

2021 RAPIDES PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

UNINCORPORATED RAPIDES
PARISH, ALEXANDRIA, BALL, BOYCE,
CHENEYVILLE, FOREST HILL,
GLENMORA, LECOMPTE, MCNARY,
PINEVILLE, WOODWORTH



RAPIDES PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE

Prepared for:

Rapides Parish



Prepared by:

Stephenson Disaster Management Institute

Mr. Brant Mitchell, CEM

Mrs. Lauren Morgan, MEPP

Mr. Chris Rippetoe, CFM

Dr. Joseph B. Harris, PhD*

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



*Western Carolina University, Emergency and Disaster Management Program (Dept. of Criminology and Criminal Justice)

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Unincorporated Rapides Parish

City of Alexandria

Town of Ball

Town of Boyce

Town of Cheneyville

Village of Forest Hill

Town of Glenmora

Town of Lecompte

Village of McNary

City of Pineville

Town of Woodworth

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Sonya Wiley-Gremillion

Angie Branton

Cory Ashmore

Tom David

Dustin Etheridge

Curtis Fogleman

Wes Anders

Glenn Aaron

Jacob Guillory

Jason Murphy

Joey Mott

Ross Ducote

Jason Murphy

Tom David

David Butler

Matt Johns

Melissa Becker

Patricia White

Mary Tarver

Greg Timberlake

Cade Fletcher

Rapides Parish OHSEP

Rapides Parish OHSEP

Rapides Parish Highway Dept

Pan American Engineers

Acadian Ambulance

City of Alexandria

Town of Ball

Town of Boyce

Town of Cheneyville

Village of Forest Hill

Town of Glenmora

Town of Lecompte

Town of McNary

City of Pineville

Town of Woodworth

Rapides Area Planning Commission

Rapides Parish

La Office of Public Health

Christus St. Francis Cabrini

Rapides Parish Sheriff's Department

Grant Parish OHSEP

The 2021 Rapides Parish Hazard Mitigation Plan Update was written by the Stephenson Disaster Management Institute, Louisiana State University. Further comments should be directed to the Rapides Parish Office of Homeland Security and Emergency Preparedness: 4261 Ellis St., Alexandria, LA 71302.



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

- Unincorporated Rapides Parish
- City of Alexandria
- Town of Ball
- Town of Boyce
- Town of Cheneyville
- Village of Forest Hill
- Town of Glenmora
- Town of Lecompte
- Village of McNary
- City of Pineville
- Town of Woodworth

The Federal Emergency Management Agency (FEMA), now under the Department of Homeland Security, has made reducing losses from 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 Rapides 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 Rapides Parish and its communities with a blueprint for reducing the impacts of these natural hazards on people and property.

Geography, Population and Economy

Geography

Rapides Parish is located in central Louisiana, about 100 miles northwest of Baton Rouge (*Figure 1-1*). While Rapides Parish is the second largest parish in Louisiana in terms of area, consisting of approximately 1,362 square miles, it is currently the 12th most populated parish in the state. Neighboring parishes include Natchitoches Parish to the northwest, Grant Parish to the north, LaSalle Parish to the northeast, Avoyelles Parish to the east, Evangeline and Allen Parishes to the south, and Vernon Parish to the west. The Alexandria/Pineville Metropolitan Area is the major urban area within the parish and is located in the northeastern part of the parish, with the two cities being separated by the Red River.



Figure 1-1: Location of Rapides Parish in the State of Louisiana

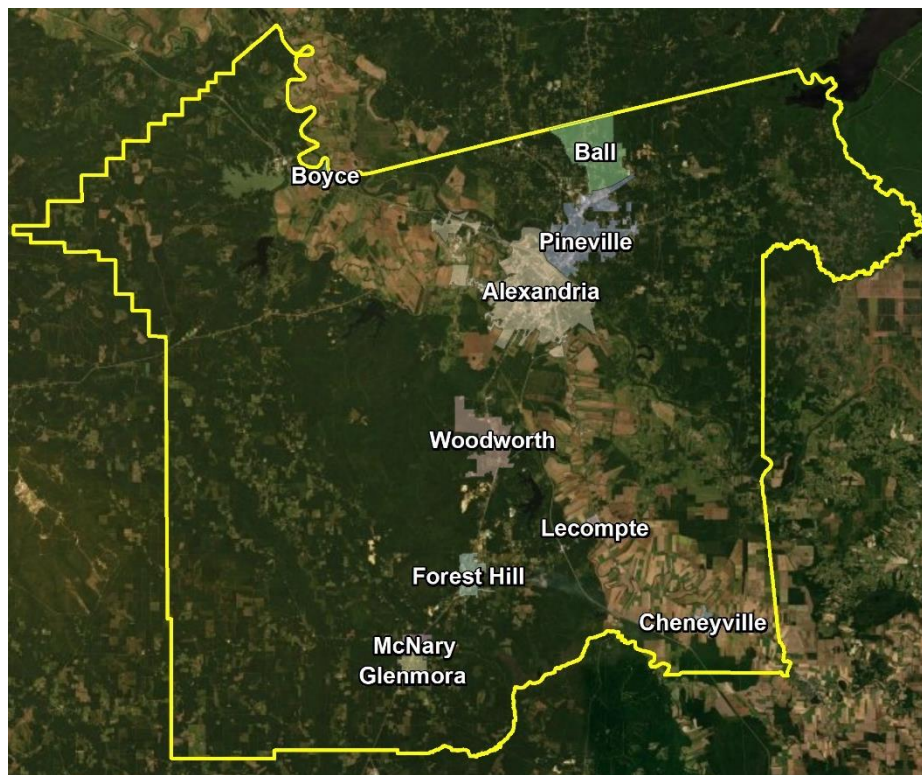


Figure 1-2: Incorporated Jurisdictions within Rapides Parish

The topography of Rapides Parish varies significantly relative to the location within the parish. The northern and western portions of the parish consist of low, rolling terrain covered by pine forests approximately 300 feet above sea level. Moving to the south and east, the land flattens into low lying areas and marshes. The Red River enters the north-central part of Rapides Parish and crosses on a northwest/southeast trajectory.

Rapides Parish weather is typically warm and humid. Daily temperatures are consistent across the entire parish with little variation. The average annual temperature for the state as a whole is 68°F. January is typically the coldest month for Louisiana, averaging approximately 54°F, while July is typically the warmest at an average of 83°F. Winter months are usually mild with cold spells of short duration. For Rapides 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 and have an average daytime high temperature of approximately 59°F. Snowfall averages less than one inch per year. Average annual rainfall for the area is approximately 60 inches. Rapides Parish is susceptible to the normal weather dangers, such as thunderstorms and flooding, but due to its location within the state, the parish is also moderately susceptible to tornadoes.

Rapides Parish is located in Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) Region 6 (Figure 1-3).

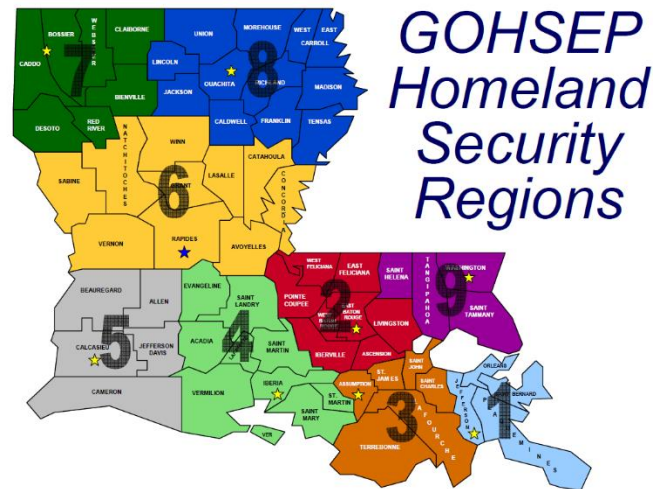


Figure 1-3: Louisiana Homeland Security Regions

Population

The population of Rapides Parish is estimated at 129,648 (2019 estimate) with a population percent change from April 1, 2010 – July 1, 2019 of -1.52%.

Table 1-1: Rapides Parish Population
(Source: US Census)

	2010 Census	2013 Estimate	2019 Estimates	Percent Change 2010 - 2019
Total Population	131,613	132,552	129,648	-1.52%
Population Density (Pop/Sq. Mi.)	99.9	-----	-----	-----
Total Households	-----	47,606	48,488	-----
Persons Per Household	-----	-----	2.61	-----

Economy

A hard-working labor force, abundant raw materials, and land for commercial and industrial development make Rapides Parish an ideal prospect for business investment. Although agriculture has historically been the major contributor to the local economic base, the government, education, and health sectors also provide opportunities for economic growth in the area. In addition, the Central Louisiana Regional Port (CLRP) has a long history of contributing to the economy. Major agricultural commodities include nursery crops, forestry, sugarcane, soybeans, feed grains, cotton, rice, equine, and cattle. A portion of the economy in the area is dependent upon Federal and State jobs, i.e. Fort Polk, Camp Beauregard, U.S. Forest Service, and the U.S. Veterans Hospital. Industry data for business patterns in Rapides Parish can be found in the table on the next page.

Table 1-2: Rapides Parish Business Patterns
(Source: US Census, CBP)

Business Description	Number of Establishments	Number of Employees	Annual Payroll (\$1,000)
Retail Trade	547	7,458	206,841
Manufacturing	66	2,950	163,519
Health Care and Social Assistance	558	14,278	645,603
Mining, Quarrying, Oil and Gas Extraction	8	67	3,626
Transportation and Warehousing	83	895	38,188
Construction	187	3,450	230,194
Administration/Support and Waste Management/Remediation Services	135	1,494	51,839
Real Estate and Rental and Leasing	157	534	20,075
Wholesale Trade	120	1,741	88,445
Other Services (except Public Administration)	331	2,322	62,516
Accommodation and Food Services	242	4,460	69,243
Financial and Insurance	237	1,412	68,689
Professional, Scientific, and Technical Services	277	1,801	90,091
Information	46	513	22,841
Educational Services	31	990	21,243
Arts, Entertainment, and Recreation	32	277	3,548
Agriculture, Forestry, Fishing and Hunting	23	126	6,113
Utilities	24	777	81,897
Management of Companies and Enterprises	10	377	32,032

Hazard Mitigation

To fully understand hazard mitigation efforts in Rapides 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 2021 Rapides Parish Hazard Mitigation Plan (HMP) maintains much of the information from the 2016 plan version, but it now incorporates the order and methodologies of the 2019 Louisiana State Hazard Mitigation Plan.

The sections in the 2016 Rapides 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 Rapides Parish Hazard Mitigation Steering 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 2021 update. This plan update remains coherent with those documents, retaining language and content when needed, deleting it when appropriate, and augmenting it when constructive.

2021 Plan Update

This 2021 plan update proceeds with the previous goals of the Rapides Parish Hazard Mitigation Plan. The current goals are as follows:

1. Identify and pursue preventative measures that will reduce future damages from hazards
2. Enhance public awareness and understanding of disaster preparedness
3. Reduce repetitive flood losses in the parish
4. Facilitate sound development and rebuilding in the parish so as to reduce or eliminate the potential impacts of hazards

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 2020. The steering 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 2021 plan update is organized in the same format as the 2016 update as outlined below:

- 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 Critical Facilities
- Appendix D Plan Adoption
- Appendix E State Required Worksheets

Table 1-3: 2021 Plan Update Crosswalk

Plan Update Crosswalk	
2016 Update	2021 Update
Section 1: Introduction	Section 1: Introduction
Section 2: Hazard Identification and Risk Assessment	Section 2: Hazard Identification and 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 Rapides Parish and its communities. The extent of this risk is dictated primarily by its geographic location. Most significantly, Rapides Parish remains at high risk of water inundation from various sources, primarily as a result of riverine and localized urban flooding. 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 Rapides 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

This section assesses the various hazard risks that Rapides Parish faces in order to identify a strategy for mitigation. Having identified the categories of hazards, emergencies, disasters, and catastrophes, this section details the major climatological and natural/human-influenced hazards by (1) defining them, (2) explaining how they are measured, (3) describing their geographic extent, (4) surveying their previous occurrences, and (5) evaluating their future likelihood of occurrences.

The table below provides an overview of the hazards that had been previously profiled in the Rapides Parish Hazard Mitigation Plan published in 2016, as well as the hazards that were identified in the state's 2019 Hazard Mitigation Plan that were of high or medium risk for the parish by the state. Those hazards identified as high or medium risk by the state or previously identified as a risk by the parish, have been determined to provide a risk to the parish and will be profiled in this section.

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 2021 Update
Drought	X		X
Excessive Heat	X		X
Flooding	X	X	X
Land Subsidence	*		
Thunderstorms (Hail, Lightning, & Wind)	X	X	X
Tornadoes	X	X	X
Tropical Cyclones	X	X	X
Wildfires	X		X
Winter Weather	X		X

*Hazard Discounted in Previous Plan

Prevalent Hazards to the Community

While many of the hazards identified in [Table 2-1](#) occur in the parish, their occurrence was not merited for further study by the planning committee. The determination was made to focus attention and resources on the most prevalent hazards, which include the hazards previously profiled.

The following hazards have been selected to be included in this risk assessment:

- a) Drought
- b) Excessive Heat
- c) Flooding
- d) Thunderstorms (Hail, Lightning, & Wind)
- e) Tornadoes
- f) Tropical Cyclones
- g) Wildfires
- h) Winter Weather

For analysis purposes, the impact of the critical and prevalent hazards is summarized as follows:

- Flooding from rivers and waterways, rainstorms, tropical cyclones, and hurricanes in the following forms:
 - a) Riverine
 - b) Stormwater
 - c) Surge
 - d) Backwater flooding (as the result of river flooding and surge)
 - e) Coastal
- High wind damage most commonly resulting from tropical cyclones, thunderstorms, and tornadoes
- Property damage resulting from all profiled natural hazards

The potential destructive power of tropical cyclones was determined to be the most prevalent hazard to the parish. Fourteen of the twenty-nine disaster declarations Rapides Parish has received resulted from tropical cyclones, which validates this as the most significant hazard. Therefore, the issue of tropical cyclones will serve as the main focus during the mitigation planning process. Hurricanes present risks from the potential for flooding, primarily resulting from storm surge, and high wind speeds. While storm surge is considered the hazard with the most destructive potential, the risk assessment will also assess non-storm surge flooding as well. Flooding can also occur from non-hurricane events, as flash floods are a common occurrence due to heavy rainfall.

Hurricanes, tropical storms, and heavy storms are common occurrences, and resultant wind damage is of utmost concern. Damage from high winds can include roof damage, destruction of homes and commercial buildings, downed trees and power lines, and damage and disruption to services caused by heavy debris. A wind map for Rapides Parish is included in the hurricane risk assessment.

Rapides Parish is also susceptible to tornadoes. Tornadoes can spawn from tropical cyclones or severe weather systems that pass-through Rapides Parish. High winds produced by tornadoes have the potential to destroy residential and commercial buildings, as well as create wind-borne objects from the debris produced by the destruction of the natural and human environment, such as building materials and trees.

Previous Occurrences

On the next page, [Table 2-2](#) summarizes federal disaster declarations for Rapides Parish since 1965. Information includes names, dates, and types of disaster.

Table 2-2: Rapides Parish Major Disaster Declarations.

Disaster Number	Year	Declaration
208	9/10/1965	Tropical Cyclone – Betsy
374	4/27/1973	Severe Storms, Flooding
3011	4/12/1975	Severe Storms, Flooding
470	6/6/1975	Heavy Rains, Tornadoes, and Flooding
3031	2/22/1977	Drought and Freezing
604	9/25/1979	Severe Storms, Flooding
675	1/11/1983	Severe Storms, Flooding
804	11/30/1987	Tornadoes, Flooding
835	7/17/1989	Tropical Cyclone – TS Allison
902	4/23/1991	Severe Storms, Flooding
904	5/3/1991	Severe Storms, Tornadoes, and Flooding
956	8/25/1992	Tropical Cyclone – Hurricane Andrew
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
1668	11/2/2006	Severe Storms, Flooding
1786	9/2/2008	Tropical Cyclone – Hurricane Gustav
4080	8/29/2012	Tropical Cyclone – Hurricane Isaac
4228	7/13/2015	Severe Storms, Flooding
4263	3/13/2016	Severe Storms, Flooding
4345	10/16/2017	Tropical Cyclone – Tropical Storm Harvey
3416	7/11/2019	Tropical Cyclone – Hurricane Barry
4462	9/19/2019	Flooding
4484	3/24/2020	COVID-19 Pandemic
3527	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

Probability of Future Hazard Events

The probability of a hazard event occurring in Rapides Parish is estimated in the table on the following page. The percent chance of an event happening during any given year was calculated by posting past events and dividing by the time period. Unless otherwise indicated, the time period used to access probability followed the method used in the State of Louisiana's most current Hazard Mitigation Plan. The primary source for historical data used throughout the plan is the National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information's (NCEI) Storm Events Database, which provides historical hazard data from 1950 to 2020. In staying consistent with the state plan, the Storm Events Database was evaluated for the last thirty years (1990 – 2020) to determine future

probability of a hazard occurring. While the 30-year record used by the State was adopted for the purpose of determining the overall probability, to assist with determining estimated losses, unless otherwise stated, the full 70-year record was used when Hazus was not available to determine losses. This full record was used to provide a more extensive record to determine losses. All assessed damages were adjusted for inflation in order to reflect the equivalent amount of damages with the value of the U.S. dollar today.

The following table shows the annual probability for each hazard occurring across the parish:

Table 2-3: Probability of Future Hazard Reoccurrence.

Hazard	Probability					
	Rapides Parish (Unincorporated)	Alexandria	Ball	Boyce	Cheneyville	Forest Hill
Drought	13%	13%	13%	13%	13%	13%
Excessive Heat	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
Flooding	40%	72%	16%	16%	16%	16%
Thunderstorms - Hail	100%	100%	100%	100%	100%	100%
Thunderstorms - Lightning	30%	30%	30%	30%	30%	30%
Thunderstorms - Winds	100%	100%	100%	100%	100%	100%
Tornadoes	100%	100%	100%	100%	100%	100%
Tropical Cyclones	50%	50%	50%	50%	50%	50%
Wildfires	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%
Winter Weather	67%	67%	67%	67%	67%	67%

Table 2-3: Probability of Future Hazard Reoccurrence. (cont.)

Hazard	Probability				
	Glenmora	Lecompte	McNary	Pineville	Woodworth
Drought	13%	13%	13%	13%	13%
Excessive Heat	< 1%	< 1%	< 1%	< 1%	< 1%
Flooding	28%	24%	20%	20%	24%
Thunderstorms - Hail	100%	100%	100%	100%	100%
Thunderstorms - Lightning	30%	30%	30%	30%	30%
Thunderstorms - Winds	100%	100%	100%	100%	100%
Tornadoes	100%	100%	100%	100%	100%
Tropical Cyclones	50%	50%	50%	50%	50%
Wildfires	< 1%	< 1%	< 1%	< 1%	< 1%
Winter Weather	67%	67%	67%	67%	67%

As shown in the above tables, tornadoes, hailstorms and high winds have the highest chance of occurrence in the parish (100%). These are followed by flooding for the incorporated area of Alexandria (72%), winter weather (67%), tropical cyclones (50%), flooding for the unincorporated area of the parish (40%), lightning (30%), flooding for the incorporated area of Glenmora (28%), flooding for the

incorporated areas of Lecompte and Woodworth (24%), flooding for the incorporated areas of McNary and Pineville (20%), flooding for the incorporated areas of Ball, Boyce, Cheneyville, and Forest Hill (16%), and drought (13%). Extreme heat, as well as wildfires, for the entire parish have an annual chance of occurrence of less than 1%.

Inventory of Assets for the Entire Parish

As part of the Risk Assessment, the planning team identified essential facilities throughout the parish. Several methods were used to assist in identifying all essential facilities, including field data collected by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) on critical infrastructure from a previous hazard mitigation project.

Within the entire planning area, there is an estimated value of \$21,866,970,000 in structures throughout the parish. The table below provides the total estimated value for each type of structure by occupancy.

Table 2-4: Estimated Total of Potential Losses throughout Rapides Parish.

Occupancy	Rapides Parish	Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville
Agricultural	\$115,792,000	\$86,124,000	\$20,130,000	\$1,012,000	\$0	\$834,000
Commercial	\$4,881,176,000	\$1,224,835,000	\$3,503,464,000	\$66,273,000	\$22,796,000	\$9,525,000
Government	\$207,621,000	\$93,524,000	\$108,995,000	\$168,000	\$0	\$168,000
Industrial	\$766,137,000	\$400,417,000	\$352,753,000	\$10,970,000	\$238,000	\$0
Religion	\$686,512,000	\$331,528,000	\$298,556,000	\$14,944,000	\$7,714,000	\$4,674,000
Residential	\$14,977,310,000	\$8,589,152,000	\$5,471,475,000	\$387,332,000	\$95,146,000	\$75,451,000
Education	\$232,422,000	\$109,698,000	\$93,030,000	\$7,726,000	\$1,134,000	\$0
Total	\$21,866,970,000	\$10,835,278,000	\$9,848,403,000	\$488,425,000	\$127,028,000	\$90,652,000

Table 2-4: Estimated Total of Potential Losses throughout Rapides Parish. (cont.)

Occupancy	Forest Hill	Glenmora	Lecompte	McNary	Pineville	Woodworth
Agricultural	\$2,128,000	\$618,000	\$2,074,000	\$2,872,000	\$6,846,000	\$818,000
Commercial	\$12,448,000	\$8,348,000	\$23,839,000	\$9,648,000	\$434,338,000	\$15,776,000
Government	\$2,212,000	\$1,576,000	\$978,000	\$0	\$31,053,000	\$1,224,000
Industrial	\$0	\$348,000	\$1,173,000	\$238,000	\$82,577,000	\$5,071,000
Religion	\$3,070,000	\$13,410,000	\$12,616,000	\$0	\$76,052,000	\$5,918,000
Residential	\$80,346,000	\$132,725,000	\$127,337,000	\$18,346,000	\$1,775,744,000	\$153,233,000
Education	\$6,892,000	\$9,048,000	\$3,454,000	\$1,440,000	\$43,771,000	\$0
Total	\$107,096,000	\$166,073,000	\$171,471,000	\$32,544,000	\$2,450,381,000	\$182,040,000

Essential Facilities of the Parish

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

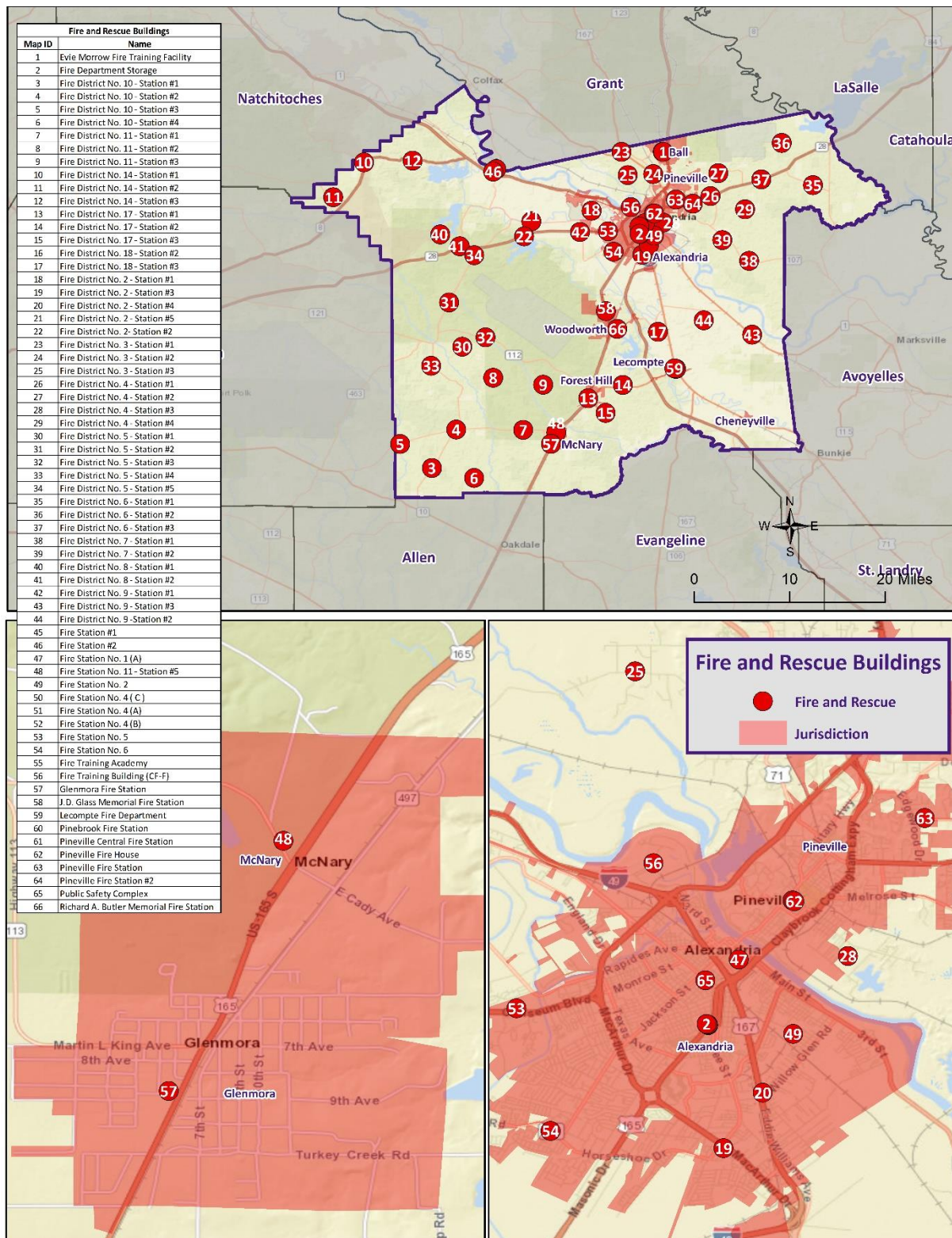


Figure 2-1: Fire and Rescue Facilities in Rapides Parish.

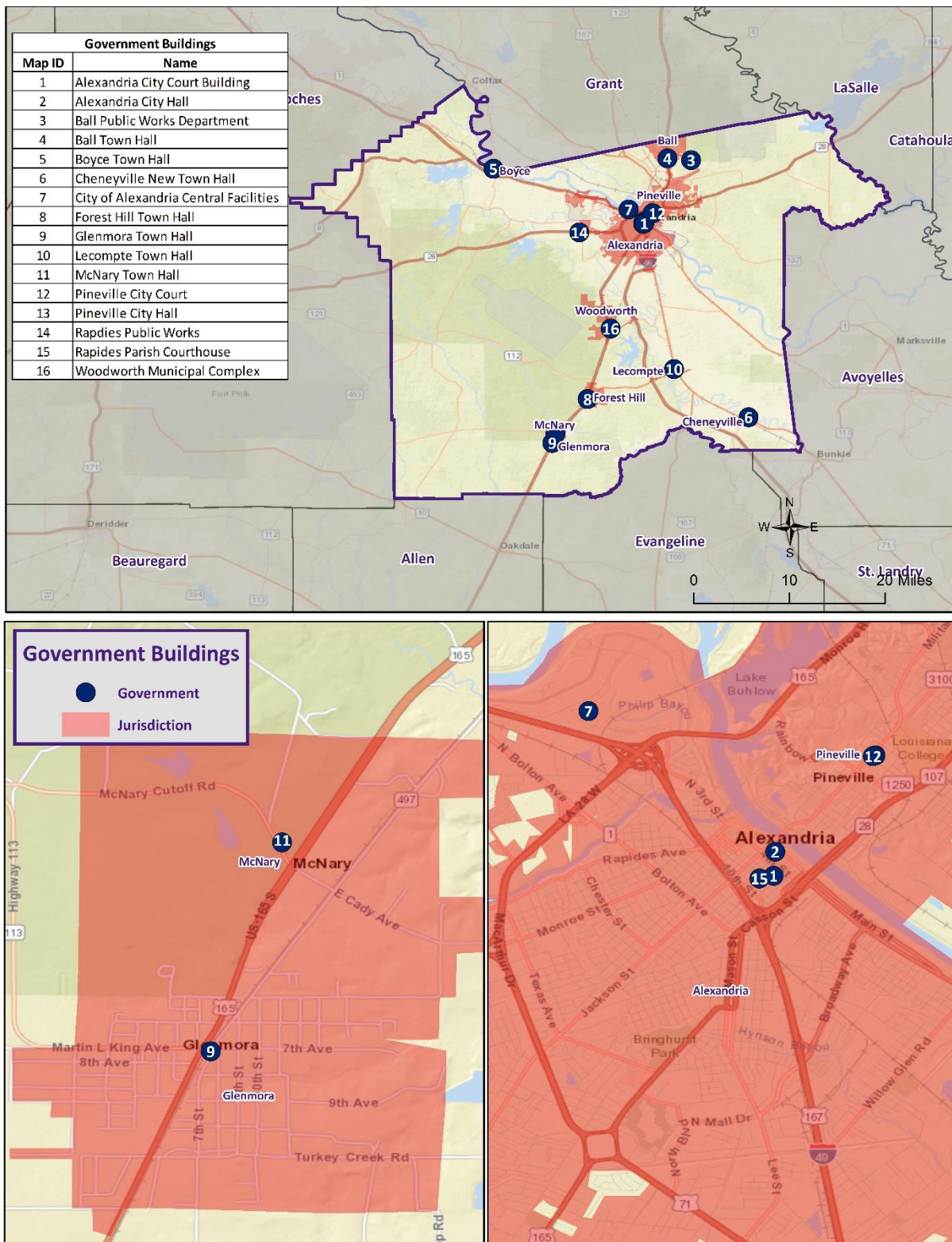


Figure 2-2: Government Buildings in Rapides Parish.

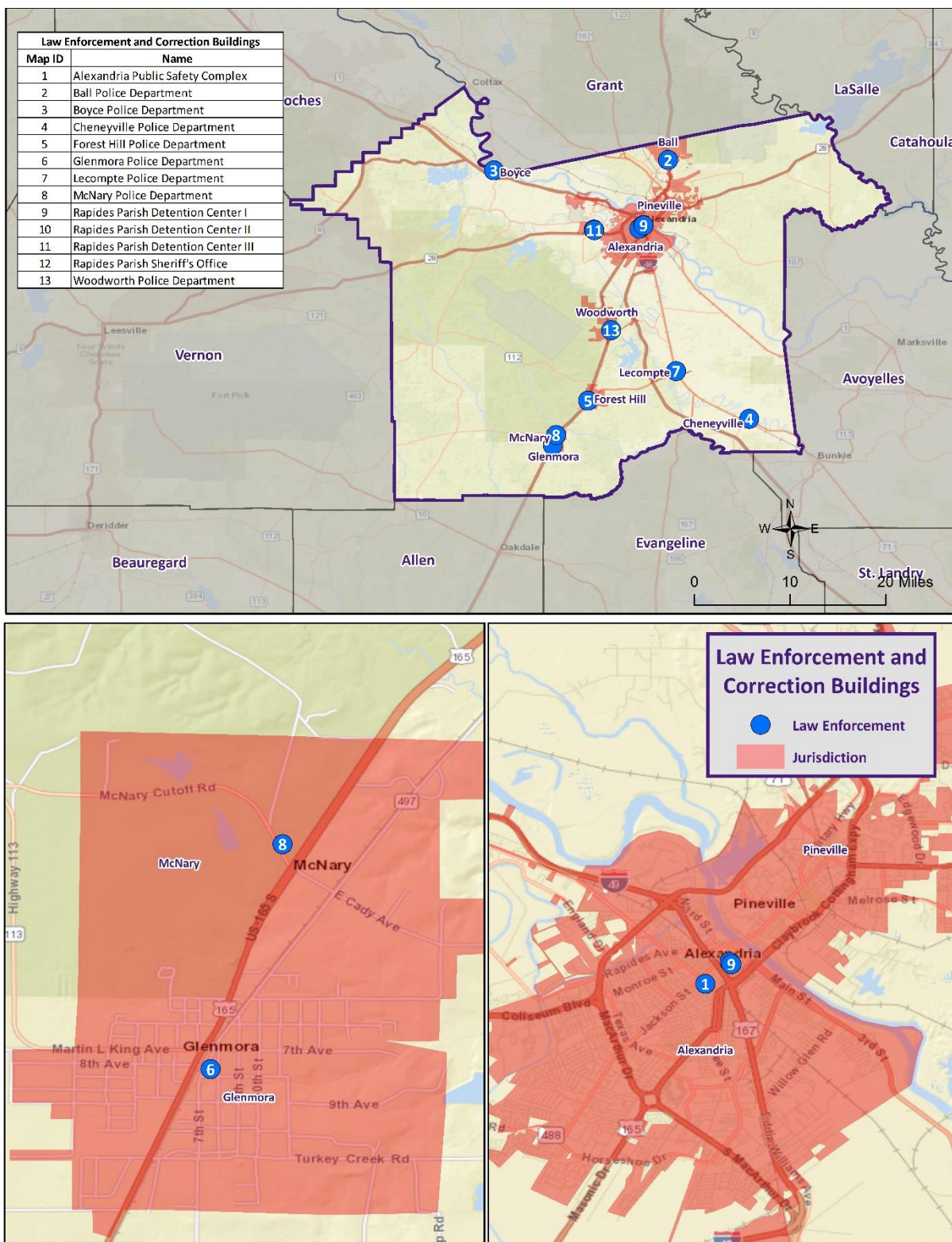


Figure 2-3: Law Enforcement in Rapides Parish.

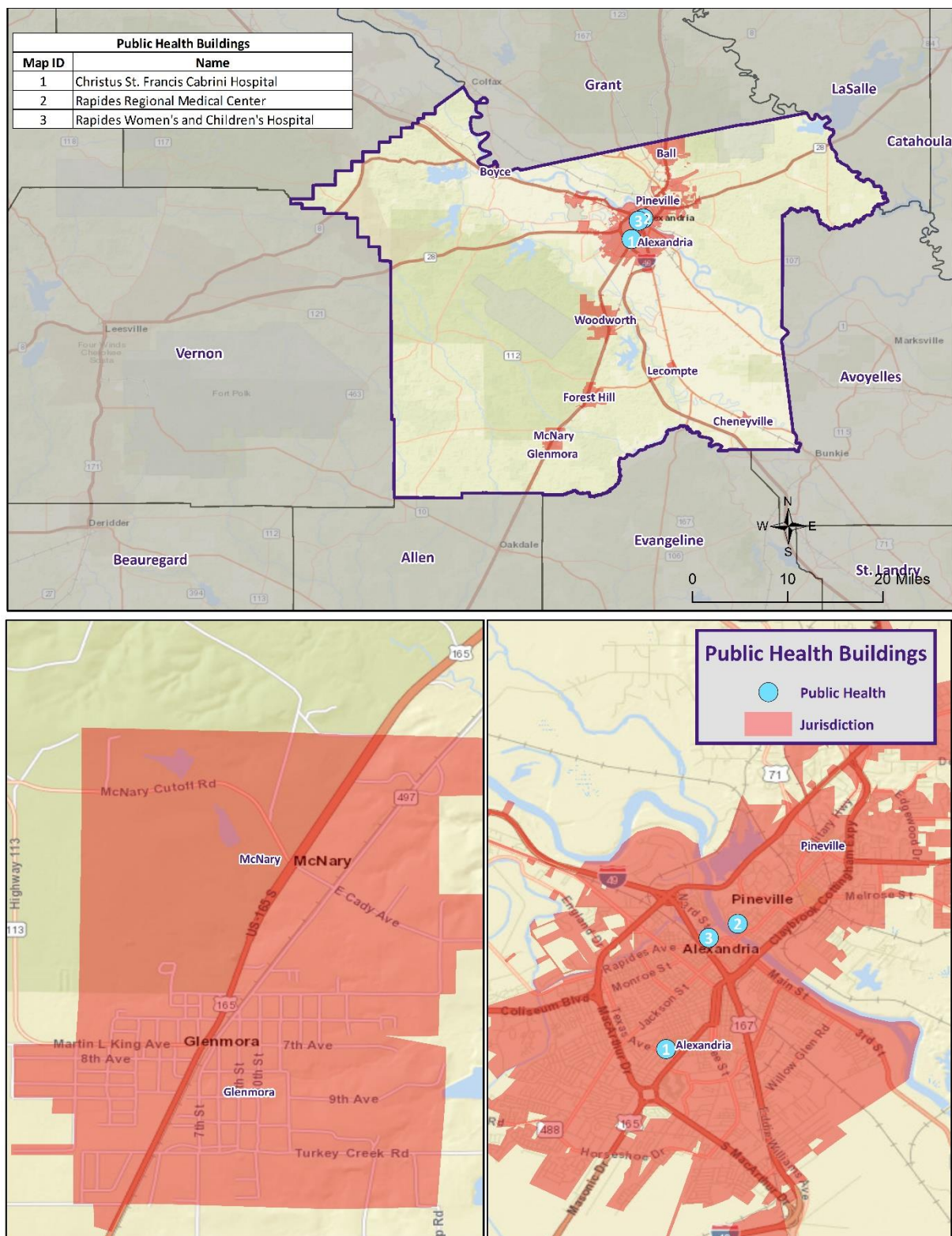
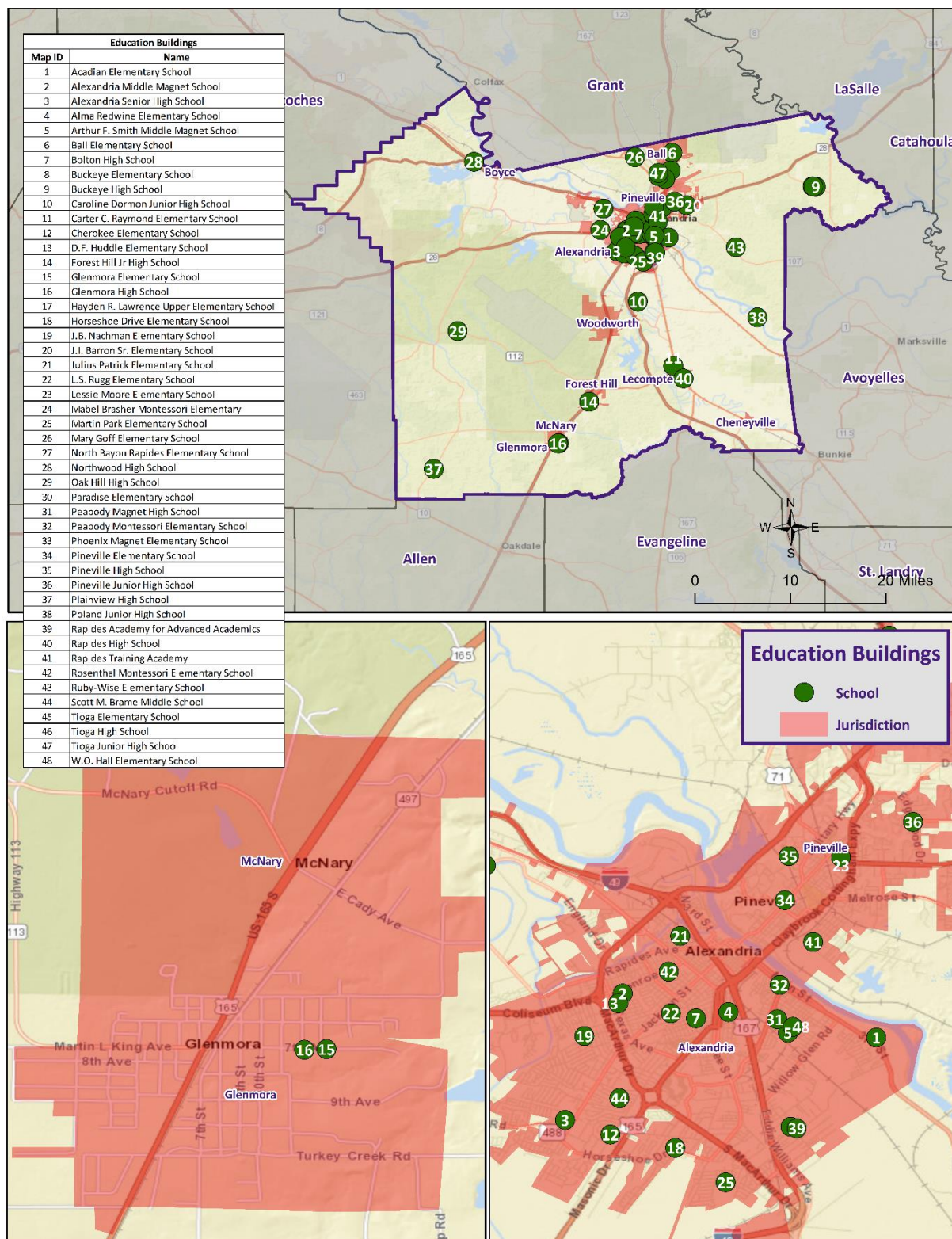


Figure 2-4: Public Health Facilities in Rapides Parish.



Future Development Trends

Rapides Parish experienced a growth in population and housing between the years of 2000 and 2019, increasing in population from 126,390 with 52,059 housing units in the year 2000 to a population of 129,648 with 58,721 housing units in the year 2019. Woodworth experienced the largest population growth within the parish growing from a populace of 1,096 in 2010 to 1,142 in 2019 (4.2% overall growth). This is followed by Forest Hill at 3.1% overall growth and the unincorporated area of the parish at 0.3% overall growth. The incorporated areas of Alexandria, Ball, Boyce, Cheneyville, Glenmora, Lecompte, McNary, and Pineville all experienced a decline in population during this same time period.

Woodworth experienced the largest growth of housing units from 2010 to 2019 growing from 499 in 2010 to 703 in 2019. The incorporated area of Forest Hill experienced the second largest growth in housing units during this time period with a 36.1% overall growth rate, followed by the incorporated area of Cheneyville with a 21.5% overall growth rate, the incorporated area of Alexandria with a 6.4% overall growth rate, the unincorporated area of the parish with a 6.1% overall growth rate, the incorporated area of Lecompte with a 5.7% overall growth rate, the incorporated area of McNary with an overall growth rate of 4.9%, and then the incorporated area of Boyce with an overall growth rate of 0.7%. The incorporated areas of Ball, Glenmora, and Pineville experienced a decline in housing units during this time. 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 2019:

Table 2-5: Population Growth Rate for Rapides Parish.

Total Population	Rapides Parish	Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville
1-Apr-00	126,390	54,823	46,621	3,791	1,195	898
1-Apr-10	131,613	59,012	47,723	4,000	1,004	625
1-Jul-19	129,648	59,180	46,180	3,935	980	584
Population Growth between 2000 – 2010	4.1%	7.6%	2.4%	5.5%	-16.0%	-30.4%
Average Annual Growth Rate between 2000 – 2010	0.4%	0.8%	0.2%	0.6%	-1.6%	-3.0%
Population Growth between 2010 – 2019	-1.5%	0.3%	-3.2%	-1.6%	-2.4%	-6.6%
Average Annual Growth Rate between 2010 – 2019	-0.17%	0.03%	-0.36%	-0.18%	-0.27%	-0.73%

Table 2-5: Population Growth Rate for Rapides Parish. (cont.)

Total Population	Forest Hill	Glenmora	Lecompte	McNary	Pineville	Woodworth
1-Apr-00	509	1,545	1,505	208	14,160	1,135
1-Apr-10	818	1,342	1,227	211	14,555	1,096
1-Jul-19	843	1,312	1,160	210	14,122	1,142
Population Growth between 2000 – 2010	60.7%	-13.1%	-18.5%	1.4%	2.8%	-3.4%
Average Annual Growth Rate between 2000 – 2010	6.1%	-1.3%	-1.8%	0.1%	0.3%	-0.3%
Population Growth between 2010 – 2019	3.1%	-2.2%	-5.5%	-0.5%	-3.0%	4.2%
Average Annual Growth Rate between 2010 – 2019	0.34%	-0.25%	-0.61%	-0.05%	-0.33%	0.47%

Table 2-6: Housing Growth Rate for Rapides Parish.

Total Housing Units	Rapides Parish	Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville
1-Apr-00	52,059	22,513	19,806	1,524	485	314
1-Apr-10	55,684	24,727	20,366	1,620	454	302
1-Jul-19	58,721	26,246	21,666	1,577	457	367
Housing Growth between 2000 – 2010	7.0%	9.8%	2.8%	6.3%	-6.4%	-3.8%
Average Annual Growth Rate between 2000 – 2010	0.7%	1.0%	0.3%	0.6%	-0.6%	-0.4%
Housing Growth between 2010 – 2019	5.5%	6.1%	6.4%	-2.7%	0.7%	21.5%
Average Annual Growth Rate between 2010 – 2019	0.6%	0.7%	0.7%	-0.3%	0.1%	2.4%

Table 2-6: Housing Growth Rate for Rapides Parish. (cont.)

Total Housing Units	Forest Hill	Glenmora	Lecompte	McNary	Pineville	Woodworth
1-Apr-00	182	700	586	93	5,448	408
1-Apr-10	280	668	560	103	6,105	499
1-Jul-19	381	652	592	108	5,972	703
Housing Growth between 2000 – 2010	53.8%	-4.6%	-4.4%	10.8%	12.1%	22.3%
Average Annual Growth Rate between 2000 – 2010	5.4%	-0.5%	-0.4%	1.1%	1.2%	2.2%
Housing Growth between 2010 – 2019	36.1%	-2.4%	5.7%	4.9%	-2.2%	40.9%
Average Annual Growth Rate between 2010 – 2019	4.0%	-0.3%	0.6%	0.5%	-0.2%	4.5%

Future Hazard Impacts

Hazard impacts were estimated for five years and ten years in the future (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 Rapides 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 2-7: Estimated Future Impacts, 2018-2030.

(Source: Hazus, US Census Bureau)

Hazard / Impact	Total in Parish (2019)	Hazard Area (2019)	Hazard Area (2025)	Hazard Area (2030)
Flood Damage				
Structures	59,077	16,787	17,302	17,940
Value of Structures	\$22,223,878,337	\$6,314,943,068	\$6,847,399,210	\$7,545,935,679
# of People	129,433	36,779	36,474	36,113
Tropical Cyclone Damage				
Structures	59,077	59,077	60,889	63,136
Value of Structures	\$22,223,878,337	\$22,223,878,337	\$24,097,725,873	\$26,556,051,994
# of People	129,433	129,433	128,363	127,091

While population numbers have fallen slightly throughout the parish, housing numbers have largely increased since the last update to the Rapides Parish Hazard Mitigation Plan. With that in mind, Rapides Parish has vigilant in offsetting the rapid development seen 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 Rapides Parish. Strict enforcement of building codes for all new development is an additional step taken by the parish in its effort to decrease its vulnerability and increase the resiliency of the parish against natural hazards. The development that has occurred since 2016 has not in any knowing way altered the jurisdiction's vulnerability to natural hazards.

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 in Rapides 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 in the parish that suffer disproportional damages from flooding compared with other areas, or overall exposure of an entire town to flooding. Identifying and understanding vulnerability to each threat and hazard provides a strong foundation for developing and pursuing mitigation actions.

The Vulnerability Assessment section for each hazard builds upon the information provided in the Risk Assessment by assessing the potential impact and amount of damage that each hazard has on the parish and each jurisdiction. To complete the assessment, 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 Assessment should be used to understand 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 from approximations and simplifications that are necessary to provide a meaningful and complete analysis. Furthermore, most datasets used in this assessment contain relatively short periods of records, which increases the uncertainty of any statistically based analysis.

Quantitative Methodology

The quantitative methodology consists of utilizing a detailed GIS-based approach informed through the development of comprehensive hazard and infrastructure databases. This data-centric approach forms the foundation for our quantitative vulnerability assessment. GIS technology allowed 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.

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 Rapides 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. The PRI is a good practice to use when prioritizing hazards because it provides a standardized numerical value for hazards to be compared. 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 six categories is totaled together to determine the final Risk Factor. The highest possible Risk Factor is 4.0.

$$\text{Risk Factor} = [(\text{Probability} * 0.25) + (\text{Impact} * 0.25) + (\text{Spatial Extent} * 0.20) + (\text{Warning Time} * 0.15) + (\text{Duration} * 0.15)]$$

Priority Risk Index and Hazard Risk

Hazard risk is determined by calculating the Risk Factor for each hazard impacting Rapides Parish. A summary of the PRI is found in the table on the next 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 risk factors of 2.5 or greater. Risk Factors ranging from 2.0 to 2.4 are deemed moderate risk hazards. Hazards with Risk Factors less than 2.0 are considered low risk.

Table 2-8: 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 2-9: 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

Table 2-10: Risk Assessment for Rapides Parish.

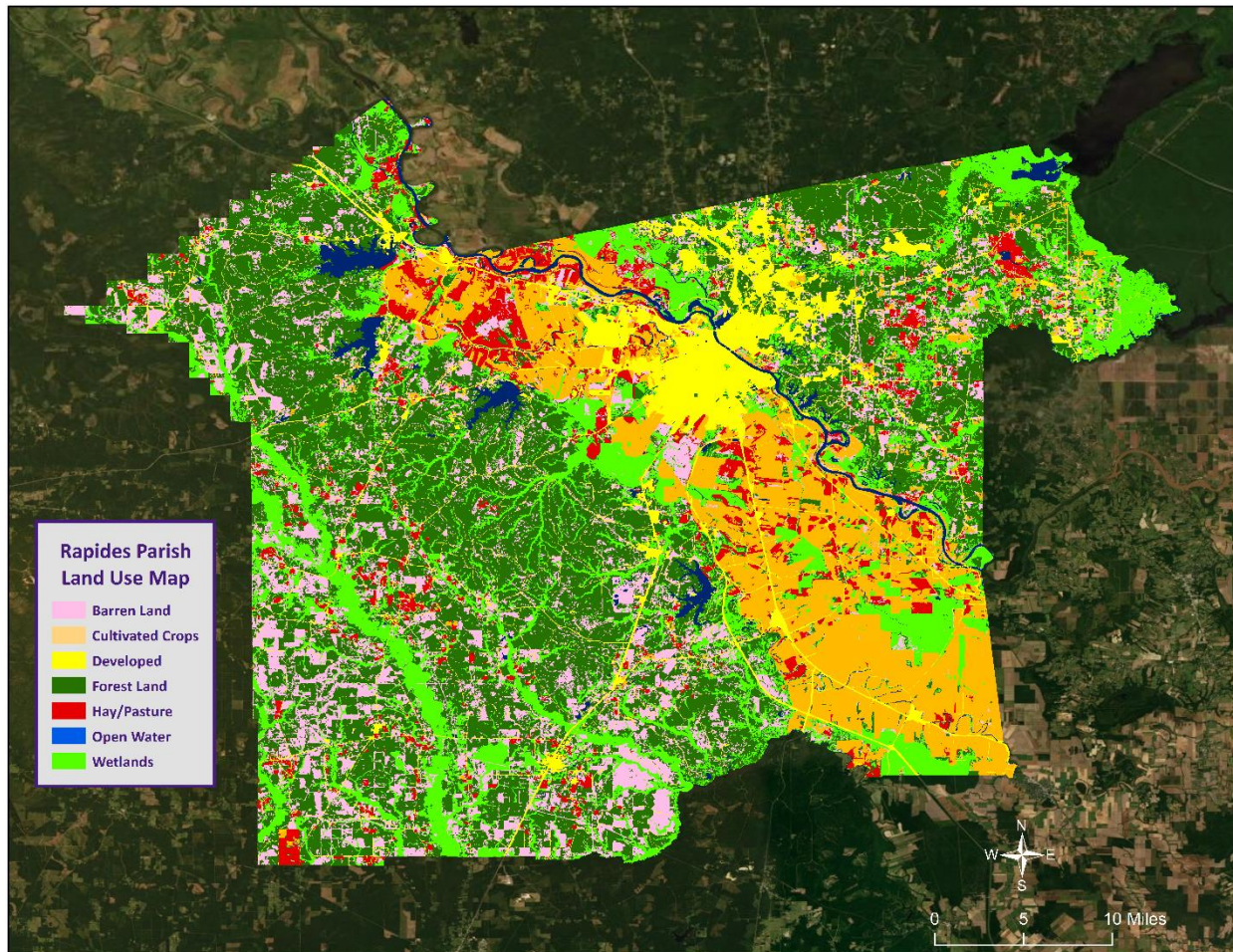
Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Drought	3	2	4	2	3	2.8
Extreme Heat	1	1	4	1	4	2.05
Flooding	3	4	3	4	3	3.4
Thunderstorms - Hail	4	2	3	3	1	2.7
Thunderstorms - Lightning	3	2	2	3	1	2.25
Thunderstorms - Wind	4	2	3	3	1	2.7
Tornadoes	4	3	2	4	3	3.2
Tropical Cyclones	3	4	4	1	4	3.3
Wildfires	1	2	2	3	2	1.9
Winter Storms	3	3	4	1	3	2.9

Land Use

The Rapides Parish Land Use table is provided below. Residential, commercial, and industrial areas account for only 10% of the parish's land use. Forested land at 323,402 acres is the largest category accounting for 44% of land in the parish. The parish also consists of agricultural land (22%), wetlands (21%), and water areas (3%).

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

Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	160,403	22%
Wetlands	157,542	21%
Forest Land (Not including forested wetlands)	323,402	44%
Urban/Development	76,634	10%
Water	22,398	3%



*Figure 2-6: Rapides Parish Land Use Map.
(Source: USGS Land Use Map)*

Hazard Identification

Drought

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 relief) of agricultural drought is quick, as crops need water every few days; once they get rainfall, they improve. Conversely, 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.

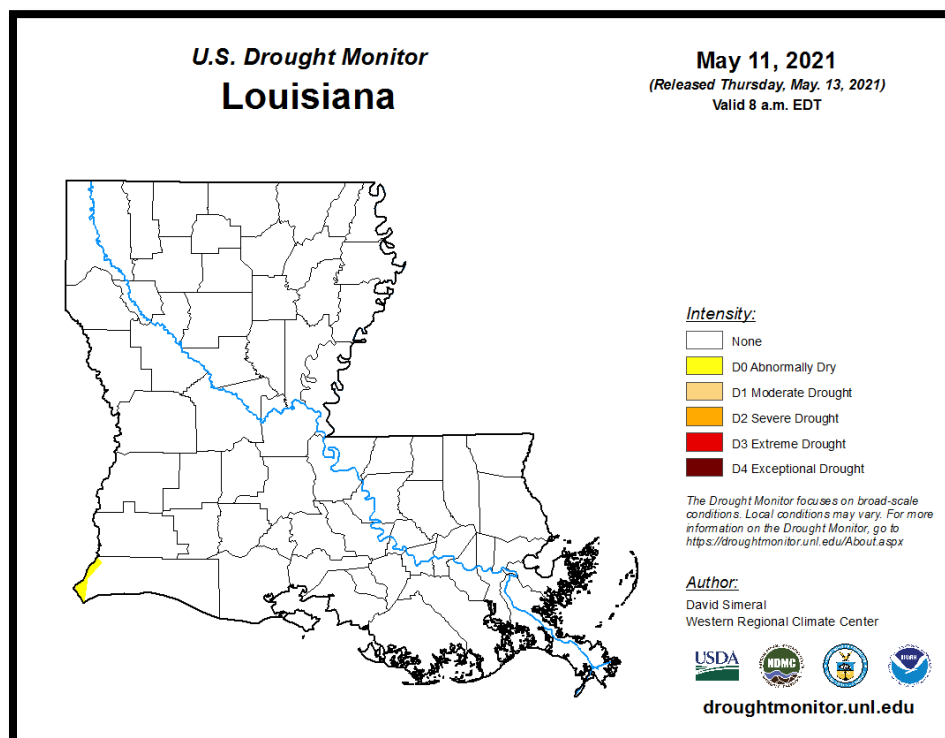
Drought can occur anywhere, triggered by changes in the local-to-regional-scale atmospheric circulation over an area, or by broader-scale circulation variations such as the expansion of semi-permanent oceanic high-pressure systems or the stalling of an upper-level atmospheric ridge in place over a region. 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 event, 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), drought 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, the 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. [Table 2-12](#) displays the range and Palmer classifications of the PDSI index while [Figure 2-7](#) displays the current drought monitor for the state of Louisiana and its parishes.

Table 2-12: Palmer Drought Severity Index Classification and Range

Range	Palmer Classifications
4.0 or more	Extremely Wet
3.0 to 3.9	Very Wet
2.0 to 2.9	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

The PDSI best measures the duration and intensity of drought-inducing circulation patterns at a somewhat long-term time scale, although not as long-term as the PHDI. Long-term drought is cumulative, so the intensity of drought during the current month is dependent on the current weather patterns in addition to the effects of cumulative patterns of previous months. Although weather patterns can change almost overnight from a long-term drought pattern to a long-term wet pattern, as a medium-response indicator, the PDSI responds relatively rapidly. Data compiled by the National Drought Mitigation Center indicates normal conditions currently exists within Rapides Parish.



*Figure 2-7: United States Drought Monitor for the State of Louisiana and its Parishes.
(Source: The National Drought Mitigation Center)*

Location

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 event in Rapides Parish is on the agricultural community. The worst-case drought scenario for Rapides Parish would be a severe drought (D2).

Previous Occurrences / Extent

Historically, there have been four drought incidents in Rapides Parish. Drought events have ranged from Mild to Moderate per the National Climatic Data Center. Since the last update in 2016, there has been no drought event within the boundaries of Rapides Parish.

Frequency / Probability

Based on four drought events since 1990, the annual chance of occurrence of a drought event occurring within a given year is calculated at 13% for Rapides Parish.

Estimated Potential Losses

According to the NCEI Storm Events Database, there have been four drought events which have impacted Rapides Parish which resulted in \$24,300,000 in damage to crops in the parish. When examining the drought hazard, the main impact will primarily be on the crops. The following table presents an analysis of agricultural exposure which are susceptible to droughts by type for Rapides Parish.

*Table 2-13: Agricultural Exposure by Crop Type for Droughts in Rapides Parish.
(Source: LSU AG Center 2018 Parish Totals)*

Agricultural Exposure by Type for Drought					
Corn	Cotton	Forestry	Rice	Soybeans	Wheat
\$6,114,128	\$7,819,144	\$38,111,213	\$11,914,541	\$25,490,845	\$2,478,111

There have been no reported injuries or deaths as a direct result of drought in Rapides Parish.

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality buildings that are susceptible to drought.

Excessive Heat

There is no operational definition for defining excessive heat or a heat wave. Heat waves are the consequence of the same weather pattern as drought, and therefore both hazards often occur concurrently. A heat wave is an extended period of oppressive and above normal temperatures over a given period of time. The World Meteorological Organization recommends the declaration of a heat wave when the daily maximum temperature exceeds the average maximum temperatures by 9 F° and lasts for a period of at least five days.

However, temperature alone is insufficient to describe the stress placed on humans (as well as flora and fauna) in hot weather. It is crucial to consider the effect of relative humidity since it is essential to the body's ability to perspire and cool. Once air temperature reaches 95° F, perspiration becomes a very significant biophysical mechanism to ensure heat loss. Perspiration is ineffective as a cooling mechanism if the water cannot evaporate (i.e., sweating in high relative humidity is reduced as compared to during dry conditions). To communicate this relationship between temperature and humidity, the National Weather Service (NWS) developed the Heat Index (HI), which provides a warning system based on a combination of air temperature and relative humidity. The HI is presented in [Figure 2-8](#) and [Table 2-14](#) summarizes the HI risk levels and protective measures. The NWS devised the index for shady, light wind conditions, and thus advises that the HI value can be increased by as much as 15 F° if a person is in direct sunlight, and that strong winds of hot, dry air can be extremely hazardous.

Most heat disorders (e.g., sunburn, heat cramps, heat exhaustion, and heat stroke) occur because the victim has been overexposed to heat or has over-exercised considering age and physical condition. Other circumstances that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Seniors and children are most at risk from adverse heat effects. Excessive heat can also damage roads, bridges, pipelines, utilities, and railroads. High temperatures can be partially responsible for deflection of rails and related railroad accidents.

According to NOAA, excessive heat is the leading weather-related cause of deaths in the United States. And while heat-related deaths in Louisiana are not common, due in part to the consistency and predictability of high seasonal temperatures, they do occur, and are still very intense and dangerous. Such deaths happen in a variety of circumstances, often in ways that are not easily categorized because they are unexpected. For instance, although exposure to heat is higher at the beach than usual, NOAA does not track heat-related deaths there because such deaths happen infrequently.

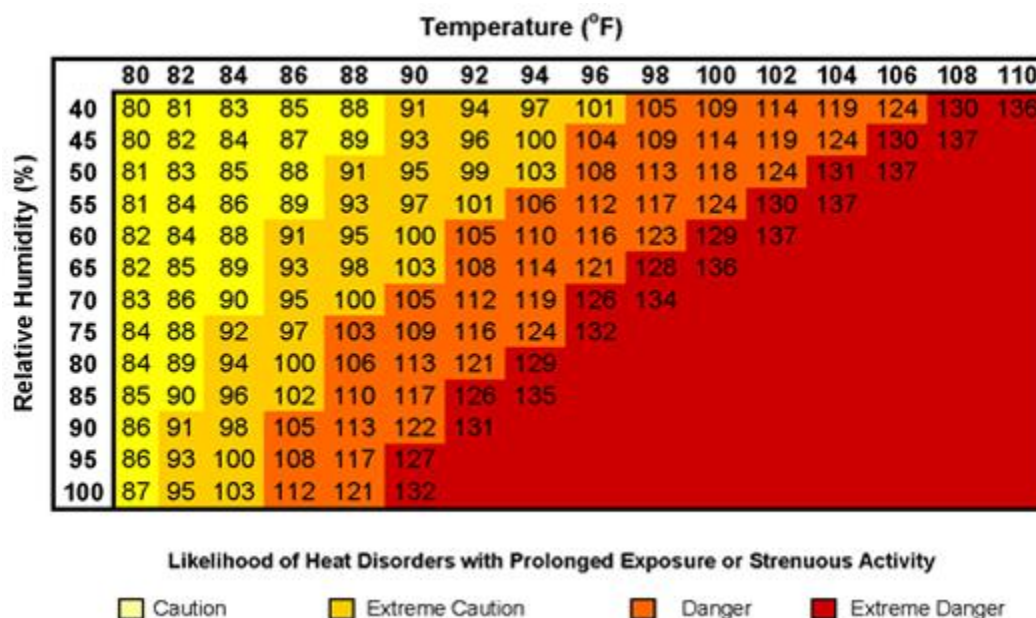


Figure 2-8: Heat Index Advisor based on Air Temperature (°F) and Relative Humidity.
(Source: National Weather Service)

Table 2-14: Summary of Heat Index Risk Levels with Protective Measures
(Source: National Weather Service)

Heat Index	Risk Level	Protective Measures
Less than 91°F	Lower (Caution)	Basic heat safety and planning.
91°F to 103°F	Moderate	Implement precautions and heighten awareness.
103°F to 115°F	High	Additional precautions to protect workers.
Greater than 115°F	Very High to Extreme	Triggers even more aggressive protective measures.

Location

Excessive heat typically impacts a region and not one specific parish or jurisdiction. Because excessive heat is a climatological based hazard, it has the same probability of occurring in Rapides Parish as all of the adjacent parishes. The entire planning area of Rapides Parish is equally at risk for excessive heat. Based on historical data, the worst-case scenario for Rapides Parish involving excessive heat would be a high-risk level on the HI scale with temperatures ranging from 103°F to 115°F.

Previous Occurrences / Extent

Per the NCEI Storm Events Database, there have been no recorded incidents of an excessive heat event in Rapides Parish since 1990.

Frequency / Probability

Based on historical data, the annual chance of occurrence of an excessive heat event within a given year is calculated at less than 1% for Rapides Parish.

Estimated Potential Loses

According to the NCEI Storm Events Database, there have been no excessive heat events which have impacted Rapides Parish and resulted in injuries, deaths, or crop damages.

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality buildings that are susceptible to excessive heat.

Flooding

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.

Excess precipitation, produced from thunderstorms or hurricanes, is often the major initiating condition for flooding, and Louisiana can have high rainfall totals at any time of day or year. During the cooler months, slow-moving frontal weather systems produce heavy rainfalls, while the summer and autumn seasons produce major precipitation in isolated thunderstorm events (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.

In cooler months, particularly in the spring, Louisiana is in peak season for severe thunderstorms. The fronts that cause these thunderstorms often stall while passing over the state, occasionally producing rainfall totals exceeding ten inches within a period of a few days. Since soil tends to be nearly saturated at this time (due to relatively low overall evaporation rates), spring typically becomes the period of maximum stream flow across the state. Together, these characteristics increase the potential for high water, with low-lying, poorly drained areas being particularly susceptible to flooding during these months.

In Louisiana, 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. Thus, 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. A model example is the flooding that occurred in LaPlace

during Hurricane Isaac in 2012. Although the town was protected by a levee on the side facing the Mississippi River, floodwaters from Lake Maurepas and Lake Pontchartrain crept into the community on the side of town opposite the Mississippi River.

- **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 (when 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.

Historically, across the entire Rapides Parish planning area, all types of flooding events have historically been observed except for coastal flooding. For purposes of this assessment, ponding, flash flood, and urban flooding are considered to be flooding as a result of storm water from heavy precipitation thunderstorms

Based on stream gauge levels and precipitation forecasts, the National Weather Service (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 event, for example, is an event of small magnitude (in terms of stream flow or precipitation) but with a relatively high annual probability of recurrence (10%). A 100-year flood event 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 event and a 10-year event, 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 event does not mean an event of that magnitude occurs only once in X years. Instead, it means that on average, we can expect a flood event 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 event as having a 25% chance of occurring over the life of a 30-year mortgage.

It is essential to understand that the magnitude of an X-year flood event for a particular area depends on the source of flooding and the area's location. The size of a specific flood event is defined through historic data of precipitation, flow, and discharge rates. Consequently, different 100-year flood events can have very different impacts. The 100-year flood event in two separate locations have the same likelihood to occur, but they do not necessarily have the same magnitude. For example, a 100-year event for the Mississippi River means something completely different in terms of discharge values (ft^3/s) than for the Vermilion River. Not only are the magnitudes of 100-year events different between rivers, but they can also be different along any stretch of a given river. A 100-year event upstream is different from one downstream due to the change of river characteristics (volume, discharge, and topography). As a result, the definition of what constitutes a 100-year flood event is specific to each location, waterway, and time since floodplain and river characteristics change over time. Finally, it is important to note that each flood event is unique. Two hypothetical events at the same location, given the same magnitude of stream flow, may still produce substantially different impacts if there were different antecedent moisture characteristics, different times of day of occurrence (which indicates the population's probable activities at the flood's onset), or other characteristic differences.

The 100-year flood event 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 [Figure 2-9](#).

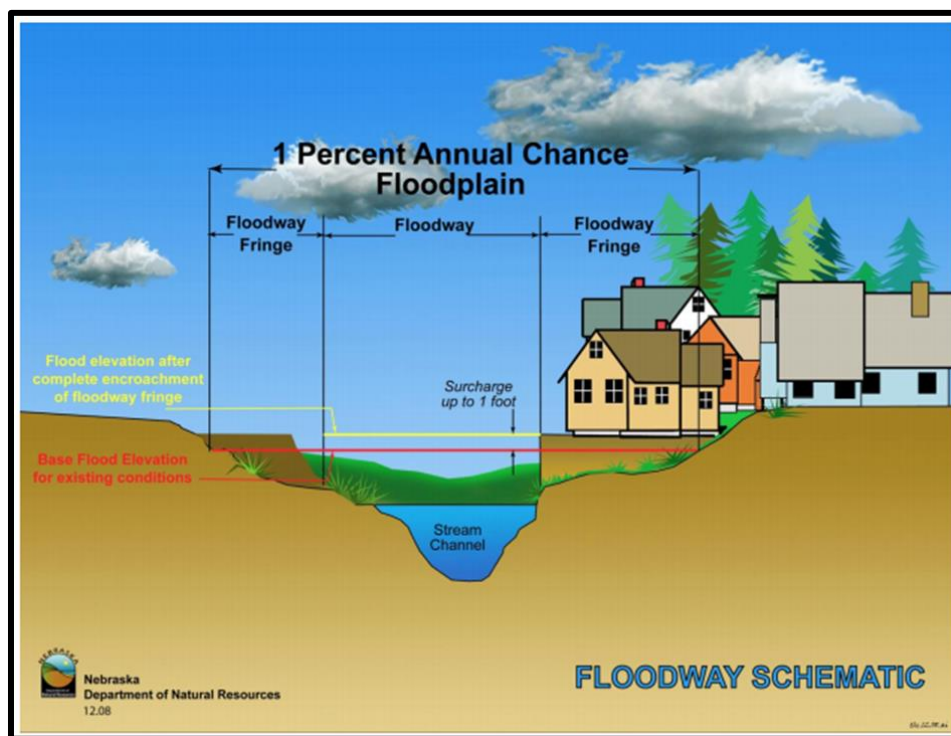


Figure 2-9: Schematic of 100-year Floodplain. The Special Flood Hazard Area (SFHA) extends to the end of the floodway fringe.

(Source: Nebraska Department of Natural Resources)

A SFHA is the land area covered by the floodwaters of the base flood (red line in [Figure 2-9](#)), where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

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 handled 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 claims 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 Rapides Parish are provided in the table below:

Table 2-15: Repetitive Loss Structures for Rapides Parish.

Jurisdiction	Number of Structures	Residential	Commercial	Government	Total Claims	Total Claims Paid	Average Claim Paid
Rapides Parish (Unincorporated)	334	0	12	0	1,285	\$20,933,010	\$16,290
Alexandria	205	187	18	0	647	\$16,879,863	\$26,089
Ball	1	1	0	0	3	\$16,632	\$5,544
Boyce	0	0	0	0	0	\$0	\$0
Cheneyville	1	1	0	0	8	\$76,897	\$9,612
Forest Hill	0	0	0	0	0	\$0	\$0
Glenmora	1	1	0	0	4	\$17,049	\$4,262
Lecompte	5	4	1	0	27	\$832,408	\$30,830
McNary	0	0	0	0	0	\$0	\$0
Pineville	29	25	4	0	103	\$2,881,843	\$27,979
Woodworth	12	12	0	0	27	\$1,535,479	\$56,870
Total	588	553	35	0	2,104	\$43,173,181	\$20,520

All 588 repetitive loss structures were geocoded in order to provide an overview of where the repetitive loss structures are located throughout the parish. [Figure 2-10](#) shows the approximate location of the structures, while [Figure 2-11](#) shows where the highest concentration of repetitive loss structures is located. Through the repetitive loss map, it is clear the primary concentrated area of repetitive loss structures is focused in and around the incorporated areas of Alexandria and Pineville as well as the unincorporated areas in the northeastern portion of the Rapides Parish.

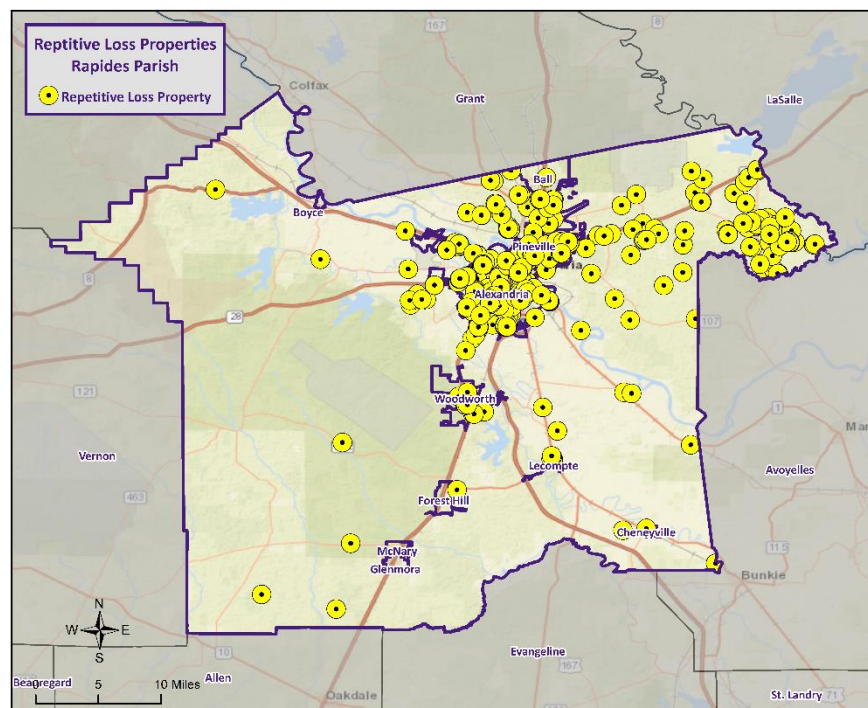


Figure 2-10: Repetitive Loss Properties in Rapides Parish.

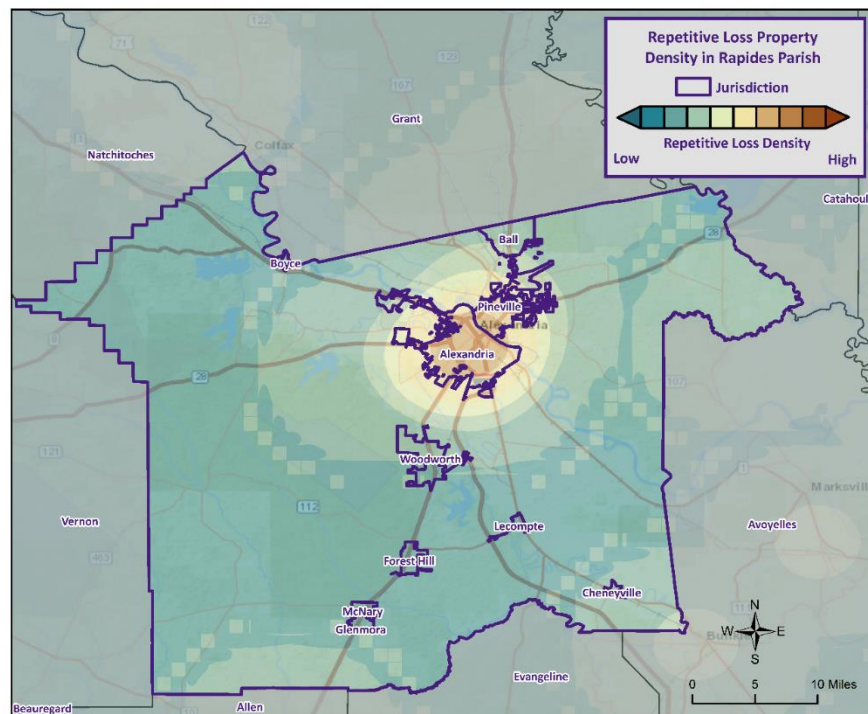


Figure 2-11: Repetitive Loss Property Densities in Rapides Parish.

National Flood Insurance Program

Flood insurance statistics indicate that Rapides Parish has 3,373 flood insurance policies with the NFIP, with total annual premiums of \$2,904,659. Rapides Parish and the jurisdictions of Alexandria, Ball, Boyce, Cheneyville, Forest Hill, Glenmora, Lecompte, McNary, Pineville, and Woodworth are all participants in the NFIP. Rapides Parish and all of its jurisdictions will continue to adopt and enforce floodplain management requirements, including regulating new construction Special Flood Hazard Areas, and will continue to monitor activities including local requests for new map updates. Flood insurance statistics and additional NFIP participation details for Rapides Parish and its jurisdictions is provided in the tables to follow.

Table 2-16: Summary of NFIP Policies for Rapides Parish.

Location	Insured Structures	Total Insurance Coverage Value	Annual Premiums Paid	Insurance Claims Filed Since 1978	Total Loss Payments
Rapides Parish (Unincorporated)	1,480	\$337,128,700	\$1,153,035	1,444	\$22,816,734
Alexandria	1,618	\$391,114,600	\$1,487,449	1,395	\$27,048,021
Ball	30	\$4,320,700	\$24,297	7	\$134,424
Boyce	5	\$1,185,300	\$1,983	4	\$137,975
Cheneyville	6	\$336,800	\$1,977	8	\$73,772
Forest Hill	0	\$0	\$0	0	\$0
Glenmora	4	\$493,200	\$1,688	6	\$48,678
Lecompte	39	\$4,677,500	\$41,511	49	\$1,385,749
McNary	0	\$0	\$0	0	\$0
Pineville	149	\$29,948,500	\$153,719	212	\$4,330,097
Woodworth	42	\$6,895,500	\$39,000	55	\$2,780,136
Total	3,373	\$776,100,800	\$2,904,659	3,180	\$58,755,586

Table 2-17: Summary of Community Flood Maps for Rapides Parish.

CID	Community Name	Initial FHBH Identified	Initial FIRM Identified	Current Effective Map Date	Date Joined the NFIP	Tribal
220145#	Rapides Parish	1/10/1975	9/5/1984	6/2/1999	9/5/1984	No
220146#	Alexandria	8/2/1974	7/17/1978	9/3/1997	7/17/1978	No
220373#	Ball	4/8/1977	7/18/1985	11/22/1999	7/18/1985	No
220147#	Boyce	4/5/1974	7/9/1981	(NSFHA)	7/9/1981	No
220148#	Cheneyville	5/17/1974	3/2/1981	3/2/1981	3/2/1981	No
220287	Forest Hill	11/12/1976		(NSFHA)	7/24/1981	No
220149#	Glenmora	4/12/1974	2/3/1982	2/3/1982	2/3/1982	No
220150#	Lecompte	1/16/1976	3/2/1981	6/2/1999	3/2/1981	No
220299#	McNary	4/23/1976	7/13/1982	7/13/82 (M)	7/24/1981	No
220151#	Pineville	12/31/1973	9/5/1984	9/5/1984	9/5/1984	No
220260#	Woodworth	3/26/1976	1/7/1998	1/7/1998	10/25/1979	No

According to the Community Rating System (CRS) list of eligible communities dated October 1, 2020, Rapides Parish and the jurisdictions of Alexandria, Ball, Boyce, Cheneyville, Forest Hill, Glenmora, Lecompte, McNary, Pineville, and Woodworth do not participate in the CRS program.

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 waters can also infiltrate sewer lines and inundate wastewater treatment plants, causing sewage to backup and creating a breeding ground for dangerous bacteria. This infiltration may also cause water supplies to become contaminated and undrinkable.

Flooding in Rapides Parish

By definition, flooding is caused when an area receives more water than the drainage system can convey. The following is a synopsis of the types of flooding that Rapides Parish experiences.

Flash Floods: Flash floods are characterized by a rapid rise in water level, high velocity, and large amounts of debris. They are capable of uprooting trees, undermining buildings, and bridges, and scouring new channels. Major factors in flash flooding are the high intensity and short duration of rainfall, as well as the steepness of watershed and stream gradients.

Local Drainage or High Groundwater Levels: Locally heavy precipitation may produce flooding in areas other than delineated floodplains or along recognizable drainage channels. If local conditions cannot accommodate intense precipitation through a combination of infiltration and surface runoff, water may accumulate and cause flooding problems.

Backwater Flooding: Backwater flooding is normally associated with riverine flooding and connotes minimal velocity. All low-lying areas are at risk. A heavy rainfall event coupled with a swollen river, canal, bayou, or marsh hinders drainage outflow, causing backwater flooding to the same areas susceptible to storm surge.

Riverine Flooding: Riverine flooding, by definition, is river-based. Most of the riverine flooding problems occur when rivers crest at flood stage levels, causing extensive flooding in low-lying areas.

The digital elevation model (DEM) in the figure below for Rapides Parish is instructive in visualizing where the low-lying and high-risk areas are for the parish. Elevations in the parish range from 40 feet (NAVD88) to 310 feet (NAVD88). The highest elevations in the parish are approximately 310 feet (NAVD88), located in the western unincorporated areas of the parish. The incorporated areas of the parish range in elevation from 66 feet (NAVD88) to 167 feet (NAVD88), with the city of Alexandria 75 feet (NAVD88), the town of Ball averaging 161 feet (NAVD88), the town of Boyce averaging 85 feet (NAVD88), the town of Cheneyville averaging 66 feet (NAVD88), the village of Forest Hill averaging 40 feet (NAVD88), the town of Glenmora averaging 135 feet (NAVD88), the town of Lecompte averaging 69 feet (NAVD88), the village of McNary averaging 125 feet (NAVD88), the city of Pineville averaging 118 feet (NAVD88), and the village of Woodworth averaging 89 feet (NAVD88). The lowest elevations of the parish are located in the southern and eastern portions of the unincorporated areas of Rapides Parish.

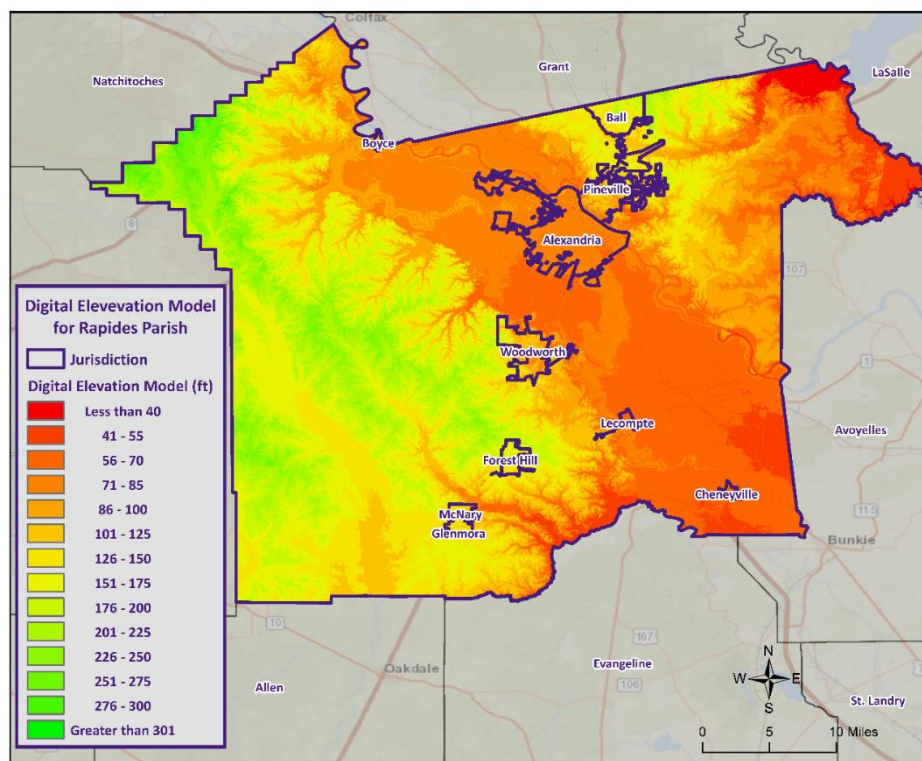


Figure 2-12: Elevation throughout Rapides Parish.

Location

Rapides Parish has experienced significant flooding in its history and can expect more in the future. Rapides Parish is located in four different drainage basins. Two relatively small portions of Rapides Parish are located in the Red River Basin. One of these areas is the extreme northwest portion of the parish, which is primarily the hill of the Kisatchie National Forest. The second area is east of the Red River. It is a

relatively flat alluvial plain between overflow from Bayou Rigolette. Flooding results from the inability of interior rainfall runoff to move through the existing floodgates into the Red River. Vegetation in the bayous aggravates the problem. Water accumulates in the wooded areas along the bayou and then moves onto agricultural lands.

The northeast portion of Rapides Parish, including the City of Pineville, is located within the Ouachita Basin. The topography of the area consists of low-lying areas around and south of Catahoula Lake. The primary flooding problem in the eastern and northern parts of the area is backwater flooding from Catahoula Lake. The fourth basin is the Atchafalaya-Teche-Rapides Basin which includes approximately half of Rapides Parish. Flooding in this basin is caused by Bayou Rapides and is a result of poor internal drainage.

Based on previous flood events, 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 four feet can be expected in the unincorporated areas of the parish. The incorporated areas of Alexandria and Pineville can expect flood depths from three to five feet, while the incorporated area of Ball, Lecompte, McNary, and Woodworth can expect flooding levels of approximately three to four feet. The incorporated areas of Boyce, Cheneyville, Forest Hill, and Glenmora can expect flood levels of approximately one to three feet.

Below is the effective flood map for the entire Rapides Parish planning area, as well as the 2007 Preliminary Flood Maps for Rapides Parish and its incorporated communities. The preliminary DFIRMs were included because neither Rapides Parish nor any of its communities have effective flood maps in digital format, and as such, the level of detail provided by the effective map was not sufficient for this planning document. The effective flood maps for Rapides Parish and its incorporated communities can be viewed at FEMA Flood Mapping Service Center <https://msc.fema.gov/portal/home>. Scanned effective maps and preliminary DFIRMs can be viewed on the LSU Ag Center FloodMaps Portal <http://maps.lsuagcenter.com/floodmaps/>

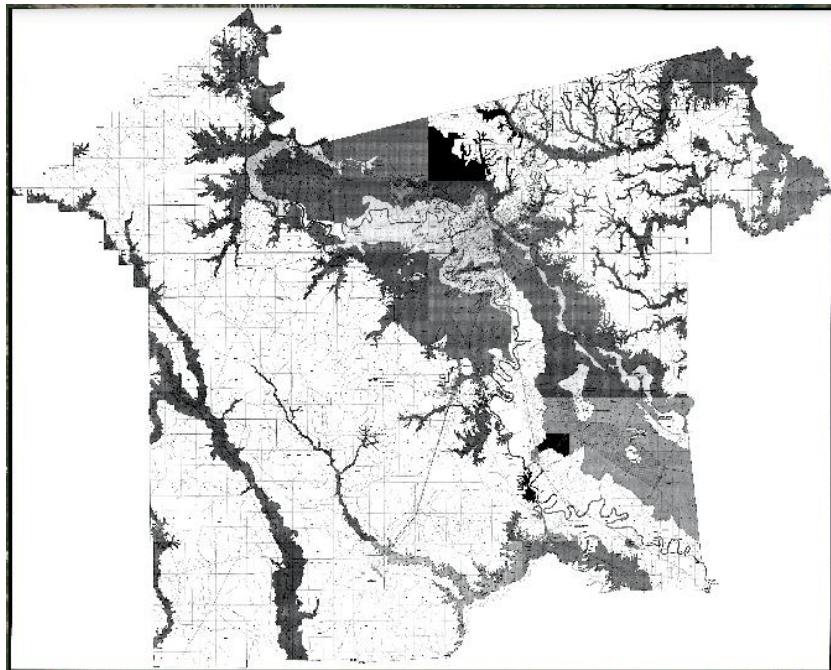


Figure 2-13: Effective FIRM showing Rapides Parish Areas within the Flood Zones.

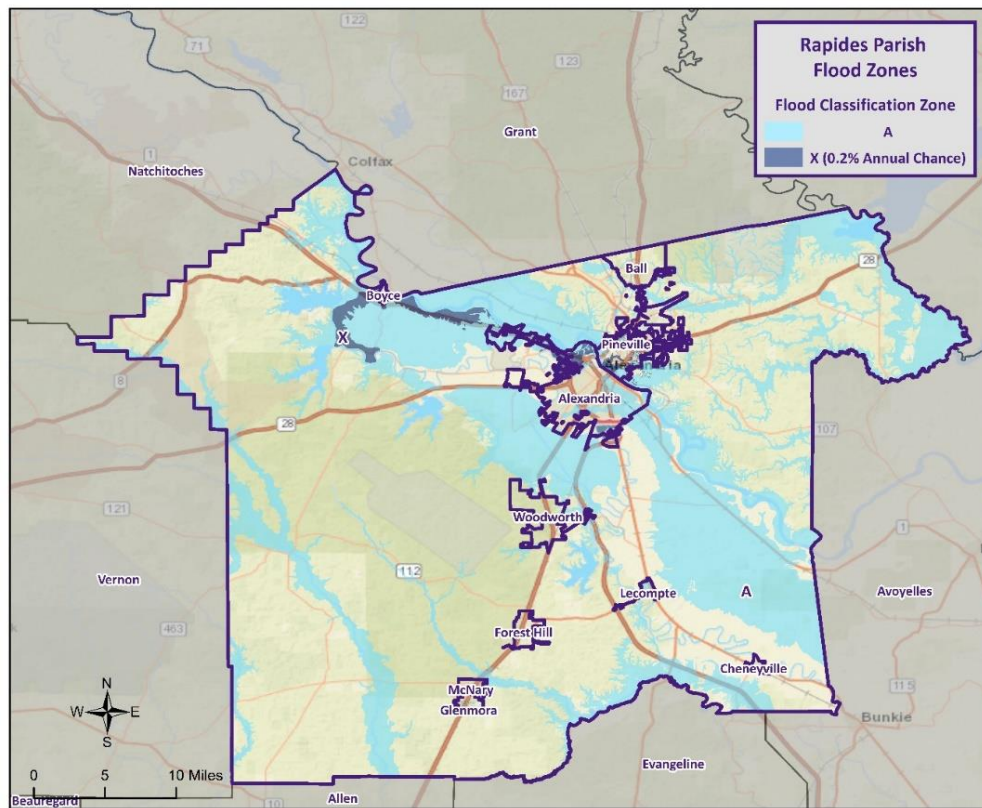


Figure 2-14: Preliminary FIRMs showing Rapides Parish Areas within the Flood Zones.

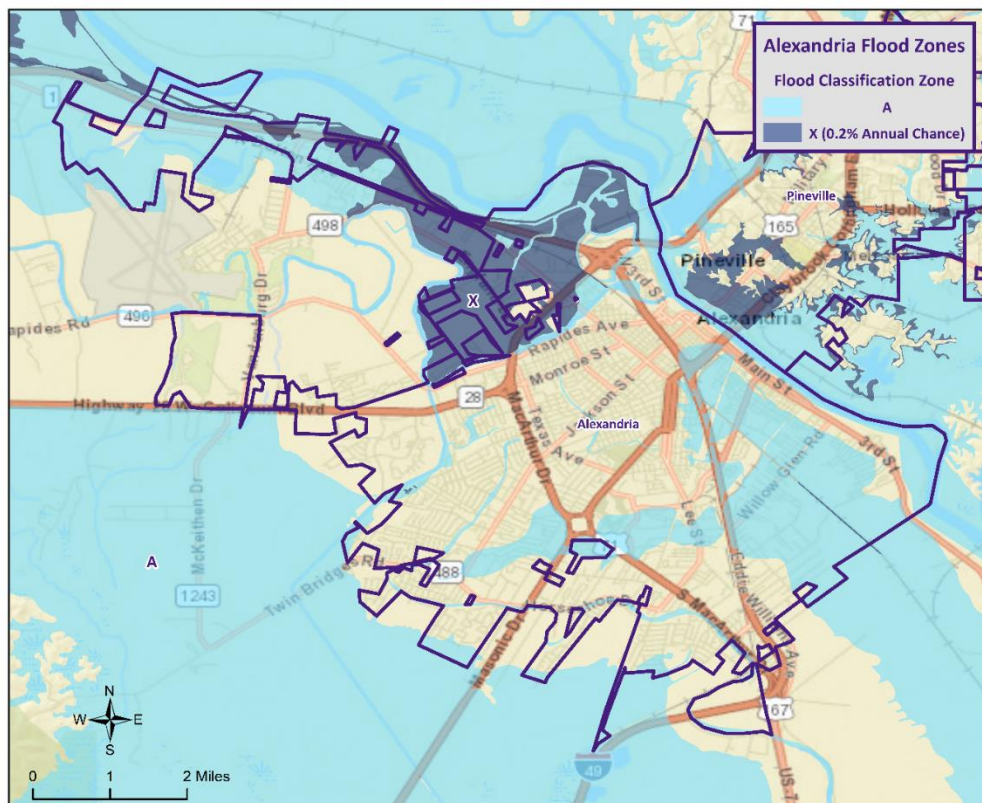


Figure 2-15: Preliminary FIRMs showing Alexandria Areas within the Flood Zones.

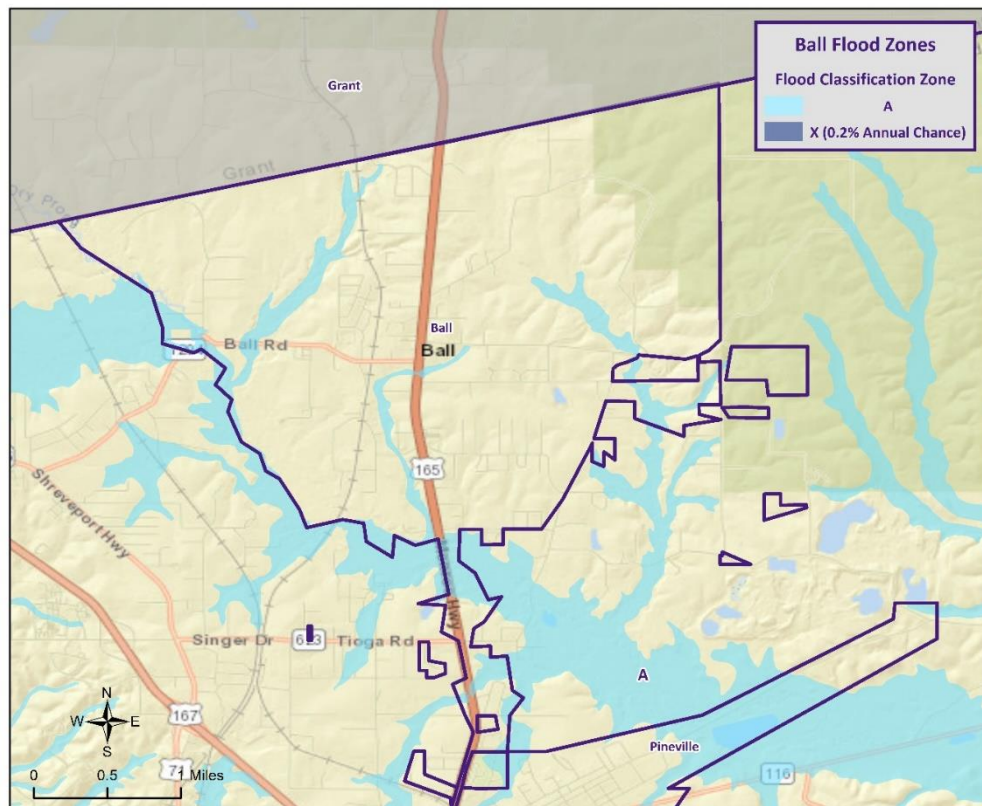


Figure 2-16: Preliminary FIRMs showing Ball Areas within the Flood Zones.

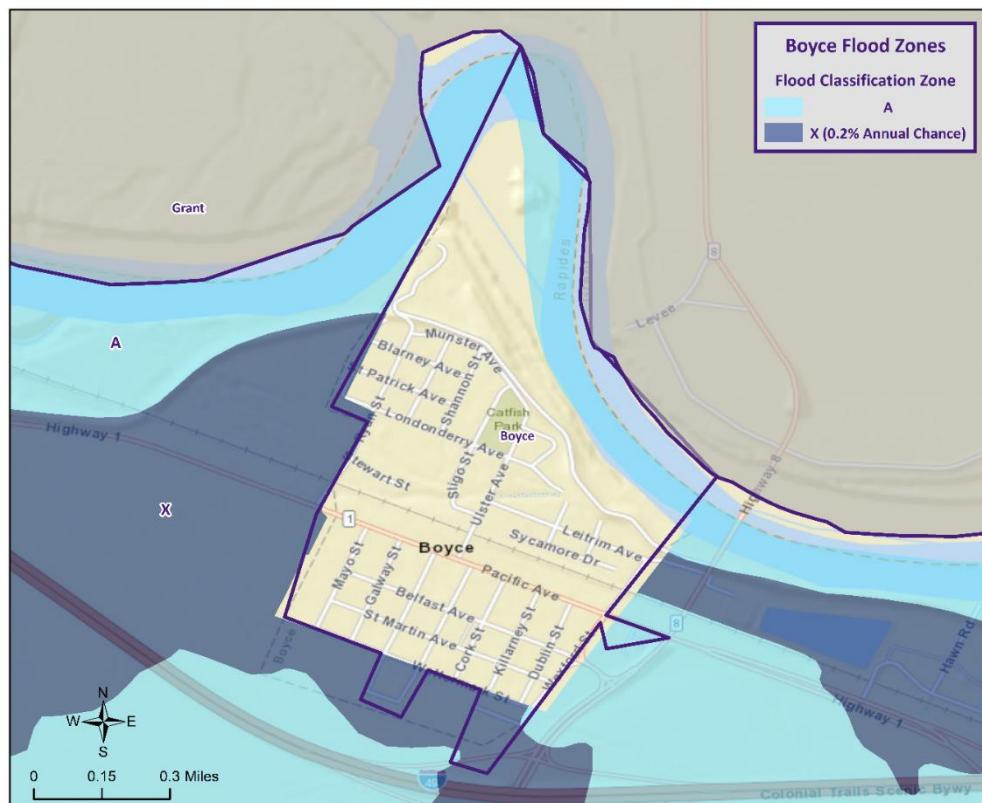


Figure 2-17: Preliminary FIRMs showing Boyce Areas within the Flood Zones.



Figure 2-18: Preliminary FIRMs showing Cheneyville Areas within the Flood Zones.

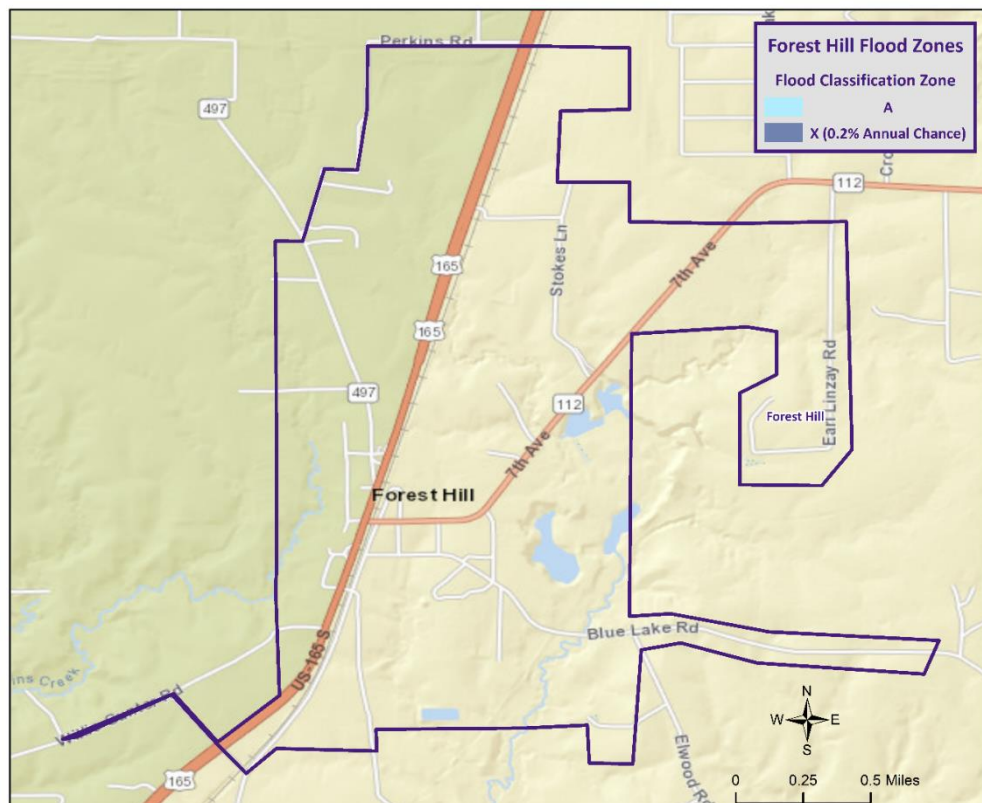


Figure 2-19: Preliminary FIRMs showing Forest Hill Areas within the Flood Zones.

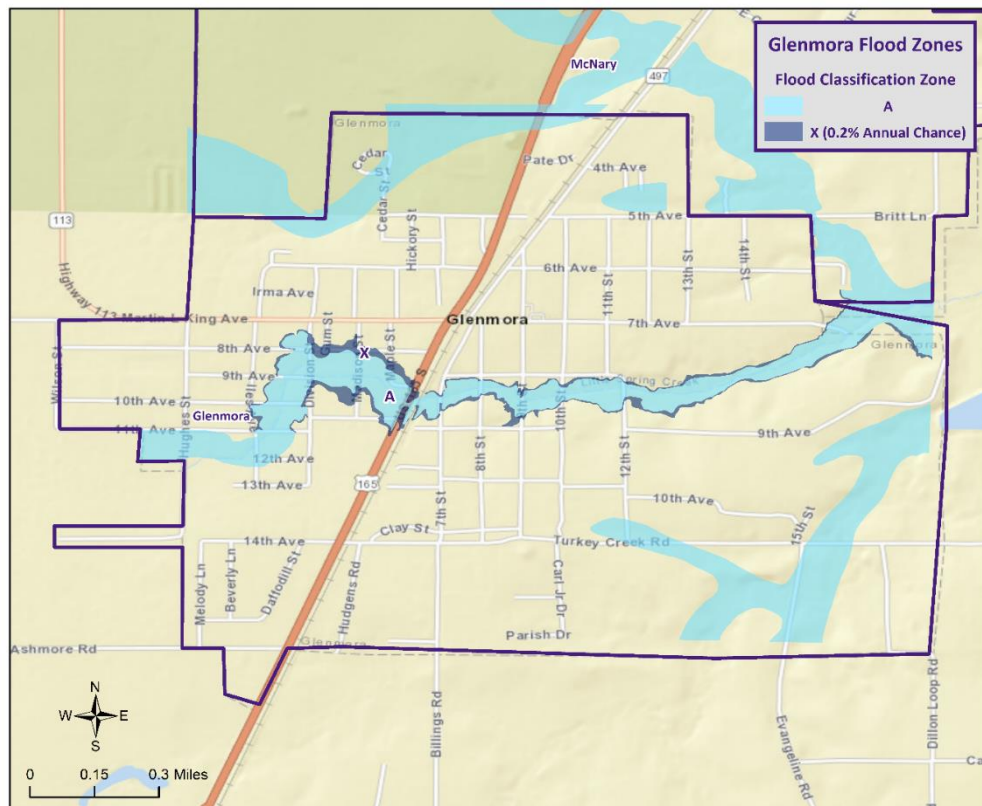


Figure 2-20: Preliminary FIRMs showing Glenmora Areas within the Flood Zones.

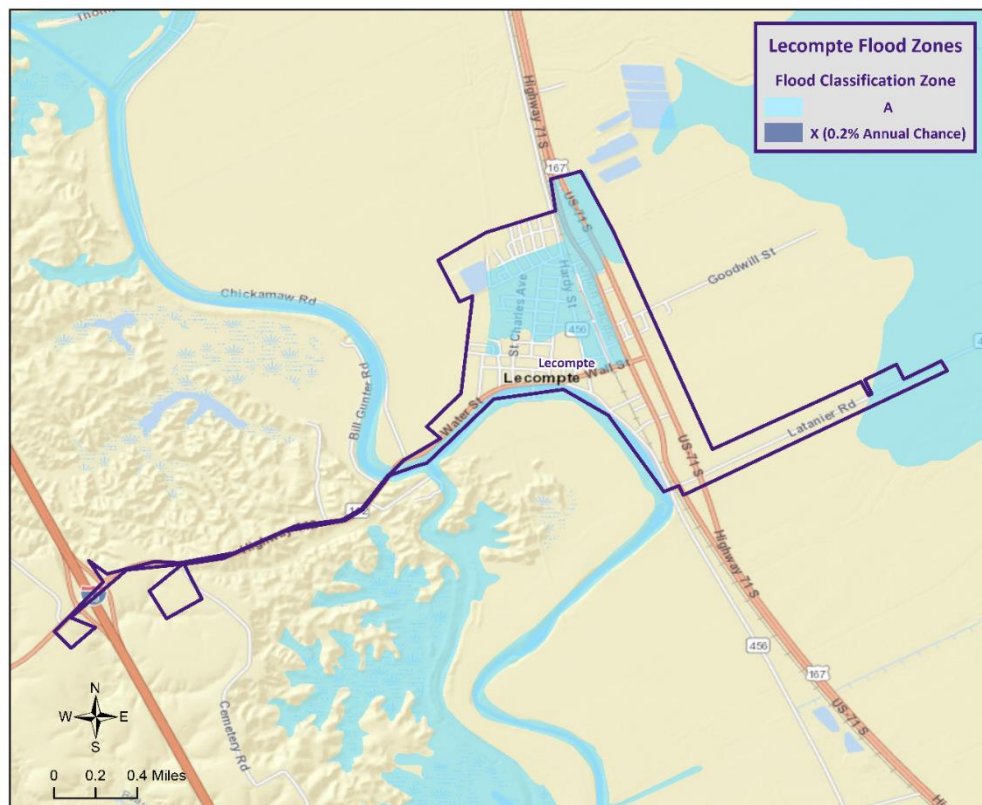


Figure 2-21: Preliminary FIRMs showing Lecompte Areas within the Flood Zones.

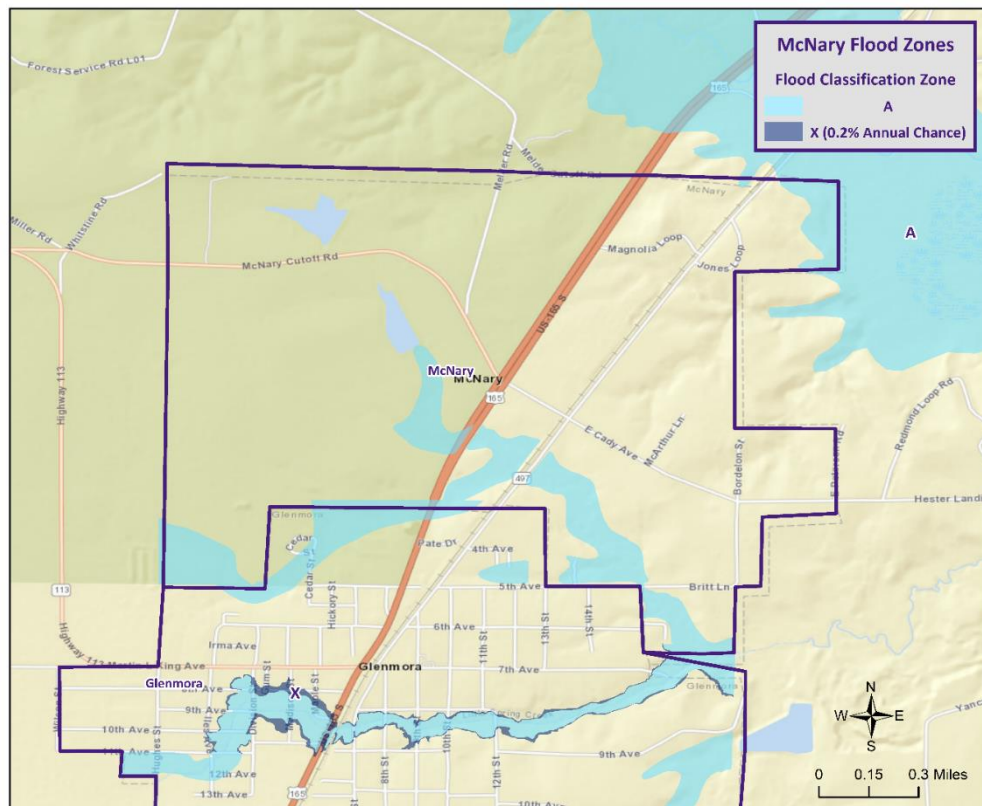


Figure 2-22: Preliminary FIRMs showing McNary Areas within the Flood Zones.

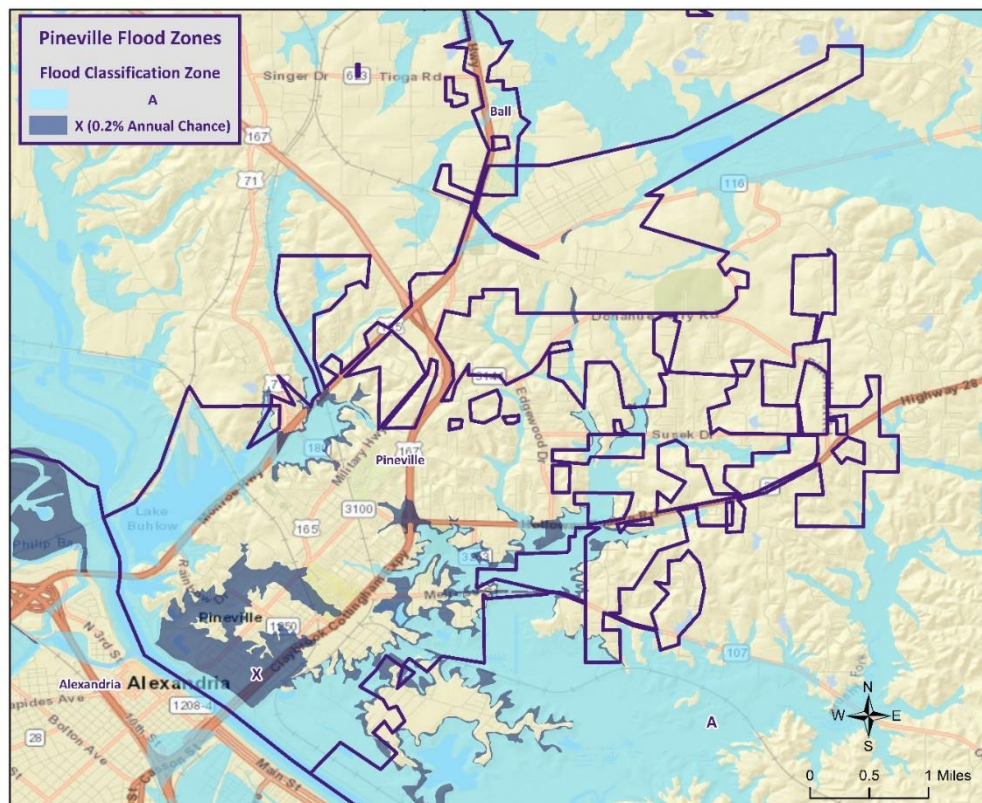


Figure 2-23: Preliminary FIRMs showing Pineville Areas within the Flood Zones.

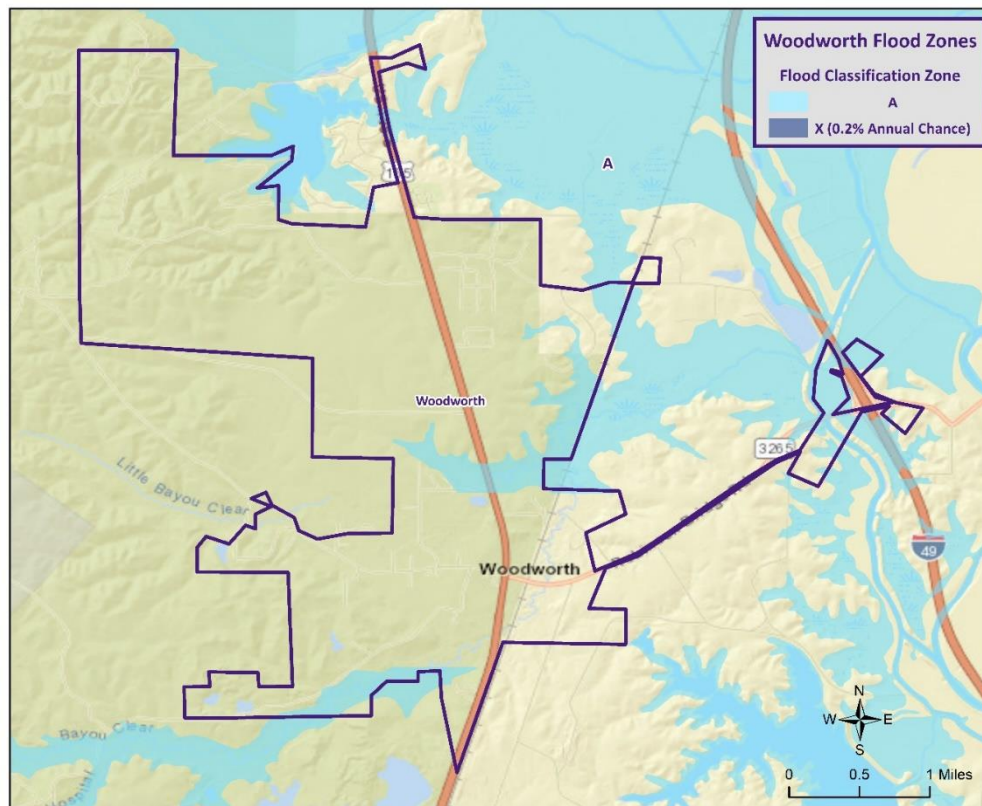


Figure 2-24: Preliminary FIRMs showing Woodward Areas within the Flood Zones.

Previous Occurrences / Extents

Historically, there have been 38 flooding events that have caused significant flooding in Rapides Parish and its jurisdictions between 1990 and 2020. Below is a brief synopsis of the flooding events which occurred since the last Rapides Parish HMP Update in 2016.

Table 2-18: Historical Floods in Rapides Parish with Locations since the 2016 Rapides Parish HMP Update.

Date	Extents	Type of Flooding	Estimated Damages	Location
April 2, 2017	Widespread heavy rain fell across Central Louisiana with amounts ranging from 6 to 10 inches. Many homes in south and west sections of Alexandria along with numerous streets flooded during the event. Flooding was also reported in Boyce and Ball. The debris line from the flood water was noted to be several inches deep in houses across entire neighborhoods during the tornado survey the following day in South Alexandria.	Flash Flood	\$5,000,000	PARISHWIDE
April 30, 2017	A large swath of 5 to 10 inches of rain fell across Southwest and Central Louisiana during the morning of the 30th. In Southeast Rapides Parish numerous roads were closed during the event.	Flash Flood	\$0	WOODWORTH
March 29, 2018	Several inches of rain during the morning produced flooding in Alexandria and Pineville. Some streets were covered by at least 12 inches of water.	Flash Flood	\$0	SAMTOWN
July 30, 2019	The emergency manager of Rapides Parish along with law enforcement report numerous streets flooded and closed across portions of the parish. Flooding affected Alexandria, Ball, Tioga, Pineville, and Woodworth.	Flash Flood	\$0	BALL
September 23, 2020	Flood waters covered portions of Highway 113 and approached one business.	Flood	\$0	MCNARY

Frequency / Probability

The NCEI Storm Events Database identified 38 flooding events within the Rapides Parish planning area since 1990. The table below shows the probability and return frequency for each jurisdiction.

Table 2-19: Annual Flood Probabilities for Rapides Parish.

Jurisdiction	Annual Probability	Return Frequency
Rapides Parish (Unincorporated)	40%	1 event every 2 to 3 years
Alexandria	72%	1 event every 1 to 2 years
Ball	16%	1 event every 6 to 7 years
Boyce	16%	1 event every 6 to 7 years
Cheneyville	16%	1 event every 6 to 7 years
Forest Hill	16%	1 event every 6 to 7 years
Glenmora	28%	1 event every 3 to 4 years
Lecompte	24%	1 event every 4 to 5 years
McNary	20%	1 event every 5 years
Pineville	20%	1 event every 5 years
Woodworth	24%	1 event every 4 to 5 years

Based on historical record, the overall flooding probability for the entire Rapides Parish Planning area is 100%, with 38 events having occurred over a 30-year period.

Estimated Potential Losses

Using the Hazus Flood Model, the 100-year flood scenario, along with the Parish DFIRM, was analyzed to determine losses from this worst-case scenario. *Table 2-20* shows the total economic losses that would result from this occurrence.

Table 2-20: Estimated Losses in Rapides Parish from a 100-year Flood Event.

(Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Flood Event
Rapides Parish (Unincorporated Area)	\$548,363,000
Alexandria	\$303,125,000
Ball	\$13,480,000
Boyce	\$1,000
Cheneyville	\$0
Forest Hill	\$0
Glenmora	\$0
Lecompte	\$4,165,000
McNary	\$48,000
Pineville	\$4,066,000
Woodworth	\$9,097,000
Total	\$882,345,000

The Hazus Flood model also provides a breakdown for seven primary sectors (Hazus occupancy) throughout the parish. The losses for Rapides Parish by sector are listed in the following tables:

*Table 2-21: Estimated 100-year Flood Losses for Rapides Parish by Sector.
(Source: Hazus)*

Rapides Parish (Unincorporated)	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$2,420,000
Commercial	\$342,446,000
Government	\$1,423,000
Industrial	\$7,253,000
Religious / Non-Profit	\$7,630,000
Residential	\$186,006,000
Schools	\$1,185,000
Total	\$548,363,000

*Table 2-22: Estimated 100-year Flood Losses for Alexandria by Sector.
(Source: Hazus)*

Alexandria	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$1,027,000
Commercial	\$35,512,000
Government	\$34,579,000
Industrial	\$21,188,000
Religious / Non-Profit	\$28,468,000
Residential	\$173,530,000
Schools	\$8,821,000
Total	\$303,125,000

*Table 2-23: Estimated 100-year Flood Losses for Ball by Sector.
(Source: Hazus)*

Ball	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$34,000
Commercial	\$3,348,000
Government	\$0
Industrial	\$403,000
Religious / Non-Profit	\$343,000
Residential	\$8,393,000
Schools	\$959,000
Total	\$13,480,000

Table 2-24: Estimated 100-year Flood Losses for Boyce by Sector.

(Source: Hazus)

Boyce	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$1,000
Schools	\$0
Total	\$1,000

Table 2-25: Estimated 100-year Flood Losses for Lecompte by Sector.

(Source: Hazus)

Lecompte	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$653,000
Government	\$1,000
Industrial	\$46,000
Religious / Non-Profit	\$962,000
Residential	\$2,503,000
Schools	\$0
Total	\$4,165,000

Table 2-26: Estimated 100-year Flood Losses for McNary by Sector.

(Source: Hazus)

McNary	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$48,000
Schools	\$0
Total	\$48,000

Table 2-27: Estimated 100-year Flood Losses for Pineville by Sector.
(Source: Hazus)

Pineville	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$0
Commercial	\$569,000
Government	\$77,000
Industrial	\$213,000
Religious / Non-Profit	\$6,000
Residential	\$2,753,000
Schools	\$448,000
Total	\$4,066,000

Table 2-28: Estimated 100-year Flood Losses for Woodworth by Sector.
(Source: Hazus)

Woodworth	Estimated Total Losses from 100-Year Flood Event
Agricultural	\$1,000
Commercial	\$748,000
Government	\$353,000
Industrial	\$2,000
Religious / Non-Profit	\$948,000
Residential	\$7,045,000
Schools	\$0
Total	\$9,097,000

Threat to People

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

Table 2-29: 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
Rapides Parish (Unincorporated)	73,778	26,805	36.3%
Alexandria	47,723	8,146	17.1%
Ball	4,000	1,306	32.7%
Boyce	1,004	0	0.0%
Cheneyville	625	0	0.0%
Forest Hill	818	0	0.0%
Glenmora	1,342	0	0.0%
Lecompte	1,227	351	28.6%
McNary	211	63	29.9%
Pineville	14,555	435	3.0%
Woodworth	1,096	790	72.1%
Total	131,613	37,398	28.4%

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

Table 2-30: Vulnerable Populations Susceptible to a 100-year Flood Event in Rapides Parish.

(Source: Hazus)

Rapides Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	26,805	36.3%
Persons Under 5 Years	1,866	7.0%
Persons Under 18 Years	6,926	25.8%
Persons 65 Years and Over	3,670	13.7%
White	16,981	63.4%
Minority	9,824	36.7%

*Table 2-31: Vulnerable Populations Susceptible to a 100-year Flood Event in Alexandria.
(Source: Hazus)*

Alexandria		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	8,146	17.1%
Persons Under 5 Years	589	7.2%
Persons Under 18 Years	2,166	26.6%
Persons 65 Years and Over	1,137	14.0%
White	3,122	38.3%
Minority	5,024	61.7%

*Table 2-32: Vulnerable Populations Susceptible to a 100-year Flood Event in Ball.
(Source: Hazus)*

Ball		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,306	32.7%
Persons Under 5 Years	89	6.8%
Persons Under 18 Years	327	25.1%
Persons 65 Years and Over	164	12.6%
White	1,171	89.7%
Minority	135	10.4%

*Table 2-33: Vulnerable Populations Susceptible to a 100-year Flood Event in Lecompte.
(Source: Hazus)*

Lecompte		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	351	28.6%
Persons Under 5 Years	22	6.4%
Persons Under 18 Years	106	30.2%
Persons 65 Years and Over	47	13.3%
White	107	30.5%
Minority	244	69.5%

*Table 2-34: Vulnerable Populations Susceptible to a 100-year Flood Event in McNary.
(Source: Hazus)*

McNary		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	63	29.9%
Persons Under 5 Years	2	3.3%
Persons Under 18 Years	10	15.6%
Persons 65 Years and Over	12	18.5%
White	49	77.7%
Minority	14	22.3%

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

Pineville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	435	3.0%
Persons Under 5 Years	29	6.8%
Persons Under 18 Years	100	22.9%
Persons 65 Years and Over	57	13.0%
White	281	64.6%
Minority	154	35.4%

*Table 2-36: Vulnerable Populations Susceptible to a 100-year Flood Event in Woodworth.
(Source: Hazus)*

Woodworth		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	790	72.1%
Persons Under 5 Years	47	5.9%
Persons Under 18 Years	180	22.8%
Persons 65 Years and Over	96	12.1%
White	711	90.0%
Minority	79	10.0%

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality buildings that are susceptible to flooding due to proximity within the 100-year flood plain.

Thunderstorms

The term “thunderstorm” is usually used as a catch-all term for several kinds of storms. Here “thunderstorm” is defined to include any precipitation event in which thunder is heard or lightning is seen. Thunderstorms are often accompanied by heavy rain and strong winds and, depending on conditions, occasionally by hail or snow. Thunderstorms form when humid air masses are heated, which causes them to become convectively unstable and therefore 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, multicell, 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 multicell 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, and warming 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) have 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:

- ***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 (parishes).

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

- Hail of 1 inch in diameter or larger
- Wind gusts to 58 mph or greater
- One or more tornadoes

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

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

Hazard Description

Hailstorms

Hailstorms are severe thunderstorms in which balls or chunks of ice fall along with rain. Hail develops in the upper atmosphere initially as ice crystals that are bounced about by high-velocity updraft winds. The ice crystals grow through deposition of water vapor onto their surface, fall partially to a level in the cloud where the temperature exceeds the freezing point, melt partially, get caught in another updraft whereupon re-freezing and deposition grows another concentric layer of ice, and fall after developing enough weight, sometimes after several trips up and down the cloud. The size of hailstones varies depending on the severity and size of the thunderstorm. Higher surface temperatures generally mean stronger updrafts, which allows more massive hailstones to be supported by updrafts, leaving them suspended longer. This longer time means larger hailstone sizes. The tables on the next page display the TORRO Hailstorm Intensity Scale along with a spectrum of hailstone diameters and their everyday equivalents.

Table 2-37: 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 2-38: 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.

High Winds

In general, high winds can occur in a number of different ways, within and without thunderstorms. The Federal Emergency Management Agency (FEMA) distinguishes these as shown in Table 2-39.

*Table 2-39: High Winds Categorized by Source, Frequency, and Duration.
(Source: Making Critical Facilities Safe from High Wind, FEMA)*

High Winds Categories			
High Wind Type	Description	Relative Frequency in Louisiana	Relative Maximum Duration in Louisiana
Straight-line Winds	Wind blowing in straight line; usually associated with intense low-pressure area	High	Few-minutes – 1 day
Downslope Winds	Wind blowing down the slope of a mountain; associated with temperature and pressure gradients	N/A	N/A
Thunderstorm Winds	Wind blowing due to thunderstorms, and thus associated with temperature and pressure gradients	High (especially in the spring and summer)	~Few minutes – several hours
Downbursts	Sudden wind blowing down due to downdraft in a thunderstorm; spreads out horizontally at the ground, possibly forming horizontal vortex rings around the downdraft	Medium-to-High (~5% of all thunderstorms)	~15 – 20 minutes
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 and land	N/A	N/A
Hurricane Winds	Wind blowing in spirals, converging with increasing speed toward eye; associated with temperature and pressure gradients between the Atlantic and Gulf and land	Low-to-Medium	Several days
Tornado Winds	Violently rotating column of air from base of a thunderstorm to the ground with rapidly decreasing winds at greater distances from center; associated with extreme temperature gradient	Low-to-Medium	Few minutes – few hours

The only high winds of present concern 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 common but relatively insignificant in the mountainous areas of Louisiana where they occur. Nor'easters are cyclonic events that have at most a peripheral effect on Louisiana, and none associated with high winds. Winds associated with hurricanes and tornadoes will be considered in their respective sections.

Table 2-40 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 2-40: 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	
12	74+	Hurricane	

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, loss of revenue for businesses, increased vulnerability to fire, food spoilage, and other losses that might be sustained by a loss of power.

Power outages may pose a health risk for those requiring electric medical equipment and/or air conditioning.

Lightning

Lightning is a natural electrical discharge in the atmosphere that is a by-product of thunderstorms. Every thunderstorm produces lightning. There are three primary types of lightning: intra-cloud, cloud-to-ground, and cloud-to-cloud. Cloud-to-ground lightning has the potential to cause the most damage to property and crops, while also posing as a health risk to the populace in the area of the strike.

Damage caused by lightning is usually to homes or businesses. These strikes have the ability to damage electrical equipment inside the home or business and can also ignite a fire that could destroy homes or crops.

Lightning continues to be one of the top three storm-related killers in the United States per FEMA, but 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 that is a measurement of lightning activity.

Table 2-41: 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 reach 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	

Hazard Profile

Hailstorms

Location

Hailstorms are a meteorological phenomenon that can occur anywhere. Therefore, the entire planning area for Rapides Parish and its jurisdictions are equally at risk for hailstorms. The worst-case scenario for hailstorms is hail up to a 2.75" diameter.

Previous Occurrences / Extents

Historically, there have been 123 hail incidents in Rapides Parish. Hailstorm diameters have ranged from 0.75 inches to 2.75 inches per the National Climatic Data Center since 1990. The most frequently recorded hail sizes have been 0.75-inch in diameter. There have been six significant hailstorm events in Rapides Parish since the 2016 Rapides Parish HMP update. Below is a brief synopsis of those events.

Table 2-42: Previous Occurrences for Hailstorm Events since the 2016 Hazard Mitigation Plan Update.
(Source: NCEI Storm Events Database)

Date	Hail Size (inches)	Property Damage	Crop Damage
April 2, 2017	1	\$0	\$0
April 2, 2017	1	\$0	\$0
April 2, 2017	1	\$0	\$0
May 3, 2017	1.75	\$0	\$0
May 3, 2017	2.75	\$1,000	\$0
May 3, 2017	2	\$0	\$0
May 3, 2017	1.25	\$0	\$0
April 6, 2018	1	\$0	\$0
February 5, 2020	1.25	\$0	\$0
February 5, 2020	1.5	\$0	\$0

Frequency

Hailstorms occur frequently within Rapides Parish with an annual chance of occurrence calculated at 100% based on the records for the past 30 years (1990 - 2020). [Figure 2-25](#) displays the density of hailstorm events in Rapides Parish, while [Figure 2-26](#) provides an overview of hailstorm size based on location.

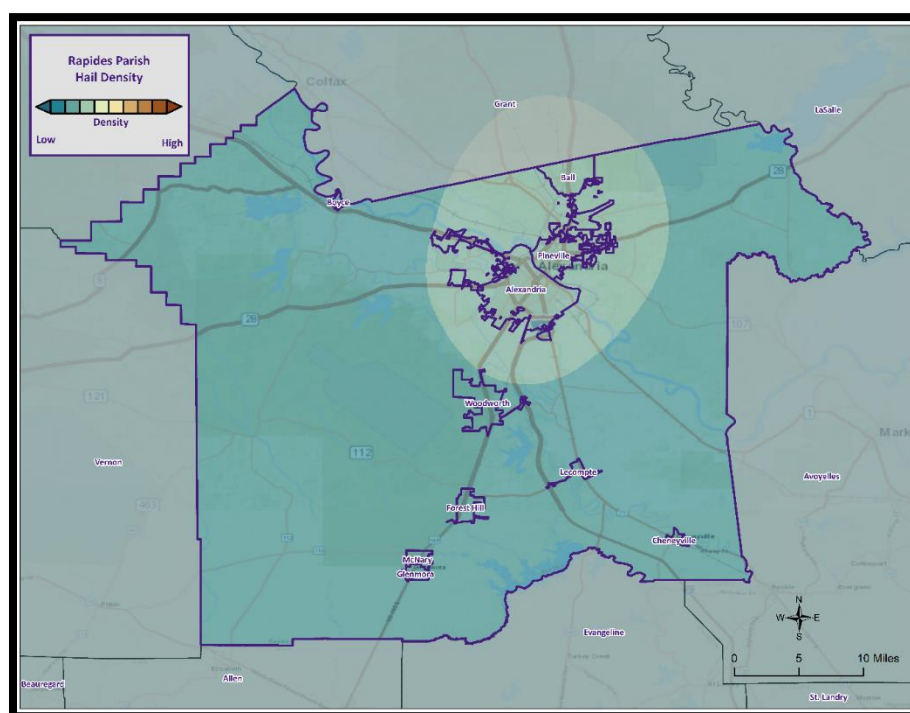


Figure 2-25: Density of Hailstorms by Diameter from 1950-2020.

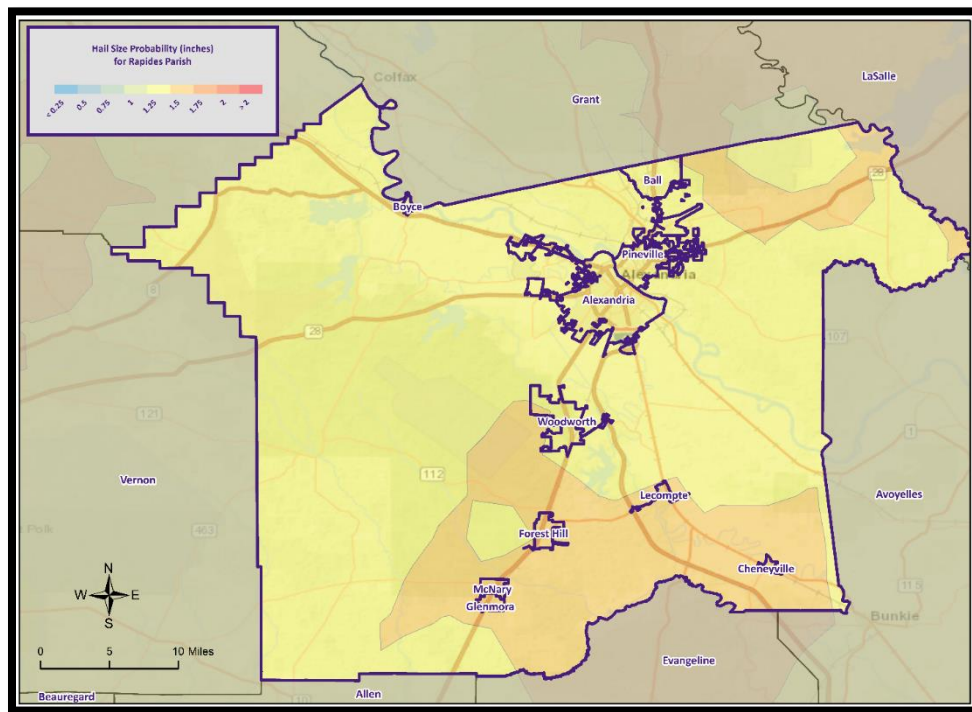


Figure 2-26: Hail Size Probability in Inches for Rapides Parish.

Estimated Potential Losses

Since 1990, there have been 123 significant hail events that have resulted in property damages according to NCEI Storm Events Database. The total property damages associated with those storms have totaled approximately \$1,000. To estimate the potential losses of a hailstorm event on an annual basis, the total damages recorded for wind events was divided by the total number of years of available wind data in the NCEI Storm Events Database (1990 - 2020). This provides an annual estimated potential loss of \$4 and \$33 per event. The following table provides an estimate of potential property losses for Rapides Parish:

Table 2-43: Estimated Annual Losses in Rapides Parish and its Jurisdictions Resulting from Hailstorms.

Estimated Potential Annual Losses from Hailstorms					
Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville	Forest Hill
\$19	\$12	\$1	< \$1	< \$1	< \$1

Table 2-43: Estimated Annual Losses in Rapides Parish and its Jurisdictions Resulting from Hailstorms.
(cont.)

Estimated Potential Annual Losses from Hailstorms				
Glenmora	Lecompte	McNary	Pineville	Woodworth
< \$1	< \$1	< \$1	\$4	< \$1

There have been no reported injuries or fatalities as a result of a hail events over the 30-year record.

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality buildings that are susceptible to hailstorms.

High Winds

Location

Because high winds are a meteorological phenomenon that can occur anywhere, the entire planning area for Rapides Parish is equally at risk from high winds. The worst-case scenario for thunderstorm high wind is wind speeds of approximately 106 mph.

Previous Occurrences / Extents

Historically, there have been 213 thunderstorm high wind events in Rapides Parish. The high wind events have ranged in windspeeds from 51 mph to 106 mph per the National Climatic Data Center since 1990. There have been 11 high wind speeds events which impacted the Rapides Parish Planning area since the 2016 Rapides Parish HMP update. Below is a brief synopsis of those events.

Table 2-44: Previous Occurrences for Thunderstorm High Wind Events since the 2016 Hazard Mitigation Plan Update.

(Source: NCEI Storm Events Database)

Date	Wind Speed (mph)	Property Damage	Crop Damage
May 28, 2017	55	\$4,000	\$0
May 28, 2017	55	\$6,000	\$0
October 22, 2017	55	\$5,000	\$0
January 22, 2018	55	\$2,000	\$0
March 11, 2018	55	\$2,000	\$0
April 18, 2019	55	\$2,000	\$0
April 25, 2019	55	\$0	\$0
June 20, 2019	55	\$5,000	\$0
June 20, 2019	106	\$50,000	\$0
May 26, 2020	55	\$2,000	\$0
December 13, 2020	59	\$0	\$0

Frequency

High winds are a common occurrence within Rapides Parish and its jurisdictions with an annual chance of occurrence calculated at 100% based on the records for the past 30 years (1990 - 2020). On the next page, *Figure 2-27* displays the thunderstorm wind speed probability for Rapides Parish and its jurisdictions.

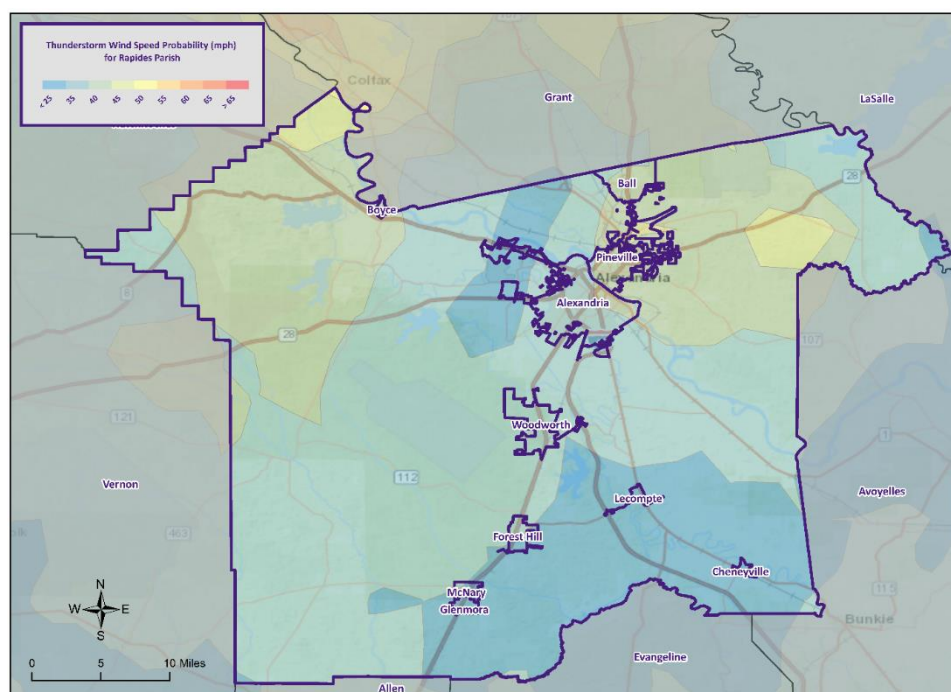


Figure 2-27: Thunderstorm High Wind Speed Probability in Miles Per Hour for Rapides Parish.

Estimated Potential Losses

Since 1990, there has been 213 significant wind events that have resulted in property damages according to NCEI Storm Events Database. The total property damage associated with this storm totaled approximately \$2,365,000. To estimate the potential losses of a wind event on an annual basis, the total damages recorded for wind events was divided by the total number of years of available wind data in the NCEI Storm Events Database (1990 - 2020). This provides an annual estimated potential loss of \$10,283 and \$78,833 per event. The following table provides an estimate of potential property losses for Rapides Parish:

Table 2-45: Estimated Annual Property Losses in Rapides Parish resulting from Wind Damage.

Estimated Potential Annual Losses from High Winds					
Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville	Forest Hill
\$44,191	\$28,585	\$2,396	\$601	\$374	\$490

Table 2-45: Estimated Annual Property Losses in Rapides Parish resulting from Wind Damage. (cont.)

Estimated Potential Annual Losses from High Winds				
Glenmora	Lecompte	McNary	Pineville	Woodworth
\$804	\$735	\$126	\$8,718	\$657

There have been no fatalities and 10 injuries as a result of thunderstorm high wind events over the 30-year record.

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality buildings that are susceptible to thunderstorm high winds.

Lightning

Location

Like hail and high winds, lightning is a meteorological phenomenon that can occur anywhere within the Rapides Parish planning area. The worst-case scenario for lightning events is a lightning activity level of 4 which is approximately 16 to 25 lightning strikes every 15 minutes.

Previous Occurrences / Extent

Historically, there has been nine lightning events in Rapides Parish and its jurisdictions between the years 1990 and 2020. Since the last HMP update, there has been two significant lighting events within the boundaries of Rapides Parish. [Table 2-46](#) provides an overview of the lightning event which impacted the Rapides Parish Planning area since the 2016 Rapides Parish HMP update.

*Table 2-46: Previous Occurrences for Lightning Events since the 2016 Hazard Mitigation Plan Update.
(Source: NCEI Storm Events Database)*

Location	Date	Property Damage	Crop Damage
RAPIDES	June 4, 2018	\$2,000	\$0
ALEXANDRIA	July 20, 2018	\$15,000	\$0

Frequency

Lightning can strike anywhere and is produced by every thunderstorm, so the chance of lightning occurring in Rapides Parish is high. However, lightning that meets the definition that is used by the NCEI Storm Events Database that results in damages to property and injury or death to people is a less likely event. Rapides Parish experienced nine significant lightning events between the years 1990 and 2020 resulting in a 30% annual chance of occurrence.

Estimated Potential Losses

Since 1990, there have been nine significant lightning events that have resulted in property damages according to NCEI Storm Events Database. The total property damages associated with those storms have totaled approximately \$82,000. To estimate the potential losses of a lightning event on an annual basis, the total damages recorded for lightning events was divided by the total number of years of available lightning data in the NCEI Storm Events Database (1990 - 2020). This provides an annual estimated potential loss of \$2,733 and \$9,111 per event. The following tables provide an estimate of potential property losses for Rapides Parish:

Table 2-47: Estimated Annual Property Losses in Rapides Parish resulting from Lightning Damage.

Estimated Potential Annual Losses from Lightning					
Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville	Forest Hill
\$1,532	\$991	\$83	\$21	\$13	\$17

Table 2-47: Estimated Annual Property Losses in Rapides Parish resulting from Lightning Damage. (cont.)

Estimated Potential Annual Losses from Lightning				
Glenmora	Lecompte	McNary	Pineville	Woodworth
\$28	\$25	\$4	\$302	\$23

Per the NCEI Storm Events Database, there has been one fatality and four injuries as a result of lightning in Rapides Parish.

Vulnerability

See [*Appendix C: Critical Facilities*](#) for parish and municipality building exposure to lightning hazards.

Tornadoes

Tornadoes (also called twisters and 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 events, such as thunderstorms and hurricanes, when cold air overrides a layer of warm air, causing the warm air to rise rapidly, which usually occurs in a counterclockwise direction 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. [Table 2-48](#) shows the EF scale in comparison with the old 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 2-48: 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 2-49: 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 off well-constructed houses; trains overturned; most trees in forest 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.

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 on 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 missiles 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.

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.

Location

While there is a significant tornado record in Rapides Parish with specific locations, tornadoes in general are a climatological based hazard and have the same approximate probability of occurring throughout the entirety of the Rapides Parish planning area. Because a tornado has a similar probability of striking anywhere within the planning area for Rapides Parish, all areas in the parish are equally at risk for tornadoes.

Previous Occurrences / Extent

The NCEI Storm Events Database reports a total of 46 tornadoes or waterspouts occurring within the boundaries of Rapides Parish since 1990, ranging in extent from F0 to F2 under the Fujita Scale and EF0 to EF3 on the Enhanced Fujita Scale. Rapides Parish can expect future tornadoes up to an EF3 under the Enhanced Fujita Scale as a worst-case scenario.

The most destructive tornado to impact Rapides Parish was an EF1 tornado which occurred on December 16, 2019. An EF1 tornado moved into Rapides Parish from Vernon Parish crossing Highway 121. The tornado strengthened to an EF3 as it began entering the western part of the incorporated area of Alexandria. The EF3 tornado was responsible for over \$22 million in damage when it damaged

approximately 575 structures. Since the 2016 HMP Update, 19 tornadoes have occurred within the boundaries of Rapides Parish. Below is a list and brief description of the impact for each event.

Table 2-50: Historical Tornadoes in Rapides Parish with Locations since the 2016 Update.

Date	Impacts	Property Damage	Location	Magnitude
January 2, 2017	0.54 mile path with a width of 50 yards. A tornado touched down along Boogaerts Road, removing part of the roof of a single-wide mobile home. A carport was tipped over, and several trees were snapped. Two other homes received minor damage from flying debris. The estimated peak wind was 105 MPH.	\$50,000	RAPIDES	EF1
January 2, 2017	1.4 mile path with a width of 100 yards. A tornado touched down along Lloyds Bridge Road, damaging several homes and large barns. Debris was strewn across the adjacent fields. The estimated peak wind was 110 MPH.	\$250,000	MEEKER	EF1
April 2, 2017	7.29 mile path with a width of 50 yards. A few pine trees were snapped between Glenmora and Forest Hill. Most damage was medium to small branches. The storm began near McNary Cutoff and LA 113 and dissipated near LA 112 and US 165. The maximum estimated wind speed was 105 MPH.	\$5,000	MCNARY	EF1
April 2, 2017	6.11 mile path with a width of 800 yards. The tornado began near Bayou Clear and moved north across Bayou Clear Road where 4 homes were damaged by falling trees. The tornado continued north across Castor Plunge Road where it reached its maximum width of around half a mile. Many pine trees were snapped or uprooted. The tornado dissipated near Bayou Boeuf. Most of the path was in the Kisatchie National Forest. This tornado was seen and filmed by many people in the area. The maximum wind speed was estimated at 120 MPH.	\$250,000	WOODWORTH ARPT	EF2
April 2, 2017	5.41 mile path with a width of 500 yards. The tornado touched down near US 165 and Bowie Drive, blowing down several trees, damaging a gas station awning, and blowing the doors in and the side of a large storage building. It crossed to the west side of US 165 where it hit residential areas including Cherokee Village and Plantation Acres where many trees were downed, some landing on homes, garages, and vehicles. Some buildings had minor roof damage such as shingles or soffit pulled off. The tornado continued into a business district along Jackson Street west of US 165 where it lifted	\$750,000	ANANDALE	EF1

Date	Impacts	Property Damage	Location	Magnitude
	parts of flat roofs off of businesses. Some of the flying debris broke windows of vehicles and businesses in the area, as well as large billboard and other signage. The tornado continued north, crossing the intersection of LA 28 and US Hwy 165, and dissipated before it reached I-49. This tornado was seen and filmed by many people in the area. The maximum wind speed was 105 MPH.			
April 2, 2017	0.1 mile path with a width of 10 yards. Storm chasers filmed a weak tornado on I-49 near Lena. One of the storm chase vehicles drove through the tornado. No significant damage was found in the region. Video of this was seen on social media. Max wind speeds were estimated at 60 MPH.	\$0	LENA	EFO
October 31, 2018	16.01 mile path with a width of 500 yards. A strong tornado started near Hwy 165 south of Alexandria. The storm removed the roof of a restaurant on MacArthur Drive, and several other businesses had roof damage as well. Behind the mall, a bowling alley had a wall collapse. Significant roof damage occurred to several businesses in the Lee Street/Overton Street region. The tornado crossed the Red River, and moved from the south side of Highway 167 to the north side of Highway 167 in Pineville. Numerous trees and power lines were downed on the campus of Louisiana College and surrounding areas. Some of these trees did land on homes and vehicles. As the tornado continued north-northeast, it snapped more trees and power lines in the Kingsville region, including Donahue Ferry Road, Pearce Road, Pinecrest, and Camp Beauregard. East of the Ball-Paradise region, many large trees were downed along Washboard Road, damaging some homes and buildings. This tornado continued into Grant Parish. Maximum estimated winds were 135 MPH.	\$750,000	ANANDALE	EF2
October 31, 2018	9.49 mile path with a width of 300 yards. A rural tornado began near Hwy 462, moving east-northeast. Several trees were blown down or snapped along East River Road and Ashmore Road. Maximum estimated winds were 105 MPH.	\$7,000	UNION HILL	EF1
October 31, 2018	3.34 mile path with a width of 600 yards. Another rural tornado formed near Glenmora, moving northeast. Numerous trees and power	\$10,000	MC NARY	EF1

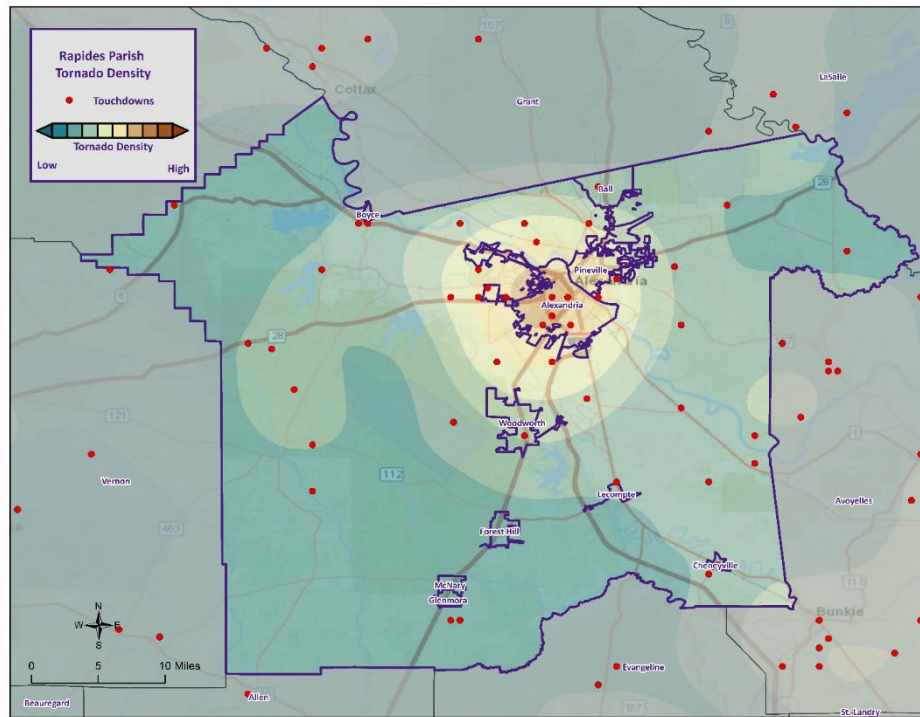
Date	Impacts	Property Damage	Location	Magnitude
	lines were downed along Hwy 113. The peak winds were estimated at 105 MPH.			
October 31, 2018	9.17 mile path with a width of 50 yards. A tornado formed in the Kisatchie National Forest and move northeast crossing Highway 165 where it snapped several trees. The tornado continued northeast moving through the Martin Parks Subdivision where is primarily snapped tree limbs and then dissipated between MacArthur Drive and Interstate 49. Max sustained winds were estimated at 99 MPH.	\$5,000	(01R) AFB GNRY RNG AL	EF1
October 31, 2018	3.06 mile path with a width of 800 yards. The tornado started near US Highway 71 near Cheneyville, snapping several power poles and downing trees. The tornado then moved into Avoyelles Parish. Maximum estimated wind was 122 MPH.	\$10,000	CHENEYVILLE	EF2
June 20, 2019	0.94 path with a width of 100 yards. A tornado touched down south of Ball Road and just east of McRay Drive. The tornado moved southeast, snapping and uprooting numerous softwood and hardwood trees. The most extensive damage was from southern Ball Loop Drive to Leah Street where several houses and vehicles were damaged by uprooted trees. The tornado dissipated east of Leah Street. While the tornado was only 100 yards wide, downdraft winds wrapping around the tornado resulted in additional trees snapped or downed and damage to buildings across portions of Ball.	\$50,000	BALL	EF1
June 20, 2019	1.76 mile path with a width of 250 yards. An EF-1 tornado touched down between East O'Neill Road and Highway 115. The tornado snapped and uprooted numerous trees as it moved southeast, crossing Highway 115 and Paul Road. Several of the fallen trees caused property damage. After crossing Paul Road, the tornado turned and tracked eastward between Paul Road and Donnie Price Road before dissipating. Maximum estimated winds were 105 mph.	\$25,000	BUCKEYE	EF1
December 16, 2019	3.56 mile path with a width of 147 yards. The tornado formed on the south end of a line of thunderstorms during the mid part of the morning. The tornado touched down just south of LA 462 near Simon Doyle Road where it downed trees and caused damage to one home. The tornado then moved North northeast to the middle section of Doshie Road where it	\$200,000	UNION HILL	EF2

Date	Impacts	Property Damage	Location	Magnitude
	snapped trees and caused roof damage to several homes and barns. As the tornado moved further north up Doshie Road it strengthened to an EF2 intensity uprooting trees and taking off the roof of the Perkins Feed Farm Building as well as damaging other nearby structures.			
December 16, 2019	<p>30.22 mile path with a width of 525 yards. The tornado moved into Rapides Parish from Vernon Parish crossing Highway 121 as an EF1. Large branches were snapped off. The tornado was about 230 yards wide as it crossed Hwy 1199 and Clint Louis Road. The tornado continued to uproot or snap trees and at this point was about 8 miles southwest of Alexandria.</p> <p>The tornado strengthened again briefly to an EF3 as it began entering the western part of the Alexandria area. Mobile homes, warehouses, and homes on slabs were all heavily damaged or destroyed in the Ross Lane and Hwy 128 locations. A recreational baseball park was destroyed as well as a Chevron Gas station. The tornado then weakened to an EF2 as it moved further east into the Cloverleaf Blvd and Larkspur Drive residential areas. Trees were uprooted onto homes and carports with a few homes with significant roof structure damage noted.</p> <p>The tornado continued to weaken to an EF1 as it move east tossing or turning over travel trailers at the Cenla RV Center. The tornado then moved across the Red River snapping the tops of trees at Highway 165 and Rainbow Drive. Finally, the tornado moved to Edgewood Drive where trees were snapped and home damage occurred as very tall pine trees were snapped or uprooted and fell onto several homes. The tornado then moved further east where it quickly weakened and dissipated. Max estimated winds in Rapides Parish was 158 MPH. Roughly 575 structures were damaged.</p>	\$22,000,000	HINESTON	EF3
April 22, 2020	8.43 mile path with a width of 500 yards. This tornado started near the community of Elmer, west of Elmer Road where it produced damage to trees and homes. The tornado crossed Highway 112 southeast of Elmer and continued northeast through the forest, damaging many trees and power poles along its path. The	\$150,000	ELMER	EF2

Date	Impacts	Property Damage	Location	Magnitude
	tornado debarked trees at times. The tornado dissipated in the forest near Castor Plunge Road. Max estimated wind was 120 mph.			
April 22, 2020	8.98 mile path with a width of 550 yards. This tornado started near I-49 and Robinson Bridge Road, where it damaged numerous homes and trees along the road. Two mobile homes were completely destroyed, killing one individual. The tornado then moved ENE crossing Hwy 470 damaging additional homes and bringing down numerous power poles. The tornado then jogged NE crossing Hwy 71 where it produced substantial damage to the DeWitt Livestock Facility. The tornado also substantially damaged farm and equipment buildings at the LSUA Dean Lee Research Station. The tornado proceeded ENE to the Red River producing tree and power pole damage.	\$1,000,000	LECOMPTE ARPT	EF2
April 22, 2020	3.85 mile path with a width of 500 yards. Tornado started east of Chickamaw Road in an open field then damaged a shed and took shingles off a roof on Hwy 456 before crossing Hwy 71. There it damaged another building before crossing Lamourie Road. It damaged out buildings and snapped power lines. It dissipated north of Lamourie Road in a field. Max estimated winds were 110 mph.	\$100,000	LAMOURIE	EF1
April 22, 2020	1.4 mile path with a width of 200 yards. The tornado started west of Highway 454 and moved east-northeast along Wise Chappel Road where it produced considerable tree damage which resulted in a few homes being damaged as well. The tornado continued into Avoyelles Parish. Max estimated winds were 110 mph.	\$100,000	RUBY	EF1

Frequency / Probability

Tornadoes occur frequently within Rapides Parish and its jurisdictions with an annual chance of occurrence calculated at 100% based on the records for the past 30 years (1990 - 2020). *Figure 2-28* displays the density of tornado touchdowns in Rapides Parish and neighboring parishes.



*Figure 2-28: Location and Density of Tornadoes to Touchdown in Rapides Parish.
(Source: NOAA/SPC Severe Weather Database)*

Estimated Potential Losses

According to the NCEI Storm Events Database, there have been 46 tornadoes that have caused some level of property damage since 1990. The total damage from the actual claims for property is approximately \$31,910,000 with an average cost of \$693,696 per tornado event. When annualizing the total cost over the 30-year record, total annual losses based on tornadoes are estimated to be \$1,063,667. The following tables provide an annual estimate of potential losses for Rapides Parish.

Table 2-51: Estimated Annual Losses for Tornadoes in Rapides Parish.

Estimated Potential Annual Losses from Tornadoes					
Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville	Forest Hill
\$596,257	\$385,687	\$32,327	\$8,114	\$5,051	\$6,611

Table 2-51: Estimated Annual Losses for Tornadoes in Rapides Parish. (cont.)

Estimated Potential Annual Losses from Tornadoes				
Glenmora	Lecompte	McNary	Pineville	Woodworth
\$10,846	\$9,916	\$1,705	\$117,630	\$8,858

Table 2-52 presents an analysis of building exposure that are susceptible to tornadoes by general occupancy type for Rapides Parish along with the percentage of building stock that are mobile homes.

Table 2-52: Building Exposure by General Occupancy Type for Tornadoes in Rapides Parish.
(Source: Hazus)

Building Exposure by General Occupancy Type for Tornadoes (\$1,000)							
Residential	Commercial	Industrial	Agricultural	Religion	Government	Education	Mobile Homes (%)
14,977,310	4,881,176	766,137	115,792	686,512	207,621	232,422	13.2%

Rapides Parish has suffered through a total of 46 events in which tornadoes or waterspouts have accounted for four injuries and one fatality during this 30-year period.

In assessing the overall risk to population, the most vulnerable population throughout the parish are those residing in manufacturing housing. Approximately 13.2% of all housing in Rapides Parish consists of manufactured housing. The location and density of manufactured houses can be seen in [Figure 2-29](#).

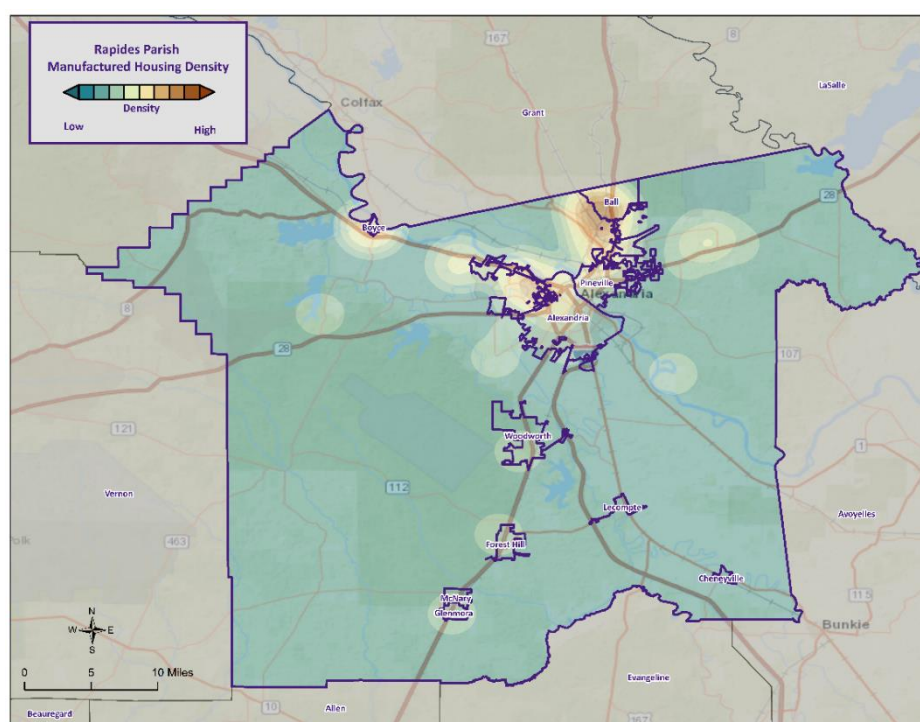


Figure 2-29: Location and Approximate Number of Units in Manufactured Housing Locations throughout Rapides Parish.

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality building exposure to tornadoes.

Tropical Cyclones

Tropical cyclones are among the worst hazards faced by the state of Louisiana. These spinning, low-pressure air masses draw surface air into their centers and attain strength ranging from weak tropical waves to the most intense hurricanes. Usually, these storms begin as clusters of oceanic thunderstorms off the western coast of Africa, moving westward in the trade wind flow. The spinning of these thunderstorm clusters begins because of the formation of low pressure in a perturbation in the westerly motion of the storms associated with differential impacts of the Earth's rotation. The west-moving, counterclockwise-spinning collection of storms, now called a tropical disturbance, may then gather strength as it draws humid air toward its low-pressure center. This results in the formation of a tropical depression (defined when the maximum sustained surface wind speed is 38 mph or less), then a Tropical Cyclone (when the maximum sustained surface wind ranges from 39 mph to 73 mph), and finally a hurricane (when the maximum sustained surface wind speeds exceed 73 mph). On the next page, the table presents the Saffir-Simpson Hurricane Wind Scale, which categorizes tropical cyclones based on sustained winds.

Table 2-53: 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.

Many 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.

Location

Hurricanes are the single biggest threat to 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 Rapides Parish planning area. The worst-case scenario for a tropical cyclone event in Rapides Parish is a Category 1 Hurricane.

Previous Occurrences / Extents

Rapides Parish has experienced nine major tropical cyclone events since 2002. The table on the next page provides a list of tropical cyclones which have impacted Rapides Parish since 2002.

Table 2-54: Historical Tropical Cyclone Events in Rapides Parish from 2002 – 2020.

Date	Name	Storm Type at Time of Impact
2002	Lili	Hurricane
2005	Rita	Hurricane
2007	Humberto	Tropical Storm
2008	Gustav	Hurricane
2011	Lee	Tropical Storm
2012	Isaac	Tropical Storm
2019	Barry	Tropical Storm
2020	Laura	Tropical Storm
2020	Delta	Tropical Storm

Since the last Rapides Parish HMP update in 2016, there have been three tropical cyclone events which have impacted the parish. Below is a brief description of the events and the impact they had on Rapides Parish.

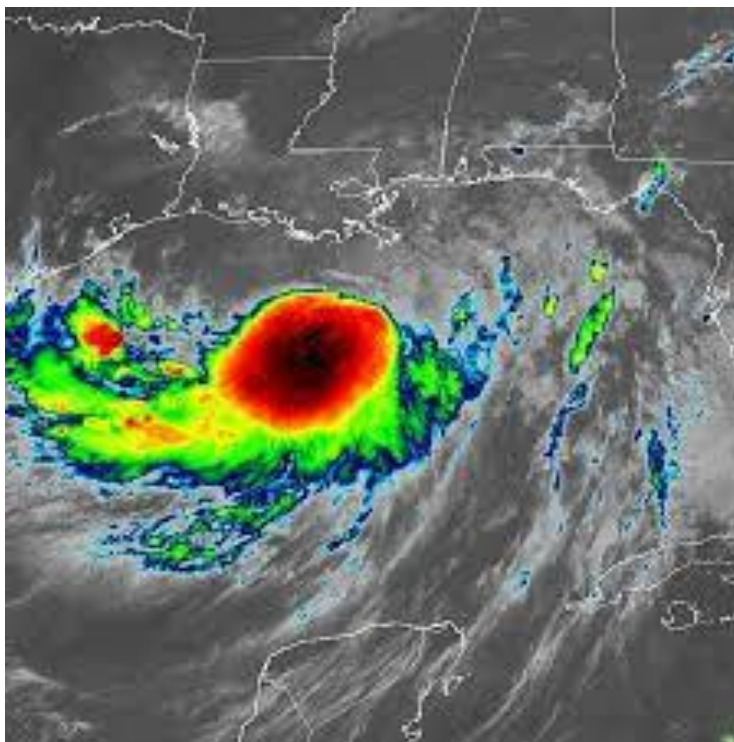
[Tropical Storm Barry \(2019\)](#)

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 Carrollton 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.

In Rapides Parish, occasional tropical storm force wind gusts caused isolated power outages and downed a few trees. The highest wind gusts recorded at KAEX was 34 knots.



*Figure 2-30: Hurricane Barry Rain Bands in the Gulf Coast Area.
(Source: NOAA)*

Tropical Storm Laura (2020)

Laura began as a large tropical wave that emerged off the west coast of Africa on August 16th. The wave traversed the tropical Atlantic for the next several days with little additional organization. On August 19th, the system became better organized, closed off a low-level circulation, and subsequently the National Hurricane Center began issuing advisories on Tropical Depression Thirteen late that evening.

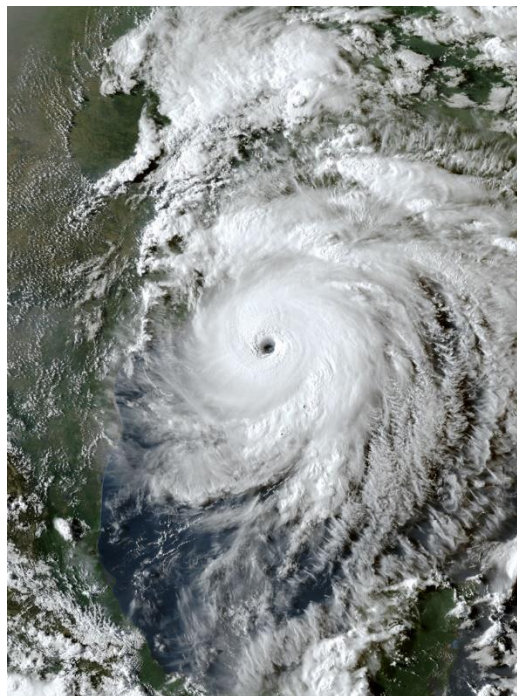
On the morning of August 21st, Tropical Depression Thirteen strengthened into Tropical Storm Laura, which was the earliest twelfth named Atlantic storm, beating the previous record of Hurricane Luis of 1995 by eight days. As Laura moved westward, little additional strengthening took place as the center moved over the northern Lesser Antilles later that evening, and south of Puerto Rico on August 22nd. Early on August 23rd, Tropical Storm Laura made landfall across Hispaniola, traversed the entire island, and made landfall across Eastern Cuba later that evening. Tropical Storm Laura continued west northwestward, traveling just south of the island with a second landfall across Western Cuba late on August 24th.

On August 25th, Laura entered the Gulf of Mexico and became a Category 1 hurricane at 10 AM CDT. Laura began to explosively intensify on August 26th, reaching category 2 by 1 AM CDT, category 3 by 7 AM CDT, and category 4 by 1 PM CDT. Laura reached a peak intensity of 150 mph (130 knots) and a minimum central pressure of 937 millibars (27.67 inches of mercury) by 8 PM CDT.

With little change in strength, Laura made landfall at Cameron, Louisiana around 1 AM CDT August 27th, with sustained winds of 150 mph (130 knots) and a minimum central pressure of 938 millibars (27.70 inches of mercury). Laura was the strongest hurricane to strike Southwest Louisiana since records began in 1851.

Laura slowly weakened after landfall but maintained major hurricane status throughout its passage across Cameron, Calcasieu, and southern Beauregard Parishes, and category 2 status across northern Beauregard and Vernon parishes as daybreak approached on August 27th. Laura finally weakened below hurricane strength by Noon as it was crossing I-20 in North Louisiana. With this being the strongest hurricane to affect Southwest Louisiana, wind damage to buildings and trees was major to catastrophic across Cameron and Calcasieu parishes, with considerable damage across Beauregard and Vernon parishes where the core of the hurricane passed.

The National Weather Service in Lake Charles, Louisiana recorded a station record highest peak wind gust of 116 knots (133 mph) at 1:42 AM CDT before the Automated Surface Observing System (ASOS) wind equipment failed. However, the ASOS barometer sensor that was safely within the NWS building (which received very little damage) recorded a station record minimum sea level pressure of 956 millibars (28.23 inches of mercury) at 2:20 AM CDT when the eye of Hurricane Laura passed nearly overhead.



*Figure 2-31: Hurricane Laura in the Gulf Coast Area.
(Source: NOAA)*

A total of 33 fatalities occurred throughout the state with four of them coming from falling trees. They included a 14-year-old girl in Vernon Parish, a 68-year-old man in Acadia Parish, a 51-year-old man in Jackson Parish, and a 64-year-old man in Allen Parish. Carbon monoxide poisoning from generators being inside homes, which is strongly discouraged, led to the deaths of twelve people in Calcasieu Parish and two people in Allen Parish. Another man died of drowning while aboard a sinking boat during the storm. Finally, one person died in Calcasieu Parish in a house fire, four people died in Calcasieu Parish, Natchitoches Parish, and Rapides Parish during the cleanup process, and eight others died in Beauregard Parish, Grant Parish, Rapides Parish, and Vernon Parish due to heat-related illnesses following the loss of electricity.

In Rapides Parish, numerous trees, poles, and power lines were downed. Homes and businesses were damaged from fallen trees or from the high winds. All of the parish was without power immediately

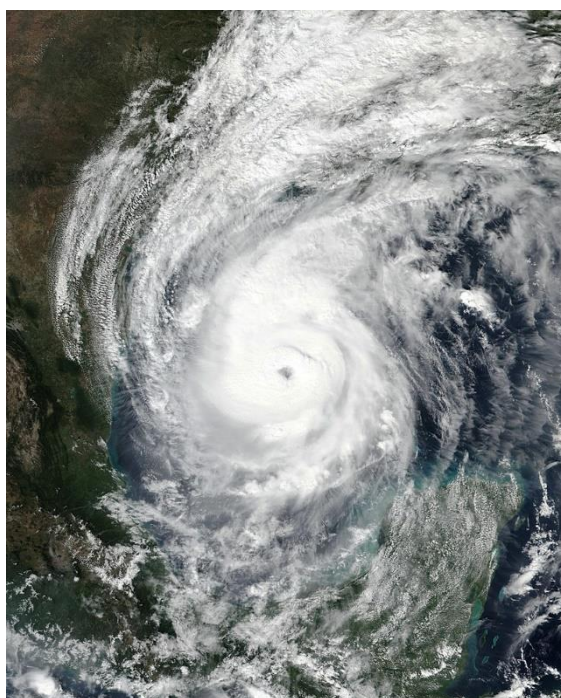
following the storm. One indirect death occurred in the parish following the storm during the clean up process and two fatalities occurred due to heat related stress. Wind gusts ranged from 65 to 105 mph.

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-sixth 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.

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 Rapides Parish, Delta produced wind gusts of around 65 mph with heavy rainfall which led to numerous downed trees and power lines. Flooding was caused by 10 to 20 inches of rainfall with major flooding occurring along the Calcasieu River along Bayou Cocodrie. One drowning was reported and approximately 50 high water rescues were conducted.



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

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

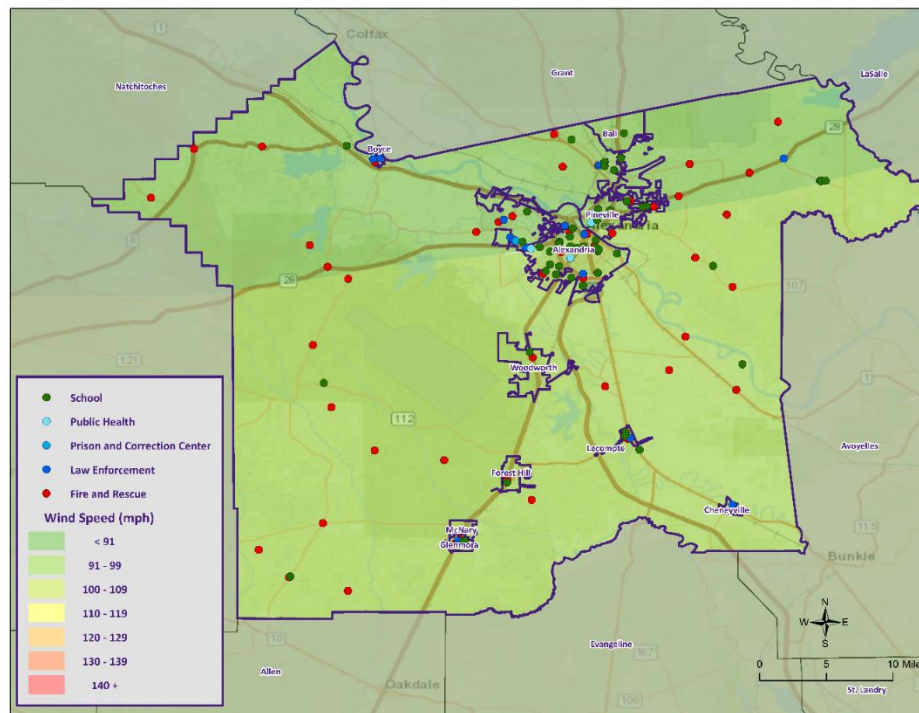


Figure 2-33: Winds Zones for Rapides Parish in Relation to Critical Facilities

Frequency / Probability

Tropical cyclones are large natural hazard events that regularly impact Rapides Parish. The annual chance of occurrence for a tropical cyclone is estimated at 50% for Rapides Parish, with nine events having occurred within 18 years (2002 to 2020). The tropical cyclone season for the Atlantic Basin is from June 1st through November 30th, with most of the major hurricanes (Saffir-Simpson Categories 3, 4, & 5) occurring between the months of August and October. Based on geographical location alone Rapides Parish and its jurisdictions are highly vulnerable to tropical cyclones. This area has experienced several tropical cyclone events in the past and can expect more in the future.

Estimated Potential Losses

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

*Table 2-55: Total Estimated Losses for a 100-Year Hurricane Event
(Source: Hazus)*

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event
Rapides Parish (Unincorporated)	\$13,195,864
Alexandria	\$13,195,864
Ball	\$894,360
Boyce	\$224,484
Cheneyville	\$139,308
Forest Hill	\$182,475
Glenmora	\$300,058
Lecompte	\$274,345
McNary	\$47,029
Pineville	\$3,254,354
Woodworth	\$244,856
Total	\$31,952,999

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

*Table 2-56: Ratio of Total Losses to Total Estimated Value of Assets for Rapides Parish
(Source: Hazus)*

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event	Total Estimated Value of Assets	Ratio of Estimated Losses to Total Value
Rapides Parish (Unincorporated)	\$13,195,864	\$10,835,278,000	0.1%
Alexandria	\$13,195,864	\$9,848,403,000	0.1%
Ball	\$894,360	\$488,425,000	0.2%
Boyce	\$224,484	\$127,028,000	0.2%
Cheneyville	\$139,308	\$90,652,000	0.2%
Forest Hill	\$182,475	\$107,096,000	0.2%
Glenmora	\$300,058	\$166,073,000	0.2%
Lecompte	\$274,345	\$171,471,000	0.2%
McNary	\$47,029	\$32,544,000	0.1%
Pineville	\$3,254,354	\$2,450,381,000	0.1%
Woodworth	\$244,856	\$182,040,000	0.1%

Based on the Hazus Hurricane Model, estimated total losses for Rapides Parish and its jurisdictions ranged from 0.1% to 0.2% 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 Rapides Parish by sector are listed in the table below.

*Table 2-57: Estimated Losses in Unincorporated Rapides Parish for a 100-Year Hurricane Event
(Source: Hazus)*

Rapides Parish (Unincorporated)	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$551
Commercial	\$261,853
Government	\$9,023
Industrial	\$31,135
Religious / Non-Profit	\$32,871
Residential	\$12,849,398
Schools	\$11,033
Total	\$13,195,864

*Table 2-58: Estimated Losses in Alexandria for a 100-Year Hurricane Event
(Source: Hazus)*

Alexandria	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$438
Commercial	\$211,761
Government	\$7,150
Industrial	\$24,577
Religious / Non-Profit	\$26,488
Residential	\$10,391,307
Schools	\$8,669
Total	\$10,670,391

*Table 2-59: Estimated Losses in Ball for a 100-Year Hurricane Event
(Source: Hazus)*

Ball	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$37
Commercial	\$17,749
Government	\$599
Industrial	\$2,060
Religious / Non-Profit	\$2,220
Residential	\$870,968
Schools	\$727
Total	\$894,360

Table 2-60: Estimated Losses in Boyce for a 100-Year Hurricane Event
(Source: Hazus)

Boyce	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$0
Commercial	\$4,455
Government	\$0
Industrial	\$517
Religious / Non-Profit	\$557
Residential	\$218,613
Schools	\$182
Total	\$224,325

Table 2-61: Estimated Losses in Cheneyville for a 100-Year Hurricane Event
(Source: Hazus)

Cheneyville	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$6
Commercial	\$2,773
Government	\$94
Industrial	\$0
Religious / Non-Profit	\$347
Residential	\$136,089
Schools	\$0
Total	\$139,308

Table 2-62: Estimated Losses in Forest Hill for a 100-Year Hurricane Event
(Source: Hazus)

Forest Hill	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$8
Commercial	\$3,630
Government	\$123
Industrial	\$0
Religious / Non-Profit	\$454
Residential	\$178,113
Schools	\$149
Total	\$182,475

*Table 2-63: Estimated Losses in Glenmora for a 100-Year Hurricane Event
(Source: Hazus)*

Glenmora	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$12
Commercial	\$5,955
Government	\$201
Industrial	\$691
Religious / Non-Profit	\$745
Residential	\$292,210
Schools	\$244
Total	\$300,058

*Table 2-64: Estimated Losses in Lecompte for a 100-Year Hurricane Event
(Source: Hazus)*

Lecompte	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$11
Commercial	\$5,445
Government	\$184
Industrial	\$632
Religious / Non-Profit	\$681
Residential	\$267,170
Schools	\$223
Total	\$274,345

*Table 2-65: Estimated Losses in McNary for a 100-Year Hurricane Event
(Source: Hazus)*

McNary	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$2
Commercial	\$936
Government	\$0
Industrial	\$109
Religious / Non-Profit	\$0
Residential	\$45,944
Schools	\$38
Total	\$47,029

Table 2-66: Estimated Losses in Pineville for a 100-Year Hurricane Event
(Source: Hazus)

Pineville	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$134
Commercial	\$64,585
Government	\$2,181
Industrial	\$7,496
Religious / Non-Profit	\$8,079
Residential	\$3,169,236
Schools	\$2,644
Total	\$3,254,354

Table 2-67: Estimated Losses in Woodworth for a 100-Year Hurricane Event
(Source: Hazus)

Woodworth	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	\$10
Commercial	\$4,863
Government	\$164
Industrial	\$564
Religious / Non-Profit	\$608
Residential	\$238,645
Schools	\$0
Total	\$244,856

Threat to People

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

Table 2-68: Number of People Susceptible to a 100-Year Hurricane Event in Rapides Parish

(Source: Hazus)

Number of People Exposed to Hurricane Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
Rapides Parish (Unincorporated)	73,778	73,778	100%
Alexandria	47,723	47,723	100%
Ball	4,000	4,000	100%
Boyce	1,004	1,004	100%
Cheneyville	625	625	100%
Forest Hill	818	818	100%
Glenmora	1,342	1,342	100%
Lecompte	1,227	1,227	100%
McNary	211	211	100%
Pineville	14,555	14,555	100%
Woodworth	1,096	1,096	100%
Total	131,613	131,613	100%

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

Table 2-69: Vulnerable Populations in Unincorporated Rapides Parish for a 100-Year Hurricane Event

(Source: Hazus)

Rapides Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	73,778	100.0%
Persons Under 5 Years	5,135	7.0%
Persons Under 18 Years	19,064	25.8%
Persons 65 Years and Over	10,100	13.7%
White	46,738	63.4%
Minority	27,040	36.7%

*Table 2-70: Vulnerable Populations in Alexandria for a 100-Year Hurricane Event
(Source: Hazus)*

Alexandria		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	47,723	100.0%
Persons Under 5 Years	3,450	7.2%
Persons Under 18 Years	12,690	26.6%
Persons 65 Years and Over	6,662	14.0%
White	18,287	38.3%
Minority	29,436	61.7%

*Table 2-71: Vulnerable Populations in Ball for a 100-Year Hurricane Event
(Source: Hazus)*

Ball		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	4,000	100.0%
Persons Under 5 Years	271	6.8%
Persons Under 18 Years	1,002	25.1%
Persons 65 Years and Over	503	12.6%
White	3,586	89.7%
Minority	414	10.4%

*Table 2-72: Vulnerable Populations in Boyce for a 100-Year Hurricane Event
(Source: Hazus)*

Boyce		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,004	100.0%
Persons Under 5 Years	80	8.0%
Persons Under 18 Years	269	26.8%
Persons 65 Years and Over	147	14.6%
White	257	25.6%
Minority	747	74.4%

*Table 2-73: Vulnerable Populations in Cheneyville for a 100-Year Hurricane Event
(Source: Hazus)*

Cheneyville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	625	100.0%
Persons Under 5 Years	32	5.1%
Persons Under 18 Years	126	20.2%
Persons 65 Years and Over	124	19.8%
White	167	26.7%
Minority	458	73.3%

*Table 2-74: Vulnerable Populations in Forest Hill for a 100-Year Hurricane Event
(Source: Hazus)*

Forest Hill		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	818	100.0%
Persons Under 5 Years	78	9.5%
Persons Under 18 Years	267	32.7%
Persons 65 Years and Over	70	8.6%
White	507	62.0%
Minority	311	38.0%

*Table 2-75: Vulnerable Populations in Glenmora for a 100-Year Hurricane Event
(Source: Hazus)*

Glenmora		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,342	100.0%
Persons Under 5 Years	96	7.2%
Persons Under 18 Years	331	24.7%
Persons 65 Years and Over	229	17.1%
White	860	64.1%
Minority	482	35.9%

*Table 2-76: Vulnerable Populations in Lecompte for a 100-Year Hurricane Event
(Source: Hazus)*

Lecompte		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,227	100.0%
Persons Under 5 Years	78	6.4%
Persons Under 18 Years	370	30.2%
Persons 65 Years and Over	163	13.3%
White	374	30.5%
Minority	853	69.5%

*Table 2-77: Vulnerable Populations in McNary for a 100-Year Hurricane Event
(Source: Hazus)*

McNary		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	211	100.0%
Persons Under 5 Years	7	3.3%
Persons Under 18 Years	33	15.6%
Persons 65 Years and Over	39	18.5%
White	164	77.7%
Minority	47	22.3%

*Table 2-78: Vulnerable Populations in Pineville for a 100-Year Hurricane Event
(Source: Hazus)*

Pineville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	14,555	100.0%
Persons Under 5 Years	984	6.8%
Persons Under 18 Years	3,335	22.9%
Persons 65 Years and Over	1,892	13.0%
White	9,404	64.6%
Minority	5,151	35.4%

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

Woodworth		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,096	100.0%
Persons Under 5 Years	65	5.9%
Persons Under 18 Years	250	22.8%
Persons 65 Years and Over	133	12.1%
White	986	90.0%
Minority	110	10.0%

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality buildings that are susceptible to tropical cyclones.

Wildfires

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 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 tries 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).

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 on the next page summarizes the intensity levels assigned to areas in the Southern Wildfire Assessment Portal.

*Table 2-80: 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.

Location

Wildfires impact areas that are populated with forests and grasslands. The worse-case scenario for Rapides Parish is a level 5; Alexandria, Ball, McNary, Pineville, and Woodworth a level 3; Boyce a level 2.5; Forest Hill, Glenmora, and Lecompte a level 2; and Cheneyville a level 1 on the fire intensity scale. The following figures display the areas of wildland-urban interface and intermix in Rapides Parish and its jurisdictions.

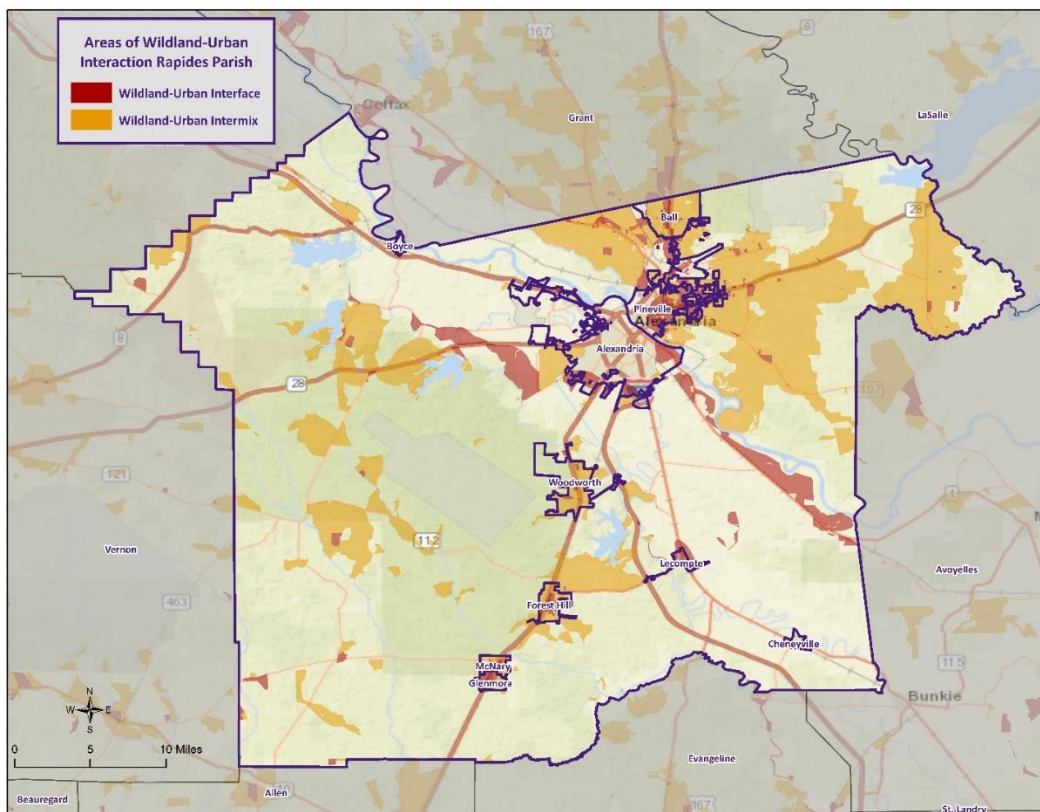


Figure 2-34: Wildland-Urban Interaction in Rapides Parish.

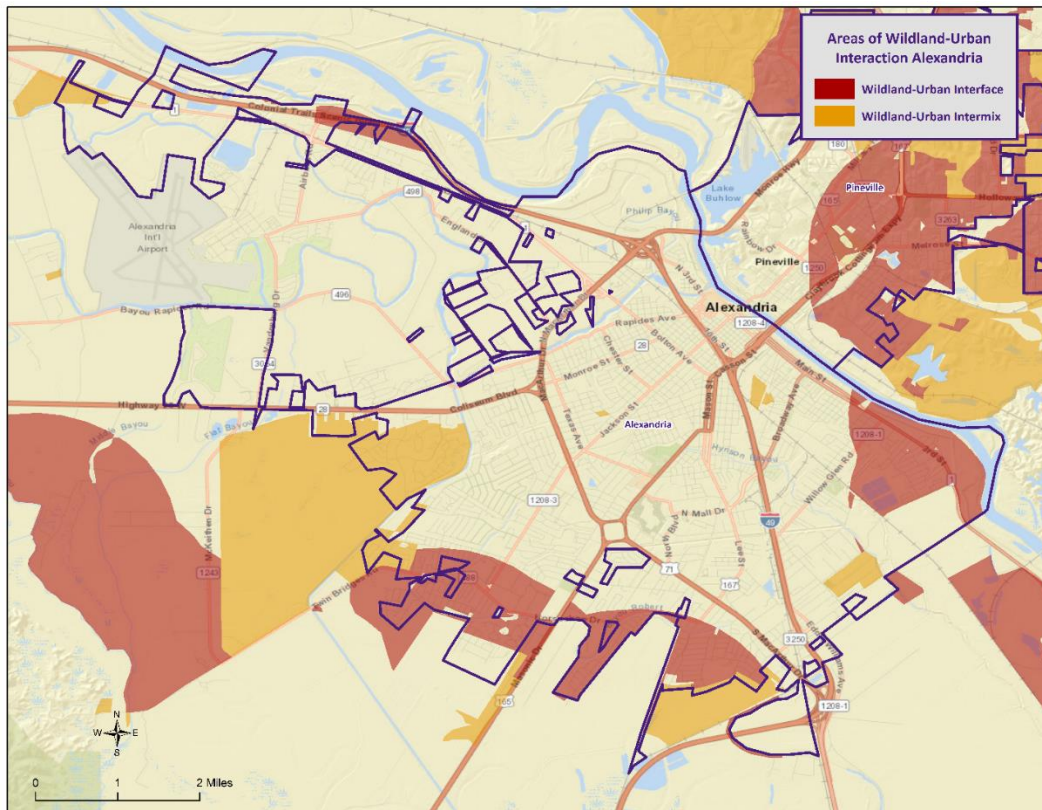


Figure 2-35: Wildland-Urban Interaction in Alexandria.

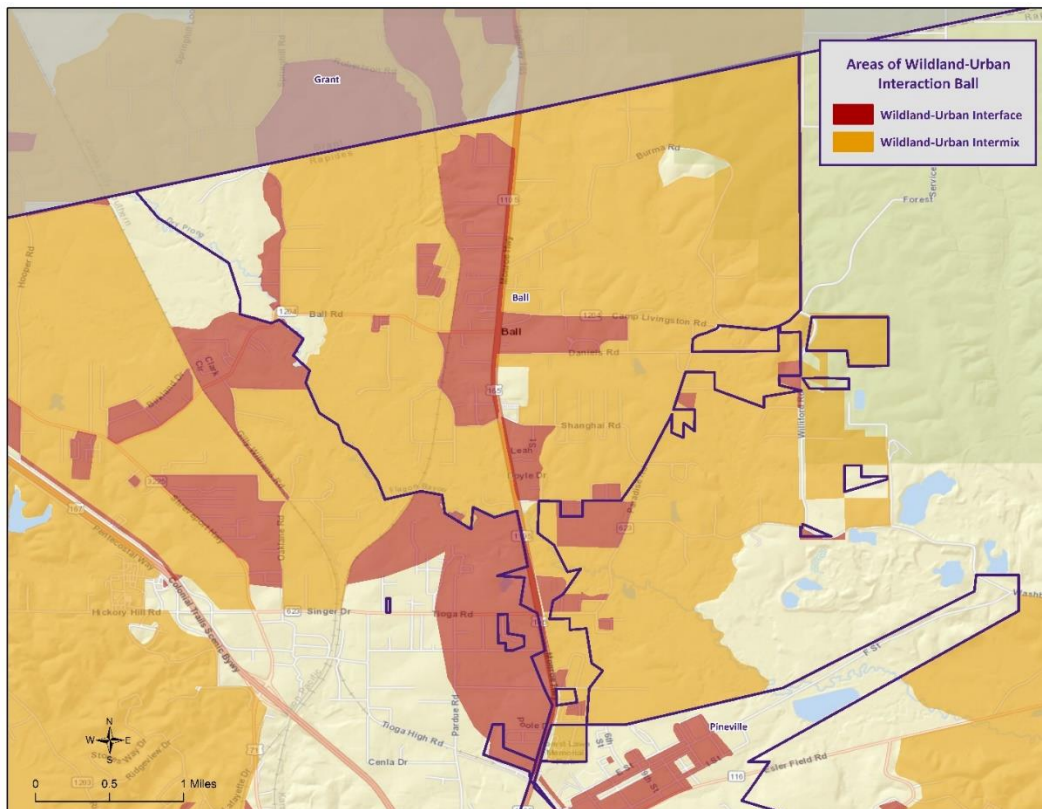


Figure 2-36: Wildland-Urban Interaction in Ball.

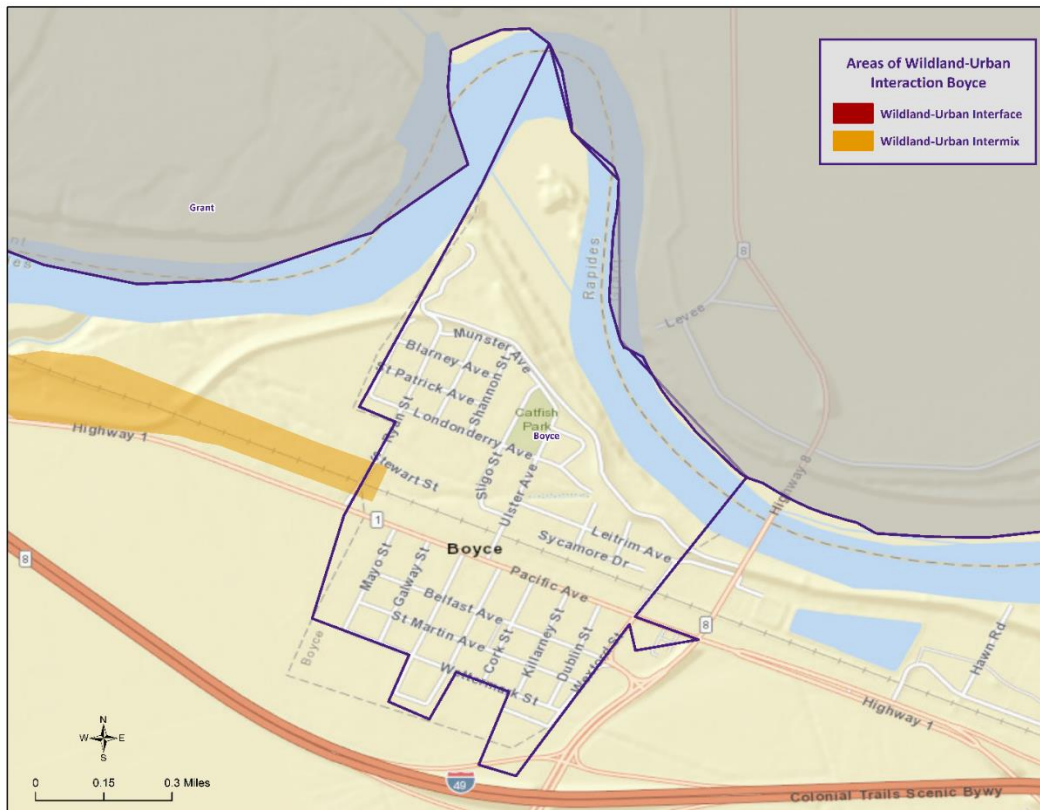


Figure 2-37: Wildland-Urban Interaction in Boyce.

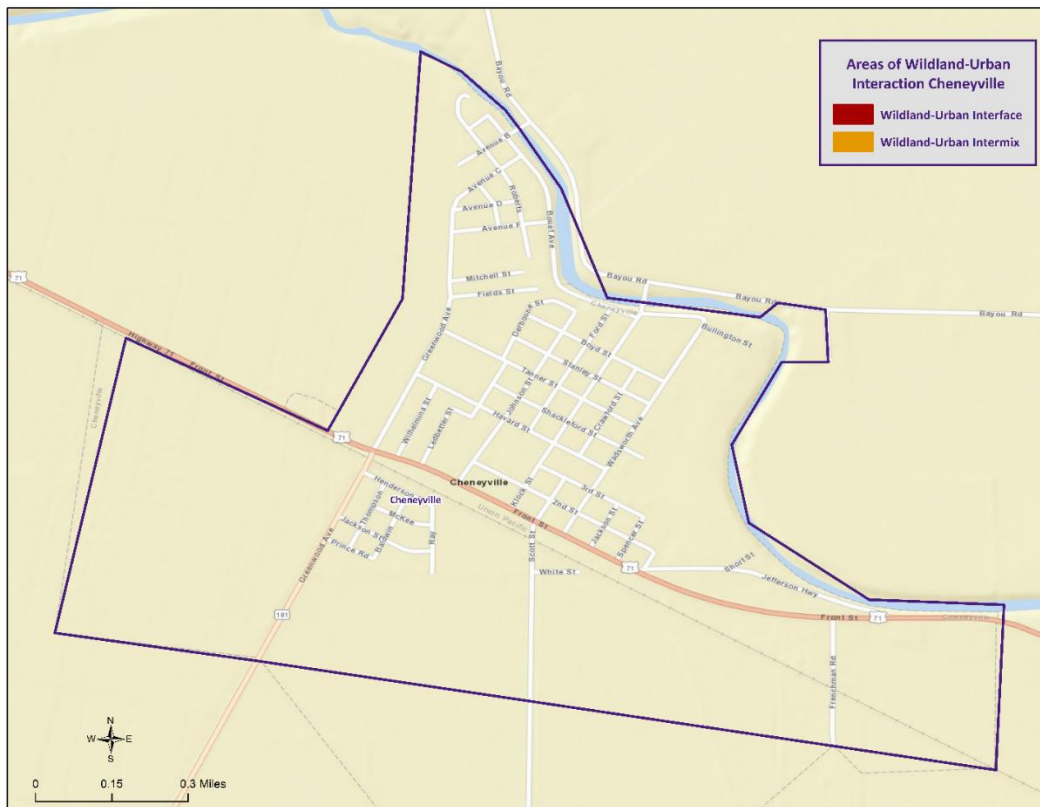


Figure 2-38: Wildland-Urban Interaction in Cheneyville.

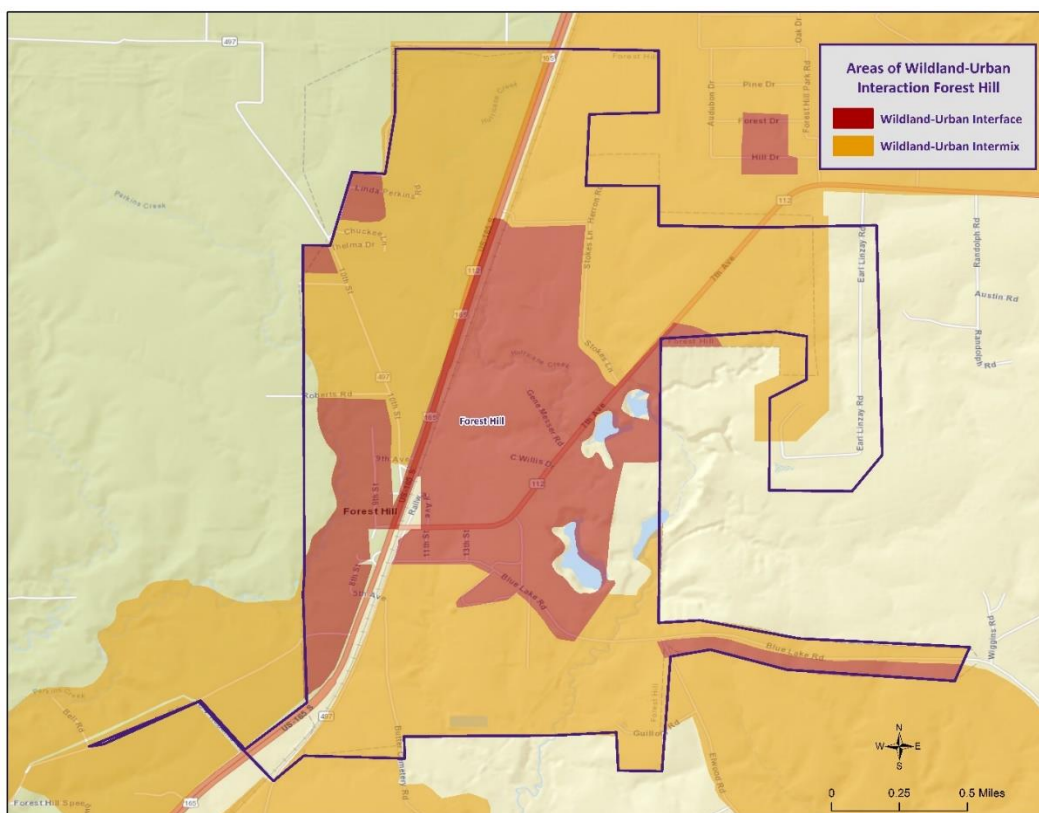


Figure 2-39: Wildland-Urban Interaction in Forest Hill.

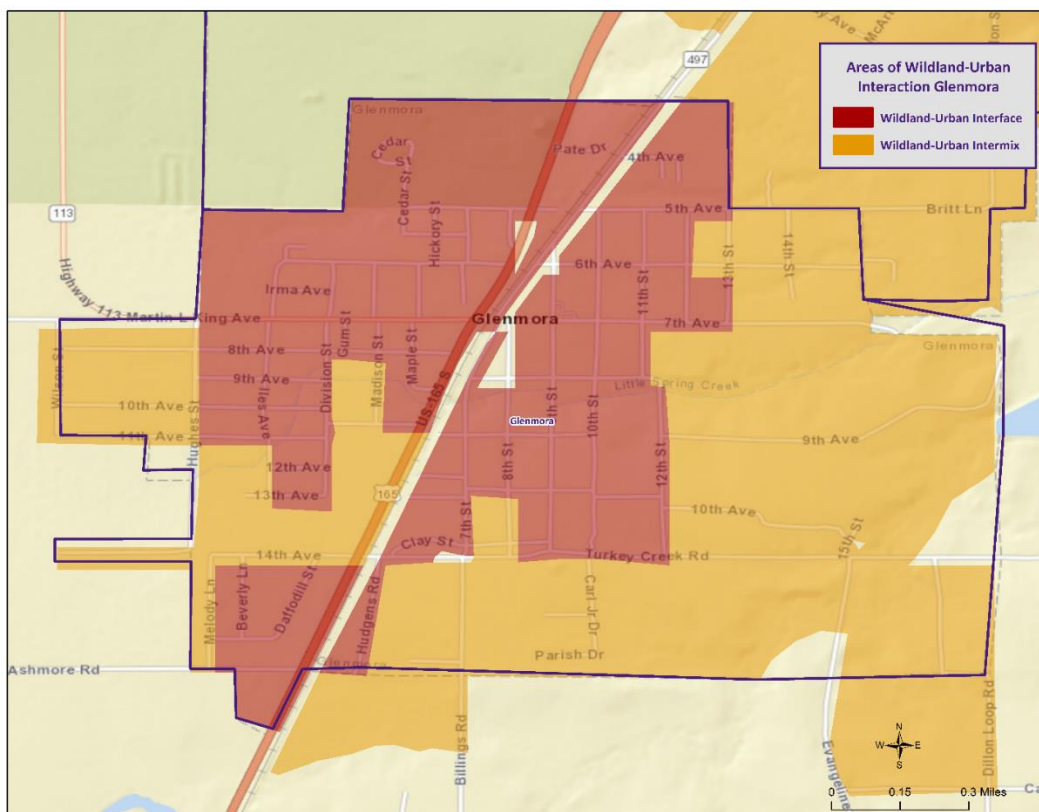


Figure 2-40: Wildland-Urban Interaction in Glenmora.

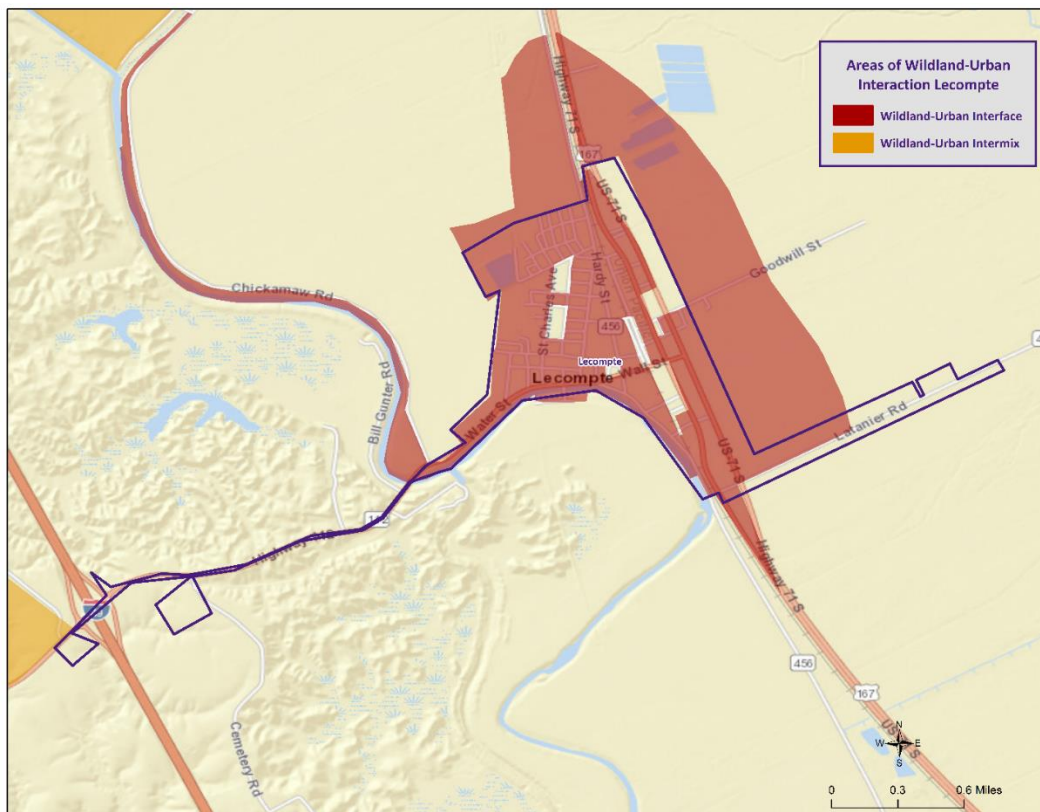


Figure 2-41: Wildland-Urban Interaction in Lecompte.

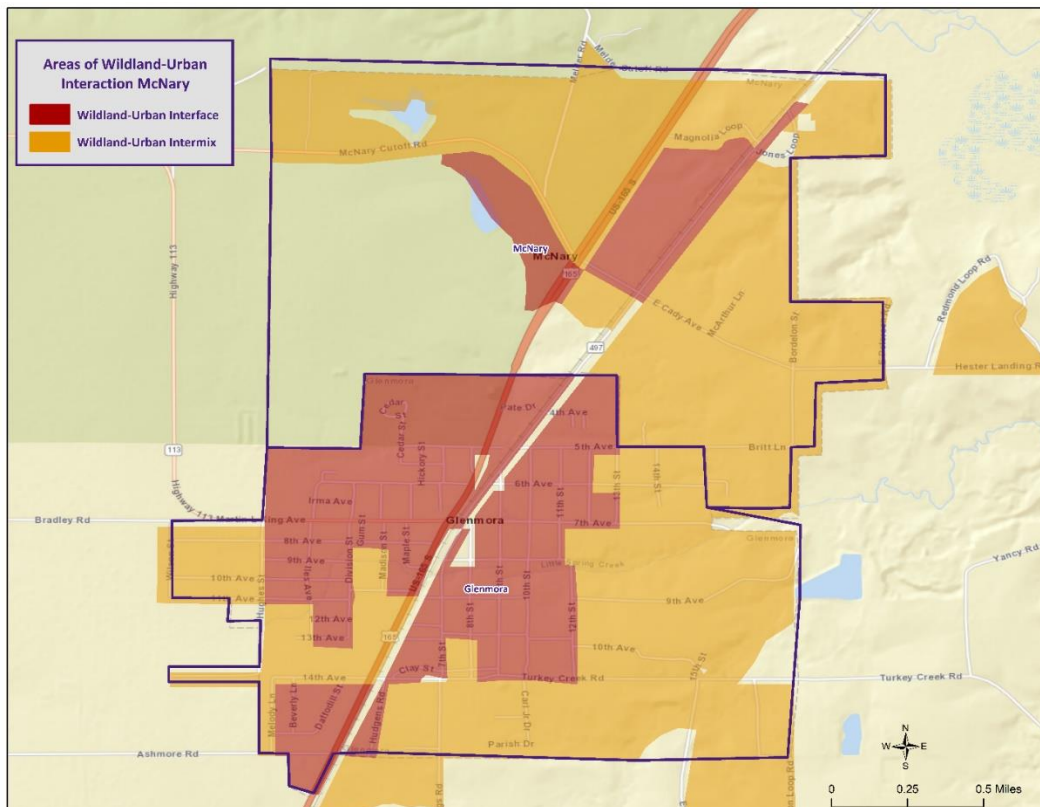


Figure 2-42: Wildland-Urban Interaction in McNary.

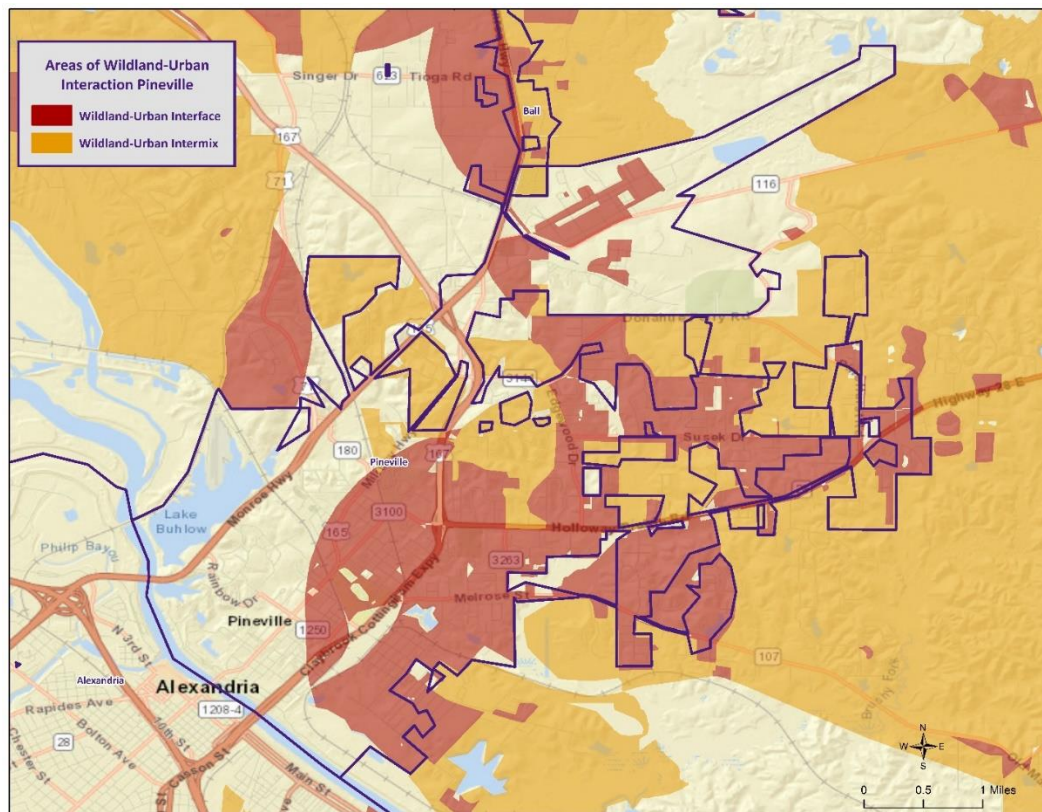


Figure 2-43: Wildland-Urban Interaction in Pineville.

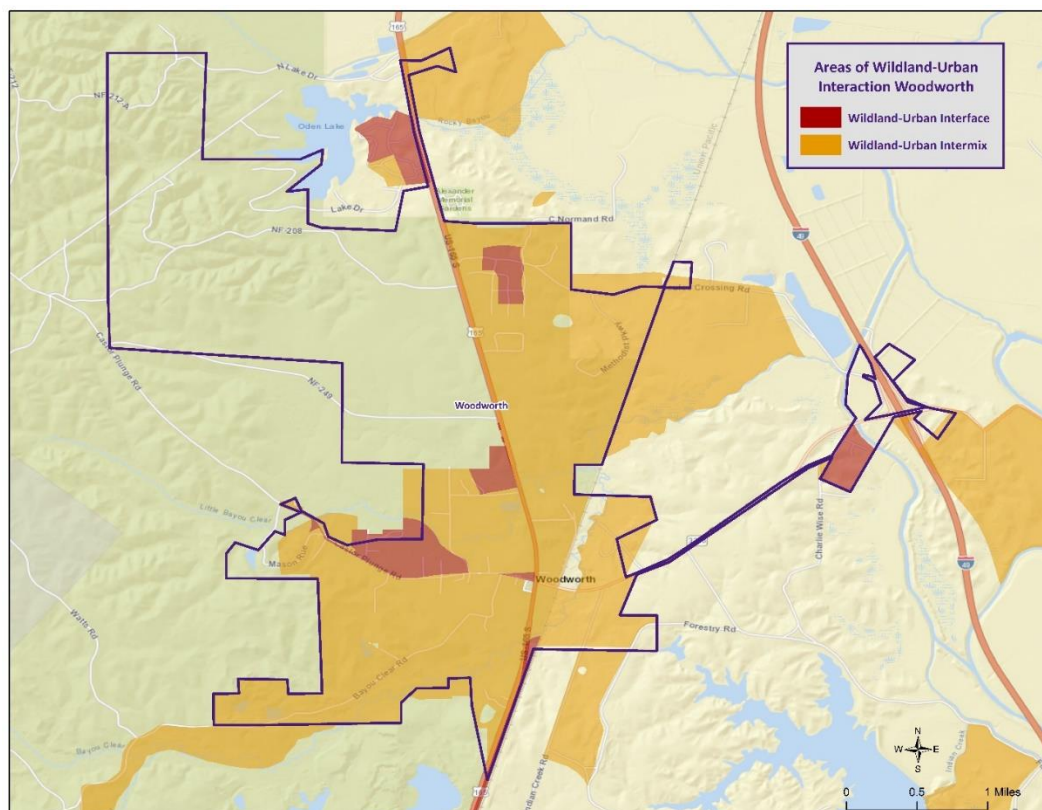


Figure 2-44: Wildland-Urban Interaction in Woodworth.

Previous Occurrences / Extents

The NCEI Storm Events report no wildfire events occurring within the boundaries of Rapides Parish between the years 1990 and 2020.

Based on the Southern Group of State Foresters Risk Assessment Portal, the following table outlines the intensity that each jurisdictional area within Rapides Parish could potential experience due to a wildfire event.

*Table 2-81: Potential Wildfire Intensity Levels for Rapides Parish.
(Source: Southern Wildfire Assessment Portal)*

Fire Intensity	
Rapides (Unincorporated)	High Intensity Level 5
Alexandria	Moderate Intensity Level 3
Ball	Moderate Intensity Level 3
Boyce	Low to Moderate Intensity Level 2.5
Cheneyville	Lowest Intensity Level 1
Forest Hill	Low Intensity Level 2
Glenmora	Low Intensity Level 2
Lecompte	Low Intensity Level 2
McNary	Moderate Intensity Level 3
Pineville	Moderate Intensity Level 3
Woodworth	Moderate Intensity Level 3

Frequency / Probability

Based on historical records, there have been no significant wildfire events within the areas of Unincorporated Rapides Parish and the jurisdictions of Alexandria, Ball, Boyce, Cheneyville, Forest Hill, Glenmora, Lecompte, McNary, Pineville, and Woodworth; therefore, the annual chance of occurrence for wildfires is estimated at less than 1%.

Estimated Potential Loses

According to the NCEI Storm Events database, there have been no wildfire events which have caused property damage, crop damage, injuries, or fatalities in Rapides Parish and its jurisdictions. In assessing over risk to population, the most vulnerable population throughout the parish consists of those residing in areas of wildland-urban interaction.

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 2-82: Total Building Exposure by Wildland-Urban Interaction Areas.
(Source: Hazus)*

Jurisdiction	Estimated Total Building Exposure
Rapides Parish (Unincorporated)	\$6,565,151,000
Alexandria	\$2,116,281,000
Ball	\$488,315,000
Boyce	\$1,360,000
Cheneyville	\$0
Forest Hill	\$125,377,000
Glenmora	\$166,073,000
Lecompte	\$155,296,000
McNary	\$32,544,000
Pineville	\$2,119,505,000
Woodworth	\$174,648,000
Total	\$11,944,550,000

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. The total exposure for each jurisdiction by sector is listed in the following tables. These sectors are comprised of privately owned structures/facilities, as well as locally, state, and federally owned structures/facilities.

*Table 2-83: Estimated Exposure for Unincorporated Rapides Parish by Sector.
(Source: Hazus)*

Rapides Parish (Unincorporated)	Estimated Total Building Exposure by Sector
Agricultural	\$57,726,000
Commercial	\$593,527,000
Government	\$27,724,000
Industrial	\$193,886,000
Religious / Non-Profit	\$179,152,000
Residential	\$5,474,798,000
Schools	\$38,338,000
Total	\$6,565,151,000

*Table 2-84: Estimated Exposure for Alexandria by Sector.**(Source: Hazus)*

Alexandria	Estimated Total Building Exposure by Sector
Agricultural	\$2,276,000
Commercial	\$194,049,000
Government	\$10,801,000
Industrial	\$80,881,000
Religious / Non-Profit	\$35,880,000
Residential	\$1,770,874,000
Schools	\$21,520,000
Total	\$2,116,281,000

*Table 2-85: Estimated Exposure in Ball by Sector.**(Source: Hazus)*

Ball	Estimated Total Building Exposure by Sector
Agricultural	\$1,012,000
Commercial	\$66,163,000
Government	\$168,000
Industrial	\$10,970,000
Religious / Non-Profit	\$14,944,000
Residential	\$387,332,000
Schools	\$7,726,000
Total	\$488,315,000

*Table 2-86: Estimated Exposure in Boyce by Sector.**(Source: Hazus)*

Boyce	Estimated Total Building Exposure by Sector
Agricultural	\$0
Commercial	\$0
Government	\$0
Industrial	\$0
Religious / Non-Profit	\$0
Residential	\$1,360,000
Schools	\$0
Total	\$1,360,000

Table 2-87: Estimated Exposure in Forest Hill by Sector.

(Source: Hazus)

Forest Hill	Estimated Total Building Exposure by Sector
Agricultural	\$2,128,000
Commercial	\$14,932,000
Government	\$2,212,000
Industrial	\$0
Religious / Non-Profit	\$3,070,000
Residential	\$96,143,000
Schools	\$6,892,000
Total	\$125,377,000

Table 2-88: Estimated Exposure in Glenmora by Sector.

(Source: Hazus)

Glenmora	Estimated Total Building Exposure by Sector
Agricultural	\$618,000
Commercial	\$8,348,000
Government	\$1,576,000
Industrial	\$348,000
Religious / Non-Profit	\$13,410,000
Residential	\$132,725,000
Schools	\$9,048,000
Total	\$166,073,000

Table 2-89: Estimated Exposure in Lecompte by Sector.

(Source: Hazus)

Lecompte	Estimated Total Building Exposure by Sector
Agricultural	\$2,060,000
Commercial	\$22,909,000
Government	\$978,000
Industrial	\$1,173,000
Religious / Non-Profit	\$12,616,000
Residential	\$112,106,000
Schools	\$3,454,000
Total	\$155,296,000

Table 2-90: Estimated Exposure in McNary by Sector.

(Source: Hazus)

McNary	Estimated Total Building Exposure by Sector
Agricultural	\$2,872,000
Commercial	\$9,648,000
Government	\$0
Industrial	\$238,000
Religious / Non-Profit	\$0
Residential	\$18,346,000
Schools	\$1,440,000
Total	\$32,544,000

Table 2-91: Estimated Exposure in Pineville by Sector.

(Source: Hazus)

Pineville	Estimated Total Building Exposure by Sector
Agricultural	\$6,778,000
Commercial	\$354,553,000
Government	\$14,029,000
Industrial	\$51,393,000
Religious / Non-Profit	\$59,072,000
Residential	\$1,590,563,000
Schools	\$43,117,000
Total	\$2,119,505,000

Table 2-92: Estimated Exposure in Woodworth by Sector.

(Source: Hazus)

Woodworth	Estimated Total Building Exposure by Sector
Agricultural	\$818,000
Commercial	\$16,116,000
Government	\$1,224,000
Industrial	\$5,011,000
Religious / Non-Profit	\$5,918,000
Residential	\$145,561,000
Schools	\$0
Total	\$174,648,000

Threat to People

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
Rapides Parish (Unincorporated)	73,778	35,652	48.3%
Alexandria	47,723	10,567	22.1%
Ball	4,000	3,664	91.6%
Boyce	1,004	621	61.9%
Cheneyville	625	0	0.0%
Forest Hill	818	809	98.9%
Glenmora	1,342	1,342	100.0%
Lecompte	1,227	1,059	86.3%
McNary	211	196	92.9%
Pineville	14,555	10,529	72.3%
Woodworth	1,096	977	89.1%
Total	131,613	65,416	49.7%

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 data is illustrated in the following tables:

Table 2-94: Population in Unincorporated Rapides Parish Located within a Wildland-Urban Interaction Area.

(Source: 2010 Census Data)

Rapides Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	35,652	48.3%
Persons Under 5 Years	2,481	7.0%
Persons Under 18 Years	9,212	25.8%
Persons 65 Years and Over	4,881	13.7%
White	22,586	63.4%
Minority	13,066	36.7%

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

Alexandria		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	10,567	22.1%
Persons Under 5 Years	764	7.2%
Persons Under 18 Years	2,810	26.6%
Persons 65 Years and Over	1,475	14.0%
White	4,049	38.3%
Minority	6,518	61.7%

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

Ball		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	3,664	91.6%
Persons Under 5 Years	248	6.8%
Persons Under 18 Years	918	25.1%
Persons 65 Years and Over	461	12.6%
White	3,285	89.7%
Minority	379	10.4%

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

Boyce		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	621	61.9%
Persons Under 5 Years	49	8.0%
Persons Under 18 Years	166	26.8%
Persons 65 Years and Over	91	14.6%
White	159	25.6%
Minority	462	74.4%

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

Forest Hill		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	809	98.9%
Persons Under 5 Years	77	9.5%
Persons Under 18 Years	264	32.7%
Persons 65 Years and Over	69	8.6%
White	501	62.0%
Minority	308	38.0%

*Table 2-99: Population in Glenmora Located within a Wildland-Urban Interaction Area.
(Source: 2010 Census Data)*

Glenmora		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,342	100.0%
Persons Under 5 Years	96	7.2%
Persons Under 18 Years	331	24.7%
Persons 65 Years and Over	229	17.1%
White	860	64.1%
Minority	482	35.9%

*Table 2-100: Population in Lecompte Located within a Wildland-Urban Interaction Area.
(Source: 2010 Census Data)*

Lecompte		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,059	86.3%
Persons Under 5 Years	67	6.4%
Persons Under 18 Years	319	30.2%
Persons 65 Years and Over	141	13.3%
White	323	30.5%
Minority	736	69.5%

*Table 2-101: Population in McNary Located within a Wildland-Urban Interaction Area.
(Source: 2010 Census Data)*

McNary		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	196	92.9%
Persons Under 5 Years	7	3.3%
Persons Under 18 Years	31	15.6%
Persons 65 Years and Over	36	18.5%
White	152	77.7%
Minority	44	22.3%

*Table 2-102: Population in Pineville Located within a Wildland-Urban Interaction Area.
(Source: 2010 Census Data)*

Pineville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	10,529	72.3%
Persons Under 5 Years	91	6.8%
Persons Under 18 Years	307	22.9%
Persons 65 Years and Over	174	13.0%
White	867	64.6%
Minority	475	35.4%

*Table 2-103: Population in Woodworth Located within a Wildland-Urban Interaction Area.
(Source: 2010 Census Data)*

Woodworth		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	977	89.1%
Persons Under 5 Years	63	5.9%
Persons Under 18 Years	242	22.8%
Persons 65 Years and Over	129	12.1%
White	953	90.0%
Minority	106	10.0%

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality facilities that could potentially be exposed to a wildfire hazard. Buildings were determined based on whether or not they fall within the wildfire-urban interface and/or intermix.

Winter Weather

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 storms are 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 table on the next page 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 2-104: 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.

Location

Because a winter storm is a climatological based hazard and has the same probability of occurring in Rapides Parish as all of the adjacent parishes, the entire planning area for Rapides Parish is equally at risk for winter storms. The worse-case scenario for Rapides Parish and all of its jurisdictions is a level 2 on the Sperry-Piltz Ice Accumulation Index.

Previous Occurrences / Extents

The NCEI Storm Events Database reports 20 winter weather events occurring within the boundaries of Rapides Parish between the years 1990 and 2020. Below is a brief synopsis of the winter weather events which occurred since the last Rapides Parish HMP Update in 2016.

Table 2-105: Previous Occurrences for Winter Storm Events

Date	Synopsis	Property Damage	Crop Damage
January 16, 2017	Light rain changed over to freezing rain then to sleet and snow through the afternoon of the 6th. Accumulations were generally very light, however ice still developed on some roadways and bridges around Alexandria and Boyce. Elevated sections of I-49 and the LA 8 bridge were closed for several hours until the precipitation ended and temperatures rose above freezing.	\$0	\$0
December 8, 2017	One to two inches of snow fell during the event. Ice formed on some area bridges impeding traffic and closing schools during the event. Interstate 49 was also closed during the event.	\$0	\$0
January 16, 2019	A light dusting of snow and sleet over a thin glaze of ice occurred during the 16th. Area travel was interrupted, and area schools canceled classes for a couple days. Accumulation was around one inch. Officially KAEX recorded 0.9 for the day. This shut down elevated sections of I-49 for the afternoon into the next morning.	\$0	\$0

Frequency / Probability

Based on historical records, there have been 20 significant winter weather events within the boundaries of Rapides Parish and the jurisdictions of Alexandria, Ball, Boyce, Cheneyville, Forest Hill, Glenmora, Lecompte, McNary, Pineville, and Woodworth; therefore, the annual chance of occurrence for winter weather is estimated at 67%.

Estimated Potential Losses

Since 1990, there have been 20 winter weather events that have resulted in property damages according to NCEI Storm Events Database. The total property damages associated with those storms have totaled approximately \$75,000. To estimate the potential losses of a winter weather event on an annual basis, the total damages recorded for winter weather was divided by the total number of years of available winter weather in the NCEI Storm Events Database (1990 - 2020). This provides an annual estimated potential loss of \$2,500 and \$3,750 per event. The following table provides an estimate of potential property losses for Rapides Parish:

Table 2-106: Estimated Annual Losses Resulting from Winter Weather.

Estimated Potential Annual Losses from Winter Weather					
Unincorporated Area	Alexandria	Ball	Boyce	Cheneyville	Forest Hill
\$1,401	\$907	\$76	\$19	\$12	\$16

Table 2-106: Estimated Annual Losses Resulting from Winter Weather. (cont.)

Estimated Potential Annual Losses from Winter Weather				
Glenmora	Lecompte	McNary	Pineville	Woodworth
\$25	\$23	\$4	\$276	\$21

There have been four reported injuries and no fatalities as a result of winter weather over the 30-year record.

Vulnerability

See [Appendix C: Critical Facilities](#) for parish and municipality building exposure to winter weather.

[illegible]

All jurisdictions within the Rapides 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

The Rapides Parish Planning Commission (RAPC) provides oversight for building permits and codes, land use planning, and all parish ordinances.

As of the 2021 update, Rapides 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 Rapides Parish Police Jury is also responsible for enforcing the parish ordinances related to health and safety, property maintenance standards, and condemnation of unsafe structures.

The RAPC and Rapides Parish Police Jury meet 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 Rapides Parish planning area as a whole have a system in place to coordinate and share these capabilities through the OHSEP 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 Rapides 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.													
	<div>Rapides UnincorporatedCity of AlexandriaTown of BallTown of BoyceTown of CheneyvilleVillage of Forest HillTown of GlenmoraTown of LecompteVillage of McHenryCity of PinevilleTown of Woodworth</div>												Comments
Administration	Yes / No												
Planning Commission	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Mitigation Planning Committee	No	No	Yes	No	No	Yes	Yes	No	No	No	Yes		
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No		
Staff	Yes / No												
Chief Building Official	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes	Yes	
Floodplain Administrator	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Emergency Manager	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	
Community Planner	No	Yes	No	No	No	No	No	No	No	No	Yes		
Civil Engineer	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	
GIS Coordinator	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	
Grant Writer	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	
Other	No	No	No	No	No	No	No	No	No	No	No		
Technical	Yes / No												
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	Yes	Yes	Yes	No	Yes	No	No	No	No	No	No	
Hazard Data & Information	No	Yes	No	No	No	No	No	No	No	Yes	No		
Grant Writing	Yes	Yes	Yes	No	No	Yes	Yes	No	No	Yes	Yes	Yes	
Hazus Analysis	No	Yes	No	No	No	No	No	No	No	No	No	No	
Other	No	No	No	No	No	No	No	No	No	No	No	No	

Financial capabilities are the resources that Rapides 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 Rapides 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.													
	Rapides Unincorporated	City of Alexandria	Town of Ball	Town of Boyce	Town of Cheneyville	Village of Forest Hill	Town of Glenmora	Town of Lecompte	Village of McHenry	City of Pineville	Town of Woodworth		
Funding Resource	Yes / No												Comments
Capital Improvements project funding	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes		
Authority to levy taxes for specific purposes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes		
Fees for water, sewer, gas, or electric services	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Impact fees for new development	No	No	Yes	No	No	No	No	No	No	No	Yes		
Stormwater Utility Fee	No	Yes	No	No	No	No	No	No	No	No	Yes		
Community Development Block Grant (CDBG)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes		
Other Funding Programs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No		

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 Rapides 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.

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.												
	Rapides Unincorporated	City of Alexandria	Town of Ball	Town of Boyce	Town of Cheneyville	Village of Forest Hill	Town of Glenora	Town of Lecompte	Village of McIntyre	City of Pineville	Town of Woodworth	Comments
Program / Organization	Yes / No											
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	No	No	No	No	No	Yes	No	No	No	No	No	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	No	Yes	Yes	No	No	Yes	Yes	No	No	No	Yes	
Natural Disaster or safety related school program	No	No	Yes	No	No	Yes	Yes	No	No	No	Yes	
Storm Ready certification	No	No	No	No	No	Yes	No	No	No	No	No	
Firewise Communities certification	No	No	No	No	No	Yes	No	No	No	No	No	
Public/Private partnership initiatives addressing disaster-related issues	No	No	Yes	No	No	Yes	No	No	Yes	No	No	
Other	No	No	No	No	No	No	No	No	No	No	No	

As reflected with the above existing regulatory mechanisms, programs and resources within the parish, the jurisdictions within the Rapides Parish planning area remain committed to expanding and improving on the existing capabilities within the parish. Communities will work together along with Rapides Parish Police Jury and RAPC 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 Rapides 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, 2021, Rapides Parish is not a participant in the Community Rating System (CRS), nor are any of the incorporated jurisdictions within the parish.

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 2021, 352 communities in the State of Louisiana participate in the Federal Emergency Management Agency's National Flood Insurance Program (NFIP). Of these communities, 46 (or 13%) participate in the Community Rating System (CRS). Jefferson Parish leads the state with a rating of Class 5, followed by three cities with a rating of Class 6: the Cities of Gretna and Kenner in Jefferson Parish and the City of Mandeville in St.

Tammany Parish. Of the top fifty Louisiana communities, in terms of total flood insurance policies held by residents, 27 participate in the CRS. The remaining 23 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 2011¹, 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 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.

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

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

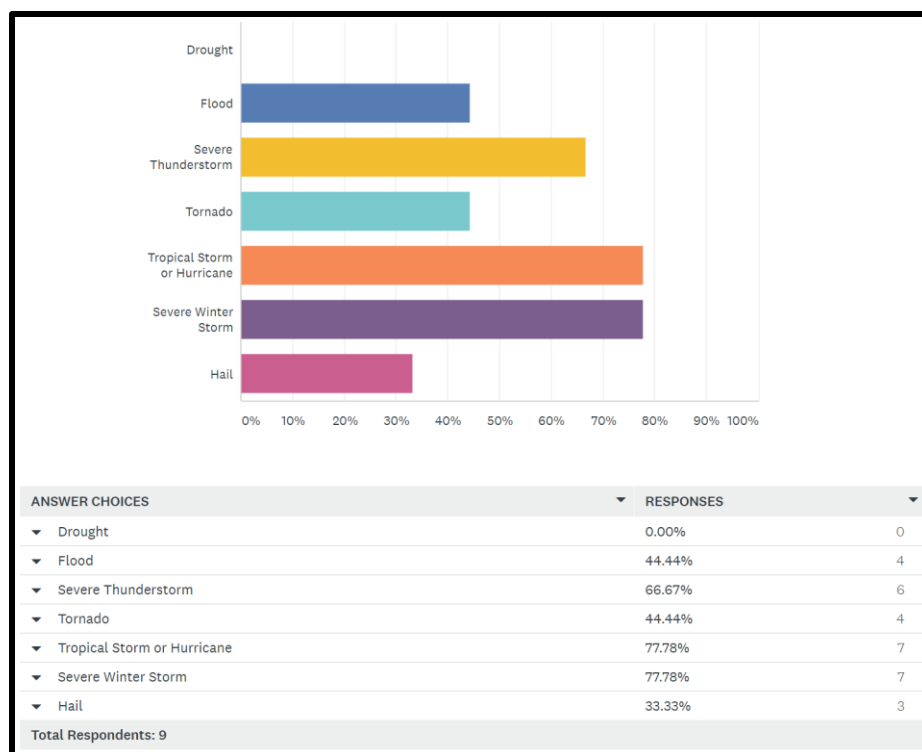
The Hazard Mitigation Strategy for Rapides Parish and its incorporated communities have a common guiding principle and is the demonstration of the parish's commitment to reduce risks from hazards. The strategy also serves as a guide for parish and local decision makers as they commit resources to reducing 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 2021 HMP update are a product of analysis and review of the Rapides Parish Hazard Mitigation Plan Steering Committee under the coordination of the Rapides Parish Office of Homeland Security and Emergency Preparedness. The committee was presented a list of projects and actions, new and from the 2016 plan, for review from March 2021 – May 2021.

An online public opinion survey of Rapides Parish residents was conducted between March and June 2021. The survey was designed to capture public perceptions and opinions regarding natural hazards in the Rapides Parish planning area. 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.

When asked which natural disasters citizens or someone in their household had experienced in the last five years, the following responses were recorded:

1. Tropical Storm/Hurricane
2. Severe Winter Storm
3. Severe Thunderstorm

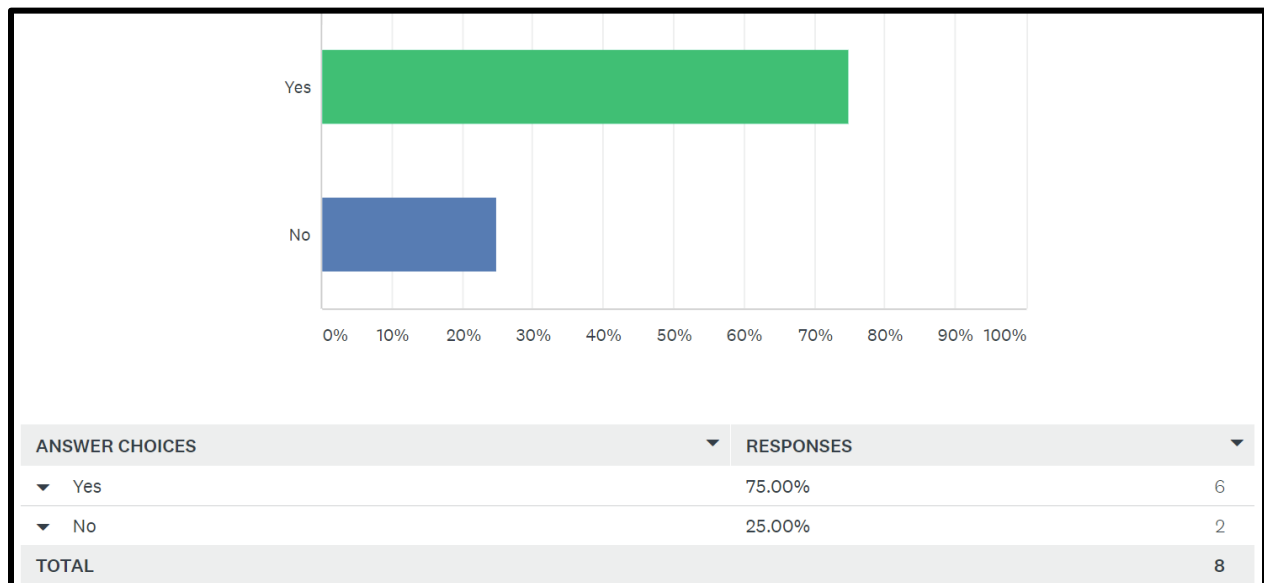


The survey results also indicated which natural disasters citizens were *concerned* with being affected by in the Rapides Parish planning area. The top three natural disasters selected for “very concerned” were:

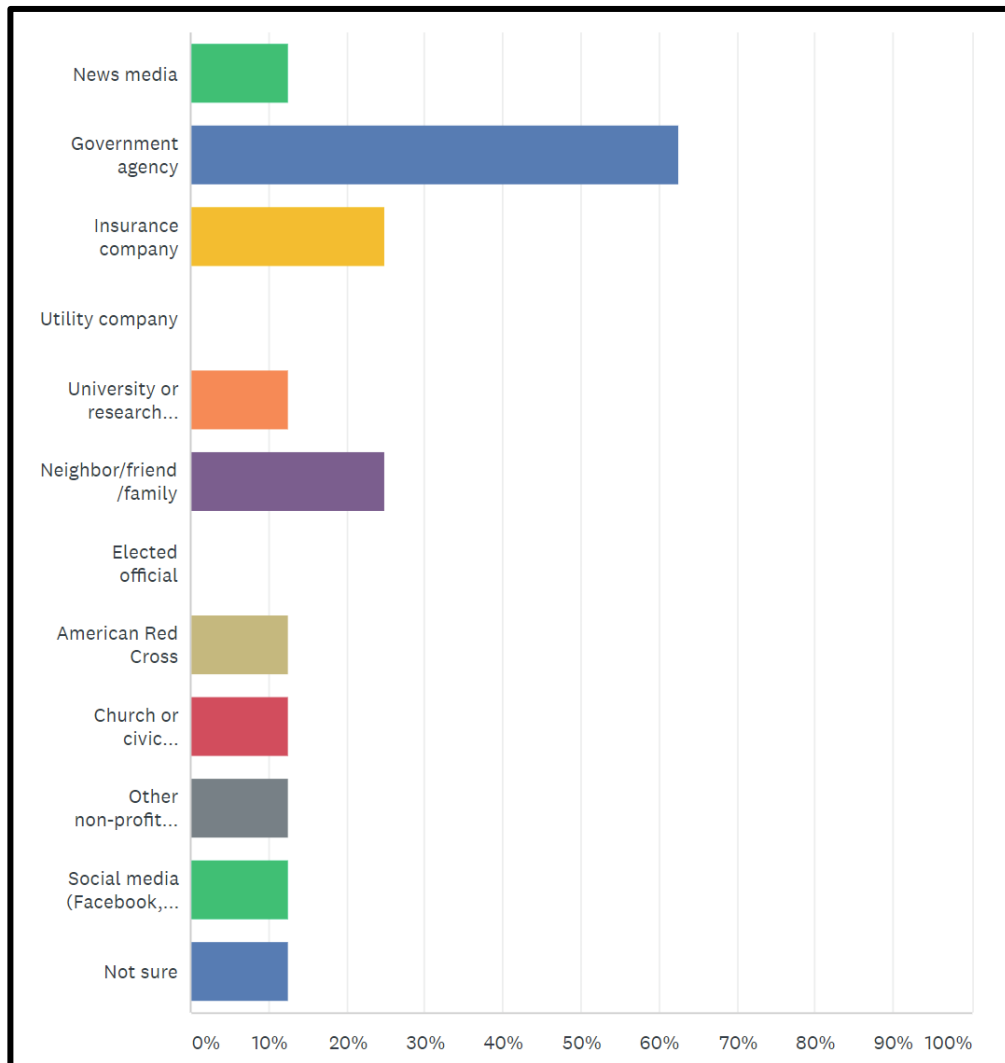
1. Tropical Storm or Hurricane
2. Tornado
3. Flooding

	NOT CONCERNED	NOT VERY CONCERNED	NEUTRAL	SOMEWHAT CONCERNED	VERY CONCERNED	TOTAL	WEIGHTED AVERAGE
▼ Drought	25.00% 2	50.00% 4	12.50% 1	12.50% 1	0.00% 0	8	2.13
▼ Flood	12.50% 1	0.00% 0	12.50% 1	25.00% 2	50.00% 4	8	4.00
▼ Severe Thunderstorm	12.50% 1	12.50% 1	12.50% 1	37.50% 3	25.00% 2	8	3.50
▼ Tornado	0.00% 0	0.00% 0	12.50% 1	50.00% 4	37.50% 3	8	4.25
▼ Tropical Storm or Hurricane	0.00% 0	0.00% 0	0.00% 0	37.50% 3	62.50% 5	8	4.63
▼ Severe Winter Storm	12.50% 1	0.00% 0	25.00% 2	50.00% 4	12.50% 1	8	3.50
▼ Hail	25.00% 2	12.50% 1	12.50% 1	50.00% 4	0.00% 0	8	2.88

The survey also asked if citizens had received information about making their homes safer from disasters. The following responses were recorded:



Always important to decision makers is how citizens best receive emergency information. According to the survey, the citizens within the Rapides Parish planning area MOST trust the following entities in the dissemination of emergency related information:



The results shown above are related to the manner in which the general population receives information on how to make their home safer from natural disasters. These results are encouraging because it shows that the public has high confidence in the information being disseminated by local government agencies. Implementation of the outreach activities put forth by parish officials and offices seem to have been executed in a successful manner.

This activity confirms that the goals and action items developed by the Rapides Parish Hazard Mitigation Plan Steering Committee are representative of the outlook of the community at large. Full survey results can be found here:

<https://www.surveymonkey.com/results/SM-7J69SVPV9/>

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 Rapides 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, Rapides 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 Rapides Parish Hazard Mitigation Plan Update Steering 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. Identify and pursue preventative measures that will reduce future damages from hazards
2. Enhance public awareness and understanding of disaster preparedness
3. Reduce repetitive flood losses in the parish
4. Facilitate sound development and rebuilding in the parish so as to reduce or eliminate the potential impacts of hazards

The Mitigation Action Plan focuses on actions to be taken by Rapides 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. Over the last five years, there have been no changes or shifts in priority on the community level within the Rapides Parish planning area, so the priorities of the communities represented in the 2016 Rapides Hazard Mitigation Plan have been carried forward this planning update process and document.

The Hazard Mitigation Plan Steering 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.

2021 Mitigation Actions and Update on Previous Plan Actions

The Rapides Parish Hazard Mitigation Plan Steering Committee identified new actions that would reduce and/or prevent future damage within the Rapides Parish planning area. 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 Rapides 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.

Unincorporated Rapides Parish Mitigation Actions

Previous Action Update

Rapides Unincorporated - New Actions							
Jurisdiction Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
R1: Public 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.	HMGP and Parish funding	1-5 years	Rapides Parish Police Jury President	Thunderstorms, Tropical Cyclones, Tornadoes	1,2,4	Ongoing
R2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Rapides Parish Police Jury President	Flooding, Thunderstorms, Tropical Cyclones	1,2,3,4	Ongoing
R3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Rapides Parish Police Jury President	Flooding	1,2,3,4	Ongoing
R4: Safe Room Projects	construction of a safe room for first responders located throughout the parish. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Rapides Parish Police Jury President	Tornadoes, Tropical Cyclones	1,2	Carried Over – Not Started

R5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclones, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Rapides Parish Police Jury President	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfire, Winter Weather, Drought, Excessive Heat	1,2,3,4	Carried Over – Not Started
R6: Install Audible and/or Reverse 911 Warning Systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Rapides Parish Police Jury President/Rapides Parish 911 Communications District	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1,2	Carried Over – Not Started
R7: Public Shelters	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Rapides Parish Police Jury President	Flooding, Thunderstorms (High Wind), Tropical Cyclones, Tornadoes, Winter Weather, Excessive Heat	1,2	Carried Over – Not Started
R8: Installation of Lightning Rods and Surge Protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Rapides Parish Police Jury President	Thunderstorms (Lightning)	1,2	Carried Over – Not Started

R9: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Rapides Parish Police Jury President	Tornados, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1,2	Ongoing
R10: Potable Water	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.	FEMA, Local	1-5 years	Rapides Parish Police Jury President	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1,2	Carried Over – Not Started

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS RAPIDES PARISH UNINCORPORATED	
	DESCRIPTION
RAPIDES ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Rapides Parish OHSEP
SUPPORTING AGENCIES	City of Alexandria, City of Pineville, Town of Ball, Town of Boyce, Town of Cheneyville, Town of Glenmora, Town of Lecompte, Town of Woodworth, Village of Forest Hill, Village of McNary, RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a Model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area)

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS RAPIDES PARISH UNINCORPORATED	
	DESCRIPTION
RAPIDES ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain. to house RL/SRL property data
LEAD AGENCY	Rapides Parish OHSEP
SUPPORTING AGENCIES	City of Alexandria, City of Pineville, Town of Ball, Town of Boyce, Town of Cheneyville, Town of Glenmora, Town of Lecompte, Town of Woodworth, Village of Forest Hill, Village of McNary, RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Creation of database/application: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Plans and Regulations Structure and Infrastructure Natural Systems Protection Education and Awareness
How Action Aligns with Risk Reduction	Will reduce future losses, including substantial losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS RAPIDES PARISH UNINCORPORATED	
	DESCRIPTION
RAPIDES ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Rapides Parish OHSEP
SUPPORTING AGENCIES	City of Alexandria, City of Pineville, Town of Ball, Town of Boyce, Town of Cheneyville, Town of Glenmora, Town of Lecompte, Town of Woodworth, Village of Forest Hill, Village of McNary, RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Education and Outreach Natural Systems Protection Plans and Regulations
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS RAPIDES PARISH UNINCORPORATED	
	DESCRIPTION
RAPIDES ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Rapides Parish OHSEP
SUPPORTING AGENCIES	City of Alexandria, City of Pineville, Town of Ball, Town of Boyce, Town of Cheneyville, Town of Glenmora, Town of Lecompte, Town of Woodworth, Village of Forest Hill, Village of McNary, RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Education and Outreach
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS RAPIDES PARISH UNINCORPORATED	
	DESCRIPTION
RAPIDES ACTION 5	Construction of Warming/Cooling Stations
LEAD AGENCY	Rapides Parish OHSEP
SUPPORTING AGENCIES	City of Alexandria, City of Pineville, Town of Ball, Town of Boyce, Town of Cheneyville, Town of Glenmora, Town of Lecompte, Town of Woodworth, Village of Forest Hill, Village of McNary, RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Outreach
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

City of Alexandria Mitigation Actions

Previous Action Update

City of Alexandria Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
Shirley Park Pump Station Dry Floodproofing	The Shirley Park Pump Station will be modified for dry-floodproofing. It will be rehabilitated with a flood control wall around the entrance and the exterior walls will be dry-floodproofed to keep flood waters out of the Pump Station.	HMGP	1-5 years	Wastewater Dept. - City of Alexandria	Flooding	1, 4	Completed
McAdams Ditch Stormwater Pump Station Flood Mitigation	McAdams stormwater pump station will be modified for flood protection. The pump station requires modification of the Motor Control Center and Transformer to raise them above flood levels to protect critical components against rising water.	HMGP	1-5 years	Wastewater Dept. City of Alexandria	Flooding	1, 4	Ongoing
A1: Public 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.	HMGP and Parish funding	1-5 years	Public Works	Flooding, Thunderstorms (High Wind, Hail), Tropical Cyclones, Tornadoes	1, 2, 4	In Progress
Status: Over the past five (5) years, The City of Alexandria, La. has completed a waterproofing project on one (1) fire station. During the next five (5) years, the City of Alexandria, La. will be continuing waterproofing projects that will include additional fire station, the Riverfront Center, and with funding permitting City Hall.							
A2: Drainage Projects	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	HMGP and Parish funding	1-5 years	Engineering, Public Works, & Alexandria Utility Systems	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	In Progress

	funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.						
<p>Status: Over the past 5 years, the City of Alexandria, La. has completed several drainage improvement projects. These included the final two phases of a multi-phased project to provide additional drainage capacity to a 330-acre watershed in north Alexandria – including 1500 L.F. of concrete lined channel and 800 L.F. of a double 7'x4' RCB. Two grant projects included 2000 L.F. concrete lining the Chatlin Lake Canal and installation of a double 9'x9' RCB in Hynson Bayou to remove a constricted crossing. The city partnered with the Rapides Parish Police Jury in constructing a new outfall for the Parkview Subdivision by constructing a 360 L.F. 12'x7' RCB to alleviate flooding in the neighborhood. The city has installed more than 10,000 L.F. of culverts in our Roadside Open Ditch Enclosure program to improve hydraulic capacity and alleviate blockages. Future projects for the City of Alexandria, La. include the successfully funded Louisiana Watershed Initiative projects Chatlin Lake Canal Outfall to the Red River (\$13M) and Horseshoe Canal Hardening (\$2.2M) to alleviate severe and repetitive flooding in several areas throughout the city. The City has been approved for a full application submittal under the Statewide Flood Control Program for the Fairground & Machine Shop Addition Flood Remediation project (\$3M). We have assessed more than \$25M of drainage needs throughout the city and program \$2M-\$3M per fiscal year in improvements. These project range in scope from construction of new drainage facilities, to provide new outfalls, and to the rehabilitation of existing facilities.</p>							
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Planning & Engineering	Flooding	1, 2, 3, 4	In Progress
<p>Status: The City of Alexandria has worked with RAPC over the past few years to secure funding to raise severe repetitive loss structures out of the flood plain. Over the next few years, the goal is to raise 14 structures out of the Special Flood Hazard Area. Since we have secured that grant, RAPC along with the City of Alexandria will apply for this grant on a regular basis in hopes of securing more funds to keep assisting those that have severe repetitive loss.</p>							
A4: Safe Room Projects	construction of a safe room for first responders located in Alexandria. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	City of Alexandria (Deleted)	Tornadoes, Tropical Cyclones	1, 2	Delete
A5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclones, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Engineering, Planning, Public Safety, Mayor's Office, Public Works, & Alexandria Utility Systems	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	In Progress

Status: The City of Alexandria, La. continues to enhance outreach programs utilizing social media platforms, news media, and holding community meetings to inform the public on hazards that may impact the area.							
A6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Public Safety	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Completed
A7: Shelters for Extreme Temperatures	construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	City of Alexandria (Deleted)	Winter Weather, Excessive Heat	1, 2	Delete
A8: Installation of lightning rods and surge protectors at Critical Facilities	install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Engineering, Planning, Public Safety, Mayor's Office, Public Works, & Alexandria Utility Systems	Thunderstorms (Lightning)	1, 2	Completed
A9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Public Safety, Mayor's Office, Public Works, & Alexandria Utility Systems	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	In Progress
Status: The City of Alexandria, La. has been in the process of procuring generators, both stationary and mobile, to provide continuous power to city owned buildings and water wells located in remote areas. Over the last five (5) years, the City of Alexandria, La. has purchased two (2) generators for the well field. Future projects within five (5) years, the City of Alexandria, La. plans on purchasing two (2) generators for public buildings and five (5) additional generators for the well field. Also, the City of Alexandria, La. has implemented a monthly maintenance program for existing generators. It should be mentioned that the purchasing of new generators and/or replacement generators will rely on funding.							
A10: Potable Water	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.	FEMA, Local	1-5 years	City of Alexandria (Deleted)	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1, 2	Delete

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ALEXANDRIA	
	DESCRIPTION
ALEXANDRIA ACTION 1	Increase Efficiency of Community Water Supply Delivery
LEAD AGENCY	City of Alexandria Utility Division – Director/ Water Department – Superintendent
SUPPORTING AGENCIES	City of Alexandria Mayor’s Office and City of Alexandria City Council
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Local
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	<ul style="list-style-type: none"> • Increase production of water supply (Testing and drilling additional wells) • Regularly checking for leaks to minimize water supply losses and upgrade municipal water lines when/where appropriate • Improve water supply monitoring
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Bolstering the efficiency of the water supply can increase the resiliency of the community and reduce impacts on individuals and businesses.
Current Status of Action	New
Hazard Addressed	Drought, Tropical Cyclones, Winter Weather, Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ALEXANDRIA	
	DESCRIPTION
ALEXANDRIA ACTION 2	Reduce Urban Heat
LEAD AGENCY	City of Alexandria Planning Division – Director/Engineering – City Engineer and Urban Forestry – Landscape Architect
SUPPORTING AGENCIES	City of Alexandria Mayor’s Office and City of Alexandria City Council
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	<ul style="list-style-type: none"> • Increase tree plantings around buildings to shade parking lots and along public rights-of-way • Using cool roofing products that reflect sunlight and heat away from a building
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Increasing the planting of trees and utilizing cool roof products can decrease the heat island effect throughout the community and provide shaded areas for individuals in the event of excessive heat.
Current Status of Action	New
Hazard Addressed	Excessive Heat

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ALEXANDRIA	
	DESCRIPTION
ALEXANDRIA ACTION 3	Increase Wildfire Risk Awareness Through Education and Outreach Programs
LEAD AGENCY	City of Alexandria Fire Department – Chief/ Urban Forestry – Landscape Architect
SUPPORTING AGENCIES	City of Alexandria Mayor’s Office
TIMELINE	1-10 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Low
Action Description	<ul style="list-style-type: none"> • Work with insurance companies, utility providers, and others to include wildfire safety information in materials provided to area residents • Develop partnerships with neighborhood groups, homeowner’s associations, and others to conduct outreach activities • Using local fire departments to conduct education programs in schools
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	The City of Alexandria is mostly an urban area, but surrounding areas have potential for wildfires. Providing residents of the city with awareness can aid in resiliency due to wildfire incidents that may impact driving through smoke covered roadways.
Current Status of Action	New
Hazard Addressed	Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ALEXANDRIA	
	DESCRIPTION
ALEXANDRIA ACTION 4	Increase Extreme Temperature Risk Awareness Through Education and Outreach Programs
LEAD AGENCY	City of Alexandria Fire Department – Chief/City of Alexandria Emergency Management Team
SUPPORTING AGENCIES	City of Alexandria Mayor’s Office
TIMELINE	1-10 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Low
Action Description	<ul style="list-style-type: none"> Educate citizens regarding the dangers of extreme temperatures and the steps they can utilize during events Develop partnerships with neighborhood groups, homeowner’s associations, and others to conduct outreach activities Using local fire departments to conduct education programs in schools
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Increasing the awareness of extreme temperatures will provide the citizens of Alexandria with knowledge of the dangers caused by extreme temperatures, and provide the citizens with actionable plans for protection
Current Status of Action	New
Hazard Addressed	Extreme Heat, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF ALEXANDRIA	
	DESCRIPTION
ALEXANDRIA ACTION 5	Encourage/Require Fire-Resistant Construction Techniques
LEAD AGENCY	City of Alexandria Fire Department – Chief/Planning Division-Director
SUPPORTING AGENCIES	City of Alexandria Mayor’s Office/City of Alexandria Council Members
TIMELINE	1-10 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Low
Action Description	<ul style="list-style-type: none"> • Encourage the use of non-combustible materials (i.e., stone, brick, and stucco) for new construction in wildfire hazard areas. • Using fire resistant roofing and building materials in remodels, upgrades, and new construction. • Encourage the use of functional shutters on windows.
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Encouraging fire-resistant construction will provide the citizens of the City of Alexandria, La. a safety measure to protect them against the possibility of a wildfire hazard.
Current Status of Action	New
Hazard Addressed	Wildfires

Town of Ball Mitigation Actions

Previous Action Update

Town of Ball Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
Ball Sewer Pump Station Flood Mitigation	Two Sewer Pump Stations will be modified to raise the slab, wet well, and electrical controls above the BFE in accordance with NFIP requirements and to be protected from the 100-year recurrence interval flood.	HMGP	1-5 years	Town of Ball Mayor's Office	Flooding	1, 3, 4	Deleted
Ball Sewer Manhole Flood Mitigation	Improvements will be made to approximately 25 manholes that are prone to storm water infiltration/inflow during flood events.	HMGP	1-5 years	Town of Ball Mayor's Office	Flooding	1, 3, 4	Deleted
B1: Public 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.	HMGP and Parish funding	1-5 years	Town of Ball Administration	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
B2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Town of Ball Street Department	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Ongoing

B3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Town of Ball Administration	Flooding	1, 2, 3, 4	Carried Over – Not Started
B4: Safe Room Projects	Construction of a safe room for first responders located in Ball. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Town of Ball Administration	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started
B5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, Extreme heat and wildfire 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.	HMPG and Parish	1-5 years	Town of Ball Fire Department	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornado, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Ongoing
B6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Town of Ball Fire, Police, and Administration Departments	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Ongoing
B7 Shelters for Extreme Temperatures	construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Town of Ball Administration	Winter Weather, Excessive Heat	1, 2	Carried Over – Not Started

B8: Installation of lightning rods and surge protectors at Critical Facilities	install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Town of Ball Sewer Department	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started
B9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Town of Ball Administration and Sewer Departments	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Ongoing
B10: Potable Water	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.	FEMA, Local	1-5 years	Town of Ball Administration	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought, Winter Weather, Wildfires	1, 2	Carried Over – Not Started

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 5	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 6	Increase Efficiency of Community Water Supply Delivery
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Town of Ball Public Works
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Local
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	<ul style="list-style-type: none"> • Increase production of water supply (Testing and drilling additional wells) • Regularly checking for leaks to minimize water supply losses and upgrade municipal water lines when/where appropriate • Improve water supply monitoring
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Bolstering the efficiency of the water supply can increase the resiliency of the community and reduce impacts on individuals and businesses.
Current Status of Action	New
Hazard Addressed	Drought, Tropical Cyclones, Winter Weather, Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 7	Reduce Urban Heat
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Town of Ball Public Works
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	<ul style="list-style-type: none"> • Increase tree plantings around buildings to shade parking lots and along public rights-of-way • Using cool roofing products that reflect sunlight and heat away from a building
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Increasing the planting of trees and utilizing cool roof products can decrease the heat island effect throughout the community and provide shaded areas for individuals in the event of excessive heat.
Current Status of Action	New
Hazard Addressed	Excessive Heat

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 8	Increase Wildfire Risk Awareness Through Education and Outreach Programs
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Town of Ball Fire Department
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Low
Action Description	<ul style="list-style-type: none"> • Work with insurance companies, utility providers, and others to include wildfire safety information in materials provided to area residents • Develop partnerships with neighborhood groups, homeowner's associations, and others to conduct outreach activities • Using local fire departments to conduct education programs in schools
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	The Town of Ball is mostly an urban area, but surrounding areas have potential for wildfires. Providing residents with awareness can aid in resiliency due to wildfire incidents that may impact driving through smoke covered roadways.
Current Status of Action	New
Hazard Addressed	Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BALL	
	DESCRIPTION
BALL ACTION 9	Encourage/Require Fire-Resistant Construction Techniques
LEAD AGENCY	Mayor's Office – Town of Ball
SUPPORTING AGENCIES	Town of Ball Fire Department
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Low
Action Description	<ul style="list-style-type: none"> • Encourage the use of non-combustible materials (i.e., stone, brick, and stucco) for new construction in wildfire hazard areas. • Using fire resistant roofing and building materials in remodels, upgrades, and new construction. • Encourage the use of functional shutters on windows.
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Encouraging fire-resistant construction will provide the citizens of the Town of Ball a safety measure to protect them against the possibility of a wildfire hazard.
Current Status of Action	New
Hazard Addressed	Wildfires

Additional Supporting Information:

Town of Boyce Mitigation Actions

Previous Action Update

Town of Boyce Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
B1: Public 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.	HMGP and Parish funding	1-5 years	Utility Superintendent	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
B2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Utility Superintendent	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started
B3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Utility Superintendent	Flooding	1, 2, 3, 4	Carried Over – Not Started
B4: Safe Room Projects	Construction of a safe room for first responders located in Boyce. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Utility Superintendent	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started

B5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Utility Superintendent	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornado, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Carried Over – Not Started
B6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Utility Superintendent	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Carried Over – Not Started
B7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Utility Superintendent	Winter Weather, Excessive Heat	1, 2	Carried Over – Not Started
B8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Utility Superintendent	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started
B9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Utility Superintendent	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Carried Over – Not Started

B10: Potable Water	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.	FEMA, Local	1-5 years	Utility Superintendent	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1, 2	Carried Over – Not Started
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New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BOYCE	
	DESCRIPTION
BOYCE ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Town of Boyce
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area)

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BOYCE	
	DESCRIPTION
BOYCE ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Town of Boyce
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BOYCE	
	DESCRIPTION
BOYCE ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Town of Boyce
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BOYCE	
	DESCRIPTION
BOYCE ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Town of Boyce
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF BOYCE	
	DESCRIPTION
BOYCE ACTION 5	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Town of Boyce
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

Town of Cheneyville Mitigation Actions

Previous Action Update

Town of Cheneyville Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
Cheneyville Pump Station Flood Mitigation	The Bayou Road Pump Station will be modified for flood protection by raising the concrete slab, wet well, and electric controls three feet, including related grading, pavement, and utility modifications.	HMGP	1-5 years	Town of Cheneyville Mayor's Office	Flooding	1, 3, 4	Carried Over – Not Started
C1: Public 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.	HMGP and Parish funding	1-5 years	Mayor's Office	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
C2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Mayor's Office	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started
C3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Mayor's Office	Flooding	1, 2, 3, 4	Carried Over – Not Started

C4: Safe Room Projects	Construction of a safe room for first responders located in Cheneyville. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Mayor's Office	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started
C5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Mayor's Office	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Carried Over – Not Started
C6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Mayor's Office	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Carried Over – Not Started
C7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Mayor's Office	Winter Weather, Excessive Heat	1, 2	Carried Over – Not Started
C8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Mayor's Office	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started

C9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Mayor's Office	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Carried Over – Not Started
C10: Potable Water	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.	FEMA, Local	1-5 years	Mayor's Office	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1, 2	Carried Over – Not Started

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CHENEYVILLE	
	DESCRIPTION
CHENEYVILLE ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Town of Cheneyville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CHENEYVILLE	
	DESCRIPTION
CHENEYVILLE ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Town of Cheneyville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CHENEYVILLE	
	DESCRIPTION
CHENEYVILLE ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Town of Cheneyville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CHENEYVILLE	
	DESCRIPTION
CHENEYVILLE ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Town of Cheneyville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CHENEYVILLE	
	DESCRIPTION
CHENEYVILLE ACTION 5	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Town of Cheneyville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

Village of Forest Hill Mitigation Actions

Previous Action Update

Village of Forest Hill Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
F1: Public 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.	HMGP and Parish funding	1-5 years	Mayor; Public Works	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Ongoing
F2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Mayor; Public Works	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started
F3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Mayor; Public Works	Flooding	1, 2, 3, 4	Delete
F4: Safe Room Projects	Construction of a safe room for first responders located in Forest Hill. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Mayor; Public Works	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started

F5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Mayor; Public Works	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Carried Over – Not Started
F6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Mayor; Public Works	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Complete
F7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Mayor; Public Works	Winter Weather, Excessive Heat	1, 2	Complete
F8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Mayor; Public Works	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started
F9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Mayor; Public Works	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Ongoing

F10: Potable Water	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.	FEMA, Local	1-5 years	Mayor; Public Works	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought, Winter Weather	1, 2	Carried Over – Not Started
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New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 5	Reduce Urban Heat
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Woodworth Fire Department/Rapides Parish
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish
PRIORITY	Medium
Action Description	Increase tree plantings around buildings to shade parking lots and along public rights-of-way. Utilization of cool roofing products that reflect sunlight and heat away from a building.
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Increasing the planting of trees and utilizing cool roof products can decrease the heat island effect throughout the community and provide shaded areas for individuals in the event of excessive heat.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 6	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 7	Increase Efficiency of Community Water Supply Delivery
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Rapides Parish/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Local
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	<ul style="list-style-type: none"> • Increase production of water supply (Testing and drilling additional wells) • Regularly checking for leaks to minimize water supply losses and upgrade municipal water lines when/where appropriate • Improve water supply monitoring
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Bolstering the efficiency of the water supply can increase the resiliency of the community and reduce impacts on individuals and businesses.
Current Status of Action	New
Hazard Addressed	Drought, Tropical Cyclones, Winter Weather, Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF FOREST HILL	
	DESCRIPTION
FOREST HILL ACTION 8	Retrofit structure projects
LEAD AGENCY	Mayor's Office – Village of Forest Hill
SUPPORTING AGENCIES	Rapides Parish/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofitting of existing infrastructure with non-combustible materials and technologies to keep public building protected. Protection of propane tanks or other external fuel sources. Installation of sprinklers where needed.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protects structures from future wildfire events within the wildland urban interface.
Current Status of Action	New
Hazard Addressed	Wildfires

Additional Supporting Information:

Town of Glenmora Mitigation Actions

Previous Action Update

Town of Glenmora Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
G1: Public 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.	HMGP and Parish funding	1-5 years	Glenmora Maintenance Department	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
G2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Glenmora Maintenance Department	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started
G3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Glenmora Maintenance Department	Flooding	1, 2, 3, 4	Carried Over – Not Started
G4: Safe Room Projects	Construction of a safe room for first responders located in Glenmora. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Glenmora Maintenance Department	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started

G5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Glenmora Maintenance Department	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Carried Over – Not Started
G6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Glenmora Maintenance Department	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Carried Over – Not Started
G7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Glenmora Maintenance Department	Winter Weather, Excessive Heat	1, 2	Carried Over – Not Started
G8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Glenmora Maintenance Department	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started
G9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	Local	1-5 years	Glenmora Maintenance Department	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Carried Over – Not Started

G10: Potable Water	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.	Local	1-5 years	Glenmora Maintenance Department	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1, 2	Carried Over – Not Started
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New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF GLENMORA	
	DESCRIPTION
GLENMORA ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Town of Glenmora
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area)

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF GLENMORA	
	DESCRIPTION
GLENMORA ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Town of Glenmora
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF GLENMORA	
	DESCRIPTION
GLENMORA ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Town of Glenmora
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF GLENMORA	
	DESCRIPTION
GLENMORA ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Town of Glenmora
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF GLENMORA	
	DESCRIPTION
GLENMORA ACTION 5	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Town of Glenmora
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF GLENMORA	
	DESCRIPTION
GLENMORA ACTION 6	Improve Municipal Water Supply
LEAD AGENCY	Mayor's Office – Town of Glenmora/Glenmora Maintenance Department
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Drill new water well to supply the Town of Glenmora. One existing well is failing and needs replacement.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Providing and maintaining water supply to residents and critical facilities during an event is necessary to ensure a healthy and resilient community
Current Status of Action	New
Hazard Addressed	Tropical Cyclones, Thunderstorms, Tornadoes, Drought, Excessive Heat, Flooding, Wildfires, Winter Weather

Town of Lecompte Mitigation Actions

Previous Action Update

Town of Lecompte Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
L1: Public 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.	HMGP and Parish funding	1-5 years	Lecompte Chief of Police	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
L2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Lecompte Chief of Police	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started
L3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Lecompte Chief of Police	Flooding	1, 2, 3, 4	Carried Over – Not Started
L4: Safe Room Projects	Construction of a safe room for first responders located in Lecompte. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Lecompte Chief of Police	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started

L5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Lecompte Chief of Police	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Carried Over – Not Started
L6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Lecompte Chief of Police	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Carried Over – Not Started
L7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Lecompte Chief of Police	Winter Weather, Excessive Heat	1, 2	Carried Over – Not Started
L8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Lecompte Chief of Police	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started
L9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Lecompte Chief of Police	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Carried Over – Not Started

L10: Potable Water	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.	FEMA, Local	1-5 years	Lecompte Chief of Police	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1, 2	Carried Over – Not Started
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New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF LECOMPTE	
	DESCRIPTION
LECOMPTE ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Town of Lecompte
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF LECOMPTE	
	DESCRIPTION
LECOMPTE ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Town of Lecompte
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF LECOMPTE	
	DESCRIPTION
LECOMPTE ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Town of Lecompte
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF LECOMPTE	
	DESCRIPTION
LECOMPTE ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Town of Lecompte
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF LECOMPTE	
	DESCRIPTION
LECOMPTE ACTION 5	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Town of Lecompte
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

Village of McNary Mitigation Actions

Previous Action Update

Village of McNary Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
M1: Public 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.	HMGP and Parish funding	1-5 years	Police Department	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
M2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Police Department	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started
M3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Police Department	Flooding	1, 2, 3, 4	Delete
M4: Safe Room Projects	Construction of a safe room for first responders located in McNary. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Police Department	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started

M5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Police Department	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Delete
M6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Police Department	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Delete
M7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Police Department	Winter Weather, Excessive Heat	1, 2	Carried Over – Not Started
M8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Police Department	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started
M9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Police Department	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Complete

M10: Potable Water	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.	FEMA, Local	1-5 years	Police Department	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought, Winter Weather	1, 2	Carried Over – Not Started
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New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF MCNARY	
	DESCRIPTION
MCNARY ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF MCNARY	
	DESCRIPTION
MCNARY ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF McNARY	
	DESCRIPTION
MCNARY ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF MCNARY	
	DESCRIPTION
MCNARY ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF MCNARY	
	DESCRIPTION
MCNARY ACTION 5	Reduce Urban Heat
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Woodworth Fire Department/Rapides Parish
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish
PRIORITY	Medium
Action Description	Increase tree plantings around buildings to shade parking lots and along public rights-of-way. Utilization of cool roofing products that reflect sunlight and heat away from a building.
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Increasing the planting of trees and utilizing cool roof products can decrease the heat island effect throughout the community and provide shaded areas for individuals in the event of excessive heat.
Current Status of Action	New
Hazard Addressed	Excessive Heat / Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF MCNARY	
	DESCRIPTION
MCNARY ACTION 6	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF McNARY	
	DESCRIPTION
MCNARY ACTION 7	Increase Wildfire Risk Awareness Through Education and Outreach Programs
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish/RAPC
TIMELINE	1-10 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards. 2) Enhance public awareness and understanding of disaster preparedness. 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.
PRIORITY	Low
Action Description	<ul style="list-style-type: none"> • Work with insurance companies, utility providers, and others to include wildfire safety information in materials provided to area residents • Develop partnerships with neighborhood groups, homeowner's associations, and others to conduct outreach activities • Using local fire departments to conduct education programs in schools
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	The Village of McNary includes surrounding areas that have potential for wildfires. Providing residents of the city with awareness can aid in resiliency due to wildfire incidents that may impact driving through smoke covered roadways.
Current Status of Action	New
Hazard Addressed	Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF McNARY	
	DESCRIPTION
MCNARY ACTION 8	Increase Efficiency of Community Water Supply Delivery
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Local
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	<ul style="list-style-type: none"> • Increase production of water supply (Testing and drilling additional wells) • Regularly checking for leaks to minimize water supply losses and upgrade municipal water lines when/where appropriate • Improve water supply monitoring
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Bolstering the efficiency of the water supply can increase the resiliency of the community and reduce impacts on individuals and businesses.
Current Status of Action	New
Hazard Addressed	Drought, Tropical Cyclones, Winter Weather, Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF MCNARY	
	DESCRIPTION
MCNARY ACTION 9	Retrofit Structure Projects to Mitigate Against Wildfires
LEAD AGENCY	Mayor's Office – Village of McNary
SUPPORTING AGENCIES	Rapides Parish/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofitting of existing infrastructure with non-combustible materials and technologies to keep public buildings protected. Protection of propane tanks or other external fuel sources. Installation of sprinklers where needed.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protects structures from future wildfire events within the wildland urban interface.
Current Status of Action	New
Hazard Addressed	Wildfire

Additional Supporting Information:

City of Pineville Mitigation Actions

Previous Action Update

City of Pineville Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
Huffman Creek Outfall	A canal outlet will be constructed to relieve excess water trapped in a surge area.	HMGP	1-5 years	City of Pineville Public Works Director	Flooding	1, 3, 4	Carried Over – Not Started
Pineville Sewer Pump Station Mitigation	Two sewer pumps stations will be modified to raise the slab, wet well, valve vault, and electrical controls approximately two feet to protect to the 500 year storm elevation.	HMGP	1-5 years	City of Pineville Public Works Director	Flooding	1, 4	Carried Over – Not Started
Pineville Sewer Manhole Flood Mitigation	Improvements will be made to 72 manholes that are prone to stormwater infiltration/inflow during flood events.	HMGP	1-5 years	City of Pineville Public Works Director	Flooding	1, 4	Carried Over – Not Started
P1: Public 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.	HMGP and Parish funding	1-5 years	City of Pineville Public Works Director	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
P2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	City of Pineville Public Works Director	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started

P3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	City of Pineville Public Works Director	Flooding	1, 2, 3, 4	Carried Over – Not Started
P4: Safe Room Projects	Construction of a safe room for first responders located in Pineville. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	City of Pineville Public Works Director	Tornadoes, Tropical Cyclones	1, 2	Carried Over – Not Started
P5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	City of Pineville Public Works Director	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Carried Over – Not Started
P6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	City of Pineville Public Works Director	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Carried Over – Not Started
P7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	City of Pineville Public Works Director	Winter Weather, Excessive Heat	1, 2	Carried Over – Not Started

P8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	City of Pineville Public Works Director	Thunderstorms (Lightning)	1, 2	Carried Over – Not Started
P9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	City of Pineville Public Works Director	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Carried Over – Not Started
P10: Potable Water	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.	FEMA, Local	1-5 years	City of Pineville Public Works Director	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1, 2	Carried Over – Not Started

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF PINEVILLE	
	DESCRIPTION
PINEVILLE ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – City of Pineville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area)

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF PINEVILLE	
	DESCRIPTION
PINEVILLE ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – City of Pineville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF PINEVILLE	
	DESCRIPTION
PINEVILLE ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – City of Pineville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF PINEVILLE	
	DESCRIPTION
PINEVILLE ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – City of Pineville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF PINEVILLE	
	DESCRIPTION
PINEVILLE ACTION 5	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – City of Pineville
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

Town of Woodworth Mitigation Actions

Previous Action Update

Town of Woodworth Mitigation Action Update							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
W1: Public 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.	HMGP and Parish funding	1-5 years	Fire Chief	Thunderstorms (High Wind, Hail) Tropical Cyclones, Tornadoes	1, 2, 4	Carried Over – Not Started
W2: Drainage Projects	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.	HMGP and Parish funding	1-5 years	Fire Chief	Flooding, Thunderstorms (High Wind), Tropical Cyclones	1, 2, 3, 4	Carried Over – Not Started
W3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	Elevation or acquisition-demolition of properties. Benefits: Relieves property owners of the continual flooding problems. Saves flood relief and damage repayment for each property.	HMGP	1-5 years	Fire Chief	Flooding	1, 2, 3, 4	Delete
W4: Safe Room Projects	Construction of a safe room for first responders located in Woodworth. Other locations will be identified based on funding availability.	HMGP and Parish	1-5 years	Fire Chief	Tornadoes, Tropical Cyclones	1, 2	Completed

W5: Mitigation Public Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for flooding, tropical cyclone, tornadoes, drought, thunderstorms (high wind, hail, lightning), winter weather, excessive heat and wildfire 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.	HMPG and Parish	1-5 years	Fire Chief	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather, Drought, Excessive Heat	1, 2, 3, 4	Ongoing
W6: Install audible and/or reverse 911 warning systems	Install reverse 911 system as an opportunity to provide emergency information through the phone system to alert the community to impending hazards. Benefits: increases public awareness and ensure timely notifications for the citizens to Rapides Parish in a rapid and accurate manner.	HMPG	1-5 years	Fire Chief	Flooding, Thunderstorms (High Wind, Hail, Lightning), Tropical Cyclones, Tornadoes, Wildfires, Winter Weather	1, 2	Ongoing
W7: Shelters for Extreme Temperatures	Construct or enhance a facility for the Public to utilize during natural hazard events to protect life and safety of citizens.	HMPG and Parish	1-5 years	Fire Chief	Winter Weather, Excessive Heat	1, 2	Completed
W8: Installation of lightning rods and surge protectors at Critical Facilities	Install lightning rods and/or surge protectors; Benefits: will help to ensure Minimal down time or Equipment failures at Critical Facilities	HMPG and Parish	1-5 years	Fire Chief	Thunderstorms (Lightning)	1, 2	Completed
W9: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	FEMA, Local	1-5 years	Fire Chief	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms (lightning, high wind, hail)	1, 2	Completed

W10: Potable Water	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.	FEMA, Local	1-5 years	Fire Chief	Tropical Cyclones, Thunderstorms (lightning, high wind, hail), Tornadoes, Drought	1, 2	Ongoing
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New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF WOODWORTH	
	DESCRIPTION
WOODWORTH ACTION 1	Development of a Hydrologic and Hydraulic study model to guide future development
LEAD AGENCY	Mayor's Office – Town of Woodworth
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	\$5-10 million
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/RAISE
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Development of a model that will allow us to show impacts of industrial development, residential development, commercial, capital improvements. Will assist with future BCA development. This will also guide future hazard mitigation projects.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will assist with future hazard impacts.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information: This concept will tie into a currently funded initiative (\$2.5 million for an urbanized area)

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF WOODWORTH	
	DESCRIPTION
WOODWORTH ACTION 2	Creation of a GIS database and/or application development for Identification of properties within the floodplain to house RL/SRL property data
LEAD AGENCY	Mayor's Office – Town of Woodworth
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	GIS database and/or application development: Will import elevations from elevation certificates (EC) to perform flooding analysis. Can also be used to pre-position resources pre-event. Will aid in substantial damage assessment post event.
Type of Mitigation Action	Local Plans and Regulations Structure and Infrastructure Projects Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Will reduce future losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones, Thunderstorms, Tornadoes, Winter Weather, Wildfires

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF WOODWORTH	
	DESCRIPTION
WOODWORTH ACTION 3	Creation of DFIRMS – Map modernization
LEAD AGENCY	Mayor's Office – Town of Woodworth
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/BRIC/FMA/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	High
Action Description	Modernization of flood maps for parish and all communities.
Type of Mitigation Action	Local Plans and Regulations Natural Systems Protection Education and Awareness Programs
How Action Aligns with Risk Reduction	Identifies the risk and allows for more accessible information for public, development, and commercial entities.
Current Status of Action	New
Hazard Addressed	Flooding

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF WOODWORTH	
	DESCRIPTION
WOODWORTH ACTION 4	Participate in Community Rating System Program
LEAD AGENCY	Mayor's Office – Town of Woodworth
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	HMGP/Federal/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish 4) Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Work to establish a formal CRS program for the parish and participating municipalities.
Type of Mitigation Action	Local Plans and Regulations Education and Awareness Programs
How Action Aligns with Risk Reduction	Will provide better outreach to the community about risks and hazards. Will reduce losses.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF WOODWORTH	
	DESCRIPTION
WOODWORTH ACTION 5	Reduce Urban Heat
LEAD AGENCY	Mayor's Office – Town of Woodworth
SUPPORTING AGENCIES	Woodworth Fire Department/Rapides Parish
TIMELINE	1-5 Years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness 3) Reduce repetitive flood losses in the parish
PRIORITY	Medium
Action Description	Increase tree plantings around buildings to shade parking lots and along public rights-of-way. Utilization of cool roofing products that reflect sunlight and heat away from a building.
Type of Mitigation Action	Local Planning and Regulations
How Action Aligns with Risk Reduction	Increasing the planting of trees and utilizing cool roof products can decrease the heat island effect throughout the community and provide shaded areas for individuals in the event of excessive heat.
Current Status of Action	New
Hazard Addressed	Excessive Heat / Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF WOODWORTH	
	DESCRIPTION
WOODWORTH ACTION 6	Construction of Warming/Cooling Stations
LEAD AGENCY	Mayor's Office – Town of Woodworth
SUPPORTING AGENCIES	Rapides Parish OHSEP/RAPC
TIMELINE	1-5 Years
COST ESTIMATE	TBD
POSSIBLE FUNDING SOURCE(S)	FEMA/State/Local/Other
ASSOCIATED GOALS	1) Identify and pursue preventative measures that will reduce future damages from hazards 2) Enhance public awareness and understanding of disaster preparedness
PRIORITY	Medium
Action Description	Planning and execution of warming and/or cooling stations through the city for vulnerable populations during longer than expected events with extended power outages and damage to infrastructure.
Type of Mitigation Action	Structure and Infrastructure Projects Education and Awareness Programs
How Action Aligns with Risk Reduction	Protection of vulnerable populations during and after events.
Current Status of Action	New
Hazard Addressed	Excessive Heat, Winter Weather

Additional Supporting Information:

Action Prioritization

During the prioritization process, the steering 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 steering committee prioritized the possible activities that could be pursued. Steering 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.

Rapides Parish Police Jury 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.

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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 steering 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 Rapides Parish Hazard Mitigation Plan Update

The Rapides Parish Hazard Mitigation Plan Update process began in February 2021 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
2/24/2021	Kick Off Email	Email	No	Schedule kick off call with Parish OHSEP and SDMI Staff.
3/5/2021	Kick Off Meeting	Phone Conference	No	Discuss with the Parish OHSEP Director expectations and requirements of the project. Discuss meeting schedules, committee make up, and next steps.
3/25/2021	Steering Committee Meeting (Planning Process)	Alexandria, LA	No	Discussion with Rapides Parish Hazard Mitigation Steering Committee the process and expectations of plan participants. Discuss timeline and action items of each jurisdiction and parish.
5/5/2021	Mitigation Action Workshop	Alexandria LA	No	Discussion with Alexandria Parish Hazard Mitigation Steering Committee of the outstanding data required for plan update, as well as discussion of mitigation actions (old and new) for plan update. Continued timeline discussions.
6/2/2021	Risk Assessment Review	Ball, LA	Yes	Presentation of Risk Assessment Hazards and maps to Steering Committee.
6/2/2021	Public Meeting	Ball, LA	Yes	Presentation of Risk Assessment Hazards and maps to Public. Presentation also includes current mitigation project highlights within communities and public survey discussion.
3/5/2021 – 6/9/2021	Public Opinion Survey	Online	Yes	This survey asked participants about public perceptions and opinions regarding natural hazards in Rapides Parish. In addition, questions covered the methods and techniques preferred for reducing the risks and losses associated with these hazards. Survey Results: https://www.surveymonkey.com/results/SM-7J69SVPV9/

Planning

The plan update process consisted of several phases:

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7
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 Rapides Parish Office of Homeland Security and Emergency Preparedness (OHSEP) oversaw the coordination of the 2021 Hazard Mitigation Plan Update Steering Committee during the update process. The parish OHSEP was responsible for identifying members for the committee.

The Parish OHSEP Director was responsible for inviting the steering committee and key stakeholders to planned meetings and activities. SDMI assisted the Parish OHSEP 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 steering 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 2016 update
- Risk Assessment review
- Plan document draft review
- Formal adoption of the Hazard Mitigation Plan

The 2021 Hazard Mitigation Plan Update Steering Committee consisted of representatives from the following parish, municipal or community stakeholders:

- Rapides Parish Police Jury
- Rapides Office of Homeland Security and Emergency Preparedness
- City of Alexandria
- Town of Ball
- Town of Boyce
- Town of Cheneyville
- Village of Forest Hill
- Town of Glenmora
- Town of Lecompte
- Village of McNary
- City of Pineville
- Town of Woodworth
- Rapides Area Planning Commission
- Grant Parish Office of Homeland Security and Emergency Preparedness

The Grant Parish OHSEP Director was invited to attend the Kick Off, Initial Planning, and Risk Assessment Meetings for Rapides Parish in an effort to coordinate mitigation efforts where possible as neighboring communities. The Grant Parish OHSEP Director was invited via email and phone call to participate in an effort to collaborate with neighboring communities.

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 2021 Rapides Parish Hazard Mitigation Plan Update Steering Committee consisted of representatives from the following parish, municipal or community stakeholders. On the next page is a detailed list of the 2021 HMPU Steering Committee.

Rapides Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Sonya Wiley-Gremillion	Director	Rapides Parish OHSEP	swiley@rapides911.org
Angie Branton	Admin Asst	Rapides Parish OHSEP	abranton@rapides911.org
Cory Ashmore	Public Works Director	Rapides Parish Highway Dept	cashmore1@rppj.com
Tom David	Parish Engineer	Pan American Engineers	tcd@paealex.com
Dustin Etheridge	Community Relations	Acadian Ambulance	detheridge@acadian.com
Curtis Fogleman	GIS Manager	City of Alexandria	curtis.fogleman@cityofalex.com
Wes Anders	Fire Chief	Town of Ball	wanders@townofball.com
Glenn Aaron	Public Works	Town of Boyce	glenn@townofboyce.com
Jacob Guillory	Pan American Engineer	Town of Cheneyville	jacob@paealex.com
Jason Murphy	Meyer, Meyer, LaCroix	Village of Forest Hill	jason.murphy@mmlh.com
Joey Mott	Mayor	Town of Glenmora	mayorglenmoral@aol.com
Ross Ducote	Police Chief	Town of Lecompte	chief@townoflecompte.com
Jason Murphy	Meyer, Meyer, LaCroix	Town of McNary	jason.murphy@mmlh.com
Tom David	Pineville City Engineer	City of Pineville	tcd@paealex.com
David Butler	Mayor	Town of Woodworth	dbutler@thetow.org
Matt Johns	Executive Director	Rapides Area Planning Commission	matt@rapc.info
Melissa Becker	Floodplain Manager	Rapides Parish	mbecker@rapc.info
Patricia White	Emergency Response Coordinator	La Office of Public Health	pwhite@la.gov
Mary Tarver	HRSA Coordinator	Christus St. Francis Cabrini	mary.tarver@chrisutshhealth.org
Greg Timberlake	Captain, Emergency Services	Rapides Parish Sheriff's Department	gtimberlake@rpso.la.gov
Cade Fletcher	Director	Grant Parish OHSEP	fletcher@grantso.org

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 the Rapides Parish programs and planning efforts.

A measure of integration and coordination is achieved through the HMPU participation of Steering 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.

Rapides 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 Rapides Parish Hazard Mitigation Steering 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 2016 Hazard Mitigation Plan was also used in the planning process. Other existing data and plans used in the planning process include those listed below.

- Comprehensive/Master Plan
- Capital Improvements Plan
- Economic Development Plan
- Emergency Operations Plans
- Stormwater Management Plan
- Community Wildfire Protection 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: March 5, 2021

Location: Conference Call

Purpose: Discuss with the Rapides Parish OHSEP Director expectations and requirements of the project.
Discuss meeting schedules, committee make up, and next steps.

Public Invitation: No

Meeting Invitees:

Rapides Parish Kickoff Meeting Attendees			
Name	Title	Agency	Email
Sonya Wiley-Gremillion	Director	Rapides Parish OHSEP	swiley@rapides911.org
Angie Branton	Admin Asst	Rapides Parish OHSEP	abranton@rapides911.org
Lauren Morgan	Associate Director	SDMI-LSU	lstevens@lsu.edu
Chris Rippetoe	Program Manager	SDMI-LSU	crippe2@lsu.edu
Anna Daigle	Emergency Management Specialist	SDMI-LSU	adaig35@lsu.edu

Meeting #2: Hazard Mitigation Plan Steering Committee Meeting – Planning Process

Date: March 25, 2021

Location: Alexandria, LA

Purpose: Presentation of Hazard Mitigation Plan Update Process to Rapides Parish Hazard Mitigation Steering Committee by Rapides OHSEP and SDMI Staff.

Public Invitation: No

Meeting Invitees:

Rapides Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Sonya Wiley-Gremillion	Director	Rapides Parish OHSEP	swiley@rapides911.org
Angie Branton	Admin Asst	Rapides Parish OHSEP	abranton@rapides911.org
Cory Ashmore	Public Works Director	Rapides Parish Highway Dept	cashmore1@rpji.com
Tom David	Parish Engineer	Pan American Engineers	tcd@paealex.com
Dustin Etheridge	Community Relations	Acadian Ambulance	detheridge@acadian.com
Curtis Fogleman	GIS Manager	City of Alexandria	curtis.fogleman@cityofalex.com
Wes Anders	Fire Chief	Town of Ball	wanders@townofball.com
Glenn Aaron	Public Works	Town of Boyce	glenn@townofboyce.com
Jacob Guillory	Pan American Engineer	Town of Cheneyville	jacob@paealex.com
Jason Murphy	Meyer, Meyer, LaCroix	Village of Forest Hill	jason.murphy@mmlh.com
Joey Mott	Mayor	Town of Glenmora	mayorglenmorala@aol.com
Ross Ducote	Police Chief	Town of Lecompte	chief@townoflecompte.com
Jason Murphy	Meyer, Meyer, LaCroix	Town of McNary	jason.murphy@mmlh.com
Tom David	Pineville City Engineer	City of Pineville	tcd@paealex.com
David Butler	Mayor	Town of Woodworth	dbutler@thetow.org
Matt Johns	Executive Director	Rapides Area Planning Commission	matt@rapc.info
Melissa Becker	Floodplain Manager	Rapides Parish	mbecker@rapc.info
Patricia White	Emergency Response Coordinator	La Office of Public Health	pwhite@la.gov
Mary Tarver	HRSA Coordinator	Christus St. Francis Cabrini	mary.tarver@chrisutshhealth.org
Greg Timberlake	Captain, Emergency Services	Rapides Parish Sheriff's Department	gtimberlake@rpso.la.gov
Cade Fletcher	Director	Grant Parish OHSEP	fletcher@grantso.org

Meeting #3: Hazard Mitigation Plan Steering Committee Meeting – Mitigation Actions

Date: May 5, 2021

Location: Alexandria, LA

Purpose: Discussion with Rapides Parish Hazard Mitigation Steering Committee of the outstanding data required for plan update, as well as discussion of mitigation actions (old and new) for plan update. Continued timeline discussions.

Public Invitation: No

Meeting Invitees:

Rapides Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Sonya Wiley-Gremillion	Director	Rapides Parish OHSEP	swiley@rapides911.org
Angie Branton	Admin Asst	Rapides Parish OHSEP	abranton@rapides911.org
Cory Ashmore	Public Works Director	Rapides Parish Highway Dept	cashmore1@rppj.com
Tom David	Parish Engineer	Pan American Engineers	tcd@paealex.com
Dustin Etheridge	Community Relations	Acadian Ambulance	detheridge@acadian.com
Curtis Fogleman	GIS Manager	City of Alexandria	curtis.fogleman@cityofalex.com
Wes Anders	Fire Chief	Town of Ball	wanders@townofball.com
Glenn Aaron	Public Works	Town of Boyce	glenn@townofboyce.com
Jacob Guillory	Pan American Engineer	Town of Cheneyville	jacob@paealex.com
Jason Murphy	Meyer, Meyer, LaCroix	Village of Forest Hill	jason.murphy@mmlh.com
Joey Mott	Mayor	Town of Glenmora	mayorglenmorala@aol.com
Ross Ducote	Police Chief	Town of Lecompte	chief@townoflecompte.com
Jason Murphy	Meyer, Meyer, LaCroix	Town of McNary	jason.murphy@mmlh.com
Tom David	Pineville City Engineer	City of Pineville	tcd@paealex.com
David Butler	Mayor	Town of Woodworth	dbutler@thetow.org
Matt Johns	Executive Director	Rapides Area Planning Commission	matt@rapc.info
Melissa Becker	Floodplain Manager	Rapides Parish	mbecker@rapc.info
Patricia White	Emergency Response Coordinator	La Office of Public Health	pwhite@la.gov
Mary Tarver	HRSA Coordinator	Christus St. Francis Cabrini	mary.tarver@chrisutshhealth.org
Greg Timberlake	Captain, Emergency Services	Rapides Parish Sheriff's Department	gtimberlake@rpso.la.gov
Cade Fletcher	Director	Grant Parish OHSEP	fletcher@grantso.org

Meeting #4: Risk Assessment Presentation to Steering Committee**Date:** June 2, 2021**Location:** Ball Municipal Center – Ball, LA**Purpose:** Presentation of Risk Assessment hazards and maps to Steering Committee.**Public Invitation:** No**Meeting Invitees:**

Rapides Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Sonya Wiley-Gremillion	Director	Rapides Parish OHSEP	swiley@rapides911.org
Angie Branton	Admin Asst	Rapides Parish OHSEP	abranton@rapides911.org
Cory Ashmore	Public Works Director	Rapides Parish Highway Dept	cashmore1@rppj.com
Tom David	Parish Engineer	Pan American Engineers	tcd@paealex.com
Dustin Etheridge	Community Relations	Acadian Ambulance	detheridge@acadian.com
Curtis Fogleman	GIS Manager	City of Alexandria	curtis.fogleman@cityofalex.com
Wes Anders	Fire Chief	Town of Ball	wanders@townofball.com
Glenn Aaron	Public Works	Town of Boyce	glenn@townofboyce.com
Jacob Guillory	Pan American Engineer	Town of Cheneyville	jacob@paealex.com
Jason Murphy	Meyer, Meyer, LaCroix	Village of Forest Hill	jason.murphy@mmlh.com
Joey Mott	Mayor	Town of Glenmora	mayorglenmoral@aol.com
Ross Ducote	Police Chief	Town of Lecompte	chief@townoflecompte.com
Jason Murphy	Meyer, Meyer, LaCroix	Town of McNary	jason.murphy@mmlh.com
Tom David	Pineville City Engineer	City of Pineville	tcd@paealex.com
David Butler	Mayor	Town of Woodworth	dbutler@thetow.org
Matt Johns	Executive Director	Rapides Area Planning Commission	matt@rapc.info
Melissa Becker	Floodplain Manager	Rapides Parish	mbecker@rapc.info
Patricia White	Emergency Response Coordinator	La Office of Public Health	pwhite@la.gov
Mary Tarver	HRSA Coordinator	Christus St. Francis Cabrini	mary.tarver@chrisutshhealth.org
Greg Timberlake	Captain, Emergency Services	Rapides Parish Sheriff's Department	gtimberlake@rpso.la.gov
Cade Fletcher	Director	Grant Parish OHSEP	fletcher@grantso.org

Meeting #5: Public Meeting**Date:** June 2, 2021**Location:** Ball Municipal Center – Ball, LA**Purpose:** The Public Meeting allowed the public and community stakeholders to participate and provide input into the hazard mitigation planning process.**Public Invitation:** Yes**Meeting Invitees:**

Rapides Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Sonya Wiley-Gremillion	Director	Rapides Parish OHSEP	swiley@rapides911.org
Angie Branton	Admin Asst	Rapides Parish OHSEP	abranton@rapides911.org
Cory Ashmore	Public Works Director	Rapides Parish Highway Dept	cashmore1@rpji.com
Tom David	Parish Engineer	Pan American Engineers	tcd@paealex.com
Dustin Etheridge	Community Relations	Acadian Ambulance	detheridge@acadian.com
Curtis Fogleman	GIS Manager	City of Alexandria	curtis.fogleman@cityofalex.com
Wes Anders	Fire Chief	Town of Ball	wanders@townofball.com
Glenn Aaron	Public Works	Town of Boyce	glenn@townofboyce.com
Jacob Guillory	Pan American Engineer	Town of Cheneyville	jacob@paealex.com
Jason Murphy	Meyer, Meyer, LaCroix	Village of Forest Hill	jason.murphy@mmlh.com
Joey Mott	Mayor	Town of Glenmora	mayorglenmorala@aol.com
Ross Ducote	Police Chief	Town of Lecompte	chief@townoflecompte.com
Jason Murphy	Meyer, Meyer, LaCroix	Town of McNary	jason.murphy@mmlh.com
Tom David	Pineville City Engineer	City of Pineville	tcd@paealex.com
David Butler	Mayor	Town of Woodworth	dbutler@thetow.org
Matt Johns	Executive Director	Rapides Area Planning Commission	matt@rapc.info
Melissa Becker	Floodplain Manager	Rapides Parish	mbecker@rapc.info
Patricia White	Emergency Response Coordinator	La Office of Public Health	pwhite@la.gov
Mary Tarver	HRSA Coordinator	Christus St. Francis Cabrini	mary.tarver@chrisutshhealth.org
Greg Timberlake	Captain, Emergency Services	Rapides Parish Sheriff's Department	gtimberlake@rpso.la.gov
Cade Fletcher	Director	Grant Parish OHSEP	fletcher@grantso.org

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 Livingston Parish residents was conducted between March and June 2021. The survey was designed to capture public perceptions and opinions regarding natural hazards in Rapides 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 June 9, 2021, there have been 11 responses to the Rapides Parish Hazard Mitigation Public Opinion Survey, with a completion rate of approximately 55%. Full survey results can be found here: <https://www.surveymonkey.com/results/SM-7J69SVPV9/>

Outreach Activity #2: Incident Questionnaire

Date: June 2, 2021; Public Meeting Activity

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 Rapides Parish regarding hazard events and their localized impacts. While the information collected via the questionnaire was to be integrated into this planning document, only one member of the public attended the meeting and declined the opportunity to complete the questionnaire; Subsequently, no results could be collected. A copy of the incident questionnaire can be found on the next page.

RAPIDES PARISH PUBLIC MEETING

PUBLIC ACTIVITY: INCIDENT/ ISSUE QUESTIONNAIRE

1. HAZARD TYPE(S):

- A. FLOODING
 - I. RIVERINE
 - II. STORM SURGE
 - III. STREET
 - IV. OTHER (DESCRIBE):
- B. HIGH WINDS (NOT TROPICAL)
- C. COASTAL
 - I. SALTWATER INTRUSION
 - II. EROSION
 - III. OTHER (DESCRIBE):
- D. TROPICAL SYSTEMS
- E. WINTER WEATHER

F. OTHER:

2. DESCRIBE INCIDENT OR ISSUE:

3. LOCATION:

A. CITY:

B. ADDRESS OR AREA:

C. LOCALIZED OR DISPERSED:

4. INTENSITY:

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

B. WIND STRENGTH

5. RE-OCCURRING OR ONE- TIME

A. IF RE-OCCURRING, HOW OFTEN?

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

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

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

Outreach Activity #3: 2021 Rapides Parish Hazard Mitigation Plan Public Review

Date: Ongoing

Location: SDMI Hazard Mitigation Website

Public Initiation: Yes

After an initial review by the Rapides Parish Planning Committee was completed, the 2021 Rapides 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/rapides>

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."

Monitoring, Evaluating, and Updating the Plan

The Rapides Parish Hazard Mitigation Steering Committee will be responsible for 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

Rapides Parish has developed a method to ensure that a regular review and update of the Hazard Mitigation Plan occurs. This will be the responsibility of the Steering 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 Steering Committee.

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

Methods for Monitoring and Evaluating the Plan and Plan Evaluation Criteria

Rapides Parish has developed a method to ensure monitoring, evaluating, and updating of the HMP occurs during the five-year cycle of the plan. The steering committee will become a permanent body and will be responsible for monitoring, evaluating, and updating of the plan. The steering committee meeting will be held annually in order to monitor, evaluate, and update the plan. The Rapides Parish OHSEP Director will be responsible for conducting the annual Steering Committee meetings.

The lead person of the agency responsible for the implementation of a specific mitigation action will submit a progress report to the 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 Steering Committee meeting. The Steering 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 Steering 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 Steering Committee will be responsible for updating the HMP. The OHSEP 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 Rapides 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 Hazard Mitigation Website.

The review by the Steering 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 OHSEP Director. The Steering 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 OHSEP Director for contacting committee members, organizing the meeting and providing public noticing for the meeting to solicit public input.

2021 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 2021 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 Rapides Parish Hazard Mitigation Plan Steering Committee and participating jurisdictions to determine additional implementation procedures when appropriate. This may include integrating the requirements of the Rapides Parish Hazard Mitigation Plan into each jurisdiction's planning documents, processes, or mechanisms as follows:

- Ordinances, Resolutions, Regulations
- Floodplain Ordinances
- Comprehensive/Master Plan
- Capital Improvements Plan
- Economic Development Plan
- Emergency Operations Plans
- Stormwater Management Plan
- Community Wildfire Protection Plan

Opportunities to integrate the requirements of this plan into other local planning mechanisms will continue to be identified through future meetings of the Rapides Parish Hazard Mitigation Steering 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.). While there have been no instances of the mitigation strategy being incorporated into other planning documents since the adoption of the 2016 Rapides Parish 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 2021 Rapides Parish Hazard Mitigation Plan into other planning documents when appropriate. Most notably, the City of Alexandria will soon begin the process of updating their Stormwater Management Plan and will incorporate the mitigation strategy from this FEMA approved hazard mitigation plan into the Stormwater Management Plan update 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 steering committee to be the most effective and appropriate method to ensure implementation of Parish and local hazard mitigation actions.

On behalf of the Town of Ball, Town of Boyce, Town of Cheneyville, Village of Forest Hill, Town of Glenmora, Town of Lecompte, Village of McNary, City of Pineville, and Town of Woodworth, Rapides Parish 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 steering committee member and jurisdiction representation throughout the planning process as described above:

Unincorporated Rapides Parish

<i>Capital Improvements Plan</i>	Updated as needed	Rapides Parish Police Jury	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Rapides Parish OHSEP	✓
<i>Stormwater Management Plan</i>	Updated as needed	Rapides Parish Police Jury	✓

City of Alexandria

<i>Comprehensive Master Plan</i>	Updated as needed	City of Alexandria Mayor's Office	✓
<i>Capital Improvements Plan</i>	Updated as needed	City of Alexandria Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	City of Alexandria Mayor's Office	✓
<i>Stormwater Management Plan</i>	Updated as needed	City of Alexandria Mayor's Office	✓

Town of Ball

<i>Comprehensive Master Plan</i>	Updated as needed	Town of Ball Mayor's Office	✓
<i>Capital Improvement Plan</i>	Updated as needed	Town of Ball Mayor's Office	✓
<i>Economic Development Plan</i>	Updated as needed	Town of Ball Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Town of Ball Mayor's Office	✓
<i>Continuity of Operations Plan</i>	Updated as needed	Town of Ball Mayor's Office	✓
<i>Stormwater Management Plan</i>	Updated as needed	Town of Ball Mayor's Office	✓
<i>Community Wildfire Protection Plan</i>	Updated as needed	Town of Ball Mayor's Office	✓

Town of Boyce

There are no local plans to incorporate in the Town of Boyce

Town of Cheneyville

There are no local plans to incorporate in the Town of Cheneyville

Village of Forest Hill

<i>Capital Improvement Plan</i>	Updated as needed	Village of Forest Hill Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	Village of Forest Hill Mayor's Office	✓

Town of Glenmora

There are no local plans to incorporate in the Town of Glenmora

Town of Lecompte

There are no local plans to incorporate in the Town of Lecompte

Village of McNary

There are no local plans to incorporate in the Village of McNary

City of Pineville

<i>Capital Improvement Plan</i>	Updated as needed	City of Pineville Mayor's Office	✓
<i>Local Emergency Operations Plan</i>	Updated as needed	City of Pineville Mayor's Office	✓
<i>Stormwater Management Plan</i>	Updated as needed	City of Pineville Mayor's Office	✓

Town of Woodworth

<i>Local Emergency Operations Plan</i>	Updated as needed	Town of Woodworth's Mayor's Office	✓
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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 Rapides Planning Area

Rapides Parish Planning Area Critical Facilities											
Type	Name	Flooding	Drought	Extreme Heat	Hail	Lightning	High Wind	Tornadoes	Tropical Cyclones	Wildfires	Winter Weather
Government	Rapides Parish Courthouse				X	X	X	X	X		X
	Alexandria City Hall				X	X	X	X	X		X
	City of Alexandria Central Facilities	X			X	X	X	X	X		X
	Ball Town Hall				X	X	X	X	X	X	X
	Ball Public Works Department				X	X	X	X	X	X	X
	Rapides Public Works	X			X	X	X	X	X		X
	Alexandria City Court Building				X	X	X	X	X		X
	Boyce Town Hall				X	X	X	X	X		X
	Cheneyville New Town Hall				X	X	X	X	X		X
	Forest Hill Town Hall				X	X	X	X	X		X
	Glenmora Town Hall				X	X	X	X	X	X	X
	Lecompte Town Hall				X	X	X	X	X	X	X
	McNary Town Hall				X	X	X	X	X	X	X
	Pineville City Hall				X	X	X	X	X	X	X
	Pineville City Court				X	X	X	X	X	X	X
	Woodworth Municipal Complex				X	X	X	X	X	X	X
Fire & SAR	Fire District No. 9 - Station #1	X			X	X	X	X	X		X

	Fire District No. 9 - Station #3	X			X	X	X	X	X	X	X
	Fire District No. 9 - Station #2	X			X	X	X	X	X		X
	Fire District No. 2 - Station #1				X	X	X	X	X		X
	Fire District No. 2 - Station #2				X	X	X	X	X		X
	Fire District No. 2 - Station #3	X			X	X	X	X	X		X
	Fire District No. 2 - Station #4				X	X	X	X	X	X	X
	Fire District No. 2 - Station #5				X	X	X	X	X	X	X
	Fire District No. 7 - Station #1				X	X	X	X	X	X	X
	Fire District No. 7 - Station #2				X	X	X	X	X	X	X
	Fire District No. 8 - Station #1				X	X	X	X	X		X
	Fire District No. 8 - Station #2				X	X	X	X	X	X	X
	Fire District No. 6 - Station #1				X	X	X	X	X		X
	Fire District No. 6 - Station #2				X	X	X	X	X	X	X
	Fire District No. 6 - Station #3				X	X	X	X	X	X	X
	Fire District No. 5 - Station #1				X	X	X	X	X		X
	Fire District No. 5 - Station #2				X	X	X	X	X		X
	Fire District No. 5 - Station #3				X	X	X	X	X	X	X
	Fire District No. 5 - Station #4				X	X	X	X	X		X
	Fire District No. 5 - Station #5				X	X	X	X	X	X	X

Fire District No. 14 - Station #1				X	X	X	X	X		X
Fire District No. 14 - Station #2				X	X	X	X	X		X
Fire District No. 14 - Station #3				X	X	X	X	X		X
Fire District No. 17 - Station #1				X	X	X	X	X		X
Fire District No. 17 - Station #2				X	X	X	X	X	X	X
Fire District No. 17 - Station #3				X	X	X	X	X		X
Fire District No. 10 - Station #1				X	X	X	X	X		X
Fire District No. 10 - Station #2				X	X	X	X	X		X
Fire District No. 10 - Station #3				X	X	X	X	X		X
Fire District No. 10 - Station #4				X	X	X	X	X		X
Fire District No. 11 - Station #1				X	X	X	X	X		X
Fire District No. 11 - Station #2				X	X	X	X	X	X	X
Fire District No. 11 - Station #3				X	X	X	X	X	X	X
Fire Station No. 11 - Station #5				X	X	X	X	X	X	X
Fire District No. 18 - Station #2				X	X	X	X	X	X	X
Fire District No. 18 - Station #3				X	X	X	X	X		X
Fire District No. 3 - Station #1				X	X	X	X	X	X	X
Fire District No. 3 - Station #2				X	X	X	X	X		X
Fire District No. 3 - Station #3				X	X	X	X	X	X	X

	Fire District No. 4 - Station #1				X	X	X	X	X	X	X
	Fire District No. 4 - Station #2				X	X	X	X	X	X	X
	Fire District No. 4 - Station #3				X	X	X	X	X	X	X
	Fire District No. 4 - Station #4				X	X	X	X	X	X	X
	Fire Station No. 2	X			X	X	X	X	X		X
	Fire Station No. 5				X	X	X	X	X		X
	Fire Training Building (CF-F)	X			X	X	X	X	X		X
	Fire Station No. 4 (A)				X	X	X	X	X		X
	Fire Station No. 4 (B)				X	X	X	X	X		X
	Fire Station No. 4 (C)				X	X	X	X	X		X
	Fire Station No. 1 (A)				X	X	X	X	X		X
	Fire Station No. 6				X	X	X	X	X	X	X
	Pinebrook Fire Station				X	X	X	X	X	X	X
	Public Safety Complex				X	X	X	X	X		X
	Fire Training Academy				X	X	X	X	X		X
	Fire Department Storage				X	X	X	X	X		X
	Evie Morrow Fire Training Facility				X	X	X	X	X	X	X
	Fire Station #1				X	X	X	X	X		X
	Fire Station #2				X	X	X	X	X		X
	Glenmora Fire Station	X			X	X	X	X	X	X	X
	Lecompte Fire Department				X	X	X	X	X	X	X

	Pineville Central Fire Station				X	X	X	X	X	X	X
	Pineville Fire Station				X	X	X	X	X	X	X
	Pineville Fire Station #2				X	X	X	X	X	X	X
	Pineville Fire House				X	X	X	X	X	X	X
	J.D. Glass Memorial Fire Station				X	X	X	X	X	X	X
	Richard A. Butler Memorial Fire Station				X	X	X	X	X	X	X
Law Enforcement	Alexandria Public Safety Complex				X	X	X	X	X		X
	Ball Police Department	X			X	X	X	X	X		X
	Boyce Police Department				X	X	X	X	X		X
	Cheneyville Police Department				X	X	X	X	X		X
	Forest Hill Police Department				X	X	X	X	X		X
	Glenmora Police Department									X	
	Lecompte Police Department				X	X	X	X	X	X	X
	McNary Police Department				X	X	X	X	X	X	X
	Pineville City Hall										
	Woodworth Police Department				X	X	X	X	X	X	X
	Rapides Parish Sheriff's Office				X	X	X	X	X		X
	Rapides Parish Detention Center I				X	X	X	X	X		X
	Rapides Parish Detention Center II				X	X	X	X	X		X

	Rapides Parish Detention Center III				X	X	X	X	X		X
Public Health	Rapides Regional Medical Center	X			X	X	X	X	X		X
	Christus St. Francis Cabrini Hospital				X	X	X	X	X		X
	Rapides Women's and Children's Hospital				X	X	X	X	X		X
Schools	Acadian Elementary School				X	X	X	X	X	X	X
	Alexandria Middle Magnet School				X	X	X	X	X		X
	Alexandria Senior High School				X	X	X	X	X	X	X
	Alma Redwine Elementary School	X			X	X	X	X	X		X
	Arthur F. Smith Middle Magnet School	X			X	X	X	X	X		X
	Ball Elementary School				X	X	X	X	X	X	X
	Bolton High School				X	X	X	X	X		X
	Buckeye Elementary School				X	X	X	X	X	X	X
	Buckeye High School				X	X	X	X	X		X
	Caroline Dormon Junior High School	X			X	X	X	X	X		X
	Carter C. Raymond Elementary School	X			X	X	X	X	X		X
	Cherokee Elementary School				X	X	X	X	X		X
	D.F. Huddle Elementary School				X	X	X	X	X		X

	Forest Hill Jr High School				X	X	X	X	X	X	X
	Glenmora Elementary School				X	X	X	X	X	X	X
	Glenmora High School				X	X	X	X	X	X	X
	Hayden R. Lawrence Upper Elementary School				X	X	X	X	X		X
	Horseshoe Drive Elementary School				X	X	X	X	X		X
	J.B. Nachman Elementary School				X	X	X	X	X		X
	J.I. Barron Sr. Elementary School				X	X	X	X	X	X	X
	Julius Patrick Elementary School				X	X	X	X	X		X
	L.S. Rugg Elementary School				X	X	X	X	X		X
	Lessie Moore Elementary School				X	X	X	X	X	X	X
	Mabel Brasher Montessori Elementary				X	X	X	X	X		X
	Martin Park Elementary School				X	X	X	X	X	X	X
	Mary Goff Elementary School				X	X	X	X	X	X	X
	North Bayou Rapides Elementary School	X			X	X	X	X	X		X
	Northwood High School				X	X	X	X	X		X
	Oak Hill High School				X	X	X	X	X		X
	Paradise Elementary School				X	X	X	X	X	X	X
	Peabody Magnet High School	X			X	X	X	X	X		X

	Peabody Montessori Elementary School				X	X	X	X	X		X
	Phoenix Magnet Elementary School				X	X	X	X	X		X
	Pineville Elementary School				X	X	X	X	X		X
	Pineville High School				X	X	X	X	X		X
	Pineville Junior High School				X	X	X	X	X	X	X
	Plainview High School				X	X	X	X	X		X
	Poland Junior High School				X	X	X	X	X	X	X
	Rapides High School				X	X	X	X	X		X
	Rapides Training Academy	X			X	X	X	X	X	X	X
	Rosenthal Montessori Elementary School				X	X	X	X	X		X
	Ruby-Wise Elementary School				X	X	X	X	X	X	X
	Scott M. Brame Middle School	X			X	X	X	X	X		X
	Tioga Elementary School				X	X	X	X	X		X
	Tioga High School				X	X	X	X	X		X
	Tioga Junior High School				X	X	X	X	X		X
	W.O. Hall Elementary School	X			X	X	X	X	X		X
	Rapides Academy for Advanced Academics				X	X	X	X	X		X

Appendix D: Plan Adoption

Unincorporated Rapides Parish

On motion by Mr. Ollie Overton, seconded by Mr. Joe Bishop, the following resolution was presented and unanimously adopted:

RESOLUTION RAPIDES PARISH HAZARD MITIGATION PLAN 2021

WHEREAS, the Parish of Rapides has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN - 2021 update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, RAPIDES PARISH has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides;

WHEREAS, RAPIDES PARISH is participating in the Hazard Mitigation Plan prepared by the Rapides Parish Police Jury under the oversight of a Steering Committee comprised of Parish-Wide representatives;

WHEREAS, Rapides Parish and local city representatives and governments have participated in the mitigation planning process;

WHEREAS, appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents;

WHEREAS, the Plan has been recommended for adoption by the steering committee;

WHEREAS, adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

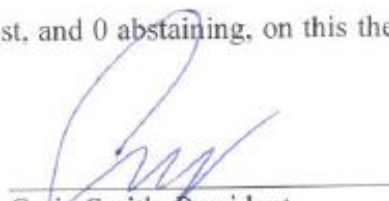
Pre-Disaster Mitigation
Hazard Mitigation Grant Program
Flood Mitigation Assistance Program

Therefore, the RAPIDES PARISH POLICE JURY does hereby adopt the Rapides Parish Multi-Hazard Mitigation Plan Update 2021.

ADOPTED by a vote of 7 in favor and 0 against, and 0 abstaining, on this the 9th day of August, 2021.



Laurel Smith, Secretary
Rapides Parish Police Jury



Craig Smith, President
Rapides Parish Police Jury

City of Alexandria

RESOLUTION NO. 0208-2021**RESOLUTION ADOPTING THE RAPIDES PARISH HAZARD MITIGATION PLAN 2021.**

WHEREAS, the Parish of Rapides has prepared a multi-hazard plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN – 2021 update in accordance with the Disaster Mitigation Act of 2000 (DMA); and

WHEREAS, the City of Alexandria, Louisiana (Alexandria) has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides;

WHEREAS, Alexandria is participating in the Hazard Mitigation Plan prepared by the Rapides Parish Police Jury under oversight of a Steering Committee comprised of Parish –Wide representatives;

WHEREAS, Rapides Parish and local city representatives and governments have participated in the mitigation process;

WHEREAS, appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents;

WHEREAS, the plan has been recommended for adoption by the steering committee;

WHEREAS, adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program

SECTION I. BE IT RESOLVED by the City Council of the City of Alexandria, Louisiana that the City of Alexandria does hereby adopt the Rapides Parish Hazard Mitigation Plan Update 2021.

THIS RESOLUTION having been submitted in writing was then submitted to a final vote as a whole thereon being as follows:

YEAS: Rubin, Davidson, Porter, Washington, Villard, Fowler, Perry.

NAYS: None.

ABSENT: None.

AND THE RESOLUTION was declared adopted on this the 7th day of September, 2021.

/S/ Donna Jones
City Clerk

Town of Ball

**TOWN OF BALL, LOUISIANA
RESOLUTION # 2021-0817-12**

STATE OF LOUISIANA**PARISH OF RAPIDES**

At a regular meeting of the Board of Aldermen held at the Ball Town Hall, 100 Municipal Lane, Ball, LA, on August 17, 2021, a quorum of the Town Council was present and voting. Upon motion by Alderwoman Kimberley Krischke, seconded by Alderwoman Duncan-Furby, the following resolution was approved:

WHEREAS, the Parish of Rapides has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN – 2021 update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the Town of Ball has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides; and

WHEREAS, the Town of Ball is participating in the Hazard Mitigation Plan prepared by the Rapides Parish Police Jury under the oversight of a Steering Committee comprised of Parish-Wide representatives; and

WHEREAS, Rapides Parish and local city representatives and governments have participated in the mitigation planning process; and

WHEREAS, appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents; and

WHEREAS, the Plan has been recommended for adoption by the steering committee; and

WHEREAS, adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program

NOW, THEREFORE BE IT RESOLVED, that the Town of Ball does hereby adopt the Rapides Parish Multi-Hazard Mitigation Plan Update 2021.

The above and foregoing Resolution was adopted on the 17th day of August 2021, by the following votes:

YEAS: Alderwomen Carroll Ward, Suzanne Duncan-Furby, Charlotte Williams-Smith, Kimberley Krischke

NAYS: None

ABSTAIN: None

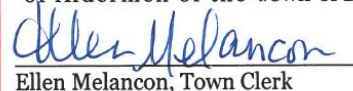
ABSENT: Alderman Marc Mercer


Gail Wilking, Mayor


Ellen Melancon, Town Clerk

C E R T I F I C A T E

I, Ellen Melancon, Clerk for the Town of Ball, certify that the above and foregoing constitutes a true and correct copy of a Resolution passed and adopted by the Board of Aldermen of the Town of Ball on the 17th day of August 2021.


Ellen Melancon, Town Clerk

Town of Boyce

RESOLUTION 077-2021
A RESOLUTION ADOPTING THE RAPIDES PARISH HAZARD MITIGATION PLAN
2021

WHEREAS the Parish of Rapides has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN – 2021 update in accordance with the Disaster Mitigation ACT OF 2000; and

WHEREAS the Town of Boyce has participated in the progress to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides;

WHEREAS the Town of Boyce is participating in the Hazard Mitigation Plan prepared by the Rapides Parish Police Jury under the oversight of a steering committee comprised of parish-wide Representatives;

WHEREAS Rapides Parish and local city representatives and governments have participated in The mitigation planning process;

WHEREAS appropriate opportunity for input by public and community officials has been Provided through meeting notices, open meetings and availability of draft documents;


WHEREAS the plan has been recommended for adoption by the steering committee;

WHEREAS adoption of the Plan is required prior to further consideration for FEMA funding Under the following programs:

- . Pre-Disaster Mitigation
- . Hazard Mitigation Grant Program
- . Flood Mitigation Assistance Program

Therefore, the Town of Boyce does hereby adopt the Rapides Parish Hazard Mitigation Plan Update 2021.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, on this the 13th day of September, 2021.


Mayor Alma Moore

9/14/2021
Date

Attest:

Shawanda Tompkins, Clerk

9/14/2021
Date

Town of Cheneyville

**A RESOLUTION ADOPTING THE RAPIDES PARISH HAZARD MITIGATION PLAN
2021**

WHEREAS the Parish of Rapides has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN- 2021 update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the Town of Cheneyville has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides;

WHEREAS the Town of Cheneyville is participating in the Hazard Mitigation Plan prepared by the Rapides Parish Police Jury under the oversight of a Steering Committee comprised of Parish-Wide representatives;

WHEREAS Rapides Parish and local city representatives and governments have participated in the mitigation planning process;

WHEREAS appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents;

WHEREAS the Plan has been recommended for adoption by the steering committee;

WHEREAS adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program

Therefore, the Town of Cheneyville does hereby adopt the Rapides Parish Multi- Hazard Mitigation Plan Update 2021.



Town Clerk



Mayor

Village of Forest Hill

VILLAGE OF FOREST HILL
RESOLUTION 2021-08A RESOLUTION ADOPTING THE
PARISH - WIDE HAZARD MITIGATION PLAN

WHEREAS, the Rapides Parish Police Jury has received grant funds from the Federal Emergency Management Agency, through the Louisiana Office of Homeland Security and Emergency Preparedness, for the preparation of a hazard mitigation plan and;

WHEREAS our community has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based on the FEMA guidance available in the How to Guides;

WHEREAS our community wishes to participate in the Hazard Mitigation Plan prepared by the Rapides Parish government under the oversight of a Steering Committee comprised of Parish- wide representatives;

WHEREAS, Rapides Parish and local city representatives and governments have participated in the mitigation planning process;

WHEREAS appropriate opportunity for input by public and community officials has been provided through press releases, open meetings and availability of draft documents;




WHEREAS the Plan has been recommended for adoption by the Steering Committee;

WHEREAS adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program

Therefore, the Village of Forest Hill does hereby adopt the Rapides Parish Hazard Mitigation Plan Update 2021.

On roll call, the following resolution was adopted as follows:

Yeas: Robinson, Carroll, Perkins
Nays: 
Abstained: 
Absent: 

CERTIFICATE

I certify that the following resolution is a true and correct copy of resolution adopted at a regular meeting held on the 9th day of November, 2021 at which meeting a quorum was present and voting.


Elizabeth A. Jeter, Mayor

ATTEST:


Latral Strange, Town Clerk

Town of Glenmora



Town of Glenmora

718 8th Street
P.O. Box 265
Glenmora, Louisiana 71433

Resolution No. 2021 - 017

A resolution of the Board of Alderman of the Town of Glenmora adopting the Rapides Parish Hazard Mitigation Plan 2021.

WHEREAS The Mayor, (Joey Mott), is hereby authorized, on behalf of the Town of Glenmora, to execute and otherwise enter into approved Agreement to adopt the Rapides Parish Hazardous Mitigation Plan 2021; and

WHEREAS The Parish of Rapides has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN - 2021 update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the Town of Glenmora has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides; and

WHEREAS the Town of Glenmora is participating in the Hazard Mitigation Plan prepared by the Rapides parish Police Jury under the oversight of a Steering Committee comprised of Parish-Wide representative; and

WHEREAS Rapides Parish and local city representatives and governments have participated in the mitigation planning process; and

WHEREAS appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings, and availability of draft documents; and

WHEREAS the Plan has been recommended for adoption by the steering committee; and

WHEREAS adoption of the plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program

WHEREAS This resolution shall become effective immediately upon its adoption.

The foregoing resolution was offered by Rivers who moved its adoption. The motion was seconded by moon and upon being put to a vote the vote was as follows:

Yays:	<u>4</u>
Nays:	<u>0</u>
Abstain:	<u>0</u>
Absent:	<u>1</u>

Passed and adopted this 13 day of September, 2021.

Joey Mott Mayor

C E R T I F I C A T E

I, Ronda Laird, Clerk of the Town of Glenmora, certify that the above and foregoing constitutes a true and correct copy of a Resolution passed and adopted by the Town of Glenmora on September 13, 2021.

Ronda Laird
Ronda Laird, Clerk

Town of Lecompte

TOWN OF LECOMPTE
The Mayor and Board of AldermenResolution No. 2021-19**A RESOLUTION OF THE MAYOR AND BOARD OF ALDERMEN OF THE TOWN OF LECOMPTE, LOUISIANA, ADOPTING THE RAPIDES PARISH HAZARD MITIGATION PLAN 2021.**

WHEREAS, the Parish of Rapides has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN – 2021 update in accordance with the Disaster Mitigation act of 2000; and

WHEREAS, the Town of Lecompte has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides;

WHEREAS, the Town of Lecompte is participating in the Hazard Mitigation Plan prepared by the Rapides Parish Police Jury under the oversight of a Steering Committee comprised of Parish-Wide representatives;

WHEREAS, Rapides Parish and local city representatives and governments have participated in the mitigation planning process;

WHEREAS, appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents;

WHEREAS, the Plan has been recommended for adoption by the steering committee;

WHEREAS, adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program

THEREFORE, the Town of Lecompte does hereby adopt the Rapides Parish Multi-Hazard Mitigation Plan Update 2021.

Passed, approved and adopted this 13th day of September 2021.


Jessica Celestine, Town Clerk


Hon. Craig Phillips, Mayor

CERTIFICATE

I, Jessica Celestine, Clerk of the Town of Lecompte, certify that the above and foregoing constitutes a true and correct copy of a Resolution passed and adopted by the Town of Lecompte on September 13, 2021.


Jessica Celestine, Town Clerk

Village of McNary

RAPIDES PARISH
RESOLUTION 2021-01

A RESEOLUTION ADOPTING THE
PARISH-WIDE HAZARD MITIGATION PLAN

WHEREAS, the Rapides Parish Police Jury has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN – 2021 update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the Village of McNary has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides;

WHEREAS, the Village of McNary is participating in the Hazard Mitigation Plan prepared by the Rapides Police Jury under the oversight of a Steering Committee comprised of Parish-Wide representatives;

WHEREAS Rapides Parish and local city representatives and governments have participated in the mitigation planning process;

WHEREAS appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents;

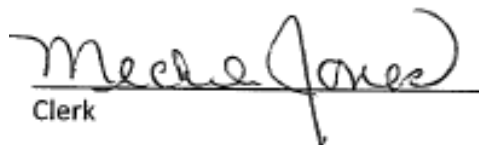
WHEREAS the Plan has been recommended for adoption by the steering committee;

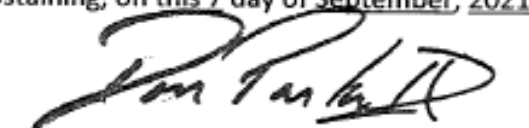
WHEREAS adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

Pre-Disaster Mitigation
Hazard Mitigation Grant Program
Flood Mitigation Assistance Program

Therefore, the Village of McNary does hereby adopt the Rapides Parish Hazard Mitigation Plan Update 2016

ADOPTED by a vote of 2 in favor and 0 against, and 0 abstaining, on this 7 day of September, 2021.


Clerk


Mayor's Signature

City of Pineville

**A RESOLUTION ADOPTING THE
PARISH-WIDE HAZARD MITIGATION PLAN 2021**

WHEREAS, the Parish of Rapides has prepared a multi-hazard mitigation plan hereby known as the RAPIDES PARISH HAZARD MITIGATION PLAN – 2021 update in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the CITY OF PINEVILLE has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides; and

WHEREAS, the CITY OF PINEVILLE is participating in the Hazard Mitigation Plan prepared by the Rapides Parish Police Jury government under the oversight of a Steering Committee comprised of Parish-wide representatives; and

WHEREAS, Rapides Parish and local city representatives and governments have participated in the mitigation planning process; and

WHEREAS, appropriate opportunity for input by public and community officials has been provided through meeting notices, open meetings and availability of draft documents; and

WHEREAS, the updated Plan has been recommended for adoption by the steering committee; and

WHEREAS, adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program

NOW THEREFORE BE IT RESOLVED, that the CITY OF PINEVILLE does hereby adopt the Rapides Parish Hazard Mitigation Plan Update 2016 on the 14th day of September, 2021.


Katherine Hayes, City Clerk


Clarence R. Fields, Mayor

CERTIFICATE

I, Katherine Hayes, Clerk of the City of Pineville, Louisiana do hereby certify that the above and foregoing constitutes a true and correct copy of a Resolution passed, approved and adopted by the City of Pineville on September 14, 2021


Katherine Hayes, City Clerk

Town of Woodworth



TOWN OF WOODWORTH
 POST OFFICE BOX 228
 WOODWORTH, LOUISIANA 71485
 (318) 442-1198
 FAX (318) 487-6110
 www.townofwoodworth.com
 woodworth@thetow.org



**RESOLUTION
 NO. 1816-2021**

At the regular council meeting held on September 2, 2021, the following resolution was introduced by Council Member Kitchen, seconded by Council Member Aymond, and was unanimously passed.

WHEREAS, the Rapides Parish Police Jury has prepared a multi-hazard mitigation plan hereby known as the **RAPIDES PARISH HAZARD MITIGATION PLAN – 2021** update in accordance with the Disaster Mitigation Act of 2000; and,

WHEREAS, the Parish of Rapides has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based on the FEMA guidance available in the How to Guides; and,

WHEREAS, the Parish of Rapides wishes to participate in the Hazard Mitigation Plan update prepared by the Rapides Parish government under the oversight of a Steering Committee comprised of Parish-wide representatives; and,

WHEREAS, Rapides Parish and local city representatives and governments have participated in the mitigation planning process; and,

WHEREAS, appropriate opportunity for input by public and community officials has been provided through press releases, open meetings and availability of draft documents; and,

WHEREAS, the updated Plan has been recommended for adoption by the Steering Committee; and,

WHEREAS, adoption of the Plan is required prior to further consideration for FEMA funding under the following programs:

- Pre-Disaster Mitigation
- Hazard Mitigation Grant Program
- Flood Mitigation Assistance Program
- Severe Repetitive Loss
- Repetitive Flood Claims

THEREFORE, BE IT RESOLVED, that the Mayor and Town Council does hereby adopt the Rapides Parish Hazard Mitigation Plan Update 2021.

This resolution shall become effective immediately upon its passage.

Passed and adopted by the Mayor and Town Council of the Town of Woodworth, Parish of Rapides, State of Louisiana, on this 2nd day of September 2021, by the following votes:

Yeas: Reich, Cranford, Melder, Aymond, Kitchen Abstained: None

Nays: None Absent: None

I, David C. Butler, II, do hereby certify that the above is a true and correct copy of the **RESOLUTION** duly passed and adopted by the Town of Woodworth, Parish of Rapides, State of Louisiana, on the 2nd day of September 2021.

ATTEST: Mary D. Pringle, CMMC
 Clerk, Town of Woodworth

David C. Butler, II
 Mayor, Town of Woodworth

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Appendix E: State Required Worksheets

During the planning process (*Appendix A: Planning Process*), the Hazard Mitigation Plan Update Steering 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

Rapides Parish Hazard Mitigation Planning Committee			
Name	Title	Agency	Email
Sonya Wiley-Gremillion	Director	Rapides Parish OHSEP	swiley@rapides911.org
Angie Branton	Admin Asst	Rapides Parish OHSEP	abranton@rapides911.org
Cory Ashmore	Public Works Director	Rapides Parish Highway Dept	cashmore1@rppj.com
Tom David	Parish Engineer	Pan American Engineers	tcd@paealex.com
Dustin Etheridge	Community Relations	Acadian Ambulance	detheridge@acadian.com
Curtis Fogleman	GIS Manager	City of Alexandria	curtis.fogleman@cityofalex.com
Wes Anders	Fire Chief	Town of Ball	wanders@townofball.com
Glenn Aaron	Public Works	Town of Boyce	glenn@townofboyce.com
Jacob Guillory	Pan American Engineer	Town of Cheneyville	jacob@paealex.com
Jason Murphy	Meyer, Meyer, LaCroix and Hixson	Village of Forest Hill	jason.murphy@mmlh.com
Joey Mott	Mayor	Town of Glenmora	mayorglenmoralala@aol.com
Ross Ducote	Police Chief	Town of Lecompte	chief@townoflecompte.com
Jason Murphy	Meyer, Meyer, LaCroix and Hixson	Town of McNary	jason.murphy@mmlh.com
Tom David	Pineville City Engineer	City of Pineville	tcd@paealex.com
David Butler	Mayor	Town of Woodworth	dbutler@thetow.org
Matt Johns	Executive Director	Rapides Area Planning Commission	matt@rapc.info
Melissa Becker	Floodplain Manager	Rapides Parish	mbecker@rapc.info
Patricia White	Emergency Response Coordinator	La Office of Public Health	pwhite@la.gov
Mary Tarver	HRSA Coordinator	Christus St. Francis Cabrini	mary.tarver@chrisutshhealth.org
Greg Timberlake	Captain, Emergency Services	Rapides Parish Sheriff's Department	gtimberlake@rpso.la.gov
Cade Fletcher	Director	Grant Parish OHSEP	fletcher@grantso.org

Capability Assessment

Unincorporated Rapides Parish

Capability Assessment Worksheet – Unincorporated Rapides Parish		
Local mitigation capabilities are existing authorities, policies 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	No	
Capital Improvements Plan	Yes	
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	Yes	SWPPP - We have an MS4
Community Wildfire Protection 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	No	
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	
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	No	
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	No	
Civil Engineer	Yes	
GIS Coordinator	Yes	
Grant Writer	Yes	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	
Hazard Data & Information	No	
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	No	
Impact fees for new development	No	
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)	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

City of Alexandria

Capability Assessment Worksheet – City of Alexandria

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	Rapides Parish & City of Alexandria, La.
Capital Improvements Plan	Yes	Budget & Capital Budget
Economic Development Plan	No	In Progress
Local Emergency Operations Plan	Yes	May 8, 2019---Ord. No. 46-2019
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	Yes	Jan. 24, 2006---Ord. No. 25.2006---Ms4---COA Planning
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	ICC Building Codes
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	January 2018 -- PIAL Rating 2
Site plan review requirements	Yes	Sep. 9, 2015---Ord. No. 140-2015---COA Planning
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	Yes	Sep. 9, 2015---Ord. No. 140-2015---COA Planning
Subdivision Ordinance	Yes	Sep. 9, 2015---Ord. No. 140-2015---COA Planning
Floodplain Ordinance	Yes	Sep. 9, 2015---Ord. No. 140-2015---COA Planning
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Yes	
Flood Insurance Rate Maps	Yes	COA Planning/FIRM Maps
Acquisition of land for open space and public recreation uses	No	
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	Rapides Parish Planning Commission
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Alexandria Utility System
Staff	Yes / No	Comments
Chief Building Official	Yes	Chief Building Officer/City Engineer
Floodplain Administrator	Yes	COA Planning
Emergency Manager	Yes	COA Utility Director/Incident Commander
Community Planner	Yes	COA Planning Director
Civil Engineer	Yes	COA Engineer
GIS Coordinator	Yes	GIS Manager
Grant Writer	Yes	Project Coordinator
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Reverse 911
Hazard Data & Information	Yes	Rapides Parish HMP
Grant Writing	Yes	Project Coordinator
Hazus Analysis	Yes	Rapides Parish HMP and City of Alexandria Emergency Operation Plan
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	Property Tax, Sale Tax, or Enterprise Revenue
Authority to levy taxes for specific purposes	Yes	City Council
Fees for water, sewer, gas, or electric services	Yes	City Council
Impact fees for new development	No	
Stormwater Utility Fee	Yes	City Council
Community Development Block Grant (CDBG)	Yes	Entitlement City/No Projects for Hazard
Other Funding Programs	Yes	Usage Fees

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	Mail Outs, Website, & In-Person
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Town of Ball

Capability Assessment Worksheet – Town of Ball

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	No	
Stormwater Management Plan	Yes	
Community Wildfire Protection Plan	Yes	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	RAPC
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	Yes	RAPC
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	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	RAPC
Mitigation Planning Committee	Yes	Participating in the Parish Planning Committee
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	Yes / No	Comments
Chief Building Official	Yes	RAPC
Floodplain Administrator	Yes	RAPC
Emergency Manager	Yes	Wes Anders, Fire Chief
Community Planner	No	
Civil Engineer	Yes	Pan American Engineers
GIS Coordinator	Yes	RAPC
Grant Writer	Yes	Pan American Engineers
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Code Red Notification System
Hazard Data & Information	No	
Grant Writing	Yes	Pan American Engineers
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	Fire safety training for senior citizens.
Natural Disaster or safety related school program	Yes	Fire safety training in the schools.
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	Yes	In the process of building a program tied to the emergency disaster plan.
Other	No	

Town of Boyce

Capability Assessment Worksheet – Town of Boyce

Local mitigation capabilities are existing authorities, policies 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	No	
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	PART OF PARISH PLAN
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	No	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	IN TOWN RATE 5; OUTSIDE TOWN RATE 4
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	
Subdivision Ordinance	No	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	No	PRELIMINARY RATE MAPS NOT APPROVED YET
Acquisition of land for open space and public recreation uses	No	
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	No	
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	Yes / No	Comments
Chief Building Official	No	
Floodplain Administrator	Yes	
Emergency Manager	No	
Community Planner	No	
Civil Engineer	No	CONTRACTS WITH PAN AMERICAN ENGINEERS
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	OUTDOOR WARNING SYSTEM
Hazard Data & Information	No	
Grant Writing	No	
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	No	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	Yes	LGAP/CWEF

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)	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Town of Cheneyville

Capability Assessment Worksheet – Town of Cheneyville

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	No	
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection 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	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	Yes	Mobile Homes
Subdivision Ordinance	No	
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	Yes	
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	Rapides Area Planning Commission
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	Yes / No	Comments
Chief Building Official	No	
Floodplain Administrator	Yes	Rapides Area Planning Commission
Emergency Manager	No	
Community Planner	No	
Civil Engineer	Yes	Pan American Engineers, LLC
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	
Hazard Data & Information	No	
Grant Writing	No	
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	No	
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)	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Village of Forest Hill

Capability Assessment Worksheet – Village of Forest Hill

Local mitigation capabilities are existing authorities, policies 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	No	
Capital Improvements Plan	Yes	UNDER CONSTRUCTION
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	PARISH PLAN
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	PARISH PLAN
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	PARISH PLAN
Fire Department ISO/PIAL rating	Yes	5
Site plan review requirements	Yes	PARISH PLAN
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	No	
Acquisition of land for open space and public recreation uses	Yes	
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	PARISH PLAN
Mitigation Planning Committee	Yes	PARISH PLAN
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	LOCAL
Staff	Yes / No	Comments
Chief Building Official	Yes	PARISH PLAN
Floodplain Administrator	Yes	PARISH PLAN
Emergency Manager	Yes	
Community Planner	No	
Civil Engineer	Yes	CONSULTANT
GIS Coordinator	No	
Grant Writer	Yes	ENGINEER (CONSULTANT)
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Phone System Alert
Hazard Data & Information	No	
Grant Writing	Yes	ENGINEER (CONSULTANT)
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	UNDER CONSTRUCTION
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	AS NEEDED
Other Funding Programs	Yes	AS NEEDED

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	AS NEEDED
Other	No	

Town of Glenmora

Capability Assessment Worksheet – Town of Glenmora

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	No	Utilize Parish requirements
Capital Improvements Plan	No	
Economic Development Plan	No	No written plan currently
Local Emergency Operations Plan	No	No written plan currently
Continuity of Operations Plan	No	No written plan currently
Transportation Plan	No	No written plan currently
Stormwater Management Plan	No	Applying for drainage improvements grant
Community Wildfire Protection Plan	No	No written plan currently
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	Planning Commission Requirements
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	5
Site plan review requirements	Yes	Planning Commission Requirements
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	Currently under review
Subdivision Ordinance	No	Currently under review
Floodplain Ordinance	Yes	Utilize Parish requirements
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	Currently under review
Flood Insurance Rate Maps	No	Utilize Parish requirements
Acquisition of land for open space and public recreation uses	Yes	recently purchased 9 acres
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	Rapides Parish Planning Comm.
Mitigation Planning Committee	Yes	Utilize Parish requirements
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	utilize local staff and parish
Staff	Yes / No	Comments
Chief Building Official	No	Planning Commission Requirements
Floodplain Administrator	Yes	Town Clerk
Emergency Manager	Yes	Mayor
Community Planner	No	
Civil Engineer	Yes	Pan American Engineers
GIS Coordinator	Yes	Parish
Grant Writer	Yes	Mayor/Utility Clerk/engineers
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	
Hazard Data & Information	No	
Grant Writing	Yes	Mayor/Utility Clerk/engineers
Hazus Analysis	No	Utilize Parish requirements
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	No	Applying currently for drainage
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric services	Yes	To maintain systems
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	No	Applying currently for drainage
Other Funding Programs	Yes	LGAP and CWEF grants annually

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	Fire Prevention/Fire Chief
Natural Disaster or safety related school program	Yes	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Town of Lecompte

Capability Assessment Worksheet – Town of Lecompte

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	No	
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	Not specific to Town - but are a part of the Parish EOP
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	No	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	Yes	
Subdivision Ordinance	No	
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	
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	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	Yes / No	Comments
Chief Building Official	No	
Floodplain Administrator	Yes	
Emergency Manager	No	
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	
Hazard Data & Information	No	
Grant Writing	No	
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	No	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	No	

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)	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Village of McNary

Capability Assessment Worksheet – Village of McNary

Local mitigation capabilities are existing authorities, policies 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	No	
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection 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	No	
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	
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	
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	Rapides Parish Area Planning Commission
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	No	
Staff	Yes / No	Comments
Chief Building Official	No	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	No	
Civil Engineer	Yes	Aligned with local firm not on staff - MMLH
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	
Hazard Data & Information	No	
Grant Writing	No	
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	Water
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	Yes	as needed
Other Funding Programs	No	

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)	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	Yes	Spring Creek VFD
Other	No	

City of Pineville

Capability Assessment Worksheet – City of Pineville

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	No	
Capital Improvements Plan	Yes	
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	Yes	PUBLIC WORKS - PETER CIFELLI
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	KENNY ANDREWS-RAPC
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	CLASS 3
Site plan review requirements	Yes	KENNY ANDREWS-RAPC
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	No	
Acquisition of land for open space and public recreation uses	No	
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	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	PUBLIC WORKS DEPARTMENT
Staff	Yes / No	Comments
Chief Building Official	Yes	KENNY ANDREWS
Floodplain Administrator	Yes	MELISSA BECKER-RAPC
Emergency Manager	Yes	DARRELL BASCO POLICE DEPT
Community Planner	No	
Civil Engineer	Yes	TOM DAVID
GIS Coordinator	Yes	BLAKE POWELL-RAPC
Grant Writer	Yes	JOE SALMON & STEPHEN MOSS
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	
Hazard Data & Information	Yes	STEPHEN MOSS
Grant Writing	Yes	STEPHEN MOSS & JOE SALMON
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	No	
Fees for water, sewer, gas, or electric services	Yes	WATER & SEWER
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	No	
Other Funding Programs	No	

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)	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Town of Woodworth

Capability Assessment Worksheet – Town of Woodworth

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	No	
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	RAPIDES PARISH EOP
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	Yes / No	Comments
Building Code	Yes	RAPC
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	Yes	4;PIAL
Site plan review requirements	Yes	RAPC
Land Use Planning and Ordinances	Yes / No	Comments
Zoning Ordinance	No	
Subdivision Ordinance	Yes	RAPC
Floodplain Ordinance	Yes	RAPC
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	Yes	FEMA
Acquisition of land for open space and public recreation uses	No	
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	RAPC
Mitigation Planning Committee	Yes	Rapides Parish Mitigation
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	No	
Staff	Yes / No	Comments
Chief Building Official	Yes	RAPC
Floodplain Administrator	Yes	RAPC
Emergency Manager	Yes	David Butler II, Mayor
Community Planner	Yes	Pan American Engineers
Civil Engineer	Yes	Pan American Engineers
GIS Coordinator	Yes	RAPC
Grant Writer	Yes	Pan American Engineers
Other	No	
Technical	Yes / No	Comments
Warning Systems / Service (Reverse 911, outdoor warning signals)	No	
Hazard Data & Information	No	The Town maintains MSDS sheets at the respective facilities
Grant Writing	Yes	Pan American Engineers
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	General Fund
Authority to levy taxes for specific purposes	Yes	Town Council
Fees for water, sewer, gas, or electric services	Yes	Town Council
Impact fees for new development	Yes	Town Council
Stormwater Utility Fee	Yes	Town Council
Community Development Block Grant (CDBG)	Yes	State of Louisiana
Other Funding Programs	No	

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	WFD
Natural Disaster or safety related school program	Yes	WFD
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Building Inventory

Rapides Unincorporated								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Rapides Public Works	Public Works	8051 Hwy 28 West	Alexandria	31.2952	-92.5434	\$2,500,000	1972	Metal
Fire District No. 9 - Station #1	Fire & SAR	9887 Hwy 1 South	Alexandria	31.1392	-92.282	\$225,000	2008	Metal
Fire District No. 9 - Station #3	Fire & SAR	1518 Latanier Road (LA Hwy 457)	Alexandria	31.161	-92.3554	\$175,000	2008	Metal
Fire District No. 9 - Station #2	Fire & SAR	2421 Latanier Road (LA Hwy 457)	Alexandria	31.1973	-92.3378	\$175,000	2008	Metal
Fire District No. 2 - Station #1	Fire & SAR	5104 Ransbottom Drive	Alexandria			\$600,000	1953	Reinforced Masonry
Fire District No. 2 - Station #2	Fire & SAR	6850 England Drive	Alexandria			\$650,000	1999	Reinforced Masonry
Fire District No. 2 - Station #3	Fire & SAR	3722 Church Street	Alexandria			\$350,000	1994	Metal
Fire District No. 2 - Station #4	Fire & SAR	6613 Hot Wells Road	Boyce			\$175,000	1984	Metal
Fire District No. 2 - Station #5	Fire & SAR	20 Kincaid Road	Boyce			\$800,000	2003	Reinforced Masonry
Fire District No. 7 - Station #1	Fire & SAR	5717 Old Marksville Hwy	Deville	31.2514	-92.2865	\$175,000	2001	Metal
Fire District No. 7 - Station #2	Fire & SAR	163 Palmer Chapel Road	Pineville	31.2829	-92.3271	\$850,000	1998	Reinforced Masonry
Fire District No. 8 - Station #1	Fire & SAR	55 Parker Road	Boyce			\$350,000	1976	Metal
Fire District No. 8 - Station #2	Fire & SAR	415 St Clair Road	Boyce			\$175,000	2003	Metal
Fire District No. 6 - Station #1	Fire & SAR	660 Hwy 1207	Deville				2008	Metal
Fire District No. 6 - Station #2	Fire & SAR	7557 Hickory Grove Road	Deville				1993	Metal

Fire District No. 6 - Station #3	Fire & SAR	10315 Hwy 28 East	Denville					Metal
Fire District No. 5 - Station #1	Fire & SAR	261 Havens Road	Elmer			\$239,000	1987	Metal
Fire District No. 5 - Station #2	Fire & SAR	2258 Hwy 121 (2558?)	Elmer			\$149,000	1987	Metal
Fire District No. 5 - Station #3	Fire & SAR	6740 Hwy 112	Elmer			\$118,000	1987	Metal
Fire District No. 5 - Station #4	Fire & SAR	16 Morrison Road	Elmer			\$118,000	1987	Metal
Fire District No. 5 - Station #5	Fire & SAR	3569 Hwy 121	Elmer			\$95,000	1988	Metal
Fire District No. 14 - Station #1	Fire & SAR	2051 Hwy 8	Flatwoods				2008	Metal
Fire District No. 14 - Station #2	Fire & SAR	255 Mora Road	Flatwoods				2008	Metal
Fire District No. 14 - Station #3	Fire & SAR	1082 Hwy 8	Flatwoods			\$175,000	2008	Metal
Fire District No. 17 - Station #1	Fire & SAR	4300 Hwy 112	Forest Hill					Metal
Fire District No. 17 - Station #2	Fire & SAR	22 Fish Hatchery Road (11?)	Forest Hill					Metal
Fire District No. 17 - Station #3	Fire & SAR	751 Butler Cemetery Road	Forest Hill					Metal
Fire District No. 10 - Station #1	Fire & SAR	10941 Hwy 112	Glenmora					Metal
Fire District No. 10 - Station #2	Fire & SAR	10016 Hwy 112	Glenmora					Metal
Fire District No. 10 - Station #3	Fire & SAR	123 Occupy No. 1 Road	Glenmora					
Fire District No. 10 - Station #4	Fire & SAR	1799 Hwy 462	Glenmora					Metal
Fire District No. 11 - Station #1	Fire & SAR	757 Hwy 113	Glenmora				2001	Metal

Fire District No. 11 - Station #2	Fire & SAR	71 Peniel Loop Road	Glenmora				2001	Metal
Fire District No. 11 - Station #3	Fire & SAR	401 Athus Melder Road	Glenmora				2001	Metal
Fire Station No. 11 - Station #5	Fire & SAR	53 West Cady	Glenmora					
Fire District No. 18 - Station #2	Fire & SAR	113 Wall Street	Lecompte			\$149,000	1950	Metal
Fire District No. 18 - Station #3	Fire & SAR	778 Hwy 470	Lecompte			\$49,000	2000	Metal
Fire District No. 3 - Station #1	Fire & SAR	8056 Old Shreveport Hwy	Pineville			\$261,000	2004	Metal
Fire District No. 3 - Station #2	Fire & SAR	1420 Tioga Road	Pineville			\$748,000	1988	Reinforced Masonry
Fire District No. 3 - Station #3	Fire & SAR	3710 Rigolette Road	Pineville			\$172,000	1997	Metal
Fire District No. 4 - Station #1	Fire & SAR	5400 Hwy 28 East	Pineville			\$853,000	1978	Reinforced Masonry
Fire District No. 4 - Station #2	Fire & SAR	6970 Hwy 116	Pineville			\$245,000	1983	Metal
Fire District No. 4 - Station #3	Fire & SAR	201 Radio Road	Pineville			\$93,000	1990	Metal
Fire District No. 4 - Station #4	Fire & SAR	597 Philadelphia Road	Pineville			\$93,000	1978	Metal
Rapides Parish Courthouse	Civil Government	701 Murray St	Alexandria			\$50,000,000		Reinforced Masonry
Coliseum, Exhibition Hall	Recreation	5600 Coliseum Blvd	Alexandria			\$30,000,000		Concrete

City of Alexandria								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Bleachers & Concessions Bringham Baseball Stadium	Baseball Field	1 Babe Ruth Drive	Alexandria	31.286629	-92.458773	\$1,165,600	1992	Concrete
Home Team Clubhouse Bringham Baseball Stadium	Home Team Clubhouse	1 Babe Ruth Drive	Alexandria	31.286113	-92.458023	\$186,600	1992	Wood
Visitors Clubhouse Bringham Baseball Stadium	Visitors' Clubhouse	1 Babe Ruth Drive	Alexandria	31.287301	-92.458188	\$162,500	1988	Wood
Amphitheater	Assembly	1 Johnston Street	Alexandria	31.311942	-92.442981			
Beagle Club	Public Safety - K-9 Training	100 Block Harold Miles Park Road	Alexandria	31.345627	-92.549965	\$95,000	1940	Wood
Main Building (Harold Miles Park)	Recreational Building	100 Block Harold Miles Park Road	Alexandria	31.343584	-92.538623	\$122,700	1940	Concrete
Pit Building (Harold Miles Park)	Pit Building	100 Block Harold Miles Park Road	Alexandria	31.343597	-92.538996	\$5,800	1940	Concrete
Restrooms (Harold Miles Park)	Restrooms @ Harold Miles Park	100 Block Harold Miles Park Road	Alexandria	31.343877	-92.539025	\$19,600	1960	Concrete
Storage Shed (Harold Miles Park)	Storage Shed	100 Block Harold Miles Park Road	Alexandria	31.343725	-92.539044	\$15,500	1960	Wood
Water Station (McNutt Avenue)	Water Station	100 Block Harold Miles Park Road	Alexandria	31.340919	-92.53931	\$21,400	1950	Reinforced Masonry
Public Safety Complex	Police & Fire Offices	1000 Bolton Avenue	Alexandria	31.303332	-92.453177	\$6,086,000	1999	Reinforced Masonry
Bus Station	Bus Station	1001 Main Street	Alexandria	31.311772	-92.443633	\$427,100	1987	Reinforced Masonry
D.G. Hunter Electric Generating Station	Generating Station	1011 N. Third Street	Alexandria	31.320964	-92.461771	\$89,161,300	1957 Upgraded 1976	Concrete
Generating Station Storage Building	Storage Building	1011 N. Third Street	Alexandria	31.320964	-92.461771	\$39,600	1950	Metal

Generating Station Storage Shed	Storage Building	1011 N. Third Street	Alexandria	31.320964	-92.461771	\$12,400	1950	Metal
Generating Station Maintenance	Maintenance Building	1011 N. Third Street	Alexandria	31.320964	-92.461771	\$78,000	1968	Metal
Generating Station Water Treatment	Water Treatment Station	1011 N. Third Street	Alexandria	31.320114	-92.462306	\$180,000	1950	Reinforced Masonry
Generating Station Yard	Yard	1011 N. Third Street	Alexandria	31.320964	-92.461771	\$10,321,000	1960	
D.G. Hunter Electric Generating Station Cooling Towers	Cooling Towers	1011 N. Third Street	Alexandria	31.32105	-92.463014	\$4,200,000	1957/ 1988	Metal
Electrical Distribution Office Building	Electrical Distribution Office Building	1015 N. Third Street	Alexandria	31.321957	-92.463743	\$1,494,825	1970	Metal
Electrical Distribution Office (Old)	Electrical Distribution Office (Old)	1015 N. Third Street	Alexandria	31.321957	-92.463743	\$24,000	1988	Metal
Electrical Distribution Building	Electrical Distribution Building	1015 N. Third Street	Alexandria	31.321957	-92.463743	\$15,000	1950	Metal
Electrical Distribution Storage Building	Electrical Distribution Storage Building	1015 N. Third Street	Alexandria	31.321957	-92.463743	\$30,000	1950	Metal
Storage Tank (Willow Glen)	Water Storage Tank	1100 Block of Willow Glen River Road	Alexandria	31.287264	-92.423952	\$926,000	1956	
Fire Station No. 2	Fire Station	3400 Jones Avenue	Alexandria	31.289747	-92.430966	\$2,300,000	2018	Reinforced Masonry
Old Fire Station No. 2	Abandon (In Progress of Demo)	1103 Broadway Avenue	Alexandria	31.296052	-92.436075	\$395,050	1962	Reinforced Masonry
Lift Station Pump House (Willow Glen River Road)	Pump House	1155 Willow Glen	Alexandria	31.28682	-92.425797	\$846,500	1957 Upgraded 1974	Reinforced Masonry
Lift Station Storage (Old Office)	Storage	1155 Willow Glen	Alexandria	31.28682	-92.425797	\$49,000	1957	Metal
Lift Station Sulfuric Dioxide Building	Building	1155 Willow Glen	Alexandria	31.28682	-92.425797	\$26,300	1960	Metal

Yard (Willow Glen River Road)	Yard	1155 Willow Glen	Alexandria	31.28682	-92.425797	\$53,500	1957	
Storage Tank (McKeithen Dr.)	Water Storage Tank	1200 Block of McKeithen Drive	Alexandria	31.271114	-92.537031	\$1,030,000	1989	
Coughlin-Sanders Performing Arts Center	Performing Arts Center	1202 Third Street	Alexandria	31.309892	-92.443474	\$8,353,689	2004	Steel
Waste Treatment Pump House	Pump House	1212 Hudson Blvd.	Alexandria	31.278204	-92.418642	\$1,070,000	1974	Reinforced Masonry
Waste Treatment Administration, Operations & Lab Testing	Office Building	1212 Hudson Blvd.	Alexandria	31.278871	-92.417195	\$3,994,000	1974	Reinforced Masonry
Waste Treatment Vehicle Storage & Shop	Vehicle Storage & Shop	1212 Hudson Blvd.	Alexandria	31.278039	-92.418968	\$80,000	1974	
Waste Treatment Sludge Handling	Waste Treatment	1212 Hudson Blvd.	Alexandria	31.278871	-92.417195	\$694,500	1989	
Yard (Waste Treatment)	Yard	1212 Hudson Blvd.	Alexandria	31.278871	-92.417195	\$20,000,000	1974	
Fire Station No. 5	Fire Station	5540 Coliseum Blvd.	Alexandria	31.29624	-92.50095	\$2,700,000	2012	Reinforced Masonry
Old Fire Station No. 5	APD	1237 Texas Avenue	Alexandria	31.289136	-92.472628	\$435,500	1983	Reinforced Masonry
Cheatham Park Spray park/Restroom	Spray park/ Restroom	1315 Broadway Avenue	Alexandria	31.294025	-92.436849	\$269,179	2009	Steel
Bolton House-River Oak Square	Art Studios & Display	1330 Main Street	Alexandria	31.309859	-92.44261	\$690,000	1990	Reinforced Masonry
River Oaks Arts Center	Art Studio & Gallery	1330 Main Street	Alexandria	31.309859	-92.44261	\$1,700,000	2000	Reinforced Masonry
Cultural Arts/Treehouse (The Rapides Exploratory House)	Occupied by Cultural Arts/Treehouse	1403 Third Street	Alexandria	31.309445	-92.441752	\$2,600,000	1960	Steel
Old Jake's Building	1/2 City - Incubator -- 1/2 Leased - Call Center	1501 Wimbledon	Alexandria	31.27658	-92.4758	\$4,416,400	1984	Concrete
Lift Station Pump House (Atwood)	Pump House	1704 Atwood Street	Alexandria	31.277497	-92.447529	\$589,500	1985	Reinforced Masonry

Lift Station Pump House (Atwood A)	Pump House	1704 Atwood Street	Alexandria	31.277681	-92.44762	\$373,000	1957	Reinforced Masonry
Yard (Atwood)	Yard	1704 Atwood Street	Alexandria	31.277497	-92.447529	\$13,500	1957	
Youth & Teen Center	Youth & Teen Activities	1801 Sylvester Street	Alexandria	31.288765	-92.453243	\$1,237,500	1987	Concrete
Fire Station No. 3	Fire Station	1830 Rapides Avenue	Alexandria	31.311407	-92.463649	\$419,500	1944	Reinforced Masonry
Storage Tank (Industrial Park Rd.)	Water Storage Tank	2000 Block of Industrial Park Road	Alexandria	31.337219	-92.464619	\$553,000	1983	
Cheatham Park Building	Office Building	2000 Jones Avenue	Alexandria	31.292268	-92.435723	\$251,000	1956 Upgraded 2000	Concrete
CORP of Engineers Building	Medical Analysis -- City Employees	2010 Industrial Park Road	Alexandria	31.328084	-92.482286	\$113,000	1990	Reinforced Masonry
Administration Building (CF-A)	Administration Building	2021 Industrial Park Road	Alexandria	31.329574	-92.46935	\$2,927,100	1996	Concrete
Building Services Building (CF-R)	Building Services Building	2021 Industrial Park Road	Alexandria	31.329935	-92.469156	\$561,100	1996	Concrete
Carpentry Shop Building (CF-C)	Carpentry Shop	2021 Industrial Park Road	Alexandria	31.330187	-92.46867	\$336,600	1996	Concrete
Employee Facility Building (CF-E)	Employee Building	2021 Industrial Park Road	Alexandria	31.329846	-92.468747	\$597,400	1996	Concrete
Fire Training Building (CF-F)	Fire Training Building	2021 Industrial Park Road	Alexandria	31.332955	-92.466315	\$49,500	1996	Concrete
Gas Department Building (CF-G)	Gas Department	2021 Industrial Park Road	Alexandria	31.329708	-92.468382	\$524,620	1996	Concrete
Streets & Drainage Department Building (CF-S)	Street & Drainage Department	2021 Industrial Park Road	Alexandria	31.329474	-92.468868	\$618,800	1996	Concrete
Traffic Department Building (CF-P)	Traffic Department	2021 Industrial Park Road	Alexandria	31.330086	-92.468907	\$603,500	1996	Concrete
Water Department Building (CF-W)	Water Department	2021 Industrial Park Road	Alexandria	31.329578	-92.468603	\$523,600	1996	Concrete

Vehicle Maintenance Department Building (CF-S)	Vehicle Maintenance	2021 Industrial Park Road	Alexandria	31.330329	-92.46711	\$6,951,300	1996	Concrete
Vehicle Fueling Center	Vehicle Fueling Center	2021 Industrial Park Road	Alexandria	31.329451	-92.466507	\$164,000	1996	Steel
Vehicle Wash Facility	Vehicle Wash Facility	2021 Industrial Park Road	Alexandria	31.328504	-92.467248	\$66,500	1996	Concrete
Warehouse Building (CF-CW)	Warehouse	2021 Industrial Park Road	Alexandria	31.331703	-92.466276	\$1,740,600	1996	Concrete
Compound Yard	Compound Yard	2021 Industrial Park Road	Alexandria	31.329471	-92.467485	\$71,000	1996	
Yard Coverings	Yard Coverings	2021 Industrial Park Road	Alexandria	31.329471	-92.467485	\$221,000	1996	Metal
Yard Storage Building	Yard Storage Building	2021 Industrial Park Road	Alexandria	31.329471	-92.467485	\$51,500	1996	Concrete
Yard Storage Structure	Yard Storage Structure	2021 Industrial Park Road	Alexandria	31.329471	-92.467485	\$30,500	1996	Metal
Purchasing Storage Facility	Surplus Storage	2021 Industrial Park Road	Alexandria	31.332273	-92.46688	\$500,000	1999	Concrete
Print Shop	Print Shop	2021 Industrial Park Road	Alexandria	31.332019	-92.466187	\$452,000	1996	Concrete
Recreation Building	Recreation Building	2021 Industrial Park Road	Alexandria	31.328509	-92.467801	\$500,000	2011	Concrete
Utility Services Building (CF-US)	Utility Services Department	2021 Industrial Park Road	Alexandria	31.329009	-92.467959	\$835,000	1999	Concrete
Martin Community Center	Community Center/Offices	2301 Mill Street	Alexandria	31.293604	-92.444745	\$2,750,000	2004	Reinforced Masonry
Airpark Repair Building	Repair Building	2416 Lee Street	Alexandria	31.292329	-92.452327	\$93,600	1957	Metal
Recreation Dept./ Sign Shop	Recreation Dept./ Sign Shop	2418 Lee Street	Alexandria	31.292519	-92.452599	\$106,150	1960	Steel
Recreation Dept. Storage Shed	Storage Shed	2418 Lee Street	Alexandria	31.292543	-92.452462	\$6,750	1994	Steel
Fire Department Storage	Fire Department Storage	2419 Hickory Street	Alexandria	31.292273	-92.452863	\$141,000	1957	Concrete

Fire Alarm Headquarters Shed	Fire Alarm Headquarters Shed	2419 Hickory Street	Alexandria	31.292273	-92.452863	\$17,400	1957	Metal
Fire Training Academy	Training Academy	2420 Lee Street	Alexandria	31.292138	-92.452553	\$198,650	1940	Wood
Lift Station Pump House (Parkway)	Pump House	2500 Block of Los Angeles Street	Alexandria	31.286117	-92.436907	\$190,000	1989	Metal
Frank O Hunter Park	Concession Stand/ Restrooms/ Multipurpose	2399 Willow Glen River Road	Alexandria	31.281293	-92.428683	\$534,000	2004	Concrete
Fire Station No. 4 (A)	Fire Station	2500 Lee Street	Alexandria	31.291988	-92.452466	\$785,150	1944	Reinforced Masonry
Fire Station No. 4 (B)	Snorkel Shed	2500 Lee Street	Alexandria	31.291988	-92.452466	\$51,200	1944	Metal
Fire Station No. 4 (C)	Possum House	2500 Lee Street	Alexandria	31.291988	-92.452466	\$5,950	1963	Concrete
Ben Bradford Field	Baseball Field	2500 Sylvester Street	Alexandria	31.290263	-92.452603	\$200,800	1992	Concrete
Pump Station (Lee Street)	Pump Station	2502 Lee Street	Alexandria	31.291559	-92.452246	\$357,200	1950	Concrete
Pump Station and Storage Tank (City Park)	Water Storage Tank	2502 Lee Street	Alexandria	31.29107	-92.452437	\$352,700	1966	
Harmon Park Spray park/ Restroom	Spray park/ Restroom	2510 Monroe Street	Alexandria	31.303903	-92.470476	\$313,638	2009	Steel
Pavilion Structure @ Cheatham Park	Pavilion Structure	2700 Block of Jones Street	Alexandria	31.292393	-92.436909	\$242,000	1994	Concrete
Restrooms @ Cheatham Park	Restrooms	2700 Block of Jones Street	Alexandria	31.292341	-92.436566	\$36,000	1994	Concrete
Handi-Works Productions	Indoor Recreation	2700 Lee Street	Alexandria	31.288827	-92.45219	\$546,000	1968	Reinforced Masonry
Links on the Bayou	Golf Club House	271 Vandenburg Drive	Alexandria	31.304717	-92.537386	\$1,488,000	2002	Metal
Links on the Bayou	Maintenance Building	271 Vandenburg Drive	Alexandria	31.304104	-92.536103	\$280,301	2001	Concrete
Links on the Bayou	Golf Half-way Houses	271 Vandenburg Drive	Alexandria			\$25,000	2004	Metal
Johnny Downs Complex (Baseball)	Baseball Press Box	271 Vandenburg Drive	Alexandria	31.297857	-92.532301	\$450,000	2004	Concrete
Johnny Downs Complex (Soccer)	Soccer Press Box	271 Vandenburg Drive	Alexandria	31.298979	-92.534021	\$250,00	2004	Concrete

Johnny Downs Complex (Softball)	Softball Press Box	271 Vandenburg Drive	Alexandria	31.297311	-92.534076	\$450,000	2004	Concrete
Alexandria Men's Softball Field (Diamond #1)	Softball Field	2726 Masonic Drive	Alexandria	31.290373	-92.452703	\$153,500	1970	Metal
Bringhurst Park Spray park/ Restroom	Spray park/ Restroom	2800 Masonic Drive	Alexandria	31.289832	-92.455235	\$691,204	2009	Steel
Youth Playground	Gazebo & Restrooms @ Park	2800 Masonic Drive	Alexandria	31.289737	-92.455093	\$155,500	1986	Concrete
Alexandria Tennis Complex	Tennis Complex	2801 Masonic Drive	Alexandria	31.289589	-92.453518	\$205,000	1992	Concrete
Cheatham Park Baseball Field	Baseball Field	2808 Jones Avenue	Alexandria	31.290996	-92.434808	\$304,500	1955 Upgraded 2000	Concrete
Bringhurst Golf Club	Club House	2822 Masonic Drive	Alexandria	31.288856	-92.455271			
Storage Tank (N. Bolton Ave.)	Water Storage Tank	2900 Block of N. Bolton Avenue	Alexandria	31.327177	-92.481213	\$432,000	1956	
138 kV Substation (Bayou Rapides)	Electric Substation	3010 Rapides Avenue	Alexandria	31.307132	-92.476099	\$3,327,200	1974 Upgraded 1998	
Zoo Kitchen Building	Kitchen Operations for Zoo	3016 Cotton Wright Road	Alexandria	31.288881	-92.460178	\$575,000	2008	Concrete
Animal Hospital	Animal Hospital for Zoo	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$310,450	1976	Concrete
Restroom Building	Restrooms @ Zoo	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$40,000	1992	Concrete
Concession Stand	Concession Stand @ Zoo	3016 Masonic Drive	Alexandria	31.288404	-92.45902	\$12,700	1960 Upgraded 1986	Wood
Education Building	Zoo Education Building	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$66,200	1974	Wood
Far Side Maintenance Office	Maintenance Office @ Zoo	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$103,150	1997	Metal
Fotaz Storage Building	Storage Building @ Zoo	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$36,600	1939	Metal

John Knox Bathhouse Building	Alligator Pen	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$994,000	1939	Reinforced Masonry
John Knox Pool Filter Building	Pool Filter Building	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$88,000	1971	Reinforced Masonry
Kitchen Building (Old)	Kitchen Building (Old)	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$73,000	1996	Wood
MacDonald's Farm Barn	Barn	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$21,000	1971	Wood
Maintenance Vehicle Canopy	Vehicle Canopy	3016 Masonic Drive	Alexandria	31.28803	-92.45714	\$10,700	1995	
Zoo Entrance Buildings (New)	Zoo Entrance - Office, Gift Shop, Ticket Booth & Restrooms	3016 Masonic Drive	Alexandria	31.287725	-92.457295	\$495,550	1993	Concrete
Zoo Entrance (Old)	Zoo Entrance (Old)	3016 Masonic Drive	Alexandria	31.287396	-92.458855	\$196,000	1989	Wood
Pavilion Structure	Pavilion Structure	3016 Masonic Drive	Alexandria	31.288579	-92.458344	\$54,100	1997	Metal
Snake House	Snake House	3016 Masonic Drive	Alexandria			\$18,000	1992	Wood
Train Depot	Train Depot	3016 Masonic Drive	Alexandria	31.287793	-92.457706	\$314,700	1990	Wood
Louisiana Habitat - Zoo	Louisiana Habitat	3016 Masonic Drive	Alexandria	31.28912	-92.458067	\$2,510,500	1996	
138 kV Substation (Willow Glen)	Electric Substation	3031 Willow Glen River Road	Alexandria	31.278547	-92.433021	\$3,800,000	1960 Upgraded 1995	
Youth Baseball Complex	Baseball Field	3150 Masonic Drive	Alexandria	31.285041	-92.459732	\$660,500	1988	Concrete
Alexandria Community Center	Community Center	317 Bolton Avenue	Alexandria	31.307949	-92.457293	\$1,736,700	1979	Reinforced Masonry
Storage Tank (Rosalino St.)	Water Storage Tank	3400 Block of Rosalino Street	Alexandria	31.289907	-92.474647	\$927,000	1956	
233 kV & 138 kV Substation (Twin Bridges)	Electric Substation	341 Twin Bridges Road	Alexandria	31.268473	-92.513446	\$27,251,500	1983 Upgraded 2002	
Pump Station (Standpipe Road)	Pump Station	3410 Horseshoe Drive	Alexandria	31.235055	-92.462331	\$327,600	1968	Reinforced Masonry
Chlorine Building (Adams Pump Station)	Chlorine Building	3410 Horseshoe Drive	Alexandria	31.235213	-92.462334	\$18,000	1968	
Pump Station Storage Building (Adams)	Storage Building	3410 Horseshoe Drive	Alexandria	31.235337	-92.462105	\$19,000	1968	Metal

Yard (Adams Pump Station)	Yard	3410 Horseshoe Drive	Alexandria	31.235211	-92.462699	\$1,360,000	1968	
Storage Tank (Roadway Station)	Water Storage Tank	3410 Horseshoe Drive	Alexandria	31.234756	-92.462478	\$120,000	1998	
138 kV Substation (Sterks)	Electric Substation	3803 Sterks Road	Alexandria	31.272485	-92.44229	\$3,950,000	1980 Upgraded 1995	
Martin Luther King Center	Community Center	3807 Smash Avenue	Alexandria	31.278083	-92.432512	\$395,800	1957	Reinforced Masonry
Lift Station Pump House (Prescott)	Pump House	3811 Prescott Road	Alexandria	31.277211	-92.468089	\$156,000	1974	Reinforced Masonry
138 kV Substation (Prescott)	Electric Substation	3925 Prescott Road	Alexandria	31.273182	-92.470832	\$3,326,600	1967 Upgraded 1973	
2400 Volt Substation (Prescott)	Electric Substation	3925 Prescott Road	Alexandria	31.276623	-92.468218	\$175,000	1950	
Lift Station Pump House (Casson)	Pump House	431 Casson Street	Alexandria	31.306724	-92.441298	\$676,000	1974	Reinforced Masonry
Lift Station Pump House (Masonic)	Pump House	4711 Masonic Drive	Alexandria	31.271714	-92.467872	\$561,700	1974	Reinforced Masonry
Farmer's Market	Multipurpose/Community Center	500 N. Third Street	Alexandria	31.320471	-92.454709	\$312,750	1974	Concrete
Genealogical & Historical Library	Historical Library	503 Washington Street	Alexandria	31.309008	-92.444673	\$640,000	1907 Restored 1965	Reinforced Masonry
Riverfront Center Parking Garage	Parking Garage	505 Fourth Street	Alexandria	31.31223	-92.447561	\$2,821,026	1995	Concrete
Pump Station (Monroe Street)	Pump Station	505 Monroe Street	Alexandria	31.314614	-92.451386	\$863,500	1956	Reinforced Masonry
Alexandria City Court Building	City Court Building	515 Washington Street	Alexandria	31.308788	-92.444988	\$2,134,700	1999	Concrete
Fire Station No. 1 (A)	Fire Station	518 Lee Street	Alexandria	31.308571	-92.444724	\$1,326,100	1957	Reinforced Masonry
Fire Station No. 1 (B)	Truck Repair Garage	518 Lee Street	Alexandria	31.308571	-92.444724	\$152,000	1957	Reinforced Masonry

Animal Shelter	Housing for Animals	530 N. Third Street	Alexandria	31.321506	-92.454343	\$253,500	1996	Concrete
Animal Shelter	Office Building	531 N. Third Street	Alexandria	31.321506	-92.454343	\$39,200	1997	Concrete
COA Parking Lot	Parking Lot for COA	607, 617, 621 Johnston Street	Alexandria	31.308991	-92.445937	\$210,000	1962	Asphalt
Utility Office, Engineering & Planning Division (Former Regions Bank Building)	Utility Office, Engineering & Planning Division	625 Murray Street	Alexandria	31.309396	-92.446459	\$9,600,000	1981	Concrete
Riverfront Convention Center	Convention Center	707 Main Street	Alexandria	31.313413	-92.445915	\$17,059,650	1995	Concrete
Broadway Resource Center	Public Use Community Center	712 Broadway Avenue	Alexandria	31.299034	-92.435804	\$970,000	2004	
Elliott & Foisy Substation	Electric Substation	725 Elliott Street	Alexandria	31.311263	-92.450192	\$3,191,179	1998	
Storage Tank (Monroe St.)	Water Storage Tank	742 Hamilton Street	Alexandria	31.314777	-92.45327	\$926,000	1956	
Alexandria Teen Center	Teen Center	815 Casson Street	Alexandria	31.304934	-92.443103	\$429,900	1978	Concrete
Alexandria City Hall	City Hall	915 Third Street	Alexandria	31.311874	-92.444788	\$10,365,100	1963	Concrete
Vietnam War Memorial	Memorial Wall	915 Third Street	Alexandria	31.311874	-92.444788	\$3,000	1990	
Fire Station No. 6	Fire Station	916 Twin Bridges Road	Alexandria	31.265199	-92.492362	\$501,650	1940	Reinforced Masonry
Storage Tanks & Control House (Castor Plunge Road)	Storage Tank & Control House	Castor Plunge Road (National Forest Sec. 287)	Woodworth	31.177388	-92.550646	\$37,800	1968	Reinforced Masonry
Yard - Storage Tanks (Castor Plunge)	Water Storage Tank	Castor Plunge Road (National Forest Sec. 287)	Woodworth	31.177388	-92.550646	\$840,000	1968	
Lift Station Pump House (Upper 3rd)	Pump House	Under I-49 @ Power Plant (1000 Block of N. Third Street)	Alexandria	31.3246	-92.460321	\$203,000	1974	Reinforced Masonry
Well # R-425	Water Well	235 Harold Miles	Alexandria	31.340914	-92.539308		1942	
Well # R-464	Water Well	6145 Hwy 1 North	Alexandria	31.345235	-92.52554		1952	
Well # R-612	Water Well	Lanny Street	Alexandria	31.341309	-92.513289		1956	
Well # R-748	Water Well	2612 Lee Street	Alexandria	31.290861	-92.45226		1959	
Well # R-837	Water Well	5512 Coliseum Boulevard	Alexandria	31.297892	-92.500127		1964	

Well # R-839	Water Well	5516 Coliseum Boulevard	Alexandria	31.297892	-92.500127		1965	
Well # R-875	Water Well	4931 Betty Street	Alexandria	31.259211	-92.443705		1967	
Well # R-905	Water Well	Weld Field	Kisatchie	31.131342	-92.607411		1967	
Well # R-906	Water Well	Weld Field	Kisatchie	31.136307	-92.613301		1967	
Well # R-907	Water Well	Weld Field	Kisatchie	31.141441	-92.619148		1967	
Well # R-909 & R-937	Water Wells	Weld Field	Kisatchie	31.144977	-92.626023		1967	
Well # R-910	Water Well	Weld Field	Kisatchie	31.144909	-92.642631		1967	
Well # R-912 & R-914	Water Wells	Weld Field	Kisatchie	31.144477	-92.65918		1968	
Well # R-915 & R-932	Water Wells	Weld Field	Kisatchie	31.138609	-92.662685		1967	
Well # R-916	Water Well	Weld Field	Kisatchie	31.133169	-92.655569		1967	
Well # R-918	Water Well	Weld Field	Kisatchie	31.126874	-92.652127		1967	
Well # R-920	Water Well	Weld Field	Kisatchie	31.126741	-92.625612		1967	
Well # R-921	Water Well	Weld Field	Kisatchie	31.127346	-92.633517		1967	
Well # R-922	Water Well	Weld Field	Kisatchie	31.124475	-92.620818		1967	
Well # R-923	Water Well	Weld Field	Kisatchie	31.118216	-92.619979		1967	
Well # R-924	Water Well	Weld Field	Kisatchie	31.114604	-92.609295		1967	
Well # R-925	Water Well	Weld Field	Kisatchie	31.109619	-92.604823		1967	
Well # R-927	Water Well	Weld Field	Kisatchie	31.115752	-92.598859		1967	
Well # R-928	Water Well	Weld Field	Kisatchie	31.120678	-92.606043		1967	
Well # R-929	Water Well	Weld Field	Kisatchie	31.127228	-92.602917		1967	
Well # R-930	Water Well	Weld Field	Kisatchie	31.102527	-92.598382		1967	
Well # R-933 & R-936	Water Wells	Weld Field	Kisatchie	31.144592	-92.654524		1967	
Well # R-1202	Water Well	1723 Beech Street	Alexandria	31.293675	-92.453202		1982	
Well # R-1209	Water Well	Weld Field	Kisatchie	31.125985	-92.661317		1986	
Well # R-1210	Water Well	Weld Field	Kisatchie	31.141441	-92.619148		1982	
Well # R-1292 & R-1432	Water Wells	Weld Field	Kisatchie	31.141743	-92.58452		1982 &	
Well # R-1329	Water Well	7211 Beagle Club Road	Alexandria	31.337033	-92.553584		1989	
Well # R-1343 & R-1356	Water Wells	7880 Hwy 28 West	Alexandria	31.296675	-92.537471		1990	
Well # R-1406	Water Well	2721 Masonic Drive	Alexandria	31.291035	-92.452797		1994	
Well # R-1430	Water Well	Weld Field	Kisatchie	31.126876	-92.643756		1997	
Well # R-1431	Water Well	Weld Field	Kisatchie	31.141441	-92.619148		1997	
Well # R-1357	Water Well	2722 Jones Avenue	Alexandria	31.291483	-92.436089		1991	
Well # R-1475	Water Well	Weld Field	Kisatchie	31.126876	-92.643756		2000	
Well # R-1542	Water Well	10 Harold Miles Road	Alexandria	31.346922	-92.535669		2013	

Well # R-1543	Water Well	4726 Sterkx Road	Alexandria	31.270304	-92.45171		2013	
Well # R-1566	Water Well	2909 N Bolton Avenue	Alexandria	31.327688	-92.481072		2014	
Well # R-1639	Water Well	Hamilton Street	Alexandria	31.314752	-92.454067		2019	
Well # R-1642	Water Well	Sterkx Road	Alexandria	31.270271	-92.451726		2019	
Well # R-1643	Water Well	Hwy 1	Alexandria	31.327759	-92.481021		2020	
Alexandria #1	Gas Gate Station	Casson & Main	Alexandria	31.308353	-92.43931			
Alexandria #2	Gas Gate Station	Willow Glen & 15th	Alexandria	31.284661	-92.428586			
Alexandria #3	Gas Gate Station	New York & Elaine	Alexandria	31.254618	-92.434649			
Alexandria #4	Gas Gate Station	New York & Broadway	Alexandria	31.284607	-92.440688			
Alexandria #5	Gas Gate Station	Twin Bridges Road	Alexandria	31.25677	-92.528021			

Town of Ball								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Ball Town Hall	Administration, Police Department, Fire Station	100 Municipal Lane	Ball	31.407350	-92.409650			
Ball Community Center	Emergency Shelter	100 Municipal Lane	Ball	31.407350	-92.409650			
Ball Sewer Treatment Plant	Sewer System	115 Gayle Lane	Ball	31.404680	-92.373990			
Ball Public Works Department	Street, sanitation, and sewer administration	115 Gayle Lane	Ball	31.404680	-92.373990			
Ball Public Works Maintenance Depot	Equipment maintenance	115 Gayle Lane	Ball	31.404680	-92.373990			
Harmony Civic Center	Recreation	121 Camp Livingston Rd	Ball	31.417660	-92.400980			
Evie Morrow Fire Training Facility	Fire Department Training	5502 Pinebrook Trace	Ball	31.416810	-92.417100			
Pinebrook Fire Station	Fire Station	5508 Pinebrook Trace	Ball	31.417070	-92.417610			
SEWER SYSTEM LIFT STATION		163 TALL TIMBERS LN	Ball	31.42486	-92.41515		2003	
SEWER SYSTEM LIFT STATION		6404 SPRINGHILL RD	Ball	31.41972	-92.43323		circa 1970	
SEWER SYSTEM LIFT STATION		520 HWY 1204	Ball	31.41548	-92.41805		circa 1970	
SEWER SYSTEM LIFT STATION		7006 HWY 165 (HAMMACK LN)	Ball	31.42853	-92.40927		1997	
SEWER SYSTEM LIFT STATION		6 BENTON RD	Ball	31.4208	-92.41311		2007	
SEWER SYSTEM LIFT STATION		50 BURMA ROAD (SMITH RD.)	Ball	31.4235	-92.40787			
SEWER SYSTEM LIFT STATION		112 MYLEE DR	Ball	31.41683	-92.40736		circa 1970	
SEWER SYSTEM LIFT STATION		1101 HONEYSUCKLE LANE (BURMA RD)	Ball	31.42083	-92.39089			
SEWER SYSTEM LIFT STATION		410 DANIELS RD	Ball	31.41335	-92.40061			
SEWER SYSTEM LIFT STATION		201 CAMP LIVINGSTON RD	Ball	31.41637	-92.39295		circa 1970	
SEWER SYSTEM LIFT STATION		12 CLINES RD	Ball	31.40761	-92.42047		circa 1970	
SEWER SYSTEM LIFT STATION		127 MICHELLE DR	Ball	31.41242	-92.41558			
SEWER SYSTEM LIFT STATION		6038 MOORE DR.	Ball	31.0498	-92.41335			

SEWER SYSTEM LIFT STATION		181 BEESON DRIVE	Ball	31.40624	-92.41399			
SEWER SYSTEM LIFT STATION		5926 WANDA TRL LOT 16	Ball	31.40848	-92.39966			
SEWER SYSTEM LIFT STATION		352 SHANGHAI ROAD	Ball	31.40502	-92.40652			
SEWER SYSTEM LIFT STATION		119 POWELL DRIVE (Covington)	Ball	31.3997	-92.40856		circa 1970	
SEWER SYSTEM LIFT STATION		970 PARADISE RD (old)	Ball	31.40667	-92.39514		1981	
SEWER SYSTEM LIFT STATION		HWY 165 AT LUCKY WHEELS 5818 Monroe Hwy	Ball	31.40561	-92.41091		1997	
SEWER SYSTEM LIFT STATION		26 PINEBROOK TRACE	Ball	31.41804	-92.41744			
SEWER SYSTEM LIFT STATION		HWY 165 AT RED RIVER BANK 4425 Monroe Hwy	Ball	31.38044	-92.40717		2001	
SEWER SYSTEM LIFT STATION		ROBERTSON ROAD-LIVE OAK SUB.	Ball	31.43334	-92.41423		2001	
SEWER SYSTEM LIFT STATION		WARD 10 West Yeager	Ball	31.38277	-92.41383		2005	
SEWER SYSTEM LIFT STATION		4304 YORK STREET	Ball	31.37845	-92.40389			
SEWER SYSTEM LIFT STATION		21 WILIFORD ROAD	Ball	31.41697	-92.3814		2009	
SEWER SYSTEM LIFT STATION		HWY 165/GAYVEN DRIVE	Ball	31.37636	-92.40955		2008	
SEWER SYSTEM LIFT STATION		POWELL DR/TIMBERVIEW APTS.	Ball	31.3989	-92.40405		2007	
SEWER SYSTEM LIFT STATION		SINGER DRIVE (6/29/10)	Ball	31.42346	-92.43301			
SEWER SYSTEM LIFT STATION		57 BURMA ROAD	Ball	31.42507	-92.40764			
SEWER SYSTEM LIFT STATION		7 BURMA ROAD (WEST)	Ball	31.42196	-92.41087		1997	
SEWER SYSTEM LIFT STATION		9 DOGWOOD CT	Ball	31.41962	-92.41031			
SEWER SYSTEM LIFT STATION		10 EVERGREEN CT	Ball	31.41962	-92.41031			
SEWER SYSTEM LIFT STATION		1157 HONEYSUCKLE RD	Ball	31.42079	-92.39089			
SEWER SYSTEM LIFT STATION		927 HWY 1204 (Campbell Dr)	Ball	31.41703	-92.4252			
SEWER SYSTEM LIFT STATION		216 JUNE ST.	Ball	31.40828	-92.41582			
SEWER SYSTEM LIFT STATION		5705 SHELTON DRIVE	Ball	31.4025	-92.4164			
SEWER SYSTEM LIFT STATION		8 CALLIE STREET	Ball	31.39968	-92.40236		2011	
SEWER SYSTEM LIFT STATION		606 SHANGHAI ROAD (BUD'S COURT)	Ball	31.40543	-92.40183			
SEWER SYSTEM LIFT STATION		END OF BAUM ROAD Wastewater Plant	Ball	31.40154	-92.37356		circa 1970	
SEWER SYSTEM LIFT STATION		43 HAMMACK LANE	Ball	31.4304	-92.40759		2003	

SEWER SYSTEM LIFT STATION		GATEWAY CHURCH -HWY 165N 7074 Monroe Hwy	Ball	31.43375	-92.40751			
SEWER SYSTEM LIFT STATION		970 Paradise Lift Station	Ball	31.40667	-92.39514		2010	
SEWER SYSTEM LIFT STATION		Tioga Road	Ball	31.38782	-92.41624			

Town of Boyce								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
BOYCE TOWN HALL AND POLICE DEPARTMENT	MUNICIPAL BUSINESS CENTER AND POLICE PROTECTION	7050 HWY 1 NORTH	BOYCE	31.390406	-92.673358		2003	Reinforced Masonry
FIRE STATION #1	FIRE PROTECTION	507 LONDONDERRY AVE	BOYCE	31.391697	-92.670272			Metal
FIRE STATION #2	FIRE PROTECTION	802 MAYO ST	BOYCE	31.386856	-92.674897			Metal
OLD POLICE STATION	MAINTENANCE AREA	404 ULSTER ST	BOYCE	31.390406	-92.669656			Reinforced Masonry
JULIUS PATRICK CIVIC CENTER	TOWN RECREATIONAL ACTIVITIES AND TEMPORARY SHELTER	720 MAYO ST	BOYCE	31.387628	-92.674775			Reinforced Masonry
UTILITIES DEPARTMENT	UTILITIES MAINTENANCE AND REPAIRS	807 LONDONDERRY AVE	BOYCE					Reinforced Masonry
SENIOR CITIZEN CENTER	SENIOR'S ACTIVITIES	MAYO ST	BOYCE					Reinforced Masonry
WATER TOWER, TREATMENT FACILITY, AND GENERATOR	TREAT AND DISTRIBUTE POTABLE WATER TO CITIZENS	410 SLIGO ST	BOYCE					Metal

WATER WELL AND GENERATOR #1	PROVIDE WELL WATER TO TREATMENT FACILITY	5089 HWY 1200	BOYCE					Metal
WATER WELL AND GENERATOR #2	PROVIDE WELL WATER TO TREATMENT FACILITY	5169 HWY 1200	BOYCE					Metal
SEWER LIFTSTATION # 1 AND GENERATOR	PROVIDE SEWER SERVICE TO CITIZENS	LONDONDERRY AVE	BOYCE					Metal
SEWER LIFTSTATION # 2 AND GENERATOR	PROVIDE SEWER SERVICE TO CITIZENS	206 BELFAST AVE	BOYCE					Metal
SEWER LIFTSTATION # 3 (WETTERMARK LIFTSTATION)	PROVIDE SEWER SERVICE TO THE CITIZENS	1010 WEXFORD ST (SWR)	BOYCE					Metal
SEWER LIFTSTATION # 4 (BOSIE LIFTSTATION)	PROVIDE SEWER SERVICE TO THE CITIZENS	8835 HWY 1 N (SWR)	BOYCE					Metal
SEWER LIFTSTATION # 5 (COWBOY TOWN LIFTSTATION)	PROVIDE SEWER SERVICE TO THE CITIZENS	7225 HWY 1 N (SWR)	BOYCE					Metal
SEWER LIFTSTATION # 6 (LOVE'S LIFTSTATION)	PROVIDE SEWER SERVICE TO THE CITIZENS	7049 HWY 1 N (SWR)	BOYCE					Metal
SEWER LIFTSTATION # 7 (ST MATTHEWS LIFTSTATION)	PROVIDE SEWER SERVICE TO THE CITIZENS	25 ST MATTHEWS CHURCH RD	BOYCE					Metal

Town of Cheneyville								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Sewer Plant	Sewer		Cheneyville	N30°59'55.2"	W92°17'22.3"			
Sewer Lift Station 1	Sewer		Cheneyville	N31°00'27.9"	W92°16'53.3"			
Sewer Lift Station 2	Sewer		Cheneyville	N31°00'52.7"	W92°16'52.9"			
Sewer Lift Station 3	Sewer		Cheneyville	N31°01'21.8"	W92°17'26.2"			
Sewer Lift Station 4	Sewer		Cheneyville	N31°00'44.4"	W92°17'36.3"			
Sewer Lift Station 5	Sewer		Cheneyville	N31°00'32.2"	W92°17'32.2"			
In-Town Water Well 1	Water		Cheneyville	N31°00'53.3"	W92°17'30.0"			
In-Town Water Well 2	Water		Cheneyville	N31°00'53.3"	W92°17'30.0"			
In-Town Water Booster Station and Ground Storage Tank	Water		Cheneyville	N31°00'42.1"	W92°17'33.7"			
In-Town Elevated Tank	Water		Cheneyville	N31°00'42.1"	W92°17'33.7"			
Clearwater Well	Water		Cheneyville	N30°59'37.9"	W92°23'26.7"			
Clearwater Elevated Tank	Water		Cheneyville	N30°59'37.9"	W92°23'26.7"			
Annex Building	Recreational	Hwy 71 S. Front St	Cheneyville					
Cheneyville Old Town Hall/Courthouse	Meetings	201 Derbourne	Cheneyville					
Cheneyville New Town Hall	Office	802 Klock St	Cheneyville					
West Side	Rehabilitation	802 Klock St	Cheneyville					
Phienox Addition	Rehab	802 Klock St	Cheneyville					

Village of Forest Hill								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Forest Hill Community Center	Community Facility	138 Blue Lake Road	Forest Hill	31.039798	-92.529815			
Forest Hill Senior Center/Utility Department	Senior Citizen Center/ City Utility Office/Maintenance facility	138 Blue Lake Road	Forest Hill	31.039142	-92.529954			
Forest Hill Town Hall	Municipal Administration/ Mayor's Office/ Police Department	4300 LA Hwy 112	Forest Hill	31.042571	-92.530943			
Lift Station No. 1	Sewer Collection	LA Hwy 497	Forest Hill	31.047542	-92.531397			
Lift Station No. 2	Sewer Collection	11th Street	Forest Hill	31.040371	-92.530185			
Lift Station No. 3	Sewer Collection	Butter Cemetery Road	Forest Hill	31.034418	-92.531991			
Water Well #2/Booster Station Site	Water Production/ Treatment/ Storage/ Distribution	LA Hwy 112	Forest Hill	31.060803	-92.492963			
Water Well #3 and #4 Site	Water Production	LA Hwy 113	Forest Hill	31.060292	-92.511537			
Office Elevated Tank Site	Water Storage for Distribution	11th Street	Forest Hill	31.04409	-92.529912			
Forest Hill Wastewater Treatment Plant	Sewer Treatment Plant	Butter Cemetery Road	Forest Hill	31.032065	-92.528813			
Main City Gas Regulator Station	Gas System Main Regulator Station/Odorization Facilities	LA Hwy 112	Forest Hill	31.059946	-92.481807			
Town Border Station	Gas System Regulator Station	LA Hwy 112	Forest Hill	31.042448	-92.52591			

Town of Glenmora								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Glenmora Municipal Building #2	Vacant	1000 7th Ave	Glenmora	30°58'34.47"N	92°35'03.65"W			
Glenmora Community Center	Town Hall, Operations Center/Command Center	718 8th Street	Glenmora	30°58'30.52"N	92°35'03.75"W			
Glenmora Fire Station	Fire Station, Secondary Command Center	817 10th Ave	Glenmora	30°58'24.07"N	92°35'14.26"W			
Glenmora Fire Station #2	Fire Station	1103 6th Ave	Glenmora	30°58'22.42"N	92°34'57.30"W			
Glenmora Maintenance Building	Equipment operations	1000 Turkey Creek Road	Glenmora	30°58'00.76"N	92°35'01.05"W			
Glenmora Water Tower #1	Water supply for Town	726 7th Street	Glenmora	30°58'31.43"N	92°35'05.51"W			
Glenmora Waste Water Treatment	Sewer Treatment for Town	Turkey Creek Road	Glenmora	30°58'27.78"N	92°33'55.62"W			
Glenmora Water Tower #2	Water supply for Town	1680 Evangeline Road	Glenmora	30°56'16.71"N	92°34'01.46"W			

Town of Lecompte								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Lecompte Town Hall	City Administrative Office	1302 Weems Ave	Lecompte					
Lecompte Police Station	Holds Administrative and Force for Lecompte PD	1103 Wall St (Hwy 112)	Lecompte					
Lecompte Fire Department	Holds Fire Truck, Rescue Vehicle, associated equipment	1305 Wall St (Hwy 112)	Lecompte					
Lecompte High School (old)	Houses Rapides Parish Library - Johnson Branch, Museum, Community Room; Senior Citizens Program, etc.	2204 St. Charles St	Lecompte					
Lecompte Youth Gym	Houses the Youth Program	Canal St	Lecompte					
Lecompte Holly Street Park	Covered Pavilion and Restrooms	Dead end of Holly St	Lecompte					
Pump Station		1717 Hwy 71S	Lecompte					
Pump Station at Sugar Street		Sugar St	Lecompte					
Pump Station at Hwy 112		Hwy 112	Lecompte					
Pump Station - Hardy St		2905 Hardy St.	Lecompte					
Pump Station - Hardy St		1707 Hardy St.	Lecompte					
Lift Station at Hwy 112		Hwy 112	Lecompte					
Sewer Station		Hwy 457	Lecompte					

Village of McNary								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
McNary Town Hall	Conduct Business of the Village of McNary	53 West Cady	McNary	30.990653	-92.579439			

City of Pineville								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
MARTIN PUBLIC LIBRARY	PUBLIC LIBRARY	802 W. SHAMROCK	PINEVILLE			230,580	1950	Concrete
PINEVILL CITY GARAGE	REPAIR CITY VEHICLES	405 SANDERS	PINEVILLE			324,938	1930	Concrete
PINEVILLE CITY HALL	CITY HALL, MAYORS OFFICE, ADMIN OFFICE, POLICE DEPT	910 MAIN STREET	PINEVILLE			1,534,195	1974	Concrete
PINEVILLE KEES PARK	COMMUNITY CENTER	2450 HIGHWAY 28 EAST	PINEVILLE			443,976	1973	Concrete
BATH HOUSE	PUBLIC RESTROOMS	2450 HIGHWAY 28 EAST	PINEVILLE			118,102	2001	Concrete
PINEVILLE CENTRAL FIRE STATION	FIRE HOUSE, TRUCK, EMT'S VEHICLES	909 COLLEGE DRIVE	PINEVILLE			213,897	1974	Concrete
CITY MUSEUM	PUBLIC MUSEUM	729 MAIN STREET	PINEVILLE			329,662	1976	Concrete
PINEVILLE ANIMAL SHELTER	STRAY ANIMALS	1700 JEFFERSON	PINEVILLE			157,215	1983	Concrete
PINEVILLE PUBLIC WORKS	PUBLIC WORKS ADMINISTRATIVE OFFICES	402 SANDERS STREET	PINEVILLE			62,700	2000	Concrete
PUMP HOUSE	TO PUMP WATER THRU CITY	405 SANDERS STREET	PINEVILLE			15,750	2000	Metal

PINEVILLE FIRE STATION	FIRE HOUSE, TRUCK, EMT'S VEHICLES	1055 SUSEK DRIVE	PINEVILLE			112,840	1988	Concrete
PINEVILLE CITY COURT	CITY COURT/OFFICES	906 MAIN STREET	PINEVILLE			344,840	1991	Concrete
PINEVILLE SENIOR CITIZEN	OFFICES FOR SENIOR CITIZENS	801 MAIN STREET	PINEVILLE			379,910	1992	Concrete
PINEVILLE COMMUNITY CENTER	COMMUNITY CENTER	708 MAIN STREET	PINEVILLE			62,374	1996	Concrete
PINEVILLE UTILITY STORAGE	UTILITY WAREHOUSE/STOR AGE BUILDING	300 HICKORY	PINEVILLE			100,050	1980	Concrete
PINEVILLE SEWER	SEWER TREATMENT PLANT	390 A HILCREST	PINEVILLE			35,240	1971	Metal
RECREATION	PAVILLION	317 A JONES STREET	PINEVILLE			236,250	1986	Metal
PINEVILLE REPAIR SHOP	PAINT & BODY SHOP	405 SANDERS STREET	PINEVILLE			31,500	2005	Metal
PINEVILLE TANK	WATER TANK ON GROUND	1059A SUSEK DRIVE	PINEVILLE			52,500	1983	Concrete
STATION	WATER PUMPING STATION	1059D SUSEK DRIVE	PINEVILLE			53,500	1990	Concrete
TREATMENT	WATER TREATMENT PLANT	390E HILLCREST	PINEVILLE			26,000	1969	Metal
TREATMENT	WATER TREATMENT PLANT	390F HILLCREST	PINEVILLE			26,000	1965	Metal
PINEVILLE GALLERY	ART QUEST/ GALLERY	117 REGAN STREET	PINEVILLE			67,150	1998	Wood
PINEVILLE AIRPORT	HANGER	200 AIRPORT ROAD	PINEVILLE			860,553	1988	Metal
PINEVILLE TANK	ELEVATED WATER TANK	301 EXPRESSWAY DRIVE	PINEVILLE			52,500	1999	Concrete
LIFT STATION	SEWER LIFT STATION	600 GREER STREET	PINEVILLE			21,000	1969	Concrete
PINEVILLE DMV	MOTOR VEHICLE OFFICE	831A MAIN STREET	PINEVILLE			471,450	2000	Concrete

PINEVILLE BOILER	CITY HALL BOILER HOUSE	910 A MAIN STREET	PINEVILLE			73,500	1974	Concrete
PINEVILLE PUMPS	CITY GAS PUMPS	402 E SANDERS	PINEVILLE			10,500	1996	Metal
CONTROL HOUSE	ELECTRIC CONTROL HOUSE	390 B HILCREST STREET	PINEVILLE			21,000	1970	Concrete
CLUB HOUSE	BOYS & GIRLS CLUB HOUSE	2480 HIGHWAY 28 EAST	PINEVILLE			173,000	1984	Concrete
DETECTIVE HOUSE	DETECTIVE BUILDING	115 REGAIN STREET	PINEVILLE			118,000	2004	Wood
PLANT	SEWER PLANT	390 HILLCREST	PINEVILLE			537,340	2007	Concrete
PINEVILLE FIRE STATION #2	FIRE HOUSE, TRUCK, EMT'S VEHICLES	4127 HIGHWAY 28 EAST	PINEVILLE			1,015,000	2010	Concrete
TUDOR CENTER	COMMUNITY CENTER	344 BRAGG STREET	PINEVILLE			821,645	2010	Wood
PINEVILLE FIRE HOUSE	FIRE ADMINISTRATION BUILDING	908 COLLEGE DRIVE	PINEVILLE			60,500	2012	Wood

Town of Woodworth								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Woodworth Municipal Complex	Town Hall/Police Department	9363 Hwy. 165 South	Woodworth	31.149004	-92.496772	\$2,400,000	2011	Reinforced Masonry
J.D. Glass Memorial Fire Station	Woodworth Fire Station #1	9059 Hwy. 165 South	Woodworth	31.174935	-92.503998	\$1,000,000	2001	Reinforced Masonry
Richard A. Butler Memorial Fire Station	Woodworth Fire Station #2	764 Robinson Bridge Rd.	Woodworth	31.148045	-92.486792	\$800,000	2014	Reinforced Masonry
J.W. McDonald Community Center	Community Center/ Town Activities/ Evacuation Center for Town	878 Robinson Bridge Rd.	Woodworth	31.147009	-92.494705	\$750,000	1998	Reinforced Masonry
Town of Woodworth Maintenance Compound	Vehicle Maintenance/Town Water System/Town Fuel Depot	27 Castor Plunge Rd.	Woodworth	31.147552	-92.499007	\$200,000	1995	Steel
Town of Woodworth Sewer Treatment Plant	Sewer Treatment Facility	Hwy. 165 South/Brookwood Dr.	Woodworth	31.156648	-92.500803	\$1,000,000	2004	Reinforced Masonry
Town of Woodworth Utility Work Center	Utility Equipment/Parts Compound	Lamonthe Ln./Hwy. 165 South	Woodworth	31.147853	-92.496473	\$175,000	1989	Steel
Woodworth U.S. Post Office	Town of Woodworth Owned/ U.S. Post Office	28 Castor Plunge Rd.	Woodworth	31.147773	-92.498574	\$800,000	2009	Reinforced Masonry
J.W. Davidson Memorial Park	Town Recreational Complex	84 Dan Triplett	Woodworth	31.152639	-92.505281	\$1,500,000	1991	Steel
Water Pump Station #1	Fresh Water Pump Station	300 Castor Plunge Rd.	Woodworth	31.154777	-92.522749			
Water Pump Station #2	Fresh Water Pump Station	9500 Hwy. 165 South	Woodworth	31.137072	-92.499122			

Sewer Pump Station #1	Sewer Pump Lift Station	300 N. Spring Dr.	Woodworth	31.563362	-92.502448			
Sewer Pump Station #3	Sewer Pump Lift Station	N. Lake Drive	Woodworth	31.199209	-92.513293			
Sewer Pump Station #4	Sewer Pump Lift Station	1000 Rambleview	Woodworth	31.17806	-92.498500			
Sewer Pump Station #9	Sewer Pump Lift Station	1100 Lake Drive	Woodworth	31.192699	-92.514188			
Sewer Pump Station #11	Sewer Pump Lift Station	1300 Lake Drive	Woodworth	31.185113	-92.513276			
Sewer Pump Station #12	Sewer Pump Lift Station	1000 Hidden Ridge	Woodworth	31.206189	-92.499781			
Sewer Pump Station #13	Sewer Pump Lift Station	2300 Methodist Parkway	Woodworth	31.170294	-92.492841			
Sewer Pump Station	Sewer Pump Lift Station	1380 Lake Drive	Woodworth	31.185276	-92.521264			
Sewer Pump Station	Sewer Pump Lift Station	8906 Hwy. 165 South	Woodworth	31.181313	-92.507906			
Sewer Pump Station	Sewer Pump Lift Station	3000 Wesley Circle	Woodworth	31.171598	-92.498333			
Gas Regulator Station #3	Natural Gas Regulator Station	700 Robinson Bridge Rd.	Woodworth	31.150326	-92.481620			
Gas Regulator Station	Natural Gas Regulator Station	800 Hwy. 470	LeCompte	31.139775	-92.423305			
Gas Regulator Station	Natural Gas Regulator Station	400 Chickamaw Rd.	LeCompte	31.123214	-92.438279			
Gas Main Reducing Station	Natural Gas Reducing Station	900 Hwy. 470	LeCompte	31.134793	-92.414492			

Vulnerable Populations

Vulnerable Populations Worksheet					
Rapides Parish					
All Hospitals (Private or Public)	Address	City	Zip Code	Latitude	Longitude
Alexandria Emergency Hospital	5900 Coliseum Boulevard	Alexandria	71303	31.29731	-92.51022
Alexandria Heart & Vascular	224 Pecan Park Avenue	Alexandria	71303	31.29386	-92.49015
Central Louisiana Surgical Hospital	651 North Bolton Avenue	Alexandria	71303	31.31539	-92.46783
Christus Community Clinic	3351 Masonic Drive	Alexandria	71301	31.28186	-92.46048
Christus Community Clinic - Alexandria	3000 South MacArthur Drive	Alexandria	71301	31.2668	-92.45632
Christus Dubuis Hospital	4801 Jackson Street Extension B	Alexandria	71301	31.27545	-92.48169
Christus Primary Care - Versailles	80 Versailles Boulevard Suite A	Alexandria	71303	31.29057	-92.50576
Christus St. Frances Cabrini Hospital	3331 Masonic Drive	Alexandria	71301	31.28309	-92.46183
Compass Behavioral Center of Alexandria	6410 Masonic Drive	Alexandria	71301	31.25458	-92.48159
Dc Hospital	Leesville Hwy	Alexandria	71303	31.29608	-92.51074
Dubuis Hospital of Alexandria	3330 Masonic Drive	Alexandria	71302	31.28346	-92.46202
Encompass Health Rehabilitation Hospital	104 North 3rd Street	Alexandria	71301	31.31946	-92.45218
Longleaf Hospital	44 Versailles Boulevard	Alexandria	71303	31.29275	-92.50509
Oceans Behavioral Hospital Alexandria	2621 North Bolton Avenue	Alexandria	71303	31.32517	-92.48024
Oceans Behavioral Hospital Alexandria Intensive Outpatient Program	5920 Coliseum Boulevard	Alexandria	71303	31.29737	-92.51127
Premier Urgent Care	3601 Jackson Street	Alexandria	71301	31.28553	-92.47562
Rapides General Hospital	816 Murray Street	Alexandria	71301	31.30942	-92.44819
Rapides Regional Medical Center	211 4th Street	Alexandria	71301	31.31598	-92.44983
Rapides Urgent Care	6515 Colisem Boulevard	Alexandria	71303	31.29572	-92.51506
Rapides Urgent Care	3800 Jackson Street	Alexandria	71303	31.2846	-92.47729
Rapides Women's & Children's Hospital	501 Medical Center Drive	Alexandria	71301	31.31423	-92.45003
Riverside Hospital	13 Heyman Lane	Alexandria	71303	31.30213	-92.48875
West Habilitation Center	2913 North Bolton Avenue	Alexandria	71303	31.32781	-92.48248
Women's & Children's Hospital at Cabrini	3330 Masonic Drive	Alexandria	71301	31.28305	-92.46235
Chenvert Family Clinic	501 Front St	Cheneyville	71325		
Rapides Regional Physician Group Primary Care	1610 Water ST	Lecompte	71346		
Red River Academy LLC	2810 Hwy 71 S	Lecompte	71346		
CENTRAL STATE HOSPITAL	242 WEST SHAMROCK	PINEVILLE	71360	31.325798	92.427721
HUEY P. LONG (LSU CLINIC)	356 HOSPITAL BLVD	PINEVILLE	71360	31.346541	92.448192

Veterans Affairs Medical Center	2495 Shreveport Hwy 71 North	Pineville	71360		
Compass Behavioral Center of Alexandria	6410 HWY 165 South	Alexandria	71301		
Nursing Homes (Private or Public)	Address	City	Zip Code	Latitude	Longitude
Adams Community Home	1214 President Drive	Alexandria	71303	31.32694	-92.4837
Brookdale Alexandria	351 Windermere Boulevard	Alexandria	71303	31.29436	-92.49071
Buchanan Group Home	1292 President Drive	Alexandria	71303	31.32367	-92.48578
Canterbury House Assisted Living	1101 16th Street	Alexandria	71301	31.30644	-92.45171
Cleveland Community Home	5621 Hera Street	Alexandria	71303	31.27303	-92.49337
England Oaks Active Adult Living	6956 England Drive	Alexandria	71303	31.32794	-92.53114
Filmore Group Home	1155 President Drive	Alexandria	71303	31.32988	-92.48267
Greco Community Home	444 Browns Bend Road	Alexandria	71303	31.31591	-92.49554
Harding Community Home	520 Westwind Drive	Alexandria	71303	31.30019	-92.51778
Harrison Group Home	5708 North Drive	Alexandria	71301	31.26171	-92.46596
Hope House	5115 South MacArthur Drive	Alexandria	71302	31.25558	-92.43963
Lexington House	16 Heyman Lane	Alexandria	71303	31.30358	-92.4893
Louisiana Assisted Housing	2304 North MacArthur Drive	Alexandria	71303	31.31748	-92.47346
Marigold House	5723 Jackson Street	Alexandria	71303	31.26717	-92.48737
Matthews Memorial Health Care	5100 Jackson Street	Alexandria	71303	31.2747	-92.48446
Mc Kindley Group Home	6500 Masonic Drive	Alexandria	71301	31.25332	-92.4832
Naomi Heights Nursing & Rehabilitation Center, LLC	2421 East Texas Avenue	Alexandria	71303	31.28692	-92.45916
OLS Community Homes Inc.	347 Browns Bend Road	Alexandria	71303	31.30938	-92.49435
Pecan Grove Community Home	528 Bob White Lane	Alexandria	71303	31.28166	-92.49295
Pierce Group Home	1269 President Drive	Alexandria	71303	31.32894	-92.48228
Regency House	5131 Masonic Drive	Alexandria	71301	31.26855	-92.46996
Renaissance Home for Youth	6177 Bayou Rapides Road	Alexandria	71303	31.3142	-92.52881
Summit Retirement Center	2200 Merorial Drive	Alexandria	71301	31.28324	-92.45867
Taylor Group Home	5635 Navaho Trail	Alexandria	71301	31.26773	-92.48103
Louisiana Community Care	5907 Adrian Dr	Ball	71405	31.409401	-92.401450
Louisiana Community Care	1013 Paradise Rd	Ball	71405	31.408930	-92.394710
Louisiana Community Care	126 A Daniels Rd	Ball	71405	31.413050	-92.409030
Louisiana Community Care	126 B Daniels Rd	Ball	71405	31.413050	-92.409030
Louisiana Community Care	78 Camp Livingston Rd	Ball	71405	31.416280	-92.405630
Louisiana Community Care	221 Burma Rd	Ball	71405	31.432000	-92.400870
Louisiana Community Care	6735 Birch Trace	Ball	71405	31.423890	-92.419920
Louisiana Community Care	5831 Crooms Rd	Ball	71405	31.403090	-92.419740

Louisiana Community Care	5711 Monroe Hwy	Ball	71405	31.404210	-92.411930
Louisiana Community Care	218 Leah St	Ball	71405	31.405950	-92.408370
Louisiana Community Care	6619 Eastbrook Tr	Ball	71405	31.420580	-92.417460
Louisiana Community Care	6767 Birch Trace	Ball	71405	31.418280	-92.417520
West Side Rehabilitation Center (Group Home)	300 Third St	Cheneyville	71325		
Oak Wood Apartments (Retirement Center)	101 McNutt St	Cheneyville	71325		
HILLTOP # 2	336 EDGEWOOD DRIVE	PINEVILLE	71360	31.341286	92.40783
OAKS CARE CENTER	50 PINECREST DRIVE	PINEVILLE	71360	31.341102	92.40298
Mollie Wise Senior Living Center 2	871 Robinson Bridge Rd.	Woodworth	71485		
Mollie Wise Senior Living Center 1	877 Robinson Bridge Rd.	Woodworth	71485		
Tioga Community Care Center	5201 Shreveport Hwy 3225	Pineville	71360		
St Christina	122 Hillsdale Drive	Pineville	71360		
Jude Community Home	2560 Hickory Hill Road	Pineville	71360		
Mobile Home Parks	Address	City	Zip Code	Latitude	Longitude
Cabana Mobile Estates	6101 North Bolton Avenue	Alexandria	71303	31.3415	-92.51791
Culpepper Estates	3022 Culpepper Road	Alexandria	71301	31.26377	-92.45861
Donal Drive	5503 Donald Drive	Alexandria	71302	31.25055	-92.44066
Duhon Lane	3936 Duhon Lane	Alexandria	71302	31.26578	-92.44274
Bayou Mobile Home Park	650 North Bolton Avenue	Alexandria	71301	31.31534	-92.46655
South MacArthur Drive--Lots 1-9 on Service Road	4500 South MacArthur Drive	Alexandria	71302	31.25751	-92.44408
Barron Mobile Home Park #1	202 Daniels Rd	Ball	71405	31.411970	-92.407450
Ball Loop Trailer Court	6103 Ball Loop Rd	Ball	71405	31.410070	-92.419680
Barron Mobile home Park #2	5647 Hwy 1204	Ball	71405	31.417960	-92.433330
Silver Maple Mobile Home Park	807 Hwy 1204`	Ball	71405	31.415730	-92.424440
Cannan Trailer Park Lincecum Enterprises LLC	517 Hwy 1204	Ball	71405	31.415400	-92.418050
Larry Luttrell Mobile Home Park	1606 Turkey Creek Rd	Glenmora	71433	30°58'09.60"N	92°34'27.63"W
Monica Ober Mobile Home Park	934 7th Street	Glenmora	71433	30°58'15.11"N	92°35'09.64"W
Mobile Home Park	930 7th Street	Glenmora	71433	30°58'17.37"N	92°35'09.24"W
Perkins Traylor Park	10th Street	Forest Hill	71430	31.057825	-92.434873
PLEASANT VALLEY ESTATES	200 PELICAN DRIVE	PINEVILLE	71360	31.336301	92.717228
RYAN ST TRAILER PARK	RYAN ST	Boyce	71409	31 23' 39.90" N	92 40' 23.52" W
EVANS TRAILER PARK	PACIFIC AVE	Boyce	71409	31 23' 09.05 N	92 40' 05.34" W

National Flood Insurance Program (NFIP)

National Flood Insurance Program (NFIP)											
	Rapides Parish	City of Alexandria	Town of Ball	Town of Boyce	Town of Cheneyville	Village of Forest Hill	Town of Glenmora	Town of Lecompte	Village of McNary	City of Pineville	Town of Woodworth
Insurance Summary											
How many NFIP policies are in the community? What is the total premium and coverage?	1496	1,637; \$396,580,000	28	6	6	None that we are aware of	5 Policies Premium \$1,893.00	39	none that we are aware of	147	40
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?	1571; \$23,680,323.95; 404	1,426; \$27,430,600.07; 170	7; \$134,423.94; 0	5; \$245,909.32; 1	8; \$73,722.01; 1	None that we are aware of	6; \$48,678.00	52; \$1,136,571.86; 1	none that we are aware of	235; \$4,350,991.19; 21	54; \$2,934,593.89; 25
How many structures are exposed to flood risk within the community?	Various areas of the Parish continue to be exposed to flood risk	approx. 3,500	Various areas of the community are exposed to flood risk.	None that we are aware of	13	No structures prone to flood risk	Various areas of the community continue to be exposed	Various areas of the community are exposed to flood risk.	none that we are aware of	35 to 45	Various areas of the town continue to be exposed to flood risk
Describe any areas of flood risk with limited NFIP policy coverage.	none that we are aware of	None Known	None that we are aware of.	None that we are aware of	5 to 7	None that we are aware of	None we are aware of	None that we are aware of.	none that we are aware of	None	none that we are aware of
Staff Resources											
Is the Community FPA or NFIP Coordinator certified?	Yes	Yes	Yes	N/A	No	No	Yes	Yes	No	Yes	Yes
Is flood plain management an auxiliary function?	No	Yes	No	Yes	Yes	Yes	We utilize the Parish Flood Plain Mgr.	No	Yes	No	No

Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	review permits, conduct inspections, S/D determinations, GIS, education & outreach, utilize BLE data	Provide assistance to the public for questions concerning flooding, LOMA's, LOMR-F, elevation certificates & review all building permits for compliance	review permits, conduct inspections, S/D determinations, GIS, education & outreach, utilize BLE data	New development permit on local level; Review, construction, and inspections RAPC	Review BFE for new developments	Review Permits, community education.	Issuance of Permits and Permit reviews by one of the Town Clerks	review permits, conduct inspections, S/D determinations, GIS, education & outreach, utilize BLE data	permit review, public education	review permits, conduct inspections, S/D determinations, GIS, education & outreach, utilize BLE data	review permits, conduct inspections, S/D determinations, GIS, education & outreach, utilize BLE data
What are the barriers to running an effective NFIP program in the community, if any?	need updated digital maps	No known barriers	need updated digital maps	No known barriers	Need updated digital flood maps	None that we are aware of	None we are aware of	need updated digital maps	personnel	need updated digital maps	need updated digital maps
Compliance History											
Is the community in good standing with the NFIP?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are there any outstanding compliance issues(i.e., current violations)?	No	No	No	No	No	No	No	No	No	No	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact(CAC)?	5/13/2019	2019	1/23/2008	CAV Date:01/23/2008 CAC Date:05/17/2007	7/9/2010	CAV -05/28/2003 CAC - 11/12/2015	VAV: 12-30-05, CAC: 05-14-15	12/20/2005	CAV - 2002; CAC - 2007	5/15/2015	10/14/2003
Is a CAV or CAC scheduled or needed? If so when?	No	No	No	GTA Date:09/24/2020	No	Not Needed	No	No	Not Needed	No	No
Regulation											
When did the community enter the NFIP?	9/5/1984	1978	7/18/1985	EMERGENCY Entry:07/21/1977 REGULAR Entry:07/09/1981	3/2/1981	11/12/1976	E:04-04-1975, R: 025-03-1982	3/2/1981	4/23/1976	9/5/1984	10/25/1979

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