Hazard Area**	**% in Hazard Area**
Unincorporated EBR Parish	161,738	90,724	56.1%
Baker	12,455	11,698	93.9%
Baton Rouge	227,470	42,123	18.5%
Central	29,565	23,584	79.8%
Zachary	19,316	6,778	35.1%
Total	**450,544**	**174,907**	**38.8%**

The 2010 U.S. Census data was also extrapolated to provide an overview of populations located within wildland-urban interaction areas throughout the jurisdictions. The date is illustrated in the following tables:

Table 2-94: Population in Unincorporated EBR Parish Located within a Wildland-Urban Interaction Area. (Source: 2010 Census Data)

Unincorporated EBR Parish		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	90,724	56.1%
Persons Under 5 Years	5,625	6.2%
Persons Under 18 Years	20,594	22.7%
Persons 65 Years and Over	13,881	15.3%
White	42,822	47.2%
Minority	47,902	52.8%

Table 2-95: Population in Baker Located within a Wildland-Urban Interaction Area. (Source: 2010 Census Data)

Baker		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	11,698	93.9%
Persons Under 5 Years	1,170	10.0%
Persons Under 18 Years	2,960	25.3%
Persons 65 Years and Over	1,217	10.4%
White	1,217	10.4%
Minority	10,481	89.6%

Table 2-96: Population in Baton Rouge Located within a Wildland-Urban Interaction Area. (Source: 2010 Census Data)

Baton Rouge		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	42,123	18.5%
Persons Under 5 Years	2,822	6.7%
Persons Under 18 Years	9,014	21.4%
Persons 65 Years and Over	5,981	14.2%
White	15,670	37.2%
Minority	26,453	62.8%

Table 2-97: Population in Central Located within a Wildland-Urban Interaction Area. (Source: 2010 Census Data)

Central		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	23,584	79.8%
Persons Under 5 Years	1,533	6.5%
Persons Under 18 Years	6,155	26.1%
Persons 65 Years and Over	3,891	16.5%
White	19,976	84.7%
Minority	3,608	15.3%

Table 2-98: Population in Zachary Located within a Wildland-Urban Interaction Area. (Source: 2010 Census Data)

Zachary		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	6,778	35.1%
Persons Under 5 Years	339	5.0%
Persons Under 18 Years	1,966	29.0%
Persons 65 Years and Over	671	9.9%
White	3,098	45.7%
Minority	3,680	54.3%

Vulnerability Score

Table 2-99: Wildfire Vulnerability Score for East Baton Rouge Parish.

Wildfire Vulnerability Score						
	Probability	**Impact**	**Spatial Extent**	**Warning Time**	**Duration**	**Risk Factor**
Risk Level	1	3	4	1	2	**2.25**

Winter Weather

Profile

For Louisiana and other parts of the southeastern United States, a severe winter storm occurs when humid air from the Gulf of Mexico meets a cold air mass from the north. Once the cold air mass crosses Louisiana, and the temperature drops, precipitation may fall in the form of snow or sleet. If the ground temperature is cold enough but air temperature is above freezing, rain can freeze instantly on contact with the surface, causing massive ice storms.

The winter storm events that affect the state of Louisiana are ice storms, freezes, and snow events. Of the winter storm types listed above, ice storms are the most dangerous. Ice storms occur during a precipitation event when warm air aloft exceeds 32 °F, while the surface remains below the freezing point. Ice will form on all surfaces when precipitation originating as rain or drizzle contacts physical structures. These ice storms are usually accompanied by freezing temperatures and occasionally snow.

Winter storms can be accompanied by strong winds, creating blizzard conditions with blinding, wind driven snow, severe drifting, and dangerous wind chill. These types of conditions are very rare in Louisiana, even in north Louisiana, but ice storms are more common. The climatic line between snow and rain often stalls over north Louisiana, creating ideal conditions for ice accumulation.

In a typical winter storm event, homes and buildings are damaged by ice accumulation, either directly by the weight of the ice on the roofs or by trees and/or limbs falling on buildings. While it is not very prevalent, this type of damage can occur in Louisiana, particularly in north Louisiana. Effects of winter weather more likely to occur in Louisiana, especially southern Louisiana, include extreme temperatures which can cause waterlines to freeze and sewer lines to rupture. This is especially true with elevated or mobile homes since cold air is able to access more of the building's infrastructure. Winter storms can also have a devastating effect on agriculture, particularly on crops (like citrus) that are dependent on warm weather. Long exposures to low temperatures can kill many kinds of crops, and ice storms can weigh down branches and fruit.

Winter weather is not only a direct threat to human health through conditions like frostbite and hypothermia, but they are also an indirect threat to human health due to vehicle accidents and loss of power and heat, which can be disrupted for days. However, these impacts are rarely seen in Louisiana. As people use space heaters and fireplaces to stay warm, the risk of household fires and carbon monoxide poisoning increases.

Winter storm events occur throughout Louisiana usually during the colder calendar months of December, January, and February. Severe weather events do not occur with the same frequency across all parts of Louisiana. The northern quarter of Louisiana has historically experienced the most severe winter events between 1987 and 2012. The central, and to an even greater extent the southern parts of the state, such as Ascension Parish, have experienced the fewest severe winter events. The following table shows the Sperry-Piltz Ice Accumulation Index which is utilized to predict the potential damage to overhead utility systems from freezing rain and ice storms.

Table 2-100: Sperry-Piltz Ice Accumulation Index

Ice Damage Index	Damage and Impact Descriptions
0	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
2	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
3	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 5 days.
4	Prolonged and widespread utility interruptions with extensive damage to main distribution feeder lines and some high voltage transmission lines/structure. Outages lasting 5 – 10 days.
5	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.

Risk Assessment

Geographic Extent

All of the parish planning area is susceptible to the effects of winter weather. The worst-case scenario for winter weather is a 2 on the Sperry-Piltz Ice Accumulation Index.

Previous Occurrences

The parish has experienced four winter weather occurrences between the years 2002 and 2022 per the NCEI Storm Events Database. There have been no winter weather events since the 2017 update. However, the parish experienced a system of heavy rains, wintry precipitation, and freezing temperatures from February 11, 2021 and again on February 17, 2021. The impacts of the wintry precipitation and low temperatures posed a serious threat to the lives and property of the people in Louisiana. Major power and water system outages occurred throughout the state of Louisiana and impacted roughly one-quarter of the populace in the state.

Probability

The annual return rate (frequency) for winter storm occurrences in the parish is 0.14 (15% annual probability) or approximately 1 winter storm event every 6 to 7 years.

Climate Change Impacts

Winter weather is likely to become less frequent as the winter season decreases in length over the next century due to an increase in ambient and sea surface temperatures. By the end of the century, Louisiana is expected to experience a 5°F to 10°F increase in average ambient temperatures which will drastically reduce the number of days below freezing and lower the chance of winter weather. Precipitation is expected to increase during the winter months.

Climate change is influencing winter weather patterns, leading to significant impacts on both infrastructure and vulnerable populations. While it may seem counterintuitive, global warming can cause more frequent and intense winter storms. The warming of the Arctic and the disruption of the polar jet stream can result in polar vortex shifts, causing freezing temperatures and extreme winter conditions in regions that typically experience milder winters.

Winter weather impacts infrastructure in various ways. Freezing temperatures can damage roads, bridges, and other transportation networks, leading to increased maintenance costs and travel disruptions. Ice and snow accumulation on power lines can cause blackouts and outages, leaving communities without electricity and heating during frigid temperatures. Water supply systems can also be affected, as frozen pipes can burst, leading to water shortages and damage to properties.

Vulnerable populations are particularly at risk during severe winter weather events. Homeless individuals may struggle to find shelter and protection from the cold, leading to an increased risk of hypothermia and frostbite. Low-income households may face difficulties in affording heating costs, potentially exposing them to unsafe living conditions. The elderly and those with limited mobility may find it challenging to access essential services and resources during snowstorms, leading to isolation and health risks.

Moreover, winter storms can have economic consequences for vulnerable populations. Closures of schools and businesses during severe weather can lead to loss of income and educational disruptions, impacting families already facing financial challenges. In regions where winter tourism is vital, extreme winter weather can affect local economies, leading to job losses and reduced economic opportunities for vulnerable communities.

To address the impacts of climate change on infrastructure and vulnerable populations concerning winter weather, various measures are essential. Investing in winter-ready infrastructure, such as weather-resistant roads and insulated power lines, can help mitigate damage and improve resilience. Implementing programs to support vulnerable populations, such as providing emergency shelters, fuel assistance, and resources for winter preparedness, can protect them during extreme winter events. Climate change mitigation efforts to reduce greenhouse gas emissions are also crucial to addressing the root causes of extreme winter weather patterns, helping to protect both infrastructure and vulnerable populations from the adverse effects of winter storms in the long run.

Vulnerability Analysis

The NRI includes data on the expected annual losses to individual natural hazards, historical losses, and overall risk at the county and Census tract level. The table below provides an overview of each category at the parish level for winter weather.

Table 2-101: National Risk Index (NRI) Summarization of Winter Storm Occurrences for EBR Parish. (Source: National Risk Index)

Expected Annual Losses	Overall Risk Rating
Relatively High	Relatively High

Estimated Impact and Potential Loss

Since 1996, there have been four significant winter storm occurrences per the NCEI Storm Events Database. The total property damage associated with these storms totaled approximately $5,000. To estimate the potential losses on an annual basis, the total damages recorded were divided by the total number of years of available data in the NCEI Storm Events Database (1996 – 2022). This provides an annual estimated potential loss of $185 and $1,250 per event. The following table provides an estimate of potential property losses for the Parish:

Table 2-102: Estimated Annual Property Losses in EBR Parish resulting from Winter Storm Damage.

Unincorporated EBR Parish (35.9%)	Baker (2.8%)	Baton Rouge (50.5%)	Central (6.6%)	Zachary (4.3%)
$66	$5	$93	$12	$8

Vulnerable Population

Per the NCEI Storm Events Database, there have been no reported fatalities or injuries as a result of winter weather. However, winter storms can have a significant impact the population. They can cause physical injuries and even fatalities. High winds, falling trees, and structural collapses can pose immediate risks to people's safety during a storm. These storms can displace individuals and families from their homes, either temporarily or permanently. In cases of extensive property damage, people may be forced to evacuate or seek emergency shelter. The displacement can result in temporary homelessness or the need for long-term housing solutions.

Winter storms can disrupt critical infrastructure such as transportation systems, power grids, and water supply networks. Disruption in these services could lead to health issues or the inability to access essential services that are needed to meet basic needs. This can lead to not only physical issues but psychological effects as well.

Everyone in the parish is vulnerable to the impacts of winter storms; however, they can have a disproportionate impact on vulnerable populations exacerbating existing social, economic, and health disparities. Vulnerable populations, including low-income individuals, the homeless, and those living in standardized housing, are often more susceptible to the effects of winter storms.

Vulnerability Score

Table 2-103: Winter Weather Vulnerability Score for East Baton Rouge Parish.

Winter Weather Vulnerability Score						
	Probability	Impact	Spatial Extent	Warning Time	Duration	Risk Factor
Risk Level	3	3	4	1	2	2.75

3. Capability Assessment

This section summarizes the results of efforts by each jurisdiction and other agencies to develop policies, programs, and activities that directly or indirectly support hazard mitigation. It also provides information on resources and gaps in the parish's infrastructure, as well as relevant changes in its law since the last plan update, in order to suggest a mitigation strategy.

Through this assessment, East Baton Rouge Parish and the incorporated jurisdictions are able to identify strengths that could be used to reduce losses and reduce risk throughout the communities. It also identifies areas where mitigation actions might be used to supplement current capabilities and create a more resilient community before, during, and after a hazard event.

Policies, Plans and Programs

These capabilities are unique to the parish and jurisdictions, including planning, regulatory, administrative, technical, financial, and education and outreach resources. There are a number of mitigation-specific acts, plans, executive orders, and policies that lay out specific goals, objectives, and policy statements which already support or could support pre- and post-disaster hazard mitigation. Many of the ongoing plans and policies hold significant promise for hazard mitigation, and take an integrated and strategic look holistically at hazard mitigation in the East Baton Rouge Parish planning area to propose ways to continually improve it. These tools are valuable instruments in pre- and post-disaster mitigation as they facilitate the implementation of mitigation activities through the current legal and regulatory framework. Examples of existing documents include the following:

Table 3-1: Planning and Regulatory Capabilities

Capability Assessment Worksheet						
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.						
Planning and Regulatory						
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.						
	East Baton Rouge Parish	Baton Rouge	Baker	Central	Zachary	Comments
Plans	**Yes / No**					
Comprehensive / Master Plan	Yes	Yes	Yes	Yes	Yes	
Capital Improvements Plan	Yes	Yes	Yes	Yes	Yes	
Economic Development Plan	Yes	Yes	No	Yes	Yes	
Local Emergency Operations Plan	Yes	Yes	Yes	Yes	Yes	
Continuity of Operations Plan	Yes	Yes	No	Yes	Yes	
Transportation Plan	Yes	Yes	No	Yes	Yes	
Stormwater Management Plan	Yes	Yes	Yes	Yes	Yes	
Community Wildfire Protection Plan	No	No	No	No	No	
HHPD Emergecny Action Plan	No	Yes	No	No	No	
Other plans (redevelopment, recovery, coastal zone management)		Yes	No	No	No	
Building Code, Permitting and Inspections	**Yes / No**					
Building Code	Yes	Yes	Yes	Yes	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	No	No	Yes	No	
Fire Department ISO/PIAL rating	Yes	Yes	2	3	Yes	
Site plan review requirements	Yes	Yes	Yes	Yes	Yes	
Land Use Planning and Ordinances	**Yes / No**					
Zoning Ordinance	Yes	Yes	Yes	Yes	Yes	
Subdivision Ordinance	Yes	Yes	Yes	Yes	Yes	
Floodplain Ordinance	Yes	Yes	Yes	Yes	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Yes	Yes	No	Yes	No	
Flood Insurance Rate Maps	Yes	Yes	Yes	Yes	Yes	
Acquisition of land for open space and public	Yes	Yes	No	No	No	
Other					No	

All jurisdictions within the East Baton Rouge Parish planning area will work to expand their capabilities by adding to these plans, as well as work to create new plans that will address a long-term recovery and resiliency framework. In instances where there are no existing plans, there will be a concerted effort to explore opportunities to create new plans that will address long-term recovery and resiliency framework as parish and local resources allow.

Building Codes, Permitting, Land Use Planning and Ordinances

East Baton Rouge Parish Government provides oversight for building permits and codes, land use planning, and all parish ordinances.

As of the 2023 update, East Baton Rouge Parish and the incorporated communities ensure that all adopted building codes are enforced and in compliance relating to the construction of any structure within the boundaries of the parish. Building permits are required prior to beginning any type of construction or renovation projects, installation of electrical wiring, plumbing or gas piping, moving manufactured/modular or portable buildings, and reroofing or demolitions.

The Code Enforcement Office in the Department of Development is responsible for enforcing the parish ordinances related to health and safety, property maintenance standards, and condemnation of unsafe structures.

The East Baton Rouge Parish MOHSEP meets regularly to consider any proposed ordinance changes, and to take final actions on proposed changes.

While local capabilities for mitigation can vary from community to community, the jurisdictions within the East Baton Rouge Parish planning area as a whole have a system in place to coordinate and share these capabilities through the MOHSEP and through this Parish Hazard Mitigation Plan.

Some programs and policies, such as the above described, might use complementary tools to achieve a common end, but fail to coordinate with or support each other. Thus, coordination among local mitigation policies and programs is essential to hazard mitigation.

Administration, Technical, and Financial

The jurisdictions within the East Baton Rouge Parish planning area have administrative and technical capabilities in place that may be utilized in reducing hazard impacts or implementing hazard mitigation activities. Such capabilities include staff, skillset, and tools available in the community that may be accessed to implement mitigation activities and to effectively coordinate resources. The ability to access and coordinate these resources is also important. The table on the following page shows examples of resources in place.

Table 3-2: Administration and Technical Capabilities

Administration and Technical						
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.						
	East Baton Rouge Parish	Baton Rouge	Baker	Central	Zachary	Comments
Administration	**Yes / No**					
Planning Commission	Yes	Yes	Yes	Yes	Yes	
Mitigation Planning Committee	Yes	Yes	Yes	Yes	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Yes	Yes	Yes	Yes	
Staff	**Yes / No**					
Chief Building Official	Yes	Yes	Yes	Yes	Yes	
Floodplain Administrator	Yes	Yes	Yes	Yes	Yes	
Emergency Manager	Yes	Yes	Yes	No	Yes	
Community Planner	Yes	Yes	Yes	Yes	Yes	
Civil Engineer	Yes	Yes	Yes	Yes	Yes	
GIS Coordinator	Yes	Yes	No	Yes	Yes	
Grant Writer	Yes	Yes	Yes	Yes	Yes	
Other						
Technical	**Yes / No**					
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Yes	Yes	No	No	
Hazard Data & Information	Yes	Yes	Yes	Yes	No	
Grant Writing	Yes	Yes	Yes	Yes	Yes	
Hazus Analysis	No	No	No	No	No	
Other				No	No	

Financial capabilities are the resources that East Baton Rouge Parish and its incorporated jurisdictions have access to or are eligible to use in order to fund mitigation actions. Costs associated with implementing the actions identified by the parish may vary from little to no cost actions, such as outreach efforts, or substantial action costs such acquisition of flood prone properties.

The following financial resources are available to fund mitigation actions in the East Baton Rouge Parish planning area:

Table 3-3: Financial Capabilities

Financial						
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.						
	East Baton Rouge Parish	Baton Rouge	Baker	Central	Zachary	Comments
Funding Resource	**Yes / No**					
Capital Improvements project funding	Yes	Yes	Yes	Yes	Yes	
Authority to levy taxes for specific purposes	Unknown	Unknown	Yes	Yes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Yes	Yes	Yes	Yes	
Impact fees for new development	Yes	Yes	Yes	Yes	Yes	
Stormwater Utility Fee	No	No	No	No	Yes	
Community Development Block Grant (CDBG)	Yes	Yes	Yes	Yes	Yes	
Other Funding Programs	Yes	Yes	Yes	Yes	Yes	

Education and Outreach

A key element in hazard mitigation is promoting a safer, more disaster resilient community through education and outreach activities and/or programs. Successful outreach programs provide data and information that improves overall quality and accuracy of important information for citizens to feel better prepared and educated with mitigation activities. These programs enable the individual communities and the parish as a whole to maximize opportunities for implementation of activities through greater acceptance and consensus of the community.

The jurisdictions within the East Baton Rouge Parish planning area have existing education and outreach programs to implement mitigation activities, as well as communicate risk and hazard related information to its communities. Specifically, focusing on advising repetitive loss property owners of ways they can reduce their exposure to damage by repetitive flooding remains a priority for the entire parish. The existing programs are as follows:

Table 3-4: Education and Outreach Capabilities

Education and Outreach						
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.						
	East Baton Rouge Parish	Baton Rouge	Baker	Central	Zachary	Comments
Program / Organization	Yes / No					
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	Yes	Yes	No	No	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	Yes	Yes	Yes	Yes	
Natural Disaster or safety related school program	Yes	Yes	Yes	Yes	Yes	
Storm Ready certification	Yes	Yes	No		No	
Firewise Communities certification	Yes	Yes	Yes	No	No	
Public/Private partnership initiatives addressing disaster-related issues	Yes	Yes	Yes	Yes	Yes	
Other				No	No	

As reflected with the above existing regulatory mechanisms, programs and resources within the parish, the jurisdictions within the East Baton Rouge Parish planning area remain committed to expanding and improving on the existing capabilities within the parish. Communities will work together along with East Baton Rouge Parish toward increased participation in funding opportunities and available mitigation programs. Should funding become available, the hiring of additional personnel to dedicate to hazard mitigation initiatives and programs, as well as increasing ordinances within the parish, will enhance and expand overall risk reduction for the entirety of East Baton Rouge Parish.

Flood Insurance and Community Rating System

Participation in the CRS strengthens local capabilities by lowering flood insurance premiums for jurisdictions that exceed NFIP minimum requirements. As noted in the CRS Eligible Communities List effective April 1, 2023, East Baton Rouge Parish is rated as a Class 7 community, the City of Baker is rated as a Class 9 community, the City of Central is rated as a Class 7 community, and the City of Zachary is rated as a Class 8 community.

The Federal Emergency Management Agency's National Flood Insurance Program (NFIP) administers the Community Rating System (CRS). Under the CRS, flood insurance premiums for properties in participating communities are reduced to reflect the flood protection activities that are being implemented. This program can have a major influence on the design and implementation of flood mitigation activities, so a brief summary is provided here.

A community receives a CRS classification based upon the credit points it receives for its activities. It can undertake any mix of activities that reduce flood losses through better mapping, regulations, public information, flood damage reduction and/or flood warning and preparedness programs.

There are ten CRS classes: Class 1 requires the most credit points and gives the largest premium reduction; Class 10 receives no premium reduction (see *Figure 3-1*). A community that does not apply for the CRS or that does not obtain the minimum number of credit points is a class 10 community.

CLASS	DISCOUNT	CLASS	DISCOUNT
1	45%	6	20%
2	40%	7	15%
3	35%	8	10%
4	30%	9	5%
5	25%	10	–

SFHA (Zones A, AE, A1–A30, V, V1–V30, AO, and AH): Discount varies depending on class.

SFHA (Zones A99, AR, AR/A, AR/AE, AR/A1–A30, AR/AH, and AR/AO): 10% discount for Classes 1–6; 5% discount for Classes 7–9.*

Non-SFHA (Zones B, C, X, D): 10% discount for Classes 1–6; 5% discount for Classes 7–9.

Figure 3-1: CRS Discounts by Class (Source: FEMA)

As of April 2023, 352 communities in the State of Louisiana participate in the Federal Emergency Management Agency's National Flood Insurance Program (NFIP). Of these communities, 47 (or 13%) participate in the Community Rating System (CRS). Jefferson Parish leads the state with a rating of Class 5, followed by four cities with a rating of Class 6: the Cities of Gretna and Kenner in Jefferson Parish and the Cities of Mandeville and Slidell in St. Tammany Parish. Of the top fifty Louisiana communities, in terms of total flood insurance policies held by residents, 29 participate in the CRS. The remaining 21 communities present an outreach opportunity for encouraging participation in the CRS.

The CRS provides an incentive not just to start new mitigation programs, but to keep them going. There are two requirements that "encourage" a community to implement flood mitigation activities. Once the parish has obtained a CRS rating and is a participant, the parish will receive CRS credit for this plan when it is adopted. To retain that credit, though, the parish must submit an evaluation report on progress toward implementing this plan to FEMA by October 1 of each year. That report must be made available to the media and the public. Second, the parish must annually recertify to FEMA that it is continuing to implement its CRS credited activities. Failure to maintain the same level of involvement in flood protection can result in a loss of CRS credit points and a resulting increase in flood insurance rates to residents.

In 2011[1], the National Flood Insurance Program (NFIP) completed a comprehensive review of the Community Rating System (CRS) that resulted in the release of a new CRS Coordinator's Manual. The changes to the 2013 CRS Coordinator's Manual are the result of a multi-year program evaluation that included input from a broad group of contributors to evaluate the CRS and refine the program to meet its stated goals. The changes helped to drive new achievements in the following six core flood loss reduction areas important to the NFIP: (1) reduce liabilities to the NFIP Fund; (2) improve disaster resiliency and sustainability of communities; (3) integrate a Whole Community approach to addressing emergency management; (4) promote natural and beneficial functions of floodplains; (5) increase understanding of risk, and; (6) strengthen adoption and enforcement of disaster-resistant building codes.

Since the revision of the 2013 Coordinator's Manual, FEMA released the 2017 CRS Coordinator's Manual which continued the evolution of the CRS program and its mission to reward communities that prioritize mindful floodplain regulations. As with the 2013 manual, the changes made in the 2017 manual impact each CRS community differently. Some communities see an increase in the points they receive since points for certain activities have increased (e.g., Activity 420 Open Space Preservation). Other communities receive fewer points for certain activities (e.g., Activity 320 Map Information Service). It is

[1] https://www.fema.gov/national-flood-insurance-program-community-rating-system

likely that some communities with marginal CRS Class 9 programs have to identify new CRS credits in order to remain in the CRS class. Most notably, as it relates to this hazard mitigation plan, more credit was made available for Activity 410 Floodplain Mapping.

Typically, CRS communities do not request credit for all the activities they are currently implementing unless it would earn enough credit to advance the community to a higher CRS Class. A community that finds itself losing CRS credit with the 2017 manual could likely identify activities deserving credit they had not previously received. Due to the changes in both activities and CRS points, community CRS coordinators should speak with their ISO/CRS Specialist to understand how the 2017 manual will impact their community and when.

In addition to the direct financial reward for participating in the Community Rating System, there are many other reasons to participate in the CRS. As FEMA staff often say, "If you are only interested in saving premium dollars, you're in the CRS for the wrong reason."

The other benefits that are more difficult to measure in dollars include:

1. The activities credited by the CRS provide direct benefits to residents, including:
   – Enhanced public safety
   – A reduction in damage to property and public infrastructure
   – Avoidance of economic disruption and losses
   – Reduction of human suffering
   – Protection of the environment

2. A community's flood programs will be better organized and more formal. Ad hoc activities, such as responding to drainage complaints rather than an inspection program, will be conducted on a sounder, more equitable basis.

3. A community can evaluate the effectiveness of its flood program against a nationally recognized benchmark.

4. Technical assistance in designing and implementing a number of activities is available at no charge from the Insurance Services Office.

5. The public information activities will build a knowledgeable constituency interested in supporting and improving flood protection measures.

6. A community would have an added incentive to maintain its flood programs over the years. The fact that its CRS status could be affected by the elimination of a flood related activity or a weakening of the regulatory requirements for new developments would be taken into account by the governing board when considering such actions.

7. Every time residents pay their insurance premiums, they are reminded that the community is working to protect them from flood losses, even during dry years.

NFIP Worksheets

Parish NFIP worksheets can be found in *Appendix E: State Required Worksheets*.

4. Mitigation Strategy

Introduction

The Hazard Mitigation Strategy for East Baton Rouge Parish and its incorporated communities have a common guiding principle and is the demonstration of the parish's commitment to reduce risks from hazards. The strategy also serves as a guide for parish and local decision makers as they commit resources to reducing the effects of hazards.

Officials from all jurisdictions within the planning area confirmed the goals, objectives, actions and projects over the period of the hazard mitigation plan update process. The mitigation actions and projects in this 2023 HMP update are a product of analysis and review of the East Baton Rouge Parish Hazard Mitigation Plan Planning Committee under the coordination of the East Baton Rouge Parish Office of Homeland Security and Emergency Preparedness. The committee was presented a list of projects and actions, new and from the 2017 plan, for review from January 2023 – April 2023.

An online public opinion survey of East Baton Rouge Parish residents was conducted between October 2022 and May 2023. The survey was designed to capture public perceptions and opinions regarding natural hazards in the East Baton Rouge Parish. In addition, the survey collected information regarding the methods and techniques preferred by the respondents for reducing the risks and losses associated with local hazards.

This activity was created in an effort to confirm that the goals and action items developed by the East Baton Rouge Parish Hazard Mitigation Plan Planning Committee are representative of the outlook of the community at large. However, because there were no responses to the survey, this public feedback could not be incorporated into the plan. The full East Baton Rouge Parish survey can be found at the following link:

https://www.surveymonkey.com/r/EBRHM2022

Goals

The goals represent the guidelines that the parish and its communities want to achieve with this plan update. To help implement the strategy and adhere to the mission of the Hazard Mitigation Plan, the preceding section of the plan update was focused on identifying and quantifying the risks faced by the residents and property owners in East Baton Rouge Parish from natural and manmade hazards. By articulating goals and objectives based on the previous plans, the risk assessment results, and intending to address those results, this section sets the stage for identifying, evaluating, and prioritizing feasible, cost effective, and environmentally sound actions to be promoted at the parish and municipal level – and to be undertaken by the state for its own property and assets. By doing so, East Baton Rouge Parish can make progress toward reducing identified risks.

For the purposes of this plan update, goals and action items are defined as follows:

- **Goals** are general guidelines that explain what the parish wants to achieve. Goals are expressed as broad policy statements representing desired long-term results.
- **Action Items** are the specific steps (projects, policies, and programs) that advance a given goal. They are highly focused, specific, and measurable.

The current goals of the East Baton Rouge Parish Hazard Mitigation Plan Update Planning Committee represent long-term commitments by the parish. After assessing these goals, the committee decided that the current remain valid.

The goals are as follows:

1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish.
2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities.
3. To promote an all-hazards public awareness campaign that focuses on preparing for and mitigating against natural disasters that may affect our community.
4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish.

The Mitigation Action Plan focuses on actions to be taken by East Baton Rouge Parish and its communities. All of the activities in the Mitigation Action Plan will be focused on helping the parish and its communities in developing and funding projects that are not only cost effective but also meet the other DMA 2000 criteria of environmental compatibility and technical feasibility.

Prior to the adoption of the 2017 East Baton Rouge Parish Hazard Mitigation Plan, large portions of South Louisiana were impacted by a flooding event whose ramifications are still being felt by the population. Because of this event, East Baton Rouge Parish and its jurisdictions reprioritized its efforts and became much more aggressive in seeking funding for flood mitigation efforts, particularly related to drainage. Pressure was placed on political leaders throughout the parish and jurisdictions to ensure that money and resources were sought and made available to mitigate against such events in the future.

The Hazard Mitigation Plan Planning Committee reviewed and evaluated the potential action and project lists in which consideration was given to a variety of factors. Such factors include determining a project's eligibility for federal mitigation grants as well as its ability to be funded. This process required evaluation of each project's engineering feasibility, cost effectiveness, and environmental and cultural factors.

2023 Mitigation Actions and Update on Previous Plan Actions

The East Baton Rouge Parish Hazard Mitigation Plan Planning Committee identified new actions that would reduce and/or prevent future damage within the East Baton Rouge Parish. In that effort, the committee focused on a comprehensive range of specific mitigation actions. These actions were identified in thorough fashion by the consultant team and the committee by way of frequent and open communications and meetings held throughout the planning process. The addition of these new actions, coupled with any ongoing and/or carried over projects from their previous update, provide East Baton Rouge Parish with a solid mitigation strategy through which risk and losses will be reduced throughout the parish and its communities.

As outlined in the Local Mitigation Planning Handbook the following are eligible types of mitigation actions:

- **Local Plans and Regulations –** These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.

- **Structure and Infrastructure Projects –** These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area, and also includes projects to construct manmade structures to reduce the impact of hazards.
- **Natural System Protection –** These actions minimize the damage and losses and also preserve or restore the functions of natural systems.
- **Education and Awareness Programs –** These actions inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.

Status updates for actions included in the previous plan can be found on the following pages. Additionally, new mitigation actions agreed upon by the parish and its jurisdictions are included.

East Baton Rouge Parish Mitigation Actions

Previous Action Update

Unincorporated East Baton Rouge Parish						
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Status**
EBR1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds and helps assure that the public buildings can be used, occupied and operable during or after storms.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See East Baton Rouge Parish Mitigation Action 1)
EBR2: Drainage Improvement	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Ongoing
EBR3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Ongoing
EBR4: Safe Room Projects	Construction of a safe room for first responders located in East Baton Rouge Parish. Other locations will be identified based on funding availability.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing

EBR5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Flooding, Tropical Cyclone, tornados, wildfire, thunderstorms (lightning, high wind, hail), levee failure and winter storm hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Levee Failure, Thunderstorms Tornadoes, Tropical Cyclones, Wildfire, Winter Weather	Ongoing
EBR6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
EBR7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Thunderstorms	Not Started - Carried Over (See East Baton Rouge Parish Mitigation Action 2)
EBR8: Warning Systems	Update/upgrade public warning system components throughout East Baton Rouge Parish as necessary. Install audible and/or reverse 911 warning system(s)	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See East Baton Rouge Parish Mitigation Action 3)
EBR9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Levee Failure, Thunderstorms, Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	Not Started - Carried Over (See East Baton Rouge Parish Mitigation Action 4)
EBR10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Ongoing

EBR11: Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a levee failure.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure	Not Started - Carried Over (See East Baton Rouge Parish Mitigation Action 5)
EBR12: Building Enhancement	Perform mitigation measures that will enhance the performance of new and existing buildings, expansions, or infrastructure during high wind and flood events. This may include hardening structures, installing hurricane clips, elevating utilities or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of EBR1 Action)
EBR13: Emergency Response Capabilities	Improve emergency response capabilities during disasters by performing mitigation measures that will enhance the performance of emergency response facilities during disasters. This may include hardening structures, installing hurricane clips, elevating utilities, or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted - Duplicate of EBR6 Action
EBR14: Emergency Shelters and Safe Rooms	Provide shelter to local residents by constructing new emergency shelters or safe rooms and enhancing the performance of existing shelters and safe rooms in the parish.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of EBR4 Action)
EBR15: Damaged Property Database	Maintain a database of all properties or areas that sustain damage as a result of a hazard. Include information about the nature and extent of the damage.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
EBR16: Emergency Power and Utility Services	Provide reliable emergency power and essential utility services (water, sewer, etc.) to meet the needs of critical emergency responders during disaster events.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted - Duplicate of EBR6 Action
EBR17: Public Notification System	Implement a public notification system, such as sirens or a call down system with a backup communication system.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of EBR8 Action)

EBR18: Communication Capabilities	Improve both technological and administrative communication capabilities among fire, police, 911, and other state and local emergency operations through improved planning and the upgrading of communication infrastructure and equipment.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See East Baton Rouge Parish Mitigation Action 6)
EBR19: New Development Regulation	Evaluate, develop and pass new ordinances and strengthen local codes and ordinances to help regulate new development in the parish.	Parish Council, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
EBR20: Day to Day Operations	Continue day to day operations and handle increased surge capacity of critical facilities and services in the event of a hazard or disaster.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Drought Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
EBR21: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See East Baton Rouge Parish Mitigation Action 7)
EBR22: Hazard Event Database	Create and maintain a database for all hazard events where data for extent and previous occurrence information is not readily available.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
EBR23: Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of EBR10 Action)

EBR24: Repetitive Loss Reconstruction Projects	Pursue elevation / acquisition / floodproofing / pilot reconstruction projects and structural solutions to flooding using available grant funding for the repetitive loss structures. Annually review and correct the Repetitive Loss List by submitting correction worksheets to FEMA.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of EBR3 Action)
EBR25: Masters and Disasters	"Masters and Disasters" Education Program	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of EBR5 Action)
EBR26: Educational Brochures	Provide brochures and other publications through media, mail, libraries, Post Offices, utility bill inserts, inserts in the phone book, and/or the Internet that inform residents of hazards and measures that may be taken to protect life and property.	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of EBR5 Action)
EBR27: Multi-Hazard Awareness Week	Sponsor a "Multi-Hazard Awareness Week", to educate the public on hurricanes, severe storms and tornadoes (sheltering in place, evacuation, emergency preparedness, and structural retrofitting), flooding (evacuation, emergency preparedness, retrofitting, and flood insurance), thunderstorms and lightning (emergency preparedness).	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes Tropical Cyclones,	Deleted (Duplicate of EBR5 Action)
EBR28: Localized Interior Drainage Projects	Improve drainage by implementing localized interior drainage projects such as adding new drainage pumps, enlarging culverts, lining canals with concrete, replacing / improving any substandard bridges, berms, retention ponds, and other drainage projects where necessary	HGMP, BRIC, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of EBR2 Action)

EBR29: Master Drainage Plan	Develop a master drainage plan which will evaluate drainage projects to determine the best method of increasing drainage capacity. Implement recommended projects resulting from drainage plan.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Completed
EBR30: Comite River Diversion Project	Comite River Diversion Project which will reduce flood stages on the Comite River downstream of the diversion.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Ongoing
EBR31: Jones Creek and Tributaries Modification	Jones Creek & Tributaries- Modifications to approximately 20 miles of channel along Jones Creek, Jones Creek Tributary, Weiner Canal, Lively Bayou, Lively Bayou Tributary, the addition of 91,000 linear feet of reinforced concrete lining to existing channels, and necessary clearing and snagging.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Ongoing
EBR32: Ward Creek Watershed	Ward Creek Watershed- Clear and line approximately 14 miles of channel. Concrete line approximately 5,600 linear feet from downstream of I-10 to immediately downstream of I-12.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Ongoing
EBR33: Bayou Fountain Watershed	Bayou Fountain Watershed- modifications of 12 miles of channel, clearing and snagging, and widening and adding concrete to a portion of the channel.	HGMP, BRIC, FMA, Local	1-5 years	EBR Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Ongoing

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high wind related events, and helps assure that the public buildings can be used, occupied and operable during or after storms.
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 2	Lightning Mitigation
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 3	Warning Systems
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 3. To promote an all-hazards public awareness campaign that focuses on preparing for and mitigating against natural disasters that may affect our community
PRIORITY	Medium
Action Description	Update/upgrade public warning system components throughout Baton Rouge as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 4	Potable Water
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities, especially hospitals in Parish, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Drought, Flooding, Levee Failure, Thunderstorms, Tropical Cyclones, Tornadoes, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 5	Levee Failure Working Group
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP, US Army Corp of Engineers
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities
PRIORITY	High
Action Description	Create a working group in order to assess the extent and determine the specific areas of inundation related to a dam or levee failure in East Baton Rouge Parish.
Type of Mitigation Action	Natural System Protection
How Action Aligns with Risk Reduction	Creation of working group will allow levees to be assessed and determine the possible outcomes during failure. This is a preventive measure that will allow the group to call upon others to reinforce structures if failure event is imminent.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Flooding, Levee Failure

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 6	Communication Capabilities
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Improve both technological and administrative communication capabilities among fire, police, 911, and other state and local emergency operations through improved planning and the upgrading of communication infrastructure and equipment.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Improving communication capabilities will ensure that essential personnel has adequate information and practices to carry out response measures during hazard events
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 7	New Initiatives
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	New initiatives will allow the parish to pursue preventative measure dealing with loss
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 8	Water Conservation Ordinance
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implements mandatory measures surrounding water conservation during drought events/emergencies
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Ordinances in place will prioritize water control in the parish and communities, particularly for essential personnel and Fire Search and Rescue
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
EAST BATON ROUGE PARISH MITGATION ACTION 9	Procure All-Weather/Hazard Emergency Alert Radios
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Purchase weather radios for public, to be used for emergency notification.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Allows for redundant communications with citizens. Also provides citizens with method to access weather related information in the event of systems being down. Increases overall safety of the community.
Current Status of Action	New
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather, Wildfires

Additional Supporting Information:

City of Baker Mitigation Actions

Previous Action Update

City of Baker						
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Status**
BAK1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
BAK2: Drainage Improvement	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Ongoing
BAK3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See City of Baker Mitigation Action 1)
BAK4: Safe Room Projects	Construction of a safe room for first responders located in Baker. Other locations will be identified based on funding availability.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Baker Mitigation Action 2)

BAK5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, Winter Weather	Ongoing
BAK6: Generators for continuity of operations and government	Procurement and installation of generators at public facilities to ensure continued operations during and after events.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
BAK7: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Thunderstorms	Not Started - Carried Over (See City of Baker Mitigation Action 3)
BAK8: Warning Systems	Update/upgrade public warning system components throughout Baker as necessary. Install audible and/or reverse 911 warning system(s)	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Baker Mitigation Action 4)
BAK9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	In Progress
BAK10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See City of Baker Mitigation Action 5)
BAK11: Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam and levee failure.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure	Deleted - Action not applicable to Baker

BAK12: Building Enhancement	Perform mitigation measures that will enhance the performance of new and existing buildings, expansions, or infrastructure during high wind and flood events. This may include hardening structures, installing hurricane clips, elevating utilities or adding back up power supply / generators.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of BAK1 Action)
BAK13: Emergency Response Capabilities	Improve emergency response capabilities during disasters by performing mitigation measures that will enhance the performance of emergency response facilities during disasters. This may include hardening structures, installing hurricane clips, elevating utilities, or adding back up power supply / generators.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
BAK14: Damaged Property Database	Maintain a database of all properties or areas that sustain damage as a result of a hazard. Include information about the nature and extent of the damage.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Baker Mitigation Action 6)
BAK15: Emergency Power and Utility Services	Provide reliable emergency power and essential utility services (water, sewer, etc.) to meet the needs of critical emergency responders during disaster events.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
BAK16: Day to Day Operations	Continue day to day operations and handle increased surge capacity of critical facilities and services in the event of a hazard or disaster.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
BAK17: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Baker Mitigation Action 7)

BAK18: Educational Brochures	Provide brochures and other publications through media, mail, libraries, Post Offices, utility bill inserts, inserts in the phone book, and/or the Internet that inform residents of hazards and measures that may be taken to protect life and property.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of BAK5 Action)
BAK19: Multi-Hazard Awareness Week	Sponsor a "Multi-Hazard Awareness Week", to educate the public on hurricanes, severe storms and tornadoes (sheltering in place, evacuation, emergency preparedness, and structural retrofitting), flooding (evacuation, emergency preparedness, retrofitting, and flood insurance), thunderstorms and lightning (emergency preparedness).	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes Tropical Cyclones,	Deleted (Duplicate of BAK5 Action)
BAK20: Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of BAK10 Action)
BAK21: Repetitive Loss Reconstruction Projects	Pursue elevation / acquisition / floodproofing / pilot reconstruction projects and structural solutions to flooding using available grant funding for the repetitive loss structures. Annually review and correct the Repetitive Loss List by submitting correction worksheets to FEMA.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of BAK3 Action)
BAK22: Public Notification System	Implement a public notification system, such as sirens or a call down system with a backup communication system.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of BAK8 Action)

BAK23: Communication Capabilities	Improve both technological and administrative communication capabilities among fire, police, 911, and other state and local emergency operations through improved planning and the upgrading of communication infrastructure and equipment.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
BAK24: New Development Regulation	Evaluate, develop and pass new ordinances and strengthen local codes and ordinances to help regulate new development in the parish.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Baker Mitigation Action 8)
BAK25: Localized Interior Drainage Projects	Improve drainage by implementing localized interior drainage projects such as adding new drainage pumps, enlarging culverts, lining canals with concrete, replacing / improving any substandard bridges, berms, retention ponds, and other drainage projects where necessary	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of BAK2 Action)
BAK26: Master Drainage Plan	Develop a master drainage plan which will evaluate drainage projects to determine the best method of increasing drainage capacity. Implement recommended projects resulting from drainage plan.	HGMP, BRIC, FMA, Local	1-5 years	City of Baker Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See City of Baker Mitigation Action 9)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 1	Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 2	Safe Room Projects
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Baker. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 3	Lightning Mitigation
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 4	Warning Systems
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 3. To promote an all-hazards public awareness campaign that focuses on preparing for and mitigating against natural disasters that may affect our community
PRIORITY	Medium
Action Description	Update/upgrade public warning system components throughout Baton Rouge as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 5	Promote Flood Insurance
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities
PRIORITY	High
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	Local Plans and Regulations, Education and Awareness Programs
How Action Aligns with Risk Reduction	Educating the public on flood insurance will allow public to obtain insurance at a cost that's affordable to them and will help gain relief to their home and personal items during post-flood events
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 6	Damaged Property Database
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Maintain a database of all properties or areas that sustain damage as a result of a hazard. Include information about the nature and extent of the damage.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Damage database will allow response personnel to target areas where extensive property damage was sustained from a particular hazard
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 7	New Initiatives
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	New initiatives will allow the parish to pursue preventative measure dealing with loss
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 8	New Development Regulations
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Evaluate, develop and pass new ordinances and strengthen local codes and ordinances to help regulate new development in the parish.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Development regulations will allow communities to be less susceptible to prevalent hazards and reduce the risk of loss
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 9	Master Drainage Plan
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	High
Action Description	Develop a master drainage plan which will evaluate drainage projects to determine the best method of increasing drainage capacity. Implement recommended projects resulting from drainage plan.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Master Drainage Plans will decrease the risk of loss due to flooding and combat drainage problems in relation to new urbanized development
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 10	Water Conservation Ordinance
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implements mandatory measures surrounding water conservation during drought events/emergencies
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Ordinances in place will prioritize water control in the parish and communities, particularly for essential personnel and Fire Search and Rescue
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BAKER	
	DESCRIPTION
CITY OF BAKER MITGATION ACTION 11	Procure All-Weather/Hazard Emergency Alert Radios
LEAD AGENCY	City of Baker Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Purchase weather radios for public, to be used for emergency notification.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Allows for redundant communications with citizens. Also provides citizens with method to access weather related information in the event of systems being down. Increases overall safety of the community.
Current Status of Action	New
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

City of Baton Rouge Mitigation Actions

Previous Action Update

City of Baton Rouge						
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Status**
BR1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
BR2: Drainage Improvement	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Ongoing
BR3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Ongoing
BR4: Safe Room Projects	Construction of a safe room for first responders located in Baton Rouge. Other locations will be identified based on funding availability.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress

BR5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Dam Failure, Drought, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Drought, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, Winter Weather	Ongoing
BR6: Generators for continuity of operations and government	Procurement and installation of generators at public facilities to ensure continued operations during and after events.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
BR7: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Thunderstorms	Not Started - Carried Over (See City of Baton Rouge Mitigation Action 1)
BR8: Warning Systems	Update/upgrade public warning system components throughout Baton Rouge as necessary. Install audible and/or reverse 911 warning system(s)	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Baton Rouge Mitigation Action 2)
BR9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Drought, Flooding, Levee Failure, Thunderstorms, Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	Not Started - Carried Over (See City of Baton Rouge Mitigation Action 3)

BR10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Ongoing
BR11: Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a levee failure.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure	Not Started - Carried Over (See City of Baton Rouge Mitigation Action 4)
BR12: Building Enhancement	Perform mitigation measures that will enhance the performance of new and existing buildings, expansions, or infrastructure during high wind and flood events. This may include hardening structures, installing hurricane clips, elevating utilities or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of BR1 Action)
BR13: Emergency Response Capabilities	Improve emergency response capabilities during disasters by performing mitigation measures that will enhance the performance of emergency response facilities during disasters. This may include hardening structures, installing hurricane clips, elevating utilities, or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted - Duplicate of BR6 Action
BR14: Damaged Property Database	Maintain a database of all properties or areas that sustain damage as a result of a hazard. Include information about the nature and extent of the damage.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Drought, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
BR15: Emergency Power and Utility Services	Provide reliable emergency power and essential utility services (water, sewer, etc.) to meet the needs of critical emergency responders during disaster events.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Drought, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted - Duplicate of BR6 Action

BR16: Day to Day Operations	Continue day to day operations and handle increased surge capacity of critical facilities and services in the event of a hazard or disaster.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Drought Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
BR17: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted by City of Baton Rouge
BR18: Educational Brochures	Provide brochures and other publications through media, mail, libraries, Post Offices, utility bill inserts, inserts in the phone book, and/or the Internet that inform residents of hazards and measures that may be taken to protect life and property.	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of BR5 Action)
BR19: Multi-Hazard Awareness Week	Sponsor a "Multi-Hazard Awareness Week", to educate the public on hurricanes, severe storms and tornadoes (sheltering in place, evacuation, emergency preparedness, and structural retrofitting), flooding (evacuation, emergency preparedness, retrofitting, and flood insurance), thunderstorms and lightning (emergency preparedness).	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes Tropical Cyclones,	Deleted (Duplicate of BR5 Action)
BR20: Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of BR10 Action)

BR21: Repetitive Loss Reconstruction Projects	Pursue elevation / acquisition / floodproofing / pilot reconstruction projects and structural solutions to flooding using available grant funding for the repetitive loss structures. Annually review and correct the Repetitive Loss List by submitting correction worksheets to FEMA.	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of BR3 Action)
BR22: Public Notification System	Implement a public notification system, such as sirens or a call down system with a backup communication system.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of BR8 Action)
BR23: Communication Capabilities	Improve both technological and administrative communication capabilities among fire, police, 911, and other state and local emergency operations through improved planning and the upgrading of communication infrastructure and equipment.	HGMP, BRIC, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Ongoing
BR24: New Development Regulation	Evaluate, develop and pass new ordinances and strengthen local codes and ordinances to help regulate new development in the parish.	Local Government	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Dam Failure, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
BR25: Localized Interior Drainage Projects	Improve drainage by implementing localized interior drainage projects such as adding new drainage pumps, enlarging culverts, lining canals with concrete, replacing / improving any substandard bridges, berms, retention ponds, and other drainage projects where necessary	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of BR2 Action)
BR26: Master Drainage Plan	Develop a master drainage plan which will evaluate drainage projects to determine the best method of increasing drainage capacity. Implement recommended projects resulting from drainage plan.	HGMP, BRIC, FMA, Local	1-5 years	Mayor-President's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Completed

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BATON ROUGE	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 1	Lightning Mitigation
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS EAST BATON ROUGE PARISH	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 2	Warning Systems
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 3. To promote an all-hazards public awareness campaign that focuses on preparing for and mitigating against natural disasters that may affect our community
PRIORITY	Medium
Action Description	Update/upgrade public warning system components throughout Baton Rouge as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Dam Failure, Flooding, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BATON ROUGE	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 3	Potable Water
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Create redundancy of potable water supply to critical facilities, especially hospitals in Parish, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Dam Failure, Drought, Flooding, Levee Failure, Thunderstorms, Tropical Cyclones, Tornadoes, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BATON ROUGE	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 4	Dam and Levee Failure Working Group
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP, US Army Corp of Engineers
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities
PRIORITY	High
Action Description	Create a working group in order to assess the extent and determine the specific areas of inundation related to a dam or levee failure in the City of Baton Rouge.
Type of Mitigation Action	Natural System Protection
How Action Aligns with Risk Reduction	Creation of working group will allow dams and levees to be assessed and determine the possible outcomes during failure. This is a preventive measure that will allow the group to call upon others to reinforce structures if failure event is imminent.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Dam Failure, Flooding, Levee Failure

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BATON ROUGE	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 5	Construction of Floodwalls for Inundation Zones
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP, State of Louisiana
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	High
Action Description	Construct floodwalls for communities and/or the parish that are in inundation zones and can be impacted by the failure of a High Hazard Potential Dam (HHPD). The parish will work alongside with the Dam Failure Working Group and the State of Louisiana to determine where inundation zones are in the parish and where floodwalls will need to be placed.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Construction of floodwalls for communities will reduce the risk of flooding from a HHPD failure and reduce the risk of loss of life/property.
Current Status of Action	New
Hazard Addressed	Dam Failure, Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BATON ROUGE	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 6	Auxiliary Spillway Addition for the Pennington Lake Dam
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Paris MOHSEP, State of Louisiana
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	High
Action Description	Retrofit the Pennington Lake Dam with an auxiliary spillway, stabilizing the dam with anchors to prevent sliding and allowing it to hold more water
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Addition of an auxiliary spillway will allow Pennington Lake Dam to hold more water and prevent overtopping causing the surrounding areas to flood.
Current Status of Action	New
Hazard Addressed	Dam Failure, Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BATON ROUGE	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 7	Water Conservation Ordinance
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implements mandatory measures surrounding water conservation during drought events/emergencies
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Ordinances in place will prioritize water control in the parish and communities, particularly for essential personnel and Fire Search and Rescue
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF BATON ROUGE	
	DESCRIPTION
CITY OF BATON ROUGE MITGATION ACTION 8	Procure All-Weather/Hazard Emergency Alert Radios
LEAD AGENCY	East Baton Rouge Parish Mayor-President's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Purchase weather radios for public, to be used for emergency notification.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Allows for redundant communications with citizens. Also provides citizens with a method to access weather related information in the event of systems being down. Increases overall safety of the community.
Current Status of Action	New
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather, Wildfires

Additional Supporting Information:

City of Central Mitigation Actions

Previous Action Update

City of Central						
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Status**
CEN1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started-Carried Over (See City of Central Mitigation Action 1)
CEN2: Drainage Improvement	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	In Progress
CEN3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	In Progress
CEN4: Safe Room Projects	Construction of a safe room for first responders located in Central. Other locations will be identified based on funding availability.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started-Carried Over Not Started-Carried Over (See City of Central Mitigation Action 2)

CEN5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, Winter Weather	In Progress
CEN6: Generators for continuity of operations and government	Procurement and installation of generators at public facilities to ensure continued operations during and after events.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
CEN7: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Thunderstorms	Not Started-Carried Over Not Started-Carried Over (See City of Central Mitigation Action 3)
CEN8: Warning Systems	Update/upgrade public warning system components throughout Central as necessary. Install audible and/or reverse 911 warning system(s)	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
CEN9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	In Progress

CEN10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	In Progress
CEN11: Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a dam and levee failure.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure	Deleted - Action not applicable to Central
CEN12: Building Enhancement	Perform mitigation measures that will enhance the performance of new and existing buildings, expansions, or infrastructure during high wind and flood events. This may include hardening structures, installing hurricane clips, elevating utilities or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of CEN1 Action)
CEN13: Emergency Response Capabilities	Improve emergency response capabilities during disasters by performing mitigation measures that will enhance the performance of emergency response facilities during disasters. This may include hardening structures, installing hurricane clips, elevating utilities, or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
CEN14: Damaged Property Database	Maintain a database of all properties or areas that sustain damage as a result of a hazard. Include information about the nature and extent of the damage.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
CEN15: Emergency Power and Utility Services	Provide reliable emergency power and essential utility services (water, sewer, etc.) to meet the needs of critical emergency responders during disaster events.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress

CEN16: Day to Day Operations	Continue day to day operations and handle increased surge capacity of critical facilities and services in the event of a hazard or disaster.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
CEN17: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started-Carried Over Not Started-Carried Over (See City of Central Mitigation Action 4)
CEN18: Educational Brochures	Provide brochures and other publications through media, mail, libraries, Post Offices, utility bill inserts, inserts in the phone book, and/or the Internet that inform residents of hazards and measures that may be taken to protect life and property.	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of CEN5 Action)
CEN19: Multi-Hazard Awareness Week	Sponsor a "Multi-Hazard Awareness Week", to educate the public on hurricanes, severe storms and tornadoes (sheltering in place, evacuation, emergency preparedness, and structural retrofitting), flooding (evacuation, emergency preparedness, retrofitting, and flood insurance), thunderstorms and lightning (emergency preparedness).	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes Tropical Cyclones,	Deleted (Duplicate of CEN5 Action)
CEN20: Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of CEN10 Action)

CEN21: Repetitive Loss Reconstruction Projects	Pursue elevation / acquisition / floodproofing / pilot reconstruction projects and structural solutions to flooding using available grant funding for the repetitive loss structures. Annually review and correct the Repetitive Loss List by submitting correction worksheets to FEMA.	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of CEN3 Action)
CEN22: Public Notification System	Implement a public notification system, such as sirens or a call down system with a backup communication system.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of CEN8 Action)
CEN23: Communication Capabilities	Improve both technological and administrative communication capabilities among fire, police, 911, and other state and local emergency operations through improved planning and the upgrading of communication infrastructure and equipment.	HGMP, BRIC, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
CEN24: New Development Regulation	Evaluate, develop and pass new ordinances and strengthen local codes and ordinances to help regulate new development in the parish.	Local Government	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
CEN25: Localized Interior Drainage Projects	Improve drainage by implementing localized interior drainage projects such as adding new drainage pumps, enlarging culverts, lining canals with concrete, replacing / improving any substandard bridges, berms, retention ponds, and other drainage projects where necessary	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of CEN2 Action)
CEN26: Master Drainage Plan	Develop a master drainage plan which will evaluate drainage projects to determine the best method of increasing drainage capacity. Implement recommended projects resulting from drainage plan.	HGMP, BRIC, FMA, Local	1-5 years	City of Central Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Completed

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF CENTRAL	
	DESCRIPTION
CITY OF CENTRAL MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	City of Central Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Reduces damage from high wind related events, and helps assure that the public buildings can be used, occupied and operable during or after storms.
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF CENTRAL	
	DESCRIPTION
CITY OF CENTRAL MITGATION ACTION 2	Safe Room Projects
LEAD AGENCY	City of Central Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Central. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF CENTRAL	
	DESCRIPTION
CITY OF CENTRAL MITGATION ACTION 3	Lightning Mitigation
LEAD AGENCY	City of Central Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF CENTRAL	
	DESCRIPTION
CITY OF CENTRAL MITGATION ACTION 4	New Initiatives
LEAD AGENCY	City of Central Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Structure and Infrastructure Projects, Local Plans and Regulations
How Action Aligns with Risk Reduction	New initiatives will allow the parish to pursue preventative measure dealing with loss
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF CENTRAL	
	DESCRIPTION
CITY OF CENTRAL MITGATION ACTION 5	Water Conservation Ordinance
LEAD AGENCY	City of Central Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implements mandatory measures surrounding water conservation during drought events/emergencies
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Ordinances in place will prioritize water control in the parish and communities, particularly for essential personnel and Fire Search and Rescue
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF CENTRAL	
	DESCRIPTION
CITY OF CENTRAL MITGATION ACTION 6	Procure All-Weather/Hazard Emergency Alert Radios
LEAD AGENCY	City of Central Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Purchase weather radios for public, to be used for emergency notification.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Allows for redundant communications with citizens. Also provides citizens with method to access weather related information in the event of systems being down. Increases overall safety of the community.
Current Status of Action	New
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather, Wildfires

Additional Supporting Information:

City of Zachary Mitigation Actions

Previous Action Update

City of Zachary						
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Status**
ZAC1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
ZAC2: Drainage Improvement	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	In Progress
ZAC3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Not Started - Carried Over (See City of Zachary Mitigation Action 1)
ZAC4: Safe Room Projects	Construction of a safe room for first responders located in Zachary. Other locations will be identified based on funding availability.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed

ZAC5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfire, Winter Weather	Completed
ZAC6: Generators for continuity of operations and government	Procurement and installation of generators at public facilities to ensure continued operations during and after events.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
ZAC7: Lightning Mitigation	Procurement and Installation of lightning rods and surge protectors for public buildings to preserve life and property	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Thunderstorms	Not Started - Carried Over (See City of Zachary Mitigation Action 2)
ZAC8: Warning Systems	Update/upgrade public warning system components throughout Zachary as necessary. Install audible and/or reverse 911 warning system(s)	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Deleted- The City uses EBRP 911 system.
ZAC9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	In Progress
ZAC10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Tropical Cyclones	Completed

ZAC11: Levee Failure Working Group	Create a working group in order to assess the extent and determine the possible effects of a levee failure.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Levee Failure	Deleted – Action not applicable to Zachary
ZAC12: Building Enhancement	Perform mitigation measures that will enhance the performance of new and existing buildings, expansions, or infrastructure during high wind and flood events. This may include hardening structures, installing hurricane clips, elevating utilities or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of ZAC1 Action)
ZACAC13: Emergency Response Capabilities	Improve emergency response capabilities during disasters by performing mitigation measures that will enhance the performance of emergency response facilities during disasters. This may include hardening structures, installing hurricane clips, elevating utilities, or adding back up power supply / generators.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
ZAC14: Damaged Property Database	Maintain a database of all properties or areas that sustain damage as a result of a hazard. Include information about the nature and extent of the damage.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
ZAC15: Emergency Power and Utility Services	Provide reliable emergency power and essential utility services (water, sewer, etc.) to meet the needs of critical emergency responders during disaster events.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
ZAC16: Day to Day Operations	Continue day to day operations and handle increased surge capacity of critical facilities and services in the event of a hazard or disaster.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Drought Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed

ZAC17: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Not Started - Carried Over (See City of Zachary Mitigation Action 3)
ZAC18: Educational Brochures	Provide brochures and other publications through media, mail, libraries, Post Offices, utility bill inserts, inserts in the phone book, and/or the Internet that inform residents of hazards and measures that may be taken to protect life and property.	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of ZAC5 Action)
ZAC19: Multi-Hazard Awareness Week	Sponsor a "Multi-Hazard Awareness Week", to educate the public on hurricanes, severe storms and tornadoes (sheltering in place, evacuation, emergency preparedness, and structural retrofitting), flooding (evacuation, emergency preparedness, retrofitting, and flood insurance), thunderstorms and lightning (emergency preparedness).	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes Tropical Cyclones,	Deleted (Duplicate of ZAC5 Action)
ZAC20: Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of ZAC10 Action)
ZAC21: Repetitive Loss Reconstruction Projects	Pursue elevation / acquisition / floodproofing / pilot reconstruction projects and structural solutions to flooding using available grant funding for the repetitive loss structures. Annually review and correct the Repetitive Loss List by submitting correction worksheets to FEMA.	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of ZAC3 Action)
ZAC22: Public Notification System	Implement a public notification system, such as sirens or a call down system with a backup communication system.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	Deleted (Duplicate of ZAC8 Action)

ZAC23: Communication Capabilities	Improve both technological and administrative communication capabilities among fire, police, 911, and other state and local emergency operations through improved planning and the upgrading of communication infrastructure and equipment.	HGMP, BRIC, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	Completed
ZAC24: New Development Regulation	Evaluate, develop and pass new ordinances and strengthen local codes and ordinances to help regulate new development in the parish.	Local Government	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	In Progress
ZAC25: Localized Interior Drainage Projects	Improve drainage by implementing localized interior drainage projects such as adding new drainage pumps, enlarging culverts, lining canals with concrete, replacing / improving any substandard bridges, berms, retention ponds, and other drainage projects where necessary	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Deleted (Duplicate of ZAC2 Action)
ZAC26: Master Drainage Plan	Develop a master drainage plan which will evaluate drainage projects to determine the best method of increasing drainage capacity. Implement recommended projects resulting from drainage plan.	HGMP, BRIC, FMA, Local	1-5 years	City of Zachary Mayor's Office/ East Baton Rouge Parish MOHSEP	Flooding, Thunderstorms, Tropical Cyclones	Not Started - Carried Over (See City of Zachary Mitigation Action 4)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ZACHARY	
	DESCRIPTION
CITY OF ZACHARY MITGATION ACTION 1	Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures
LEAD AGENCY	City of Zachary Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HMGP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	High
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ZACHARY	
	DESCRIPTION
CITY OF ZACHARY MITGATION ACTION 2	Lightning Mitigation
LEAD AGENCY	City of Zachary Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HGMP, BRIC, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started - Carried Over from 2017 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ZACHARY	
	DESCRIPTION
CITY OF ZACHARY MITGATION ACTION 3	New Initiatives
LEAD AGENCY	City of Zachary Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Structure and Infrastructure Projects, Local Plans and Regulations
How Action Aligns with Risk Reduction	New initiatives will allow the parish to pursue preventative measure dealing with loss
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ZACHARY	
	DESCRIPTION
CITY OF ZACHARY MITGATION ACTION 4	Master Drainage Plan
LEAD AGENCY	City of Zachary Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, FMA, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish 2. To minimize the NFIP payouts by reducing repetitive flooding in all areas of East Baton Rouge Parish, including all municipalities 4. To improve the drainage system capacity for all river, creeks, and canals within East Baton Rouge Parish
PRIORITY	High
Action Description	Develop a master drainage plan which will evaluate drainage projects to determine the best method of increasing drainage capacity. Implement recommended projects resulting from drainage plan.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Master Drainage Plans will decrease the risk of loss due to flooding and combat drainage problems in relation to new urbanized development
Current Status of Action	Not Started – Carried Over from 2017 Plan
Hazard Addressed	Flooding, Thunderstorms, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ZACHARY	
	DESCRIPTION
CITY OF ZACHARY MITGATION ACTION 5	Water Conservation Ordinance
LEAD AGENCY	City of Zachary Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Implements mandatory measures surrounding water conservation during drought events/emergencies
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Ordinances in place will prioritize water control in the parish and communities, particularly for essential personnel and Fire Search and Rescue
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ZACHARY	
	DESCRIPTION
CITY OF ZACHARY MITGATION ACTION 6	Procure All-Weather/Hazard Emergency Alert Radios
LEAD AGENCY	City of Zachary Mayor's Office
SUPPORTING AGENCIES	East Baton Rouge Parish MOHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA HGMP, Local
ASSOCIATED GOALS	1. To mitigate critical infrastructure and governmental/parish facilities to prepare for, protect against, respond to, and recover from natural hazards within East Baton Rouge Parish
PRIORITY	Medium
Action Description	Purchase weather radios for public, to be used for emergency notification.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Allows for redundant communications with citizens. Also provides citizens with method to access weather related information in the event of systems being down. Increases overall safety of the community.
Current Status of Action	New
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather, Wildfires

Additional Supporting Information:

Action Prioritization

During the prioritization process, the planning committee considered the costs and relative benefits of each new action. Costs can usually be listed in terms of dollars, although at times it involves staff time rather than the purchase of equipment or services that can be readily measured in dollars. In most cases, benefits, such as lives saved or future damage prevented, are hard to measure in dollars. Therefore, many projects were prioritized with these factors in mind. In addition, prioritization of the mitigation actions was performed based on the following economic criteria: i) whether the action can be performed with the existing parish resources; ii) whether the action requires additional funding from external sources; and iii) relative costs of the mitigation actions.

In all cases, the committee concluded that the benefits (in terms of reduced property damage, lives saved, health problems averted and/or economic harm prevented) outweighed the costs for the recommended action items.

The planning committee prioritized the possible activities that could be pursued. Planning committee members consulted appropriate agencies in order to assist with the prioritizations. The results were items that address the major hazards, are appropriate for those hazards, are cost-effective, and are affordable. On-going actions, as well as actions which will provide maximum benefit that can be undertaken by existing parish staff with or without additional external funding were given high priority. The actions with medium benefit and relatively low cost, political support, and public support but require additional funding from parish or external sources were given medium priority. The actions that require substantial funding from external sources and would result in limited benefit to the community were given low priority.

East Baton Rouge Parish and the incorporated jurisdictions will implement and administer the identified actions based off the proposed timeframes and priorities for each reflected in the portions of this section where actions are summarized. The inclusion of any specific action item in this document does not commit the parish to implementation. Each action item will be subject to availability of staff and funding. Certain items may require regulatory changes or other decisions that must be implemented through standard processes. This plan is intended to offer priorities based on an examination of hazards.

East Baton Rouge Parish and the Planning Committee have exercised the motion to place a high priority on all actions pertaining to High Hazard Potential Dams (HHPD) in an effort to reduce the risk of dam failure. Those actions pertaining to the structural assessment of HHPD have been designated a “High” level action prioritization. Those actions pertaining to significant hazard dams or actions evolving around a working group, have been designated a “Medium” level action prioritization.

Appendix A: Planning Process

Purpose

The Hazard Mitigation Plan Update process prompts local jurisdictions to keep their hazard mitigation plan current and moving toward a more resilient community. The plan update builds on the research and planning efforts of previous plans while reviewing recent trends. The planning committee followed FEMA's hazard mitigation planning process per the FEMA Local Mitigation Planning Handbook. This planning process assured public involvement and the participation of interested agencies and private organizations. Documentation of the planning process for the updated plan is addressed in this section.

The East Baton Rouge Parish Hazard Mitigation Plan Update

The East Baton Rouge Parish Hazard Mitigation Plan Update process began in October 2022 with a series of emails, phone calls, meetings, and collaborations between the contractor (SDMI) and a diverse group of participating agencies and stakeholders. Update activities were intended to give each participating agency and stakeholder the opportunity to shape the plan to best fit their community's mitigation goals. Community stakeholders and the general public were invited to attend and contribute information to the planning process during specific time periods or meetings.

The table below details the meeting schedule and purpose for the planning process:

Date	Meeting or Outreach	Location	Public Invited	Purpose
9/29/2022	Kick Off Meeting	Phone Conference	No	Discuss with the Parish MOHSEP Director expectations and requirements of the project. Discuss meeting schedules, committee make up, and next steps.
11/15/2022	Initial Planning Committee Meeting	Baton Rouge, LA	No	Discuss with East Baton Rouge Parish Hazard Mitigation Planning Committee the process and expectations of plan participants. Discuss timeline and action items for parish and each jurisdiction.
5/17/2023	Planning Committee Risk Assessment Review	Baton Rouge, LA	No	Presentation of Risk Assessment and profiled hazards to Planning Committee.
5/17/2023	Public Meeting	Baton Rouge, LA	Yes	Presentation of Risk Assessment s and profiled hazards to public. Presentation also includes current mitigation project highlights within communities and public survey discussion.
11/15/2022 – 5/19/2023	Public Opinion Survey	Online	Yes	This survey asked participants about public perceptions and opinions regarding natural hazards in East Baton Rouge Parish. In addition, questions covered the methods and techniques preferred for reducing the risks and losses associated with these hazards. Survey link: https://www.surveymonkey.com/r/EBRHM2022

Planning

The plan update process consisted of several phases:

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11
Plan Revision											
Data Collection											
Risk Assessment											
Public Input											
Mitigation Strategy											
Plan Review by GOHSEP and FEMA											
FEMA APA											
Plan Adoptions											
Final Plan Approval											

Coordination

The East Baton Rouge Parish Mayor's Office of Homeland Security and Emergency Preparedness (MOHSEP) oversaw the coordination of the 2023 Hazard Mitigation Plan Update Planning Committee during the update process. The parish MOHSEP was responsible for identifying members for the committee. Representatives of relevant local and parish government departments were invited for inclusion in the planning process via email. The parish OHSEP also attempted to include members of private and nonprofit organizations within the parish but did not receive a response. Representatives of Louisiana State University and Southern University were also invited to attend as stakeholders of academia units and provide input towards this plan update. Representatives from Louisiana State University were active during the plan process, but Southern University did not respond.

The Parish Director was responsible for inviting the planning committee and key stakeholders to scheduled meetings and activities via phone call and/or email. SDMI assisted the Parish Director with press releases and social media statements for notification to the media and general public for public meetings and public outreach activities.

SDMI was responsible for facilitating all meetings and outreach efforts during the update process.

Neighboring Community, Local and Regional Planning Process Involvement

From the outset of the planning process, the planning committee encouraged participation from a broad range of parish entities. The involvement of representatives from the city, state, and regional agencies provided diverse perspectives and mitigation ideas.

Formal participation in this plan includes but is not limited to the following activities:

- Participation in Hazard Mitigation planning meetings at the local and parish level
- Sharing local data and information with jurisdictions
- Incorporation of other planning documents, studies and efforts
- Action item development and action progress from 2017 update
- Risk Assessment review
- Plan document draft review
- Formal adoption of the Hazard Mitigation Plan

The West Baton Rouge Parish OHSEP Director was invited to attend the Initial Planning and Risk Assessment Meetings for East Baton Rouge Parish in an effort to coordinate mitigation efforts where possible as neighboring communities. The West Baton Rouge Parish OHSEP Director was invited via email and phone call to participate in an effort to collaborate with neighboring communities. SDMI assisted East Baton Rouge Parish with encouraging the collaboration with these neighboring communities via email by extending an invitation to the East Baton Rouge Parish Hazard Mitigation Plan Update Meetings.

As part of the coordination and planning process, the parish was provided the State Required Hazard Mitigation Plan Update Worksheet. The completed worksheets can be found in *Appendix E: State Required Worksheets*.

The 2023 Hazard Mitigation Plan Update Planning Committee consisted of representatives from the following parish, municipal or community stakeholders. Below is a detailed list of the 2023 HMPU Planning Committee:

East Baton Rouge Parish Hazard Mitigation Planning Committee			
Name	**Title**	**Agency**	**Email**
Clay Rives	Director	MOHSEP	crives@brla.gov
Harry St. Pierre	Emergency Preparedness Coordinator	MOHSEP	hstpierre@brla.gov
Darcee Bulliard	Chief of Operations	MOHSEP	dsbulliard@brla.gov
Kellie McGaha	Assistant Director	MOHSEP	kmcgaha@brla.gov
Sharon Weston Broome	Mayor-President	EBR Parish Consolidated Government	swbroome@brla.gov
Darnell Waites	Mayor	City of Baker	dwaites@cityofbakerla.com
Wade Evans	Mayor	City of Central	wade.evans@central-la.gov
David McDavid	Mayor	City of Zachary	dmcdavid@cityofzachary.org
Jacie Maples	Region 2 Coordinator	GOHSEP	jacie.maples@la.gov
Rachael Lambert	Director	EBR Department of Development	rylambert@brla.gov
Kim Brooks	Sr. Special Assistant	Parish Attorney's Office	kbrooks@brla.gov
Ashley Beck	Council Administrator	Treasurer's Office	abeck@brla.gov
Brandon Smith	Assistant Superintendent	Recreation and Parks Commission (BREC)	bsmith@brec.org

David Noland	Senior Risk Manager	Recreation and Parks Commission (BREC)	david.noland@brec.org
Adam Smith	Interim Director	City-Parish Department of Environmental Services	amsmith@brla.gov
Warren Kron	GIS Manager	City-Parish Department of Information Services	wkron@brla.gov
Eric Romero	Director	City-Parish Department of Information Services	eromero@brla.gov
Tawanda Blouin	Representative	Human Resources	tblouin@brla.gov
Brian Bernard	Director	Human Resources	bbernard@brla.gov
Chris Landry	Deputy Shift Supervisor	Emergency Medical Services	cmlandry@brla.gov
Michael Denicola	Director	Emergency Medical Services	mfavaro@ebrso.org
Todd Morris	Commander of Special Operations	EBR Sheriff's Office	tmorris@ebrso.org
Michael Favaro	Deputy Sheriff	EBR Sheriff's Office	mfavaro@ebrso.org
Dale Dicharry	Captain of Homeland Security	EBR Sheriff's Office	ddicharry@ebrso.org
Robert Joyner	Floodplain Manager	EBR Department of Development	rljoyner@brla.gov
Jason Ganaway	Facilities Manager	EBR Parish Consolidated Government	jganaway@brla.gov
Larry Cooper	Sr. Legal Investigator	Office of Alcoholic Beverage Control	llcooper@brla.gov
Joseph Butler Sr.	Director	Buildings and Grounds	jrbutler@brla.gov
Chris Calbert	Chief Administrative Officer	City of Zachary	chris.calbert@cityofzachary.org
Matt Vaughn-Zyjewski	Program Director	Institute for Building Technology and Safety	matt.zyjewski@central-la.gov
Terri Parnell-Allison	Executive Assistant	City of Central Mayor's Office	terri.parnell@central-la.gov
Kyndall Jones	Executive Assistant to Mayor-President	EBR Parish Consolidated Government	kjjones@brla.gov
Angela Machen	Administrative Officer	City of Baker	amachen@cityofbakerla.com
Cyndi Pennington	Traffic Engineer	EBR Parish Consolidated Government	cpennington@brla.gov
Fred Raiford	Director	Transportation & Drainage of Baton Rouge	fraiford@brla.gov
Vanpheng Nitchin	Sergeant	Baton Rouge Police Department	vnitchin@brla.gov
Neal Noel	Deputy Chief Operations Services	Operational Services Bureau	nnoel@brla.gov
Murphy J. Paul	Chief of Police	Baton Rouge Police Department	mjpaul@brla.gov
Norma Jarreau	Executive Assistant	EBR Parish Consolidated Government	njarreau@brla.gov
Kiara Robinson	Administrative Assistant	Louisiana Division of Administration	krobinson@brla.gov
Dante Bidwell	Chief of Staff to Mayor-President	EBR Parish Consolidated Government	dbidwell@brla.gov
Glenn Curtis	Chief Administrative Office to Mayor-President	EBR Parish Consolidated Government	gcurtis@brla.gov
Connie DeLeo	Infection Preventionist	Baton Rouge General Medical Center	con131@brgeneral.org
Alyson Hughes	ESF-8 Coordinator: Region 2	Healthcare Emergency Preparedness Coalition	EOCMedical@brla.gov
Paul Stockstill	Coordinator	Urban Search and Rescue - Task Force 2	pstockstill@brla.gov
Curt Monte	Public Information Officer	Baton Rouge Fire Department	cmonte@brla.gov
Jeremy Spillman	Chief of Special Services	Baton Rouge Fire Department	jspillman@brla.gov
Michael Kimble	Fire Chief	Baton Rouge Fire Department	mjkimble@brla.gov

Craig Alford	Airport Operations Manager	Baton Rouge Metropolitan Airport	calford@brla.gov
Mike Edwards	Director of Aviation	Baton Rouge Metropolitan Airport	medwards@brla.gov
Deano Moran	Director	West Baton Rouge OHSEP	deano.moran@wbrcouncil.org
Ashley Dozier	Emergency Management Specialist	Louisiana State University	ashleighd@lsu.edu

Program Integration

Local governments are required to describe how their mitigation planning process is integrated with other ongoing local and area planning efforts. This subsection describes East Baton Rouge Parish programs and planning.

A measure of integration and coordination is achieved through the HMPU participation of planning committee members and community stakeholders who administer programs such as: floodplain management under the National Flood Insurance Program (NFIP), Community Rating System, parish planning and zoning and building code enforcement.

Since the last update in 2017, East Baton Rouge Parish has used the hazard mitigation plan as a reference point to various projects and mitigation strategies that take place throughout the planning area. Along with the mitigation actions outlined for each parish, East Baton Rouge has used vulnerability statistics and integration strategies within the plan to help guide their mitigation practices. The strategies and practices in this plan update build upon the practices that have been used since the previous update. Those strategies and practices can be found in various sections throughout the risk assessment that address climate change, vulnerable populations, and future development trends. Furthermore, the parish has held and will continue to hold annual meetings to discuss any changes that have occurred within the parish that could alter the vulnerability of East Baton Rouge, and how to combat any issues that have arisen within the means and regulations of the hazard mitigation plan.

East Baton Rouge Parish will continue to integrate the requirements of this Hazard Mitigation Plan into other local planning mechanisms that are to be identified through future meetings of the parish, and through the five-year review process described in *Appendix B: Plan Maintenance*. The primary means for integrating mitigation strategies into other local planning mechanisms will be through the revision, update and implementation of any individual municipal plans that require specific planning and administrative tasks (e.g. risk assessment, plan amendments, ordinance revisions, capital improvement projects, etc.).

The members of the East Baton Rouge Parish Hazard Mitigation Planning Committee will remain charged with ensuring that the goals and strategies of new and updated local planning documents for their communities or agencies are consistent with the goals and actions of the Hazard Mitigation Plan and will not contribute to increased hazard vulnerability in the parish. Existing plans, studies, and technical information were incorporated in the planning process. Examples include flood data from FEMA and the U. S. Geological Survey. Much of this data was incorporated into the Risk Assessment component of the plan relative to plotting historical events and the magnitude of damages that occurred. The parish's 2017 Hazard Mitigation Plan was also used in the planning process.

Other existing data and plans used in the planning process include those listed below.

- Parish Emergency Operations Plan
- Stormwater Management Plan
- Flood Insurance Rate Maps
- State of Louisiana Hazard Mitigation Plan

Further information on the plans can be found in *Section 3: Capability Assessment*.

Meeting Documentation and Public Outreach Activities

The following pages contain documentation of the meetings and public outreach activities conducted during this hazard mitigation plan update.

Meeting #1: Hazard Mitigation Plan Update Kick-Off

Date: September 29, 2022
Location: Conference Call
Purpose: Discuss with the Parish OHSEP Director expectations and requirements of the project. Discuss meeting schedules, committee make up, and next steps.
Public Invitation: No
Meeting Invitees:

East Baton Rouge Parish Hazard Mitigation Planning Committee		
Name	**Title**	**Agency**
Clay Rives	Director	EBR MOHSEP
Harry St. Pierre	Emergency Preparedness Coordinator	EBR MOHSEP
Darcee Bulliard	Chief of Operations	EBR MOHSEP
Lauren Stevens	Assistant Director	LSU-SDMI
Chris Rippetoe	Program Manager	LSU-SDMI

Meeting #2: Hazard Mitigation Plan Update Initial Planning Committee Meeting

Date: November 15, 2022
Location: Baton Rouge, LA
Purpose: Discuss the expectations and requirements of the hazard mitigation plan update process and establish an initial project timeline with the Parish's Hazard Mitigation Plan Planning Committee. Assign each individual tasks related to the parish data collection for the plan update.
Public Invitation: No
Meeting Invitees:

East Baton Rouge Parish Hazard Mitigation Planning Committee		
Name	**Title**	**Agency**
Clay Rives	Director	MOHSEP
Harry St. Pierre	Emergency Preparedness Coordinator	MOHSEP
Darcee Bulliard	Chief of Operations	MOHSEP
Kellie McGaha	Assistant Director	MOHSEP
Sharon Weston Broome	Mayor-President	EBR Parish Consolidated Government

Darnell Waites	Mayor	City of Baker
Wade Evans	Mayor	City of Central
David McDavid	Mayor	City of Zachary
Jacie Maples	Region 2 Coordinator	GOHSEP
Rachael Lambert	Director	EBR Department of Development
Kim Brooks	Sr. Special Assistant	Parish Attorney's Office
Ashley Beck	Council Administrator	Treasurer's Office
Brandon Smith	Assistant Superintendent	Recreation and Parks Commission (BREC)
David Noland	Senior Risk Manager	Recreation and Parks Commission (BREC)
Adam Smith	Interim Director	City-Parish Department of Environmental Services
Warren Kron	GIS Manager	City-Parish Department of Information Services
Eric Romero	Director	City-Parish Department of Information Services
Tawanda Blouin	Representative	Human Resources
Brian Bernard	Director	Human Resources
Chris Landry	Deputy Shift Supervisor	Emergency Medical Services
Michael Denicola	Director	Emergency Medical Services
Todd Morris	Commander of Special Operations	EBR Sheriff's Office
Michael Favaro	Deputy Sheriff	EBR Sheriff's Office
Dale Dicharry	Captain of Homeland Security	EBR Sheriff's Office
Robert Joyner	Floodplain Manager	EBR Department of Development
Jason Ganaway	Facilities Manager	EBR Parish Consolidated Government
Larry Cooper	Sr. Legal Investigator	Office of Alcoholic Beverage Control
Joseph Butler Sr.	Director	Buildings and Grounds
Chris Calbert	Chief Administrative Officer	City of Zachary
Matt Vaughn-Zyjewski	Program Director	Institute for Building Technology and Safety
Terri Parnell-Allison	Executive Assistant	City of Central Mayor's Office
Kyndall Jones	Executive Assistant to Mayor-President	EBR Parish Consolidated Government
Angela Machen	Administrative Officer	City of Baker
Cyndi Pennington	Traffic Engineer	EBR Parish Consolidated Government
Fred Raiford	Director	Transportation & Drainage of Baton Rouge
Vanpheng Nitchin	Sergeant	Baton Rouge Police Department
Neal Noel	Deputy Chief Operations Services	Operational Services Bureau
Murphy J. Paul	Chief of Police	Baton Rouge Police Department
Norma Jarreau	Executive Assistant	EBR Parish Consolidated Government
Kiara Robinson	Administrative Assistant	Louisiana Division of Administration
Dante Bidwell	Chief of Staff to Mayor-President	EBR Parish Consolidated Government
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Connie DeLeo	Infection Preventionist	Baton Rouge General Medical Center
Alyson Hughes	ESF-8 Coordinator: Region 2	Healthcare Emergency Preparedness Coalition
Paul Stockstill	Coordinator	Urban Search and Rescue - Task Force 2
Curt Monte	Public Information Officer	Baton Rouge Fire Department
Jeremy Spillman	Chief of Special Services	Baton Rouge Fire Department
Michael Kimble	Fire Chief	Baton Rouge Fire Department
Craig Alford	Airport Operations Manager	Baton Rouge Metropolitan Airport
Mike Edwards	Director of Aviation	Baton Rouge Metropolitan Airport
Deano Moran	Director	West Baton Rouge OHSEP
Ashleigh Dozier	Emergency Management Specialist	Louisiana State University

Meeting #3: Hazard Mitigation Plan Update Planning Committee Risk Assessment Review

Date: May 17, 2023

Location: Baton Rouge, LA

Purpose: Presentation of Risk Assessment hazards and maps to Planning Committee.

Public Invitation: No

Meeting Invitees:

East Baton Rouge Parish Hazard Mitigation Planning Committee		
Name	**Title**	**Agency**
Clay Rives	Director	MOHSEP
Harry St. Pierre	Emergency Preparedness Coordinator	MOHSEP
Darcee Bulliard	Chief of Operations	MOHSEP
Kellie McGaha	Assistant Director	MOHSEP
Sharon Weston Broome	Mayor-President	EBR Parish Consolidated Government
Darnell Waites	Mayor	City of Baker
Wade Evans	Mayor	City of Central
David McDavid	Mayor	City of Zachary
Jacie Maples	Region 2 Coordinator	GOHSEP
Rachael Lambert	Director	EBR Department of Development
Kim Brooks	Sr. Special Assistant	Parish Attorney's Office
Ashley Beck	Council Administrator	Treasurer's Office
Brandon Smith	Assistant Superintendent	Recreation and Parks Commission (BREC)
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Michael Denicola	Director	Emergency Medical Services
Todd Morris	Commander of Special Operations	EBR Sheriff's Office
Michael Favaro	Deputy Sheriff	EBR Sheriff's Office
Dale Dicharry	Captain of Homeland Security	EBR Sheriff's Office
Robert Joyner	Floodplain Manager	EBR Department of Development
Jason Ganaway	Facilities Manager	EBR Parish Consolidated Government
Larry Cooper	Sr. Legal Investigator	Office of Alcoholic Beverage Control
Joseph Butler Sr.	Director	Buildings and Grounds
Chris Calbert	Chief Administrative Officer	City of Zachary
Matt Vaughn-Zyjewski	Program Director	Institute for Building Technology and Safety
Terri Parnell-Allison	Executive Assistant	City of Central Mayor's Office
Kyndall Jones	Executive Assistant to Mayor-President	EBR Parish Consolidated Government
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Cyndi Pennington	Traffic Engineer	EBR Parish Consolidated Government
Fred Raiford	Director	Transportation & Drainage of Baton Rouge
Vanpheng Nitchin	Sergeant	Baton Rouge Police Department
Neal Noel	Deputy Chief Operations Services	Operational Services Bureau
Murphy J. Paul	Chief of Police	Baton Rouge Police Department
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Kiara Robinson	Administrative Assistant	Louisiana Division of Administration
Dante Bidwell	Chief of Staff to Mayor-President	EBR Parish Consolidated Government
Glenn Curtis	Chief Administrative Office to Mayor-President	EBR Parish Consolidated Government
Connie DeLeo	Infection Preventionist	Baton Rouge General Medical Center
Alyson Hughes	ESF-8 Coordinator: Region 2	Healthcare Emergency Preparedness Coalition
Paul Stockstill	Coordinator	Urban Search and Rescue - Task Force 2
Curt Monte	Public Information Officer	Baton Rouge Fire Department
Jeremy Spillman	Chief of Special Services	Baton Rouge Fire Department
Michael Kimble	Fire Chief	Baton Rouge Fire Department
Craig Alford	Airport Operations Manager	Baton Rouge Metropolitan Airport
Mike Edwards	Director of Aviation	Baton Rouge Metropolitan Airport
Deano Moran	Director	West Baton Rouge OHSEP
Ashleigh Dozier	Emergency Management Specialist	Louisiana State University

Meeting #4: Hazard Mitigation Plan Update Public Meeting

Date: May 17, 2023

Location: Baton Rouge, LA

Purpose: The Public Meeting allowed the public and community stakeholders to participate and provide input into the hazard mitigation planning process. Presentation also included highlights of current mitigation projects highlights, as well as public survey discussion. The public meeting notice on page A-11 was presented to stakeholders as well as the general public, including those in underserved communities and those populations deemed as socially vulnerable. This effort was carried out by East Baton Rouge Parish, and with assistance from SDMI, so that these certain populations were presented with the opportunity to be invited to attend the public meeting and provide feedback to this plan update. This notice was distributed via email as well as posted on the front door of the courthouse, published in the local newspaper, and posted via social media.

Public Invitation: Yes

Meeting Invitees:

East Baton Rouge Parish Hazard Mitigation Planning Committee		
Name	**Title**	**Agency**
Clay Rives	Director	MOHSEP
Harry St. Pierre	Emergency Preparedness Coordinator	MOHSEP
Darcee Bulliard	Chief of Operations	MOHSEP
Kellie McGaha	Assistant Director	MOHSEP
Sharon Weston Broome	Mayor-President	EBR Parish Consolidated Government
Darnell Waites	Mayor	City of Baker
Wade Evans	Mayor	City of Central
David McDavid	Mayor	City of Zachary
Jacie Maples	Region 2 Coordinator	GOHSEP
Rachael Lambert	Director	EBR Department of Development
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Brian Bernard	Director	Human Resources
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Michael Denicola	Director	Emergency Medical Services
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Dale Dicharry	Captain of Homeland Security	EBR Sheriff's Office
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Chris Calbert	Chief Administrative Officer	City of Zachary
Matt Vaughn-Zyjewski	Program Director	Institute for Building Technology and Safety
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Mike Edwards	Director of Aviation	Baton Rouge Metropolitan Airport
Deano Moran	Director	West Baton Rouge OHSEP
Ashleigh Dozier	Emergency Management Specialist	Louisiana State University

Meeting Announcement:

EAST BATON ROUGE PARISH MAYOR'S OFFICE OF HOMELAND SECURITY & EMERGENCY PREPAREDNESS

PUBLIC MEETING ANNOUNCEMENT

East Baton Rouge Parish and its partners are seeking community input for the 2023 East Baton Rouge Parish Hazard Mitigation Plan update!

East Baton Rouge Parish MOHSEP, in partnership with The Louisiana Governor's Office of Homeland Security and Emergency Preparedness and the Stephenson Disaster Management Institute at LSU, is leading the process to update the plan. The East Baton Rouge Parish Hazard Mitigation Multi-Jurisdictional Plan describes the **naturally occurring** risks to the region and outlines strategies to reduce these risks to save lives, reduce property damage, and lessen the impact of future disasters.

Are you passionate about building a more resilient future for your parish? Do you have questions about the natural hazards your community is at risk to? Please join us on Wednesday May 17th, for a public meeting at 2:30 PM to learn more about the plan and share your input on the risks and vulnerabilities that most impact you and your community.

Meeting Location:
EBR Parish MOHSEP Building
3773 Harding Blvd.
Baton Rouge, LA 70807

Residents of East Baton Rouge Parish are asked to participate in a survey about public perceptions and opinions regarding natural hazards in the parish. The survey results will be used in the development of the plan. This short web-based survey can be found at the following link:

https://www.surveymonkey.com/r/EBRHM2022

The Parish appreciates your input.

If you have questions, please contact the East Baton Rouge Parish MOHSEP Office

Outreach Activity #1: Public Opinion Survey

Date: Ongoing throughout planning process
Location: Web survey
Public Invitation: Yes

As referenced in the *Mitigation Strategy* section of this document, an online public opinion survey of East Baton Rouge Parish residents was conducted between November 2022 and May 2023. The survey was designed to capture public perceptions and opinions regarding natural hazards in East Baton Rouge Parish. In addition, the survey collected information regarding the methods and techniques preferred by the respondents for reducing the risks and losses associated with local hazards. As of May 19, 2023, there have been zero responses to the survey so this public feedback could not be incorporated into the plan. The full East Baton Rouge Parish survey can be found at the following link: https://www.surveymonkey.com/r/EBRHM2022

Outreach Activity #2: Public Meeting Activity - Incident Questionnaire

Date: May 17, 2023
Location: Public Meeting
Public Invitation: Yes

An incident/issue questionnaire was provided at the public meeting in an effort to collect additional information from residents of East Baton Rouge Parish regarding hazard events and their localized impacts. While the information collected via the questionnaire was to be integrated into this planning document, there was no public turnout for the meeting, and subsequently no results could be collected. A copy of the incident questionnaire can be found on the next page.

Outreach Activity #3: 2023 East Baton Rouge Parish Hazard Mitigation Plan Public Review

Date: Ongoing
Location: SDMI Hazard Mitigation Website
Public Initiation: Yes

After an initial review by the East Baton Rouge Parish Planning Committee was completed, the 2023 East Baton Rouge Parish Hazard Mitigation Plan was made available for public review and comment. The plan was hosted on SDMI's Hazard Mitigation website: https://hmplans.sdmi.lsu.edu/Home/Parish/east-baton-rouge

EAST BATON ROUGE PARISH PUBLIC MEETING

PUBLIC ACTIVITY: INCIDENT/ ISSUE QUESTIONNAIRE

1. HAZARD TYPE(S):

A. DAM FAILURE
B. DROUGHT
C. FLOODING
D. LEVEE FAILURE
E. THUNDERSTORMS
F. TORNADOES
G. TROPICAL CYCLONES
H. WILDFIRES
I. WINTER WEATHER

2. DESCRIBE INCIDENT OR ISSUE:

3. LOCATION:

A. CITY:

B. ADDRESS OR AREA:

4. INTENSITY:

A. DEPTH (FLOODING) OR SIZE (HAIL ETC.):

B. WIND STRENGTH

5. RECURRING OR ONE TIME:

A. IF RECURRING, HOW OFTEN:

6. WHAT TYPE OF INTERRUPTIONS DOES/DIDTHE INCIDENT OR ISSUE CAUSE? (BUSINESS CLOSURE,DAMAGE, EVACUATION, ETC.)

7.HOW LONG WAS THE INTERRUPTION (HOURS, DAYS, WEEKS ETC.)

8. HOW COULD THIS HAZARD OR IMPACT BE PREVENTED, FIXED OR ALLEVIATED?

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Appendix B: Plan Maintenance

Purpose

The section of the Code of Federal Regulations (CFR) pertaining to Local Mitigation Plans lists five required components for each plan: a description of the planning process; risk assessments; mitigation strategies; a method and system for plan maintenance; and documentation of plan adoption. This section details the method and system for plan maintenance, following the CFR's guidelines that the Plan Update must include (1) "a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle," (2) "a process by which local governments incorporated the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans", and (3) "discussion on how the community will continue public participation in the plan maintenance process."

Implementing, Monitoring, Evaluating, and Updating the Plan

The East Baton Rouge Parish Hazard Mitigation Planning Committee will be responsible for implementing, monitoring, evaluating, and documenting the plan's progress throughout the year. Part of the plan maintenance process should include a system by which local governing bodies incorporate the HMP into the parish's other applicable plans. This process provides for continued public participation through the diverse resources of the parish to help in achieving the goals and objectives of the plan. Public participation will be achieved through availability of copies of HMP in parish public buildings and the SDMI website. This section describes the whole update process which includes the following:

- Responsible parties
- Methods to be used
- Evaluation criteria to be applied
- Scheduling for monitoring and evaluating the plan

Responsible Parties

East Baton Rouge Parish has developed a method to ensure that a regular review and update of this Hazard Mitigation Plan occurs. This will be the responsibility of the planning committee, which consists of representatives from governmental organizations, local businesses, and private citizens, who will be involved in the process of monitoring, evaluating and updating the plan. All committee members in this plan will remain active in the planning committee.

Although the people filling the positions may change from year to year, the parish and its stakeholders will have representatives on the planning committee. The future planning committee will continue to be comprised of the same job functions as currently evident in the planning committee. However, the decision of specific job duties will be left to the Parish MOHSEP Director to be assigned as deemed appropriate.

Methods for Monitoring and Evaluating the Plan and Plan Evaluation Criteria

East Baton Rouge Parish has developed a method to ensure implementation, monitoring, evaluating, and updating of the HMP occurs during the five-year cycle of the plan. Implementation will be accomplished through constant and transparent efforts to network and highlight the multi-objective, win-win benefits of each project in the *Mitigation Strategy* section. Those efforts include routine actions of monitoring agendas, attending meetings, and promoting a safe and resilient community. The planning committee will seek to become a permanent body and will be responsible for monitoring, evaluating, and updating of the plan. The planning committee meeting will be held annually in order to monitor, evaluate, and update

the plan. The East Baton Rouge Parish MOHSEP Director will be responsible for conducting the annual planning committee meetings.

The lead person of the agency responsible for the implementation of a specific mitigation action will submit a progress report to the MOHSEP Director at least thirty days prior to the planning committee meeting. The progress report will provide project status monitoring to include the following: whether the project has started; if not started, reason for not starting; if started, status of the project; if the project is completed, whether it has eliminated the problem; and any changes recommended to improve the implementation of the project etc. In addition, the progress report will provide status monitoring on the plan evaluation, changes to the hazard profile, changes to the risk assessment, and public input on the Hazard Mitigation Plan updates and reviews.

Progress on the mitigation action items and projects will be reviewed during the annual planning committee meeting. The criteria that would be utilized in the project review will include the following:

1) Whether the action was implemented and reasons, if the action was not implemented

2) What were the results of the implemented action

3) Were the outcomes as expected, and reasons if the outcomes were not as expected

4) Did the results achieve the stated goals and objectives

5) Was the action cost-effective

6) What were the losses avoided after completion of the project

7) In case of a structural project, did it change the hazard profile

In addition to monitoring and evaluating the progress of the mitigation plan actions and projects, the mitigation plan is required to be maintained and monitored annually, and fully updated every five years. The annual maintenance, monitoring and evaluation of the plan will be conducted in the annual planning committee meeting. The planning committee will review each goal to determine their relevance to changing situations in the parish, as well as changes to state or federal policy, and to ensure that they are addressing current and expected conditions. The planning committee will evaluate if any change in hazard profile and risk in the parish occurred during the past year. In addition, the evaluation will include the following criteria in respect of plan implementation:

1) Any local staffing changes that would warrant inviting different members to the planning committee

2) Any new organizations that would be valuable in the planning process or project implementation need to be included in the planning committee

3) Any new or existing procedures that can be done more efficiently

4) Any additional ways to gain more diverse and widespread cooperation

5) Any different or additional funding sources available for mitigation planning and implementation

The HMP will be updated every five years to remain eligible for continued HMGP funding. The planning committee will be responsible for updating the HMP. The MOHSEP Director will be the lead person for the HMP update. The HMP update process will commence at least one year prior to the expiration of the

plan. The HMP will be updated after a major disaster if an annual evaluation of the plan indicates a substantial change in hazard profile and risk assessment in the parish.

Additionally, the public will be canvassed to solicit public input to continue East Baton Rouge Parish's dedication to involving the public directly in review and updates of the Hazard Mitigation Plan. Meetings will be scheduled as needed by the plan administrator to provide a forum for which the public can express their concerns, opinions, and/or ideas about the plan. The plan administrator will be responsible for using parish resources to publicize the annual public meetings and maintain public involvement through the newspapers, radio, and public access television channels. Copies of the plan will be catalogued and kept at all appropriate agencies in the city government, as well as at the SDMI website.

The review by the planning committee and input from the public will determine whether a plan update is needed prior to the required five-year update.

Annual reports on the progress of actions, plan maintenance, monitoring, evaluation, incorporation into existing planning programs, and continued public involvement will be documented at each annual meeting of the committee and kept by the Parish MOHSEP Director. The planning committee will work together as a team, with each member sharing responsibility for completing the monitoring, evaluation and updates. It is the responsibility of the Parish MOHSEP Director for contacting committee members, organizing the meeting and providing public noticing for the meeting to solicit public input.

2023 Plan Version Plan Method and Schedule Evaluation

For the current plan update, the previously approved plan's method and schedule were evaluated to determine if the elements and processes involved in the required 2023 update. Based on this analysis, the method and schedule were deemed to be acceptable, and nothing was changed for this update.

Incorporation into Existing Planning Programs

It is and has been the responsibility of the East Baton Rouge Parish Hazard Mitigation Plan Planning Committee and participating jurisdictions to determine additional implementation procedures when appropriate. This may include integrating the requirements of the East Baton Rouge Parish Hazard Mitigation Plan into each jurisdiction's planning documents, processes, or mechanisms as follows:

- Ordinances, Resolutions, Regulations
- Floodplain Ordinances
- Comprehensive/Master Plans
- Capital Improvement Plans
- Economic Development Plans
- Emergency Operations Plans
- Continuity of Operations Plans
- Transportation Plan
- Stormwater Management Plan
- HHPD Emergency Action Plan

Opportunities to integrate the requirements of this plan into other local planning mechanisms will continue to be identified through future meetings of the East Baton Rouge Parish Hazard Mitigation Planning Committee and through the five-year review process described herein. The primary means for integrating mitigation strategies into other local planning mechanisms will be through the revision, update

and implementation of each jurisdiction's individual plans that require specific planning and administrative tasks (e.g. risk assessment, plan amendments, ordinance revisions, capital improvement projects, etc.). Specific to High Hazard Potential Dams, community officials and dam owners work very closely to ensure the structural integrity and mitigation efforts of any high hazard dams in the parish.

While there have been no instances of the mitigation strategy being incorporated into other planning documents since the adoption of the 2017 East Baton Rouge Hazard Mitigation Plan, the committee members recognize the importance of a holistic approach across all planning efforts and will use their standing to integrate the mitigation strategy outlined in the 2023 East Baton Rouge Hazard Mitigation Plan into other planning documents when appropriate. Most notably, East Baton Rouge Parish is in the process of updating their Master Plan and will incorporate the mitigation strategy from this FEMA approved hazard mitigation plan into the Master Plan process and document.

During the planning process for new and updated local planning documents at the parish and jurisdiction level, such as a risk assessment, comprehensive plan, capital improvements plan, or emergency operations plan, the jurisdictions will provide a copy of the Parish Hazard Mitigation Plan to the appropriate parties and recommend that all goals and strategies of new and updated local planning documents are consistent with and support the goals of the Parish Hazard Mitigation Plan and will not contribute to increased hazards.

Although it is recognized that there are many possible benefits to integrating components of this plan into other parish and jurisdiction planning mechanisms, the development and maintenance of this stand-alone Hazard Mitigation Plan is deemed by the planning committee to be the most effective and appropriate method to ensure implementation of Parish and local hazard mitigation actions.

On behalf of the Unincorporated East Baton Rouge Parish, City of Bake, City of Baton Rouge, City of Central, and City of Zachary has the authority to incorporate the contents of the Hazard Mitigation Plan into the parish's existing regulatory mechanisms. Agreements are currently in place with jurisdictions to allow for the parish incorporation mechanisms to take place.

The following parish and local plans incorporate requirements of this HMP Update as follows through planning committee member and jurisdiction representation throughout the planning process as described above:

East Baton Rouge Parish			
Comprehensive Master Plan	Updated as needed	East Baton Rouge Parish Government	✓
Capital Improvements Plan	Updated as needed	East Baton Rouge Parish Government	✓
Continuity of Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Local Emergency Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Transportation Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Economic Development Plan	Updated as needed	East Baton Rouge Parish Economic Development	✓
Stormwater Management Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓

City of Baker

Comprehensive Master Plan	Updated as needed	East Baton Rouge Parish Government	✓
Capital Improvements Plan	Updated as needed	East Baton Rouge Parish Government	✓
Local Emergency Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Stormwater Management Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓

City of Baton Rouge

Comprehensive Master Plan	Updated as needed	East Baton Rouge Parish Government	✓
Capital Improvements Plan	Updated as needed	East Baton Rouge Parish Government	✓
Continuity of Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Local Emergency Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Transportation Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Economic Development Plan	Updated as needed	East Baton Rouge Parish Economic Development	✓
Stormwater Management Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
HHPD Emergency Action Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓

City of Central

Comprehensive Master Plan	Updated as needed	East Baton Rouge Parish Government	✓
Capital Improvements Plan	Updated as needed	East Baton Rouge Parish Government	✓
Continuity of Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Local Emergency Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Transportation Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Economic Development Plan	Updated as needed	East Baton Rouge Parish Economic Development	✓
Stormwater Management Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓

City of Zachary

Comprehensive Master Plan	Updated as needed	East Baton Rouge Parish Government	✓
Capital Improvements Plan	Updated as needed	East Baton Rouge Parish Government	✓
Continuity of Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Local Emergency Operations Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Transportation Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓
Economic Development Plan	Updated as needed	East Baton Rouge Parish Economic Development	✓
Stormwater Management Plan	Updated as needed	East Baton Rouge Parish MOHSEP	✓

Continued Public Participation

Public participation is an integral component of the mitigation planning process and will continue to be essential as this plan evolves over time. Significant changes or amendments to the plan require a public hearing prior to any adoption procedures. Other efforts to involve the public in the maintenance, evaluation, and revision process will be made as necessary. These efforts may include:

- Advertising meetings of the Mitigation Committee in the local newspaper, public bulletin boards, and/or city and county office buildings
- Designating willing and voluntary citizens and private sector representatives as official members of the Mitigation Committee
- Utilizing local media to update the public of any maintenance and/or periodic review activities taking place
- Utilizing city and Parish web sites to advertise any maintenance and/or periodic review activities taking place
- Keeping copies of the plan in appropriate public locations.

Appendix C: Critical Facilities

Critical Facilities within the East Baton Rouge Parish Planning Area

East Baton Rouge Parish Planning Area Critical Facilities												
Type	Name	Dam Failure	Drought	Flooding	Levee Failure	Thunderstorms	Tornadoes	Tropical Cyclones	Wildfires	Winter Weather	Latitude	Longitude
Civil Government	19th Judicial District Court		X			X	X	X		X	30.4466449	-91.1871561
	Baker Clerk of Court		X			X	X	X	X	X	30.5896494	-91.1646403
	Baker Municipal Center		X			X	X	X	X	X	30.5885898	-91.1650815
	Baton Rouge City Court and Constable		X			X	X	X		X	30.4456139	-91.1870273
	Baton Rouge City Hall		X			X	X	X		X	30.4460899	-91.1878719
	Central City Hall		X			X	X	X		X	30.5539297	-91.0404672
	Federal Building		X			X	X	X		X	30.4496950	-91.1830261
	Juvenile Services and Court		X			X	X	X		X	30.5248699	-91.1619322
	Zachary City Annex		X			X	X	X		X	30.6481190	-91.1553370
	Zachary City Hall		X			X	X	X		X	30.6482910	-91.1562830
Fire & SAR	Alsen/St Irma Lee VFD Station 25		X			X	X	X	X	X	30.5701780	-91.1975280
	BRFD Station 1		X			X	X	X		X	30.4496432	-91.1576565
	BRFD Station 10		X			X	X	X		X	30.3804645	-91.1380627

	BRFD Station 11		X	X		X	X	X		X	30.4196258	-91.1774932
	BRFD Station 12		X			X	X	X		X	30.4436556	-91.1845284
	BRFD Station 13		X			X	X	X		X	30.4474084	-91.0688323
	BRFD Station 14		X			X	X	X		X	30.5220681	-91.1491175
	BRFD Station 15		X			X	X	X		X	30.3908153	-91.1930030
	BRFD Station 16		X			X	X	X		X	30.5318034	-91.1809503
	BRFD Station 17		X	X		X	X	X		X	30.4503060	-91.0260630
	BRFD Station 18		X			X	X	X	X	X	30.4688568	-91.0360088
	BRFD Station 19		X			X	X	X		X	30.4144420	-91.0582137
	BRFD Station 2		X			X	X	X		X	30.4705349	-91.1559942
	BRFD Station 3		X			X	X	X		X	30.4922980	-91.1584266
	BRFD Station 4		X			X	X	X		X	30.4887547	-91.1279242
	BRFD Station 5		X			X	X	X		X	30.4797304	-91.0839987
	BRFD Station 6		X			X	X	X		X	30.4642619	-91.1372659
	BRFD Station 7		X			X	X	X		X	30.4411560	-91.1303220
	BRFD Station 8		X			X	X	X		X	30.4501890	-91.1037232
	BRFD Station 9		X			X	X	X		X	30.4192645	-91.1483649
	Brownsfield VFD Station 71		X	X		X	X	X	X	X	30.5490370	-91.1358430

	Brownsfield VFD Station 72		X	X		X	X	X	X	X	30.5885330	-91.1232810
	Central FD Station 31		X			X	X	X		X	30.5552792	-91.0392596
	Central FD Station 32		X			X	X	X	X	X	30.4955690	-91.0506890
	Central FD Station 33		X	X		X	X	X	X	X	30.5179434	-91.0065966
	Central FD Station 34		X	X		X	X	X		X	30.5877416	-91.0244912
	Central FD Station 35		X			X	X	X	X	X	30.5349656	-91.0681710
	Chaneyville VFD Station 40		X			X	X	X	X	X	30.6851470	-91.0270450
	District 6 FD Station 51		X			X	X	X	X	X	30.4888280	-91.1076950
	District 6 FD Station 52		X			X	X	X	X	X	30.5238350	-91.1258770
	Eastside FD Station 91		X			X	X	X	X	X	30.4539020	-91.0186360
	Eastside FD Station 92		X			X	X	X	X	X	30.4231140	-90.9924020
	Pride VFD Station 10		X	X		X	X	X		X	30.6674080	-90.9707030
	Pride VFD Station 11		X	X		X	X	X	X	X	30.6040455	-91.2142384
	Pride VFD Station 12		X			X	X	X		X	30.6922140	-90.8813860
	Pride VFD Station 13		X			X	X	X	X	X	30.7058230	-91.0178510
	St George FD Station 61 And HQ		X			X	X	X		X	30.3656060	-91.0682850
	St George FD Station 62		X			X	X	X		X	30.4136520	-91.0839630
	St George FD Station 63		X	X		X	X	X	X	X	30.3883860	-91.0070560

	St George FD Station 64		X			X	X	X	X	X	30.3566780	-90.9912120
	St George FD Station 65		X			X	X	X		X	30.3558680	-91.1256810
	St George FD Station 66		X	X		X	X	X		X	30.4075490	-91.0038580
	St George FD Station 67		X			X	X	X		X	30.3674280	-91.0314060
	St George FD Station 68		X			X	X	X	X	X	30.3422120	-91.0294780
	Zachary FD Station 81		X			X	X	X		X	30.6489310	-91.1560760
	Zachary FD Station 82		X			X	X	X		X	30.6642480	-91.1926460
	Zachary FD Station 83		X			X	X	X	X	X	30.6486500	-91.1084100
	Baker FD Station 21										30.5880344	-91.1611325
	Baker FD Station 22										30.5754059	-91.1304450
Law Enforcement	Baker City Police Department		X			X	X	X	X	X	30.5893631	-91.1648549
	BRPD Air Support		X			X	X	X		X	30.5322796	-91.1442671
	BRPD District 1 Station		X			X	X	X		X	30.4909088	-91.1574252
	BRPD District 2 Station		X	X		X	X	X		X	30.4260919	-91.1798521
	BRPD District 4 Station		X			X	X	X		X	30.5218496	-91.1805010
	BRPD Downtown District Station		X			X	X	X		X	30.4485355	-91.1883612
	BRPD Evidence/Crime Scene		X			X	X	X		X	30.4927470	-91.1617444

BRPD Headquarters / District 3 Station		X			X	X	X		X	30.4454233	-91.0914597
BRPD K9/SRT		X			X	X	X		X	30.5356354	-91.1664566
BRPD S-3 Building		X			X	X	X		X	30.4452730	-91.0931741
BRPD Training		X	X		X	X	X		X	30.4447721	-91.0910518
BRPD VCU		X			X	X	X		X	30.4491526	-91.1060385
Central Police Department		X	X		X	X	X		X	30.5539295	-91.0388052
EBR Parish Prison		X			X	X	X		X	30.5342689	-91.1645543
EBR Sheriff's Office		X			X	X	X		X	30.5287148	-91.1569586
EBR Sheriff's Office Special Ops & Fleet Services		X			X	X	X		X	30.5275654	-91.1597526
EBRSO Central Substation		X	X		X	X	X		X	30.5606819	-91.0430205
EBRSO Gardere Substation		X			X	X	X		X	30.3439573	-91.1470071
EBRSO Kleinpeter Substation		X			X	X	X		X	30.3653380	-91.0221380
EBRSO Pride-Chaneyville Substation		X			X	X	X	X	X	30.6845680	-91.0309050
EBRSO Scotlandville Substation		X			X	X	X		X	30.5311383	-91.1807101
EBRSO Zachary-Plains Substation		X			X	X	X		X	30.6911060	-91.2050090
Louisiana State Police Troop A		X			X	X	X		X	30.3462800	-91.0311300

	Zachary Police Annex		X			X	X	X		X	30.6477300	-91.1551980
	Zachary Police Headquarters		X			X	X	X		X	30.6480730	-91.1563000
Public Health	Baton Rouge Area Drug and Alcohol Center		X			X	X	X		X	30.4501949	-91.1695424
	EBRP Health Unit		X			X	X	X		X	30.4501406	-91.1777647
Education	Audubon Elementary		X	X		X	X	X		X	30.4454864	-91.0670936
	Belfair Elementary		X	X		X	X	X	X	X	30.4680001	-91.1463062
	Bernard Terrace Elementary		X			X	X	X		X	30.4469190	-91.1486298
	BR Center for Visual and Performing Arts		X			X	X	X		X	30.4294960	-91.1538785
	BR FLAIM		X			X	X	X		X	30.4266950	-91.1433179
	Broadmoor Elementary		X			X	X	X		X	30.4415792	-91.0821814
	Brownfields Elementary		X			X	X	X	X	X	30.5504844	-91.1317978
	Buchanan Elementary		X	X		X	X	X		X	30.4246757	-91.1743125
	Capitol Elementary		X			X	X	X		X	30.4631939	-91.1490612
	Cedarcrest-Southmoor Elementary		X			X	X	X		X	30.4252012	-91.0706050
	Claiborne Elementary		X			X	X	X		X	30.5051995	-91.1432278
	Crestworth Elementary		X			X	X	X	X	X	30.5433396	-91.1967340
	Dufrocq Elementary		X			X	X	X		X	30.4448720	-91.1724498

Forest Heights		X			X	X	X	X	X	30.5147777	-91.1157380
Glen Oaks Park Elementary		X			X	X	X	X	X	30.5034052	-91.1094045
Greenbriar Elementary		X			X	X	X	X	X	30.4953777	-91.0515505
Highland Elementary		X			X	X	X		X	30.3926060	-91.1514626
Jefferson Terrace Academy		X	X		X	X	X		X	30.3973057	-91.0800445
La Belle Aire Elementary		X			X	X	X	X	X	30.4668821	-91.0485305
LaSalle Elementary		X			X	X	X		X	30.4342158	-91.1055056
Magnolia Woods Elementary		X			X	X	X		X	30.3829109	-91.1251625
Mayfair Lab		X			X	X	X		X	30.3804397	-91.1050253
Melrose Elementary		X			X	X	X		X	30.4615135	-91.1373434
Merrydale Elementary		X			X	X	X	X	X	30.5031257	-91.1250492
Northeast Elementary		X			X	X	X		X	30.6629457	-91.1171357
Park Medical Academy		X			X	X	X		X	30.4611240	-91.1627156
Parkview Elementary		X			X	X	X		X	30.4001852	-91.0472033
Progress Elementary		X			X	X	X	X	X	30.5380625	-91.1881497
Riveroaks Elementary		X	X		X	X	X	X	X	30.4540376	-91.0249437
Ryan Elementary		X			X	X	X		X	30.5386663	-91.1724039

Sharon Hills Elementary		X			X	X	X	X	X	30.5336337	-91.1275089
Shenandoah Elementary		X			X	X	X	X	X	30.3958441	-91.0031547
Twin Oaks Elementary		X	X		X	X	X		X	30.4517636	-91.0399454
University Terrace Elementary		X	X		X	X	X		X	30.4264254	-91.1792903
Villa Del Rey Elementary		X	X		X	X	X		X	30.4650983	-91.0783891
Wedgewood Elementary		X			X	X	X		X	30.4356560	-91.0157894
Westdale Heights Academic Magnet		X			X	X	X		X	30.4307117	-91.1371037
Westminster Elementary		X	X		X	X	X		X	30.4103806	-91.0943815
White Hills Elementary		X	X		X	X	X	X	X	30.5929803	-91.1424541
Wildwood Elementary		X			X	X	X		X	30.3708712	-91.1186050
Winbourne Elementary		X			X	X	X		X	30.4804027	-91.1459463
Woodlawn Elementary		X	X		X	X	X	X	X	30.3775889	-91.0118229
Capitol Middle		X			X	X	X		X	30.4636993	-91.1375657
Glasgow Middle		X			X	X	X		X	30.4085462	-91.1455123
McKinley Middle		X	X		X	X	X		X	30.4332610	-91.1772807
Park Forest Middle		X			X	X	X	X	X	30.4841132	-91.0750941
Scotlandville Middle		X			X	X	X		X	30.5299396	-91.1721575

Sherwood Middle		X			X	X	X		X	30.4465932	-91.0650529
Southeast Middle		X			X	X	X		X	30.4290292	-91.0217146
Westdale Middle		X			X	X	X		X	30.4408690	-91.1342676
Woodlawn Middle		X			X	X	X		X	30.3926170	-91.0169996
Baton Rouge Magnet Highschool		X			X	X	X		X	30.4452173	-91.1619350
Belaire Highschool		X			X	X	X		X	30.4677542	-91.0504780
Broadmoor Highschool		X			X	X	X		X	30.4430521	-91.0778001
Glen Oaks Highschool		X	X		X	X	X	X	X	30.5122030	-91.1217457
Istrouma Highschool		X			X	X	X		X	30.4781279	-91.1544978
Liberty Magnet Highschool		X			X	X	X		X	30.4063091	-91.1543035
McKinley Highschool		X			X	X	X		X	30.4234197	-91.1765493
Northeast Highschool		X			X	X	X		X	30.7030439	-91.0147376
Scotlandville Highschool		X			X	X	X		X	30.5335584	-91.1778166
Tara Highschool		X			X	X	X		X	30.4339480	-91.0905917
Woodlawn Highschool		X			X	X	X	X	X	30.3741883	-91.0135861
Bellingrath Hills Elementary School		X			X	X	X		X	30.5154896	-90.9919846
Tanglewood Elementary School		X			X	X	X		X	30.5336260	-91.0744816

	Central Intermediate School		X			X	X	X		X	30.5632805	-91.0402371
	Central Middle School		X			X	X	X		X	30.5643649	-91.0393040
	Central High School		X			X	X	X		X	30.5416211	-91.0185397
	Northwestern Elementary		X			X	X	X		X	30.6588643	-91.1599273
	Rollins Place Elementary		X			X	X	X	X	X	30.6632661	-91.1552206
	Zachary Elementary		X			X	X	X	X	X	30.6415163	-91.1667805
	Cooper Mill Elementary		X			X	X	X	X	X	30.6429366	-91.1900174
	Northwestern Middle School		X			X	X	X		X	30.6547143	-91.1536876
	Zachary High School		X			X	X	X		X	30.6526777	-91.1610106
	Baker High School		X	X		X	X	X	X	X	30.5876239	-91.1660329
	Baker Heights Elementary		X			X	X	X	X	X	30.5829159	-91.1599297
	Baker Middle School		X			X	X	X	X	X	30.5805179	-91.1752334
	Bakerfield Elementary School		X	X		X	X	X		X	30.5805179	-91.1752334
	Park Ridge Academic Magnet School		X			X	X	X	X	X	30.5845676	-91.1336052
	Impact Charter School		X	X		X	X	X	X	X	30.5764994	-91.1500535
	Advantage Charter Academy		X			X	X	X		X	30.5821525	-91.1285514

Appendix D: Plan Adoption

Unincorporated East Baton Rouge Parish

By Cole
Introduction 9/13/23
P.H. 9/27/23

ADOPTED
METROPOLITAN COUNCIL
SEP 27 2023
COUNCIL ADMINISTRATOR TREASURER

23-01163

RESOLUTION 57353

ADOPTING THE EAST BATON ROUGE PARISH HAZARD MITIGATION PLAN 2023 UPDATE. THE EAST BATON ROUGE PARISH HAZARD MITIGATION PLAN IDENTIFIES NATURAL AND MAN-MADE HAZARDS AND RISKS WITHIN THE PARISH AND RECOGNIZES THE PARISH'S HAZARD MITIGATION STRATEGY TO BUILD A LESS VULNERABLE AND MORE DISASTER RESILIENT COMMUNITY. FEMA REQUIRES HAZARD MITIGATION PLANS TO BE ADOPTED AND RE-SUBMITTED FOR APPROVAL EVERY FIVE YEARS TO MAINTAIN ELIGIBILITY IN FEDERAL HAZARD MITIGATION GRANTS AND RECOUPING DOLLARS IN FEDERAL PUBLIC ASSISTANCE FUNDS FOLLOWING ANY FEDERALLY DECLARED DISASTER. THIS PLAN UPDATE IS BEING PRESENTED FOR ACCEPTANCE AND ADOPTION AS THE OFFICIAL HAZARD MITIGATION PLAN FOR EAST BATON ROUGE PARISH.

WHEREAS, the East Baton Rouge Parish Office of Homeland Security and Emergency Preparedness in conjunction with the East Baton Rouge Parish Hazard Mitigation Planning Committee has prepared a Hazard Mitigation Plan which covers the entire Parish of East Baton Rouge and all municipalities within the parish; and

WHEREAS, this plan is a living document and may be updated annually with major revisions every five (5) years; and

WHEREAS, having an approved plan is a requirement from the Federal Emergency Management Agency (FEMA) in order to receive federal mitigation grants.

BE IT RESOLVED by the Metropolitan Council of the Parish of East Baton Rouge and City of Baton Rouge that:

Section 1. The Mayor-President is hereby authorized to accept and adopt the East Baton Rouge Parish Hazard Mitigation Plan as the official hazard mitigation plan of East Baton Rouge Parish.

City of Baker

CITY OF BAKER

LOUISIANA

RESOLUTION

A RESOLUTION OF The City of Baker

2023 East Baton Rouge Parish Hazard Mitigation Plan

WHEREAS The City of Baker recognizes the threat that natural hazards pose to people and property within the City of Baker; and

WHEREAS the City of Baker has prepared a multi-hazard mitigation plan, hereby known as the 2023 East Baton Rouge Parish Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS The City of Baker Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Baker from the impacts of future hazards and disasters; and

WHEREAS adoption by the Baker City Council demonstrates their commitment to hazard mitigation and achieving the goals outlined in the 2023 East Baton Rouge Parish Hazard Mitigation Plan,

NOW THEREFORE, BE IT RESOLVED BY THE CITY OF BAKER, LOUISIANA, THAT:

THE Baker City Council adopts the 2023 East Baton Rouge Parish Hazard Mitigation Plan.

ADOPTED by a vote of 4 in favor and 1 against, and 0 abstaining, this 12th day of September, 2023.

Darnell Waites, Mayor

Glenda Bryant, Council Member

Rochelle Dunn, Council Member

Brenda G. Jackson, Council Member

Dr. Charles Vincent, Council Member

Robert Young, Council Member

City of Baton Rouge

The City of Baton Rouge and East Baton Rouge Parish are a consolidated government. The same resolution for East Baton Rouge Parish applies for the City of Baton Rouge

By Cole
Introduction 9/13/23
P.H. 9/27/23

ADOPTED
METROPOLITAN COUNCIL
SEP 27 2023
COUNCIL ADMINISTRATOR TREASURER

23-01163

RESOLUTION 57353

ADOPTING THE EAST BATON ROUGE PARISH HAZARD MITIGATION PLAN 2023 UPDATE. THE EAST BATON ROUGE PARISH HAZARD MITIGATION PLAN IDENTIFIES NATURAL AND MAN-MADE HAZARDS AND RISKS WITHIN THE PARISH AND RECOGNIZES THE PARISH'S HAZARD MITIGATION STRATEGY TO BUILD A LESS VULNERABLE AND MORE DISASTER RESILIENT COMMUNITY. FEMA REQUIRES HAZARD MITIGATION PLANS TO BE ADOPTED AND RE-SUBMITTED FOR APPROVAL EVERY FIVE YEARS TO MAINTAIN ELIGIBILITY IN FEDERAL HAZARD MITIGATION GRANTS AND RECOUPING DOLLARS IN FEDERAL PUBLIC ASSISTANCE FUNDS FOLLOWING ANY FEDERALLY DECLARED DISASTER. THIS PLAN UPDATE IS BEING PRESENTED FOR ACCEPTANCE AND ADOPTION AS THE OFFICIAL HAZARD MITIGATION PLAN FOR EAST BATON ROUGE PARISH.

WHEREAS, the East Baton Rouge Parish Office of Homeland Security and Emergency Preparedness in conjunction with the East Baton Rouge Parish Hazard Mitigation Planning Committee has prepared a Hazard Mitigation Plan which covers the entire Parish of East Baton Rouge and all municipalities within the parish; and

WHEREAS, this plan is a living document and may be updated annually with major revisions every five (5) years; and

WHEREAS, having an approved plan is a requirement from the Federal Emergency Management Agency (FEMA) in order to receive federal mitigation grants.

BE IT RESOLVED by the Metropolitan Council of the Parish of East Baton Rouge and City of Baton Rouge that:

Section 1. The Mayor-President is hereby authorized to accept and adopt the East Baton Rouge Parish Hazard Mitigation Plan as the official hazard mitigation plan of East Baton Rouge Parish.

City of Central

CITY OF CENTRAL

The following Resolution was offered by Council Members Lazaroe and McKinney:

RESOLUTION NO. 2023-46

A RESOLUTION TO ADOPT THE 2023 EAST BATON ROUGE PARISH MULTI-JURISDICTIONAL HAZARD MITIGIATION PLAN AND TO PROVIDE FOR RELATED MATTERS.

WHEREAS, the City of Central recognizes the threat that natural hazards pose to people and property within the City of Central;

WHEREAS, the East Baton Rouge Parish Mayor's Office of Homeland Security and Emergency Preparedness, along with GOHSEP, and others have prepared a multi-hazard mitigation plan, hereby known as the 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000;

WHEREAS the 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in East Baton Rouge Parish from the impacts of future hazards and disasters; and

WHEREAS adoption by the City of Central demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan.

NOW THEREFORE, BE IT RESOLVED by the Council for the City of Central that the City of Central adopts the 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan.

This Resolution having been submitted to a vote, the vote thereon was as follows:

For:	Fralick, Lavergne, Lazaroe, McKinney, Myer, Roy and Wells
Against:	None
Absent:	None

CERTIFICATION

The above and foregoing Resolution was duly adopted at a regular meeting of the Council for the City of Central held on September 12, 2023.

Mark Miley, Clerk

City of Zachary

City of Zachary - Louisiana

RESOLUTION NO. 2023-01

A RESOLUTION OF THE City of Zachary

2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan

WHEREAS the City of Zachary recognizes the threat that natural hazards pose to people and property within Zachary, Louisiana; and

WHEREAS the City of Zachary has prepared a multi-hazard mitigation plan, hereby known as 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Zachary, Louisiana from the impacts of future hazards and disasters; and

WHEREAS adoption by the City of Zachary demonstrates their commitment to hazard mitigation and achieving the goals outlined in the 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan.

NOW THEREFORE, BE IT RESOLVED BY THE Zachary, Louisiana, THAT:

Section 1. In accordance with its ability granted through its Home Rule Charter, THE CITY OF ZACHARY adopts the 2023 East Baton Rouge Parish Multi-Jurisdictional Hazard Mitigation Plan.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 12TH day of September, 2023.

By: DAVID MCDAVID

(print name)

ATTEST:

By: Lauren Baudoin

(print name)

APPROVED AS TO FORM:

By: _____

(print name)

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Appendix E: State Required Worksheets

During the planning process (Appendix A: Planning Process), the Hazard Mitigation Plan Update Planning Committee was provided state-required plan update process worksheets to be filled out. The worksheets were presented at the Initial Planning Meeting by SDMI as tools for assisting in the update of the Hazard Mitigation Plan, but also as a state requirement for the update. The plan update worksheets allowed for collection of information such as planning team members, community capabilities, community infrastructure, vulnerable populations and NFIP information. The following pages contain documentation of the state required worksheets.

Mitigation Planning Team

East Baton Rouge Parish Hazard Mitigation Planning Committee		
Name	**Title**	**Agency**
Clay Rives	Director	MOHSEP
Harry St. Pierre	Emergency Preparedness Coordinator	MOHSEP
Darcee Bulliard	Chief of Operations	MOHSEP
Kellie McGaha	Assistant Director	MOHSEP
Sharon Weston Broome	Mayor-President	EBR Parish Consolidated Government
Darnell Waites	Mayor	City of Baker
Wade Evans	Mayor	City of Central
David McDavid	Mayor	City of Zachary
Jacie Maples	Region 2 Coordinator	GOHSEP
Rachael Lambert	Director	EBR Department of Development
Kim Brooks	Sr. Special Assistant	Parish Attorney's Office
Ashley Beck	Council Administrator	Treasurer's Office
Brandon Smith	Assistant Superintendent	Recreation and Parks Commission (BREC)
David Noland	Senior Risk Manager	Recreation and Parks Commission (BREC)
Adam Smith	Interim Director	City-Parish Department of Environmental Services
Warren Kron	GIS Manager	City-Parish Department of Information Services
Eric Romero	Director	City-Parish Department of Information Services
Tawanda Blouin	Representative	Human Resources
Brian Bernard	Director	Human Resources
Chris Landry	Deputy Shift Supervisor	Emergency Medical Services
Michael Denicola	Director	Emergency Medical Services
Todd Morris	Commander of Special Operations	EBR Sheriff's Office
Michael Favaro	Deputy Sheriff	EBR Sheriff's Office
Dale Dicharry	Captain of Homeland Security	EBR Sheriff's Office

Robert Joyner	Floodplain Manager	EBR Department of Development
Jason Ganaway	Facilities Manager	EBR Parish Consolidated Government
Larry Cooper	Sr. Legal Investigator	Office of Alcoholic Beverage Control
Joseph Butler Sr.	Director	Buildings and Grounds
Chris Calbert	Chief Administrative Officer	City of Zachary
Matt Vaughn-Zyjewski	Program Director	Institute for Building Technology and Safety
Terri Parnell-Allison	Executive Assistant	City of Central Mayor's Office
Kyndall Jones	Executive Assistant to Mayor-President	EBR Parish Consolidated Government
Angela Machen	Administrative Officer	City of Baker
Cyndi Pennington	Traffic Engineer	EBR Parish Consolidated Government
Fred Raiford	Director	Transportation & Drainage of Baton Rouge
Vanpheng Nitchin	Sergeant	Baton Rouge Police Department
Neal Noel	Deputy Chief Operations Services	Operational Services Bureau
Murphy J. Paul	Chief of Police	Baton Rouge Police Department
Norma Jarreau	Executive Assistant	EBR Parish Consolidated Government
Kiara Robinson	Administrative Assistant	Louisiana Division of Administration
Dante Bidwell	Chief of Staff to Mayor-President	EBR Parish Consolidated Government
Glenn Curtis	Chief Administrative Office to Mayor-President	EBR Parish Consolidated Government
Connie DeLeo	Infection Preventionist	Baton Rouge General Medical Center
Alyson Hughes	ESF-8 Coordinator: Region 2	Healthcare Emergency Preparedness Coalition
Paul Stockstill	Coordinator	Urban Search and Rescue - Task Force 2
Curt Monte	Public Information Officer	Baton Rouge Fire Department
Jeremy Spillman	Chief of Special Services	Baton Rouge Fire Department
Michael Kimble	Fire Chief	Baton Rouge Fire Department
Craig Alford	Airport Operations Manager	Baton Rouge Metropolitan Airport
Mike Edwards	Director of Aviation	Baton Rouge Metropolitan Airport
Deano Moran	Director	West Baton Rouge OHSEP
Ashleigh Dozier	Emergency Management Specialist	Louisiana State University

Capability Assessment

Unincorporated East Baton Rouge Parish

Capability Assessment Worksheet - Unincorporated East Baton Rouge Parish		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	**Yes/No**	**Comments**
Comprehensive / Master Plan	Yes	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	Yes	
Stormwater Management Plan	Yes	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)		
Building Code, Permitting and Inspections	**Yes/No**	**Comments**
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	Yes	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Yes	
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	Yes	

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	**Yes/No**	**Comments**
Planning Commission	Yes	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	Yes	
Civil Engineer	Yes	
GIS Coordinator	Yes	
Grant Writer	Yes	
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
Hazard Data & Information	Yes	
Grant Writing	Yes	
Hazus Analysis	No	

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	**Yes/No**	**Comments**
Capital Improvements project funding	Yes	
Authority to levy taxes for specific purposes	Unknown	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	Yes	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	Yes	

Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	**Yes/No**	**Comments**
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	
Storm Ready certification	Yes	
Firewise Communities certification	Yes	
Public/Private partnership initiatives addressing disaster-related issues	Yes	

City of Baker

Capability Assessment Worksheet - Baker		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	**Yes/No**	**Comments**
Comprehensive / Master Plan	Yes	In Progress
Capital Improvements Plan	Yes	
Economic Development Plan	No	In Progress
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	No	
Transportation Plan	No	EBR
Stormwater Management Plan	Yes	In Progress
Community Wildfire Protection Plan	No	State
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	Redevelopment
Building Code, Permitting and Inspections	**Yes/No**	**Comments**
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	Cat. 2
Site plan review requirements	Yes	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	EBR
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	No	
Other		

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	**Yes/No**	**Comments**
Planning Commission	Yes	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	Yes	
Civil Engineer	Yes	
GIS Coordinator	No	
Grant Writer	Yes	
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	EBR
Hazard Data & Information	Yes	EBR EOC
Grant Writing	Yes	
Hazus Analysis	No	
Other		

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	**Yes/No**	**Comments**
Capital Improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	Yes	Not Electrical
Impact fees for new development	Yes	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	Yes	

Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	**Yes/No**	**Comments**
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	ROTARY; PILOT; BAKER COMMUNITY FOUNDATION
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	IN PROGRESS
Storm Ready certification	No	
Firewise Communities certification	Yes	IN PROGRESS
Public/Private partnership initiatives addressing disaster-related issues	Yes	
Other		

City of Baton Rouge

Capability Assessment Worksheet - Baton Rouge		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	**Yes/No**	**Comments**
Comprehensive / Master Plan	Yes	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	Yes	
Stormwater Management Plan	Yes	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	Yes	
Other plans (redevelopment, recovery, coastal zone management)	Yes	
Building Code, Permitting and Inspections	**Yes/No**	**Comments**
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	Yes	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Yes	
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	Yes	
Other		

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	**Yes/No**	**Comments**
Planning Commission	Yes	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	Yes	
Civil Engineer	Yes	
GIS Coordinator	Yes	
Grant Writer	Yes	
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
Hazard Data & Information	Yes	
Grant Writing	Yes	
Hazus Analysis	No	
Other		

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	**Yes/No**	**Comments**
Capital Improvements project funding	Yes	
Authority to levy taxes for specific purposes	Unknown	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	Yes	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	Yes	

Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	**Yes/No**	**Comments**
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	
Storm Ready certification	Yes	
Firewise Communities certification	Yes	
Public/Private partnership initiatives addressing disaster-related issues	Yes	
Other		

City of Central

Capability Assessment Worksheet - Central		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	**Yes/No**	**Comments**
Comprehensive / Master Plan	Yes	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	Looking into
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	Yes	
Stormwater Management Plan	Yes	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	**Yes/No**	**Comments**
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	
Fire Department ISO/PIAL rating	3	
Site plan review requirements	Yes	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Yes	Stormwater
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	No	Yes - FMA Buyout through Parish
Other		

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	**Yes/No**	**Comments**
Planning Commission	Yes	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	Jack Gleason
Floodplain Administrator	Yes	Brandon Whitehead
Emergency Manager	No	Clay Rives - with the Parish
Community Planner	Yes	Woodrow Muhammad
Civil Engineer	Yes	Jim Ferguson
GIS Coordinator	Yes	Kathi Cowen
Grant Writer	Yes	CSRS
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	Provided by Parish
Hazard Data & Information	Yes	We have live river gauges on city website. We also have GIS Layers for Conveyance, historical high water marks, etc.
Grant Writing	Yes	CSRS
Hazus Analysis	No	
Other	No	

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	**Yes/No**	**Comments**
Capital Improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	Yes	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	Yes	

Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	**Yes/No**	**Comments**
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	No	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	City will begin to initiate this.
Natural Disaster or safety related school program	Yes	Through CRS Activities
Storm Ready certification		
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	Yes	
Other	No	

City of Zachary

Capability Assessment Worksheet - Zachary		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	**Yes/No**	**Comments**
Comprehensive / Master Plan	Yes	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	Yes	
Stormwater Management Plan	Yes	
Community Wildfire Protection Plan	No	
HHPD Emergency Action Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	**Yes/No**	**Comments**
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	Yes	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	No	possibly EBR
Other	No	

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	**Yes/No**	**Comments**
Planning Commission	Yes	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	Yes	
Civil Engineer	Yes	
GIS Coordinator	Yes	With assistance from EBR
Grant Writer	Yes	
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	EBR
Hazard Data & Information	No	EBR
Grant Writing	Yes	
Hazus Analysis	No	
Other	No	

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	**Yes/No**	**Comments**
Capital Improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	Yes	
Stormwater Utility Fee	Yes	
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	Yes	

Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	**Yes/No**	**Comments**
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	No	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	
Natural Disaster or safety related school program	Yes	
Storm Ready certification	No	EBR
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	Yes	
Other	No	

Building Inventory

Parish and Jurisdiction Owned Building Information in East Baton Rouge Parish								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Building inventory for East Baton Rouge Parish and its Incorporated Jurisdictions are available upon request								

Vulnerable Populations

Vulnerable Populations Worksheet					
East Baton Rouge Parish					
All Hospitals (Private or Public)	**Street**	**City**	**Zip Code**	**Latitude**	**Longitude**
Senior Residences of Central	10816 Hooper Rd.	CENTRAL	70818	30.546275	-91.05778889
Progressive Mental Health Center	12038 Greenwell Springs - Port Hudson Rd	CENTRAL	70791	30.62827778	-91.05241111
Apollo Behavioral Health Hospital	9938 Airline Hwy	Baton Rouge	70816	30.427414	-91.078492
Baton Rouge Behavioral Hospital	4040 North Blvd	Baton Rouge	70806	30.448125	-91.147906
Baton Rouge General Center for Health	9001 Summa Ave	Baton Rouge	70809	30.39281811	-91.09192061
Baton Rouge General Hospital	3600 Florida Street	Baton Rouge	70806	30.44923091	-91.15298766
Baton Rouge General Medical Center	8585 Picardy Ave	Baton Rouge	70809	30.39370078	-91.0948095
Baton Rouge General Pennington Cancer Center	3401 North Blvd	Baton Rouge	70806	30.44869049	-91.15400561
Baton Rouge Rehab Hospital	8595 United Plaza Boulevard	Baton Rouge	70809	30.41023811	-91.0950383
Bethesda Rehabilitation Hospital	7414 Sumrall Drive	Baton Rouge	70812	30.5152521	-91.11684068
Mary Bird Perkins Cancer Center	4950 Essen Lane	Baton Rouge	70809	30.40379057	-91.10476867
Oceans Behavioral Hospital of Baton Rouge	7855 Howell Blvd	Baton Rouge	70807	30.51839372	-91.15687546
Ochsner Medical Center	17000 Medical Center Drive	Baton Rouge	70816	30.44285134	-90.99980407
Ochsner Medical Complex - The Grove	10310 The Grove Blvd	Baton Rouge	70836	30.386472	-91.076128
Our Lady of the Lake Regional Medical Center	5000 Hennessy Boulevard	Baton Rouge	70806	30.40362021	-91.10654763
Promise Hospital of Baton Rouge	5130 Mancuso Lane	Baton Rouge	70809	30.39747914	-91.10257083
Regions Behavioral Hospital	8416 Cumberland Place	Baton Rouge	70806	30.444764	-91.097464
Sage Rehabilitation Hospital	8000 Summa Avenue	Baton Rouge	70809	30.400294	-91.103617
Seaside Hospital of Baton Rouge	4363 Convention Street	Baton Rouge	70806	30.4496	-91.144806
Surgical Specialty Center of Baton Rouge	8080 Bluebonnet Blvd	Baton Rouge	70810	30.376206	-91.101919
The NeuroMedical Center Rehabilitation Hospital	10101 Park Rowe Avenue	Baton Rouge	70810	30.38015635	-91.094045
The Spine Hospital of Louisiana	10105 Park Row Circle	Baton Rouge	70810	30.380261	-91.094278
Woman's Hospital	100 Woman's Way	Baton Rouge	70817	30.385911	-91.037872
LANE REGIONAL MEDICAL CENTER	6300 MAIN ST	ZACHARY	70791	30.6490932	-91.13753362
LANE REHABILITATION CENTER	4601 MCHUGH RD., BLDG. A	ZACHARY	70791	30.6472	-91.139718
AMG LONGTERM ACUTE CARE CENTER	4601 MCHUGH RD., BLDG. B	ZACHARY	70791	30.64722	-91.140198
Nursing Homes (Private or Public)	**Street**	**City**	**Zip Code**	**Latitude**	**Longitude**
The Claiborne at Shoe Creek (Assisted Living Facility)	9750 Couret Drive	CENTRAL	70818		
Central Guest House (skilled nursing/rehabilitation/long term care facility)	10748 Joor Road	CENTRAL	70818		
Affinity Nursing and Rehab Center	4005 North Blvd	Baton Rouge	70806	30.44878834	-91.14843129
Baton Rouge General Medical Center Nursing Home	3600 Florida Street	Baton Rouge	70806	30.44923091	-91.15298766
Baton Rouge Health Care Center	5550 Thomas Road	Baton Rouge	70811	30.55778911	-91.13707544
Baton Rouge Heritage House	1335 Wooddale Blvd	Baton Rouge	70806	30.459956	-91.111281
Capital House Nursing & Rehab Center	11546 Florida Blvd	Baton Rouge	70815	30.45851005	-91.0552876
Capital Oaks Nursing Center	4100 North Blvd	Baton Rouge	70806	30.44798877	-91.14696302
Carrington Place of Baton Rouge	8225 Summa Avenue	Baton Rouge	70809	30.39913464	-91.09926992
Flannery Oaks Guest House	1642 N. Flannery Road	Baton Rouge	70815	30.465732	-91.034098

Garden View Assisted Living	3130 Jones Creek Road	Baton Rouge	70816	30.423661	-91.014081
Heritage Manor of Baton Rouge	9301 Oxford Place Drive	Baton Rouge	70809	30.41834912	-91.07887822
Holiday Whealdon Retirement Community	8680 Jefferson Hwy	Baton Rouge	70809	30.4178424	-91.09418796
Holly Court Assisted Living	8585 Summa Ave	Baton Rouge	70809	30.39813697	-91.0965305
Jefferson Manor Nursing Home	9919 Jefferson Hwy	Baton Rouge	70809	30.41181893	-91.07399126
Landmark of Baton Rouge	9105 Oxford Place Drive	Baton Rouge	70809	30.42025502	-91.42025502
Landmark South Nursing & Rehab Center	18180 Jefferson Hwy	Baton Rouge	70817	30.3549307	-90.9937587
Landmark South Nursing & Rehab Center	2382 Lobdell Blvd	Baton Rouge	70805	30.4714854	-91.1223045
Magnolia Brook on Siegen Lane	9394 Siegen Lane	Baton Rouge	70810	30.3646238	-91.077818
Magnolia Residential Care Veterans Home	16950 Florida Boulevard	Baton Rouge	70819	30.4667807	-90.99998943
Maison Des Amis	1050 Convention Street	Baton Rouge	70802	30.4482822	-91.1788095
Old Jefferson Community Care Center	8340 Baringer Foreman Road	Baton Rouge	70817	30.3741197	-91.019395
Ollie Steele Burden Manor Nursing Facility	4250 Essen Lane	Baton Rouge	70809	30.4131625	-91.1024056
Southside Gardens Assisted Living	4536 Perkins Road	Baton Rouge	70808	30.41593835	-91.14301422
St. Antony's Home	7439 Bishop Ott Dr	Baton Rouge	70806	30.459907	-91.1121553
St. Clare Manor Nursing Home	7435 Bishop Ott Dr	Baton Rouge	70806	30.45886338	-91.11207591
St. James Place of Baton Rouge	333 Lee Dr	Baton Rouge	70808	30.39814031	-91.15753744
Sterling Place	3888 North Blvd	Baton Rouge	70806	30.44809307	-91.1498884
Sunrise at Siegen	9351 Siegen Lane	Baton Rouge	70810	30.3639512	-91.076654
Sunrise of Baton Rouge	8502 Jefferson Hwy	Baton Rouge	70809	30.41875103	-91.09603151
The Care Center	11188 Florida Blvd	Baton Rouge	70815	30.45757071	-91.06051451
The Claiborne of Baton Rouge	9511 Creekview Drive	Baton Rouge	70836	30.383261	-91.077622
The Guest House	10145 Florida Blvd	Baton Rouge	70815	30.4573847	-91.07073193
The Haven at Windermere	8225 YMCA Plaza Drive	Baton Rouge	70810	30.3725096	-91.0762379
The Pearl at Jamestown	14443 Perkins Road	Baton Rouge	70810	30.3631375	-91.0578084
The Pines Retirement Center	14686 Old Hammond Hwy	Baton Rouge	70816	30.45111084	-91.02178955
The Woodleigh of Baton Rouge	14333 Old Hammond Hwy	Baton Rouge	70816	30.4511649	-91.027568
White Oak Post Acure Care	2828 Westfork Drive	Baton Rouge	70816	30.4259437	-91.0560893
Williamsburg Senior Living Community	5445 Government Street	Baton Rouge	70806	30.4459351	-91.1336952
Williamsburg Senior Living Community	3185 Balis Drive	Baton Rouge	70808	30.4193481	-91.1450303
Bridgeway Healthcare & Hospice	5425 Hickory Ridge Boulevard	Baton Rouge	70817	30.40638736	-91.02487382
Vonnieabs Repite Care, Inc.	3535 Government Street	Baton Rouge	70806	30.44443053	-91.15350793
St. Joseph Hospice	10615 Jefferson Hwy	Baton Rouge	70809	30.40866702	-91.06508049
Hospice Care of Louisiana	8704 Jefferson Hwy	Baton Rouge	70809	30.418401	-91.0933381
Canon Hospice	1761 Physicians Park Drive # B	Baton Rouge	70816	30.4405	-90.99939454
Hospice In His Care	4301 Bluebonnet Blvd	Baton Rouge	70809	30.409494	-91.079008
OAKWOOD VILLAGE	4400 MCHUGH RD.	ZACHARY	70791	30.64565586	-91.13834515
ZACHARY MANOR NURSING & REHAB	6161 MAIN ST	ZACHARY	70791	30.6505885	-91.139104
LANE NURSING HOME	6300 MAIN ST	ZACHARY	70791	30.649364	-91.138494
The Lodge at Lane	6170 Carpenter Road	ZACHARY	70791	30.64613	-91.13967
NORTHRIDGE CARE CENTER LLC	3612 BAKER BLVD	BAKER	70714	30.59337263	-91.15960433
BAKER WELLNESS CENTER	2402 MAIN ST	BAKER	70714	30.6001829	-91.1653849
PROVISIONS RESIDENTIAL CARE	12841 PLANK RD	BAKER	70714	30.5631399	-91.1324777
RIVER OAKS ESTATE	9475 PETIT RD	BAKER	70714	30.5643486	-91.1076027

PROMISE PRIDE ADULT DAY HEALTH CARE (Senior Care Center)	5100 GROOM RD	BAKER	70714	30.5865759	-91.1453186
BAKER SENIOR CENTER	3334 JEFFERSON ST.	BAKER	70714	30.5904016	-91.1643931
Mobile Home Parks	**Street**	**City**	**Zip Code**	**Latitude**	**Longitude**
TANGLEWOOD WEST TRAILER PARK	9477 Lansdowne Road	CENTRAL	70818	30.53518585	-91.07667714
MICOSHA MOBILE HOME PARK	13939 Leanne Drive	CENTRAL	70818	30.53065646	-91.03439159
LEANNE DRIVE TRAILER PARK	14138 Leanne Drive	CENTRAL	70818	30.52922878	-91.03146009
SULLIVAN ROAD TRAILER PARK	8888 Sullivan Raod	CENTRAL	70818	30.53117382	-91.02737788
HOOPER ROAD MOBILE HOME PARK	12148 Hooper Road	CENTRAL	70818	30.54703984	-91.05075595
JOOR ROAD MOBILE HOME PARK	14853 Joor Road	CENTRAL	70791	30.58735000	-91.04644444
TIFFANY ESTATES MOBILE HOME PARK	17960 Will Avenue	CENTRAL	70739	30.54946111	-90.98483889
BUNCHES MOBILE HOME PARK	25100 Greenwell Springs Rd	CENTRAL	70739	30.59829167	-90.99674444
GURNEY ROAD MOBILE HOME PARK	11653 Gurney Road	CENTRAL	70714	30.56517778	-91.05866667
Riverland Park of Baton Rouge	3579 Victoria Drive	Baton Rouge	70805	30.48277214	-91.12013212
Cedarcrest Southmoor Mobile Home Park	10615 Airline Hwy	Baton Rouge	70816	30.410969	-91.064453
Sherwood Forest Mobile Home Park	349 Flannery Road	Baton Rouge	70815	30.45843445	-91.03307809
Four Seasons Mobile Home Park	7950 Hooper Road	Baton Rouge	70811	30.52679126	-91.10736809
Once Around Mobile Home Park	4415 Victoria Drive	Baton Rouge	70812	30.49143616	-91.11952287
Bill's Mobile Home Park	4647 Victoria Drive	Baton Rouge	70812	30.49326531	-91.1192873
Capital Mobile Home Park	6061 Plank Road	Baton Rouge	70805	30.50558841	-91.15198517
Clark Street Trailer Park	11558 Plank Road	Baton Rouge	70811	30.55031438	-91.13458501
Big Oaks Mobile Home Park	3700 Victoria Drive	Baton Rouge	70812	30.4842972	-91.11607935
Pecue Mobile Home Estates	7550 Pecue Lane	Baton Rouge	70809	30.38094421	-91.04287606
Gardere Mobile Home Park	2575 Gardere Lane	Baton Rouge	70810	30.34780049	-91.13311163
Kleinpeter Mobile Homes & RV Park	5734 Kleinpeter Road	Baton Rouge	70811	30.551606	-91.133353
Torrey Pines	16352 Old Hammond Hwy	Baton Rouge	70816	30.45988926	-91.00290243
Evergreen Mobile Home Park	10407 Greenwell Springs Road	Baton Rouge	70814	30.49383657	-91.06848581
Shady Grove Trailer Park	6060 Winchester Avenue	Baton Rouge	70805	30.50547428	-91.13757827
Wind Rose, LLC	4250 Blount Road	Baton Rouge	70807	30.54286847	-91.14897503
Carroll's Trailer Park	6442 Bourgeois Street	Baton Rouge	70805	30.50793064	-91.16518111
Unknown Trailer Park	7158 Hooper Road	Baton Rouge	70811	30.52590082	-91.11928125
Unknown Trailer Park	7185 Greenwell Street	Baton Rouge	70812	30.50308424	-91.11828447
Broadmoor Mobile Home Park	9955 Florida Blvd	Baton Rouge	70815	30.45709229	-91.07470703
Knight RV Park Esquivel, LLC	14740 Florida Blvd	Baton Rouge	70819	30.46404851	-91.02230353
Oak Alley Estates	1550 MT. PLEASANT-ZACHARY RD	ZACHARY	70791	30.65298068	-91.20009772
DOSS-WHEELER TRAILER PARK	5157 HWY. 19	ZACHARY	70791	30.65378033	-91.15021381
SAINT LOUIS TRAILER PARK	4957 & 4979 SAINT LOUIS STREET	ZACHARY	70791	30.65329967	-91.1507254
TOWN & COUNTRY MOBILE HOME VILLAGE	6401 MAIN STREET	ZACHARY	70791	30.65059068	-91.13507062
Unknown Mobile Home Park	4201 FLORIDA ST.	ZACHARY	70791	30.64637682	-91.15664367
LAVEY LANE MOBILE HOME COMMUNITY	5510 LAVEY LANE	BAKER	70714	30.57431586	-91.14034691
AZALEA GARDENS MOBILE HOME PARK	3300 BAKER BLVD.	BAKER	70714	30.59551764	-91.16321266
ST. JAMES MOBILE HOME PARK	4702 LAVEY LANE	BAKER	70714	30.57439734	-91.15195463
LITTLE ACRES MOBILE HOME PARK	MANCHESTER DR	BAKER	70714	30.58975721	-91.15418058
CRESTVIEW MOBILE HOME PARK	5885 LAVEY LANE	BAKER	70714	30.5759	-91.1379
OAK GLEN MOBILE HOME PARK	3838 THOMAS ROAD	BAKER	707414	30.5581	-91.1524

National Flood Insurance Program (NFIP)

National Flood Insurance Program (NFIP)					
	East Baton Rouge Parish	Baton Rouge	Baker	Central	Zachary
Insurance Summary					
How many NFIP polices are in the community? What is the total premium and coverage?	Approx 40,000; $29,300,000 in premiums; $11,108,100,000 in coverage	Approx 40,000; $29,300,000 in premiums; $11,108,100,000 in coverage	678, Total Premium $52,137,100 & $9,018,400	4861 polices, $3,547,049 total premium, $1,339,865,800 total insurance in force	1,060 policies, $739,476(P), $320,086,600©
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	16,100 claims; $1,080,400,000 paid; No info on association with substantial damage, two separate things, 83 ICC claims	16,100 claims; $1,080,400,000 paid; No info on association with substantial damage, two separate things, 83 ICC claims	502, $583,833, 154	1900 total claims, $176,003491.67	429 Paid Losses, $18,701,165 Paid, 75 Paid Substantial Damage Claims
How many structures are exposed to flood risk with in the community?	Approx 30,000	Approx 30,000			1,060
Describe any areas of flood risk with limited NFIP policy coverage.	low to moderate income areas, homeowners without a mortgage requiring flood insurance	low to moderate income areas, homeowners without a mortgage requiring flood insurance	16 homes listed in negative elevation report	All areas of Central are able to get a flood insurance policy.	n/a
Staff Resources					
Is the Community FPA or NFIP Coordinator certified?	Yes	Yes	No	Yes	Yes
Is flood plain management an auxiliary function?	No	No	Yes	No	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	permit review, GIS, education and outreach, inspections, engineering capability	permit review, GIS, education and outreach, inspections, engineering capability	Inspections	Plan review for all building permits and all land disturbance permits, review/approve all elevation certificates, flood zone/ bfe determination letters, outreach for CRS, inspections for drainage, stormwater, erosion control.	We have an increased minimum standard for finished floors of structures. Elevation Certificates required; engineering reviews of development located within the BFE for compliance. Annual outreach is achieved through public meetings, monthly participation with CRAFT.

What are the barriers to running an effective NFIP program in the community, if any?	funding to improve resiliency, many low and moderate income households, large stock of homes that are pre-FIRM	funding to improve resiliency, many low and moderate income households, large stock of homes that are pre-FIRM	No		
Compliance History					
Is the community in good standing with the NFIP?	Yes	Yes	Yes	Yes	Yes
Are there any outstanding compliance issues(i.e., current violations)?	No	No	No	No	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact(CAC)?	2016	2016		5/26/2021	2022
Is a CAV or CAC scheduled or needed? If so when?	No	No		No	2023, Summer
Regulation					
When did the community enter the NFIP?	1977	1977	9/9/1970	4/6/2007	around 1978
Are the FIRMs digital or paper?	digital	digital	Both	Digital	Digital
When did the communities adopt the FIRM's	6/19/2012	6/19/2012	5/2/2008	6/19/2012	6/19/2012
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	exceed	exceed	Meet	Exceed -- 1ft freeboard for the structure and attendant utilities/machinery, elevation requirements outside of SFHA, limits on fill in the SFHA	EXCEED
Community Rating System (CRS)					
Does the community participate in CRS?	Yes	Yes	Yes	Yes	Yes
What is the community's CRS Class Ranking?	7	7	9	7	8
Does the plan include CRS planning requirements?					