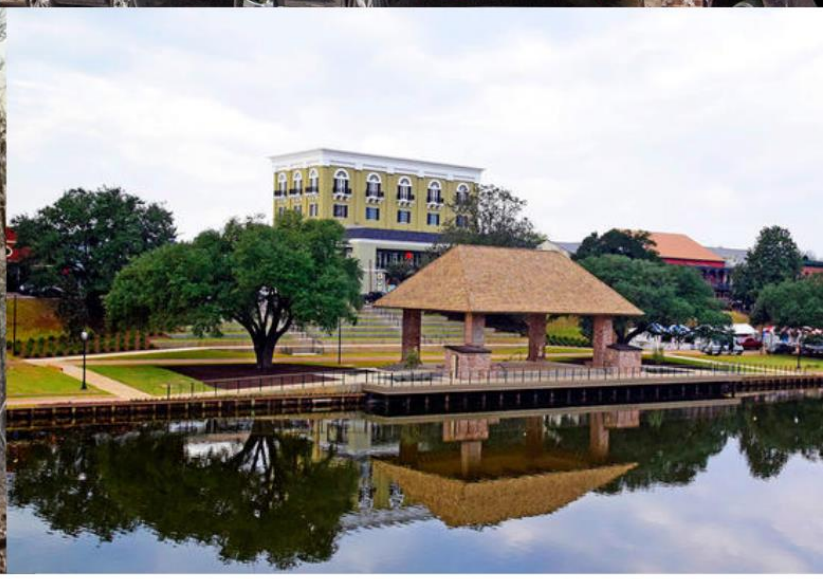
2023 NATCHITOCHES PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN

UNINCORPORATED NATCHITOCHES PARISH, ASHLAND, CAMPTI, CLARENCE, GOLDONNA, NATCHEZ, NATCHITOCHES, POWHATAN, PROVENCAL, ROBELINE



PARISH OF NATCHITOCHES
LOUISIANA

NATCHITOCHES PARISH MULTI-JURISDICTIONAL HAZARD MITIGATION PLAN UPDATE

Prepared for:

Natchitoches Parish

Prepared by:

Stephenson Disaster Management Institute

Mr. Brant Mitchell, CEM
Mrs. Lauren Morgan, MEPP
Mr. Chris Rippetoe, CFM
Dr. Joseph B. Harris, PhD
Ms. Ashleigh Dozier
Ms. Mary Kincannon

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

This Page Left Intentionally Blank

ACKNOWLEDGMENTS

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

Natchitoches Parish
Village of Ashland
Town of Campti
Village of Clarence
Village of Goldonna
Village of Natchez
City of Natchitoches
Village of Powhatan
Village of Provencal
Village of Robeline

Special thanks is directed to all of those who assisted in contributing their expertise and feedback on this document, especially the Natchitoches Parish Office of Homeland Security and Emergency Management. These combined efforts have made this project possible. The Natchitoches Parish Planning Committee consists of the following individuals, who are credited in the creation of this document:

Mary Jones	Natchitoches Parish Sheriff's Office
Lamarr McGaskey	Natchitoches Parish Sheriff's Office
Stuart Wright	Natchitoches Parish Sheriff's Office
John Richmond	Natchitoches Parish Government
Nick Verret	Natchitoches Parish Government
Edd Lee	City of Natchitoches
Ronnie Williams	City of Natchitoches
Donna Horn	Village of Ashland
Laron Winslow	Town of Campti
Jennifer Smith	Village of Goldonna
Leslie Oglesby	Village of Clarence
Randy Dupree	Village of Provencal
Bobby Behan	Village of Robeline
Jamike Neal	Village of Powhatan
Patsy Ward Hoover	Village of Natchez
Monique Sarpy	Village of Natchez
Reed Franklin	Village of Goldonna

The 2023 Natchitoches Parish Hazard Mitigation Plan Update was written by the Stephenson Disaster Management Institute, Louisiana State University. Further comments should be directed to the Natchitoches Parish Office of Homeland Security and Emergency Preparedness: 911 Public Safety Blvd., Natchitoches, LA 71457.

Contents

1. Introduction

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

In that regard, this plan (a) documents the Natchitoches 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 Natchitoches 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 Natchitoches Parish Hazard Mitigation Plan is a multi-jurisdictional plan that includes the following jurisdictions which participated in the planning process:

- Natchitoches Parish
- Village of Ashland
- Town of Campti
- Village of Clarence
- Village of Goldonna
- Village of Natchez
- City of Natchitoches
- Village of Powhatan
- Village of Provencal
- Village of Robeline

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 Natchitoches 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 Natchitoches Parish and its communities with a blueprint for reducing the impacts of these natural hazards on people and property.

Geography, Population and Economy

Geography

Natchitoches Parish is located in west-central Louisiana, approximately 65 miles southeast of the City of Shreveport and 45 miles northwest of the City of Alexandria. (*Figure 1-1*). It is bordered by Bienville Parish to the north, Winn and Grant Parishes to the east, Red River, DeSoto, and Sabine Parishes to the west, and Rapides and Vernon Parishes to the south. One of the largest parishes in the state, Natchitoches Parish consists of an area of 1,253.32 square miles, or 802,124.8 acres.

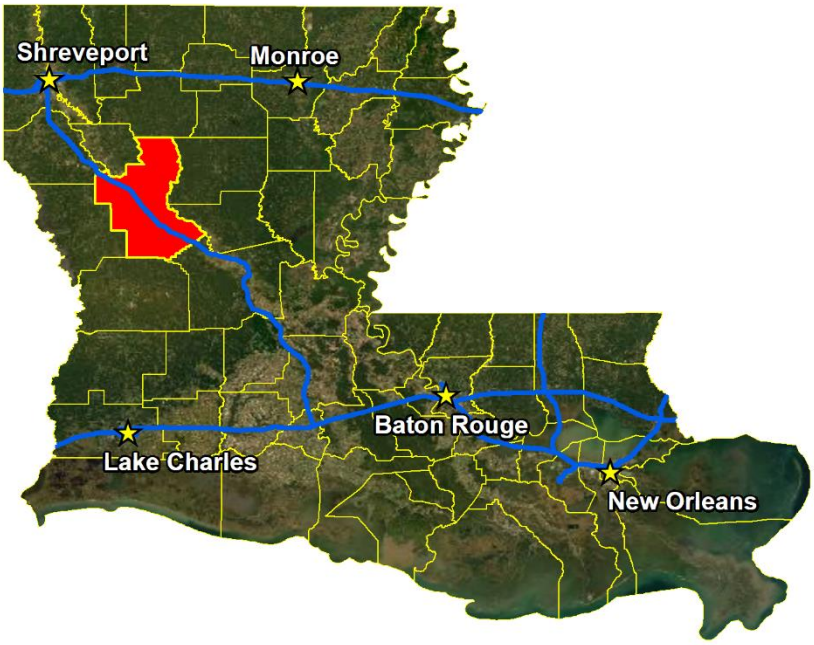


Figure 1-1: Location of Natchitoches Parish in the State of Louisiana

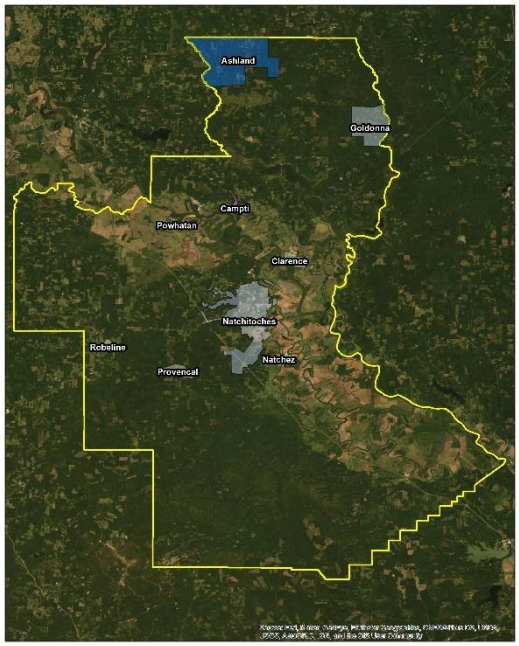


Figure 1-2: Incorporated Jurisdictions within Natchitoches Parish

Natchitoches Parish weather is typically warm and humid. The average annual temperature for the state as a whole is 68ºF. January is typically the coldest month for Louisiana, averaging approximately 54ºF, while July is typically the warmest at an average of 83ºF. Winter months are usually mild with cold spells of short duration. For Natchitoches Parish in particular, the summer months are usually quite warm, with an average daily maximum temperature in July and August of 93°F. Winters are typically mild. Snowfall averages less than one inch per year. Average annual rainfall for the area is 56 inches. Natchitoches Parish is susceptible to the normal weather dangers, such as thunderstorms and flooding, but due to its location within the state and its proximity to the Gulf of Mexico, the parish is also susceptible to tropical cyclones. Hurricane season lasts from June 1st to November 30th, with most hurricanes forming in August, September, and October.

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

As noted above, Natchitoches Parish is located in the west-central region of Louisiana.

Figure 1-3: Louisiana Homeland Security Regions

Population

The population of Natchitoches Parish is estimated at 37,515 (2020 Census) with a population change from April 1, 2010 – April 1, 2020 of -5.47%.

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

	2010 Census	2014 Estimate	2020 Census	Percent Change 2010 - 2020
Total Population	39,566	39,166	37,515	-5.47%
Population Density (Pop/Sq. Mi.)	31.6	-------	29.9	-5.69%
Total Households	18,587	18,770	14,659	-26.80%
Persons Per Household	-------	-------	2.62	-------

Economy

The economy of the area is primarily driven by the education, health care, retail, and manufacturing sectors. Northwestern State University employs just over 1,000 people. Forest production adds over $30 million to the parish economy every year. Animal production is also a large industry for the parish. Natchitoches leads the state in broiler production and is third in cattle production. Other animals account for over $3 million to the parish economy each year. Agriculture is also a driving factor in the economy of Natchitoches Parish. Principal crops of the parish include corn, cotton, grain, rice, soybeans, and wheat. Industry data for business patterns in Natchitoches Parish can be found in the table below.

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

Business Description	Number of Establishments	Number of Employees	Annual Payroll ($1,000)
Retail Trade	134	1,745	42,073
Manufacturing	16	2,511	151,466
Health Care and Social Assistance	93	1,922	65,405
Transportation and Warehousing	29	458	16,577
Construction	58	500	22,938
Administration/Support and Waste Management/Remediation Services	26	499	14,278
Real Estate and Rental and Leasing	44	202	5,259
Wholesale Trade	22	294	11,972
Other Services (except Public Administration)	91	402	8,935
Accommodation and Food Services	90	1,471	19,958
Financial and Insurance	68	531	30,468
Professional, Scientific, and Technical Services	59	226	9,587
Agriculture, Forestry, Fishing and Hunting	16	263	14,954
Mining, Quarrying, and Oil and Gas Extraction	16	165	10,939
Utilities	3	77	5,839
Arts, Entertainment, and Recreation	13	64	730
Educational Services	4	6	246
Information	17	148	6,273
Management of Companies and Enterprises	4	129	19,699

Hazard Mitigation

To fully understand hazard mitigation efforts in Natchitoches 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

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

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.

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

General Strategy

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

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

The 2023 Natchitoches 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 Natchitoches 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 Natchitoches Parish Hazard Mitigation Planning Committee recognized the benefits from the successful analysis and mitigation planning executed in previous plan updates, as well as improvements to be made in the 2023 update. This plan update remains coherent with those documents, retaining language and content when needed, deleting it when appropriate, and augmenting it when constructive.

2023 Plan Update

This 2023 plan update proceeds with the previous goals of the Natchitoches 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 and municipalities
4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact 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 2022. The planning committee was also instrumental in providing detailed data where appropriate to more accurately reflect hazard impacts on the parish and jurisdictions. Furthermore, all of the sections were updated to reflect the most current information and the most current vision of the plan update. The most significant changes are the newly developed hazard profiles and risk assessments, as well as the removal of much repetition between sections from the previous plan updates.

The 2023 plan update is organized in the same format as the 2016 update, with one minor change to this 2023 update as outlined below:

- Section One Introduction
- Section Two Hazard Identification and Parish-Wide Risk Assessment
- Section Three Capability Assessment
- Section Four Mitigation 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: 2023 Plan Update Crosswalk

Plan Update Crosswalk	
2016 Update	**2023 Update**
Section 1: Introduction	Section 1: Introduction
Section 2: Hazard Identification and Parish-Wide Risk Assessment	Section 2: Hazard Identification and Parish-Wide Risk Assessment
Section 3: Capability Assessment	Section 3: Capability Assessment
Section 4: Mitigation Strategy	Section 4: Mitigation Strategy
Appendix A: Planning Process	Appendix A: Planning Process
Appendix B: Plan Maintenance	Appendix B: Plan Maintenance
Appendix C: Essential Facilities	Appendix C: Critical Facilities
Appendix D: Plan Adoptions	Appendix D: Plan Adoptions
Appendix E: State Required Worksheets	Appendix E: State Required Worksheets

Despite numerous changes in this plan update, the plan remains consistent in its emphasis on the types of hazards that pose the most risk to loss of life, injury, and property in Natchitoches Parish and its communities. The extent of this risk is dictated primarily by its geographic location. Most significantly, Natchitoches Parish remains at high risk of water inundation from various sources, including flooding and tropical cyclone activity. The entire parish is also at high risk of damages from high winds and wind-borne debris. The 2016 flooding events, along with the 2020 hurricane season were both felt heavily in all parts of Natchitoches 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.

2. Hazard Identification and Parish-Wide Risk Assessment

This section assesses the various hazard risks that Natchitoches 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 Natchitoches 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 2023 Update
Drought	X		X
Flooding	X	X	X
Thunderstorms (Hail, Lightning, & Wind)	X	X	X
Tornadoes	X	X	X
Tropical Cyclones	X	X	X
Wildfires	X		X
Winter Weather	X		X

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) Flooding
c) Thunderstorms (Hail, Lightning, & Wind)
d) Tornadoes
e) Tropical Cyclones
f) Wildfires
g) Winter Storms

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 hurricanes, 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. Twenty-three of the thirty-one disaster declarations Natchitoches Parish have received resulted from tropical cyclones (16) or flooding (7), which validates these as the most significant hazards. Therefore, the issue of tropical cyclones and flooding 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 Natchitoches Parish is included in the tropical cyclone risk assessment.

Natchitoches Parish is also susceptible to tornadoes. Tornadoes can spawn from tropical cyclones or severe weather systems that pass-through Natchitoches 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 Natchitoches Parish since 1965. Information includes names, dates, and types of disaster.

Table 2-2: Natchitoches Parish Major Disaster Declarations.

Disaster Number	Year	Declaration
3031	2/22/1977	Drought and Freezing
675	1/11/1983	Severe Storms and Flooding
829	5/20/1989	Severe Storms and Flooding
835	7/17/1989	Tropical Cyclone - Tropical Storm Allison
902	4/23/1991	Severe Storms and Flooding
904	5/3/1991	Severe Storms, Tornadoes, and Flooding
1264	1/21/1999	Severe Ice Storm
2337	9/11/2000	LA – Western Louisiana Fire Complex – 9/8/00
1437	10/3/2002	Tropical Cyclone – Hurricane Lili
3172	2/1/2003	Loss of Space Shuttle Columbia
1603	8/29/2005	Tropical Cyclone – Hurricane Katrina
1607	9/24/2005	Tropical Cyclone – Hurricane Rita
1668	11/2/2006	Severe Storms and Flooding
1786	9/2/2008	Tropical Cyclone – Hurricane Gustav
1792	9/13/2008	Tropical Cyclone – Hurricane Ike
1863	12/10/2009	Severe Storms, Tornadoes, and Flooding
4080	8/29/2012	Tropical Cyclone – Hurricane Isaac
4228	7/13/2015	Severe Storms and Flooding
4263	3/12/2016	Severe Storms and Flooding
4345	10/16/2017	Tropical Cyclone – Tropical Storm Harvey
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
3543	9/14/2020	Tropical Cyclone – Hurricane Sally
4570	10/16/2020	Tropical Cyclone – Hurricane Delta
3549	10/27/2020	Tropical Cyclone – Tropical Storm Zeta
3556	2/18/2021	Severe Winter Storm
4590	3/9/2021	Severe Winter Storms
4611	8/29/2021	Tropical Cyclone – Hurricane Ida
3574	9/13/2021	Tropical Cyclone – Tropical Storm Nicholas

Probability of Future Hazard Events

The probability of a hazard event occurring in Natchitoches 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 2022. In staying consistent with the state plan, the Storm Events Database was evaluated for the last thirty-two years (1990 – 2022) to determine future probability of a hazard occurring. While the 32-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 71-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 tables show the annual probability for each hazard occurring across the parish:

Table 2-3: Probability of Future Hazard Reoccurrence.

Hazard	Probability				
	Natchitoches Parish (Unincorporated)	Ashland	Campti	Clarence	Goldonna
Drought	19%	19%	19%	19%	19%
Flooding	94%	6%	23%	3%	3%
Thunderstorms - Hail	100%	100%	100%	100%	100%
Thunderstorms - Lightning	19%	19%	19%	19%	19%
Thunderstorms - Winds	100%	100%	100%	100%	100%
Tornadoes	100%	100%	100%	100%	100%
Tropical Cyclones	26%	26%	26%	26%	26%
Wildfires	13%	13%	13%	13%	13%
Winter Weather	55%	55%	55%	55%	55%

Table 2-4: Probability of Future Hazard Reoccurrence.

Hazard	Probability				
	Natchez	Natchitoches	Powhatan	Provencal	Robeline
Drought	19%	19%	19%	19%	19%
Flooding	10%	81%	3%	6%	3%
Thunderstorms - Hail	100%	100%	100%	100%	100%
Thunderstorms - Lightning	19%	19%	19%	19%	19%
Thunderstorms - Winds	100%	100%	100%	100%	100%
Tornadoes	100%	100%	100%	100%	100%
Tropical Cyclones	26%	26%	26%	26%	26%
Wildfires	13%	13%	13%	13%	13%
Winter Weather	55%	55%	55%	55%	55%

As shown in the above tables, hailstorms, high winds, and tornadoes have the highest chance of occurrence in the parish (100%). These are followed by flooding for the unincorporated area of the parish (94%), flooding for the incorporated area of Natchitoches (81%), winter storms (55%), tropical cyclones (26%), flooding for the incorporated area of Campti (23%), drought and lightning (19%), and wildfires

(13%). Flooding for the incorporated areas of Ashland, Clarence, Goldonna, Natchez, Powhatan, Provencal, and Robeline all have a 10% annual chance of occurrence or less.

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 $5,637,643,000 in structures throughout the parish. The table below provides the total estimated value for each type of structure by occupancy.

Table 2-5: Estimated Total of Potential Losses throughout Natchitoches Parish.

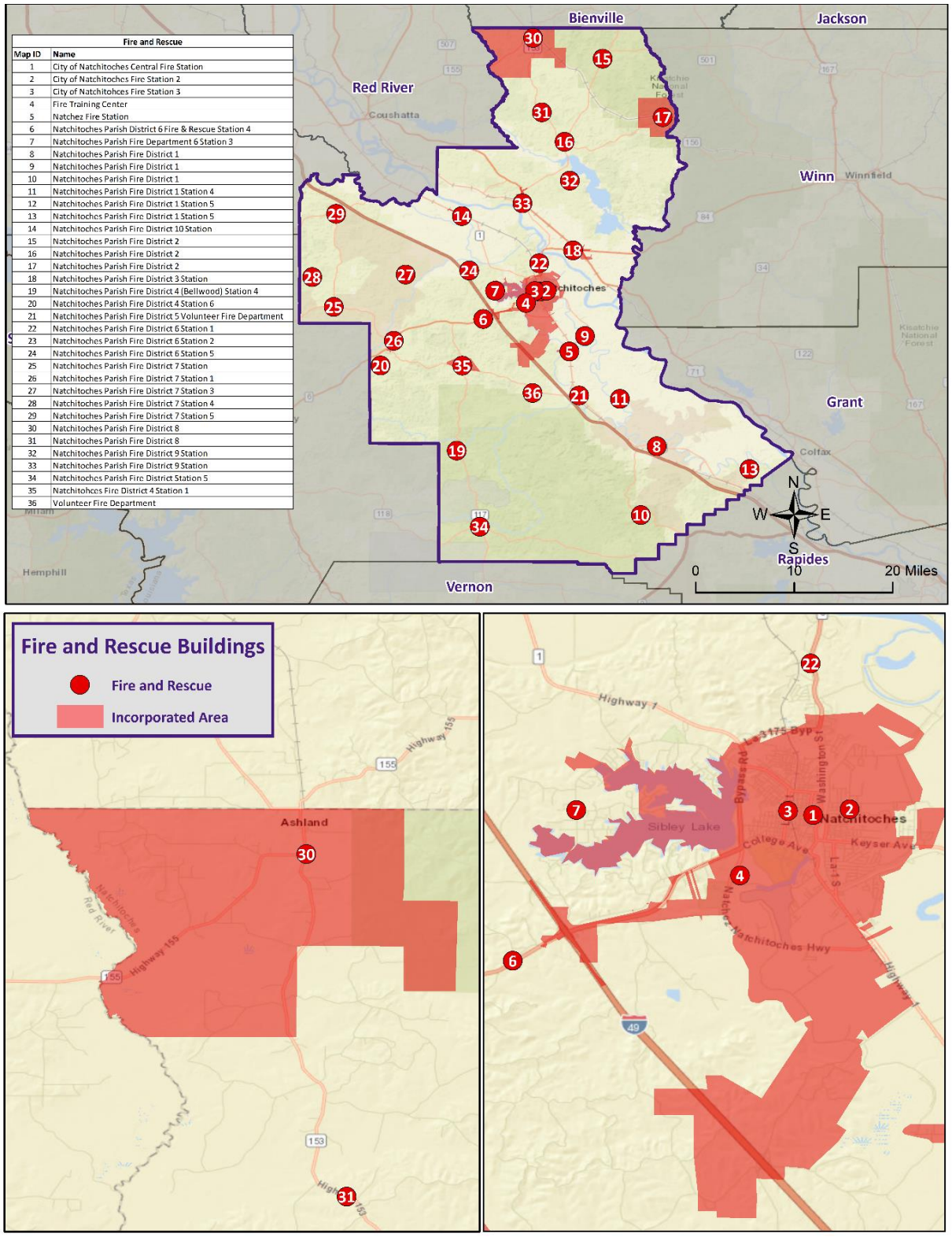
Occupancy	Natchitoches Parish	Unincorporated Area	Ashland	Campti	Clarence	Goldonna
Agricultural	$42,436,000	$29,528,000	$0	$0	$202,000	$0
Commercial	$954,815,000	$310,471,000	$2,458,000	$11,270,000	$2,182,000	$1,356,000
Government	$63,451,000	$18,530,000	$30,000	$8,197,000	$0	$386,000
Industrial	$139,937,000	$97,713,000	$0	$978,000	$0	$363,000
Religion	$242,768,000	$125,252,000	$1,026,000	$6,612,000	$0	$954,000
Residential	$4,041,410,000	$2,181,669,000	$14,827,000	$61,963,000	$15,383,000	$27,031,000
Education	$152,826,000	$29,773,000	$2,638,000	$0	$0	$2,864,000
Total	**$5,637,643,000**	**$2,792,936,000**	**$20,979,000**	**$89,020,000**	**$17,767,000**	**$32,954,000**

Table 2-6: Estimated Total of Potential Losses throughout Natchitoches Parish.

Occupancy	Natchez	Natchitoches	Powhatan	Provencal	Robeline
Agricultural	$0	$12,384,000	$0	$0	$322,000
Commercial	$1,810,000	$623,302,000	$280,000	$214,000	$1,472,000
Government	$0	$35,254,000	$0	$0	$1,054,000
Industrial	$0	$40,237,000	$0	$0	$646,000
Religion	$0	$104,660,000	$1,542,000	$0	$2,722,000
Residential	$26,320,000	$1,669,126,000	$3,856,000	$31,142,000	$10,093,000
Education	$0	$116,537,000	$0	$1,014,000	$0
Total	**$28,130,000**	**$2,601,500,000**	**$5,678,000**	**$32,370,000**	**$16,309,000**

Critical Facilities of the Parish

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



Fire and Rescue	
Map ID	Name
1	City of Natchitoches Central Fire Station
2	City of Natchitoches Fire Station 2
3	City of Natchitohces Fire Station 3
4	Fire Training Center
5	Natchez Fire Station
6	Natchitoches Parish District 6 Fire & Rescue Station 4
7	Natchitoches Parish Fire Department 6 Station 3
8	Natchitoches Parish Fire District 1
9	Natchitoches Parish Fire District 1
10	Natchitoches Parish Fire District 1
11	Natchitoches Parish Fire District 1 Station 4
12	Natchitoches Parish Fire District 1 Station 5
13	Natchitoches Parish Fire District 1 Station 5
14	Natchitoches Parish Fire District 10 Station
15	Natchitoches Parish Fire District 2
16	Natchitoches Parish Fire District 2
17	Natchitoches Parish Fire District 2
18	Natchitoches Parish Fire District 3 Station
19	Natchitoches Parish Fire District 4 (Bellwood) Station 4
20	Natchitoches Parish Fire District 4 Station 6
21	Natchitoches Parish Fire District 5 Volunteer Fire Department
22	Natchitoches Parish Fire District 6 Station 1
23	Natchitoches Parish Fire District 6 Station 2
24	Natchitoches Parish Fire District 6 Station 5
25	Natchitoches Parish Fire District 7 Station
26	Natchitoches Parish Fire District 7 Station 1
27	Natchitoches Parish Fire District 7 Station 3
28	Natchitoches Parish Fire District 7 Station 4
29	Natchitoches Parish Fire District 7 Station 5
30	Natchitoches Parish Fire District 8
31	Natchitoches Parish Fire District 8
32	Natchitoches Parish Fire District 9 Station
33	Natchitoches Parish Fire District 9 Station
34	Natchitoches Parish Fire District Station 5
35	Natchitohces Fire District 4 Station 1
36	Volunteer Fire Department

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

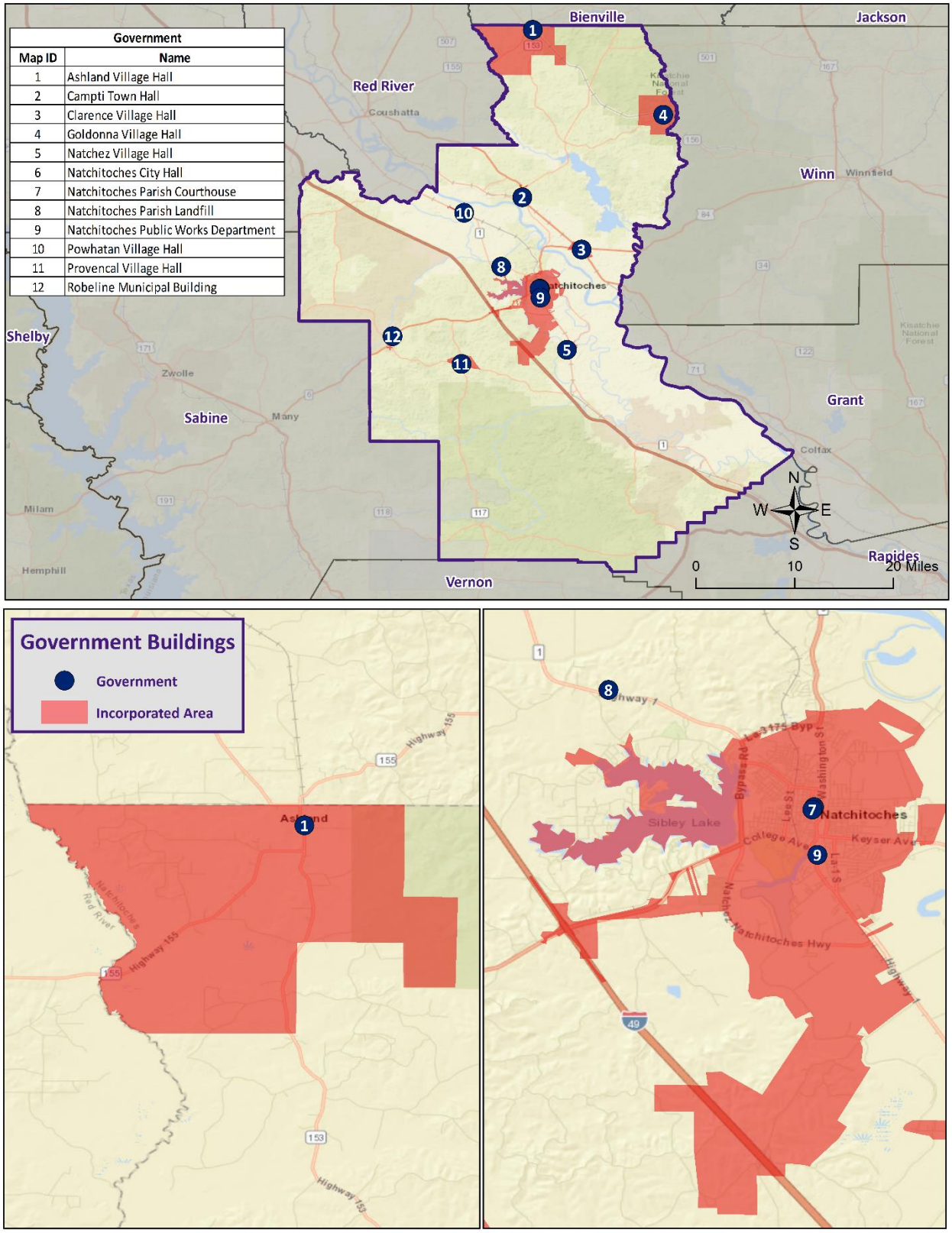


Figure 2-2: Government Buildings in Natchitoches Parish.

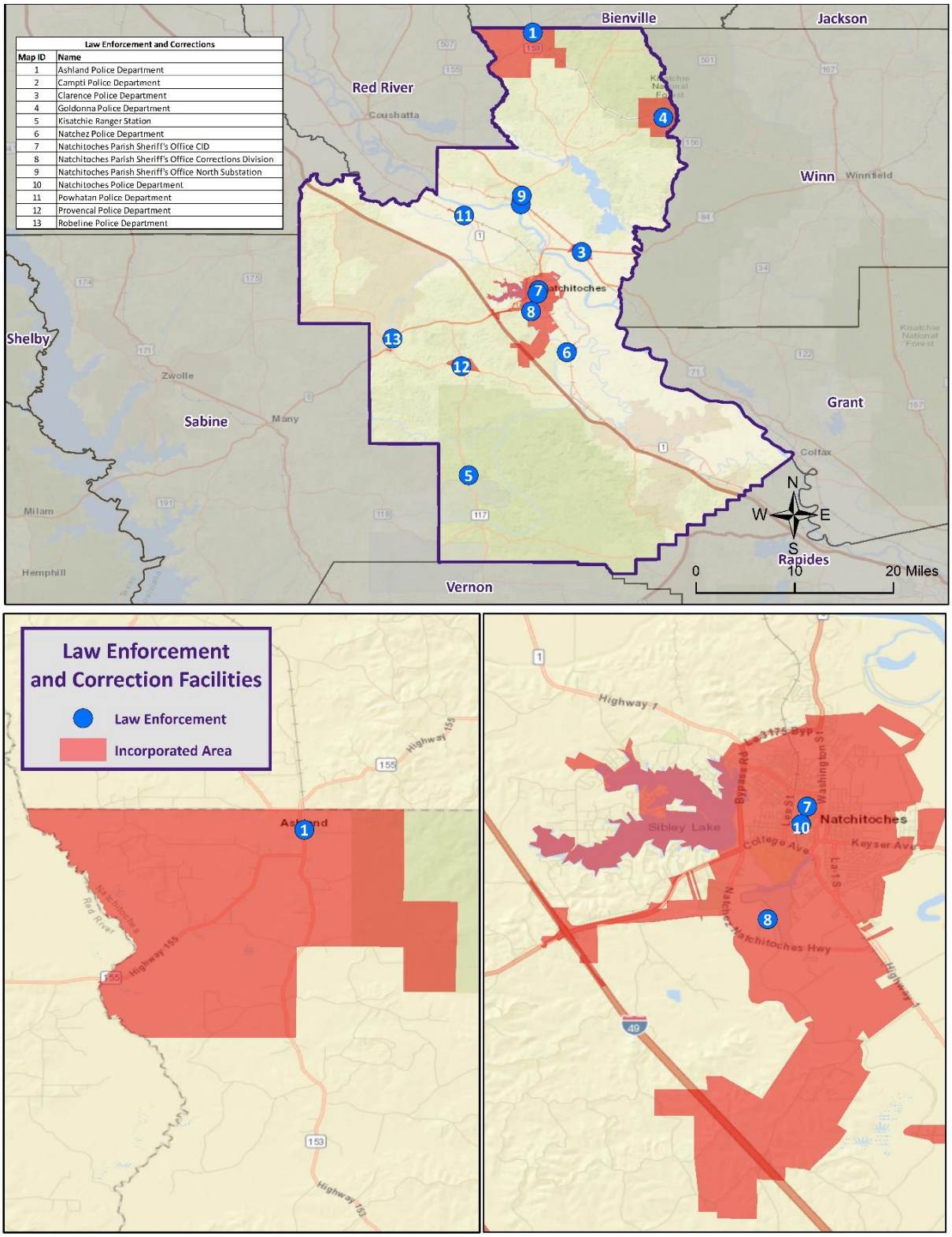


Figure 2-3: Law Enforcement Facilities in Natchitoches Parish.

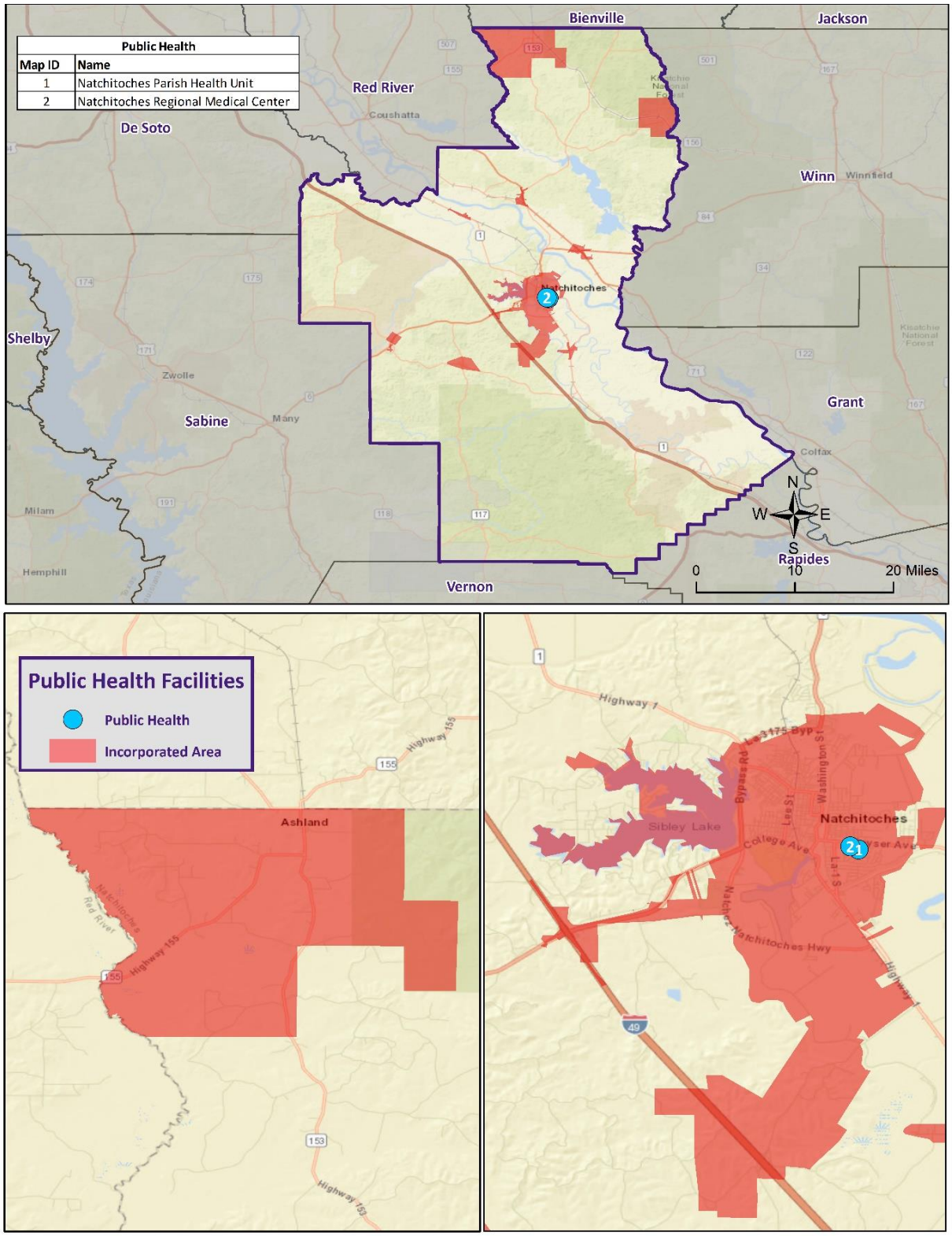


Figure 2-4: Public Health Facilities in Natchitoches Parish.

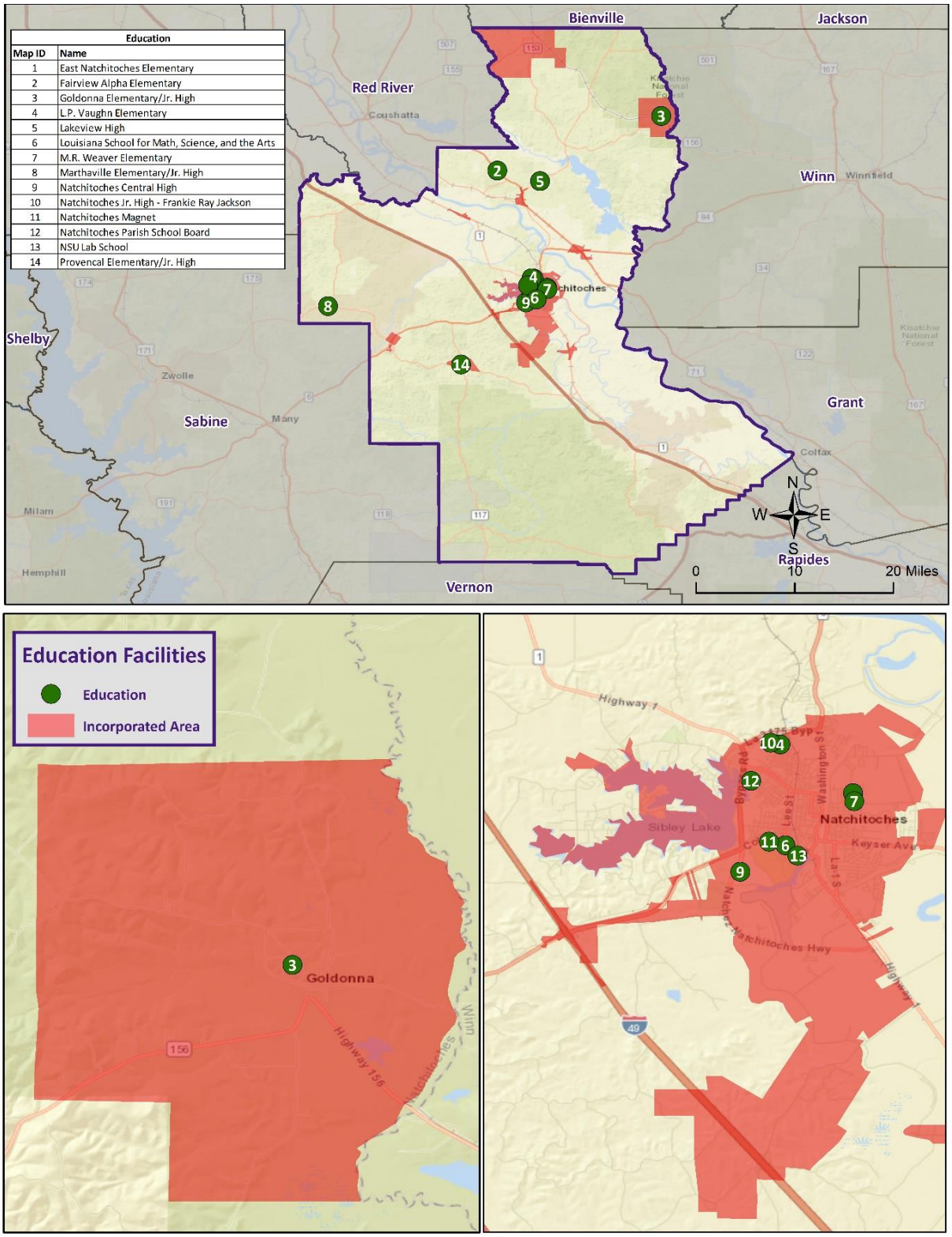


Figure 2-5: Educational Facilities in Natchitoches Parish.

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 Natchitoches 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 location. 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. Further, 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 Natchitoches 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.

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

Priority Risk Index and Hazard Risk

Hazard risk is determined by calculating the Risk Factor for each hazard impacting Natchitoches Parish. A summary of the PRI is found in the following table. 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 2-7: 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 2-8: 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 2-9: Risk Assessment for Natchitoches Parish.

Hazard	Probability	Impact	Spatial Extent	Warning Time	Duration	Overall Risk
Drought	3	2	4	2	3	**2.8**
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	3	3	2	4	3	**2.95**
Tropical Cyclones	3	4	4	1	4	**3.3**
Wildfires	3	3	4	4	2	**3.2**
Winter Storms	3	3	4	1	2	**2.75**

Future Development Trends

Natchitoches Parish experienced a decline in population between the years of 2000 and 2020, decreasing in population from 39,089 in the year 2000 to a population of 37,515 in the year 2020. Clarence experienced the largest population decline within the parish falling from a populace of 500 in 2010 to 326 in 2020 (34.8% overall decline). This is followed by the incorporated area of Robeline with a 32.8% overall decline, the incorporated area of Ashland with a 27.9% overall decline, the incorporated area of Powhatan with a 25.2% overall decline, the incorporated area of Natchez with a 18.2% overall decline, the incorporated area of Campti with a 16.1% overall decline, the incorporated area of Provencal with a 13.7% overall decline, the unincorporated area of the parish at 6.2% overall decline, the incorporated area of Natchitoches with a 1.6% overall decline, and the incorporated area of Goldonna with a 0.5% overall decline.

Natchitoches Parish experienced an increase in housing units between the years of 2000 and 2020, increasing in housing units from 16,890 in the year 2000 to 18,513 housing units in 2020. The incorporated area of Natchitoches experienced the largest growth of housing units from 2010 to 2020 increasing from 7,960 in 2010 to 8,432 in 2020. This is followed by the incorporated area of Goldonna with a 1% overall increase. The unincorporated area of the parish and the incorporated areas of Ashland, Campti, Clarence, Natchez, Powhatan, Provencal, and Robeline all experienced a decline in housing units during this same time period. The future population and number of buildings can be estimated using U.S. Census Bureau housing and population data.

The following tables show population and housing unit estimates from 2000 to 2020:

Table 2-10: Population Growth Rate for Natchitoches Parish.

Total Population	Natchitoches Parish	Unincorporated Area	Ashland	Campti	Clarence	Goldonna
1-Apr-00	39,089	16,924	288	1,087	502	453
1-Apr-10	39,605	17,490	269	1,057	500	430
1-Apr-20	37,515	16,406	194	887	326	428
Population Growth between 2000 – 2010	1.3%	3.3%	-6.6%	-2.8%	-0.4%	-5.1%
Average Annual Growth Rate between 2000 – 2010	0.1%	0.3%	-0.7%	-0.3%	0.0%	-0.5%
Population Growth between 2010 – 2020	-5.3%	-6.2%	-27.9%	-16.1%	-34.8%	-0.5%
Average Annual Growth Rate between 2010 – 2020	-0.53%	-0.62%	-2.79%	-1.61%	-3.48%	-0.05%

Table 2-11: Population Growth Rate for Natchitoches Parish.

Total Population	Natchez	Natchitoches	Powhatan	Provencal	Robeline
1-Apr-00	584	18,213	142	708	188
1-Apr-10	598	18,340	135	612	174
1-Apr-20	489	18,039	101	528	117
Population Growth between 2000 – 2010	2.4%	0.7%	-4.9%	-13.6%	-7.4%
Average Annual Growth Rate between 2000 – 2010	0.2%	0.1%	-0.5%	-1.4%	-0.7%
Population Growth between 2010 – 2020	-18.2%	-1.6%	-25.2%	-13.7%	-32.8%
Average Annual Growth Rate between 2010 – 2020	-1.82%	-0.16%	-2.52%	-1.37%	-3.28%

Table 2-12: Housing Growth Rate for Natchitoches Parish.

Total Population	Natchitoches Parish	Unincorporated Area	Ashland	Campti	Clarence	Goldonna
1-Apr-00	16,890	8,401	149	462	205	192
1-Apr-10	18,587	8,848	154	526	204	205
1-Apr-20	18,513	8,440	123	486	179	207
Housing Growth between 2000 – 2010	10.0%	5.3%	3.4%	13.9%	-0.5%	6.8%
Average Annual Growth Rate between 2000 – 2010	1.0%	0.5%	0.3%	1.4%	0.0%	0.7%
Housing Growth between 2010 – 2020	-0.4%	-4.6%	-20.1%	-7.6%	-12.3%	1.0%
Average Annual Growth Rate between 2010 – 2020	0.0%	-0.5%	-2.0%	-0.8%	-1.2%	0.1%

Table 2-13: Housing Growth Rate for Natchitoches Parish.

Total Population	Natchez	Natchitoches	Powhatan	Provencal	Robeline
1-Apr-00	264	6,731	81	308	97
1-Apr-10	291	7,906	74	288	91
1-Apr-20	251	8,432	70	254	71
Housing Growth between 2000 – 2010	10.2%	17.5%	-8.6%	-6.5%	-6.2%
Average Annual Growth Rate between 2000 – 2010	1.0%	1.7%	-0.9%	-0.6%	-0.6%
Housing Growth between 2010 – 2020	-13.7%	6.7%	-5.4%	-11.8%	-22.0%
Average Annual Growth Rate between 2010 – 2020	-1.4%	0.7%	-0.5%	-1.2%	-2.2%

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 Natchitoches Parish from the present until 2030. A summary of estimated future impacts is shown in the table on the next page. Dollar values are expressed in future costs and assume an annual rate of inflation of 1.02%.

Table 2-14: Estimated Future Impacts, 2020 - 2030.
(Source: Hazus, US Census Bureau)

Hazard / Impact	Total in Parish (2020)	Hazard Area (2020)	Hazard Area (2025)	Hazard Area (2030)
Flood Damage				
Structures	18,532	2,351	2,363	2,372
Value of Structures	$5,700,842,106	$723,185,595	$764,639,933	$799,507,867
# of People	37,553	4,764	4,788	4,807
Tropical Cyclone Damage				
Structures	18,532	18,532	18,624	18,699
Value of Structures	$5,700,842,106	$5,700,842,106	$6,027,624,937	$6,302,487,421
# of People	37,553	37,553	37,741	37,892

Both population and housing numbers have remained relatively steady throughout the parish since the last update to the Natchitoches Parish Hazard Mitigation Plan. With that in mind, Natchitoches Parish is mindful in offsetting any new development around the parish with appropriate mitigative actions. Initiatives such as active floodplain management have regulated the development of flood prone areas to continue supporting and encouraging safer communities within Natchitoches Parish. The small amount of development that has occurred since 2016 has not in any knowing way altered the parish's vulnerability to natural hazards.

Land Use

The Natchitoches Parish Land Use table is provided below. Residential, commercial, and industrial areas account for only 4% of the parish's land use. Forest land at 407,647 acres is the largest category accounting for 49% of land in the parish. The parish also consists of agricultural land (28%), wetlands (14%), and water areas (4%).

Table 2-15: Natchitoches Parish Land Use.
(Source: USGS Land Use Map)

Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	234,952	28%
Wetlands	117,482	14%
Forest Land (Not including forested wetlands)	407,647	49%
Urban/Development	36,835	4%
Water	35,387	4%

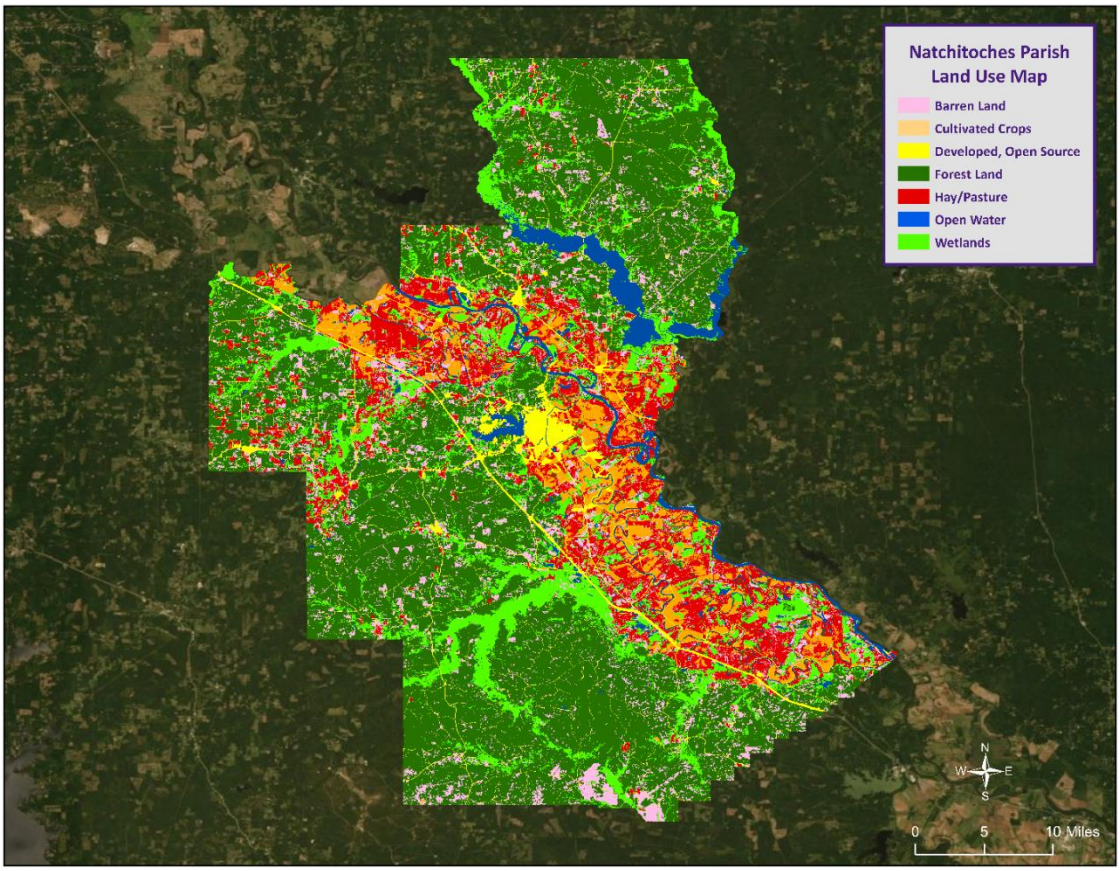


Figure 2-6: Natchitoches Parish Land Use Map.
(Source: USGS Land Use Map)

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 demise) of agricultural drought is quick, as crops need water every few days; once they get rainfall, they improve. But hydrologic drought sets in (and is alleviated) only over longer time periods. A few dry days will not drain a reservoir, but a few rain showers cannot replenish it either. Moreover, different geographical regions define drought differently based on the deviation from local, normal precipitation. And 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), droughts can potentially have direct, disastrous effects on human populations. The indirect consequences of drought, such as unemployment, reduced tax revenues, increased food prices, reduced outdoor recreation opportunities, higher energy costs as water levels in reservoirs decrease and consumption increases, and water rationing, are not often fully known. This complex web of impacts causes drought to affect people and economies well beyond the area physically experiencing the drought.

This hazard is often measured using the Palmer Drought Severity Index (PDSI, also known operationally as the Palmer Drought Index). The PDSI, first developed by Wayne Palmer in a 1965 paper for the U.S. Weather Bureau, measures drought through recent precipitation and temperature data with regard to a basic supply-and-demand model of soil moisture. It is most effective in long-term calculations. Three other indices used to measure drought are the Palmer Hydrologic Drought Index (PHDI), the Crop Moisture Index (CMI), which is derived from the PDSI, and the Keetch-Byram Drought Index (KBDI), created by John Keetch and George Byram in 1968 for the U.S. Forest Service. The KBDI is used mainly for predicting the likelihood of wildfire outbreaks. As a compromise, 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 2-16* 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 2-16: 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 no drought conditions throughout the parish.

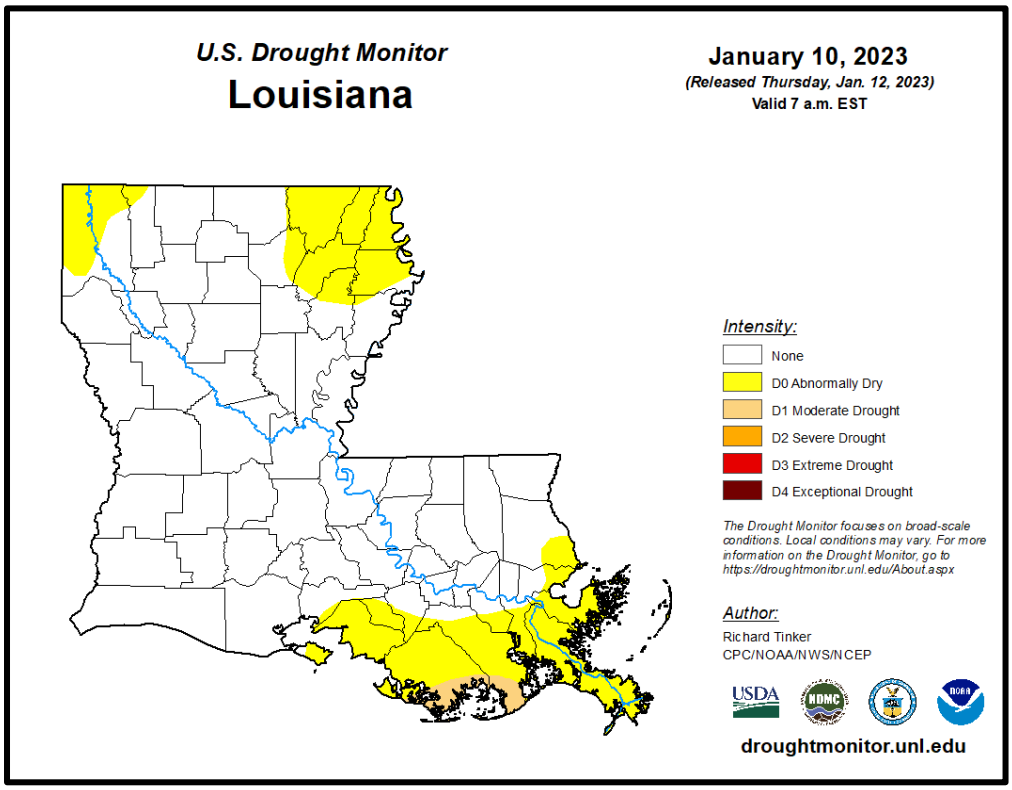


Figure 2-7: United States Drought Monitor for the State of Louisiana and its Parishes. (Source: The National Drought Mitigation Center)

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 Natchitoches Parish is on the agricultural community. The worst-case drought scenario for Natchitoches Parish would be a severe drought (D3).

Previous Occurrences / Extent

Historically, there have been six drought incidents in Natchitoches Parish. Drought events have ranged from Mild to Extreme per the National Climatic Data Center. Since the last update in 2016, there has been one drought event within the boundaries of Natchitoches Parish.

Table 2-17: Historical Droughts in Natchitoches Parish since the 2016 Update.

Date	Impacts	Crop Damage	Magnitude
December 2017 – February 2018	Severe (D2) drought conditions encompassed much of Northcentral Louisiana to start the second week of December. Including the first half of December, the total rainfall amounts that fell during the Fall months (September/October/November) only ranged from 2-4 inches areawide, which was only 15-25% of normal whereas temperatures during the period remained above normal as well.	$0	D2

Frequency / Probability

Based on six drought events since 1990, the annual chance of occurrence of a drought event occurring within a given year is calculated at 19% for Natchitoches Parish.

Estimated Potential Loses

According to the NCEI Storm Events Database, there have been six drought events which have impacted Natchitoches Parish, resulting in $990,000 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 Natchitoches Parish.

Table 2-18: Agricultural Exposure by Crop Type for Droughts in Natchitoches Parish. (Source: LSU AG Center 2021 Parish Totals)

Agricultural Exposure by Type for Drought			
Cotton	**Forestry**	**Hay**	**Soybeans**
4,745,211	$44,399,031	$6,111,409	$18,823,211

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

Vulnerability

See *Appendix C: Critical Facilities* for parish and municipality buildings that are susceptible to drought.

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, in Natchitoches Parish, 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 related to 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 Amite River. Not only are the magnitudes of 100-year events different between rivers, but they can also be different along any 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, river, 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 2-8*.

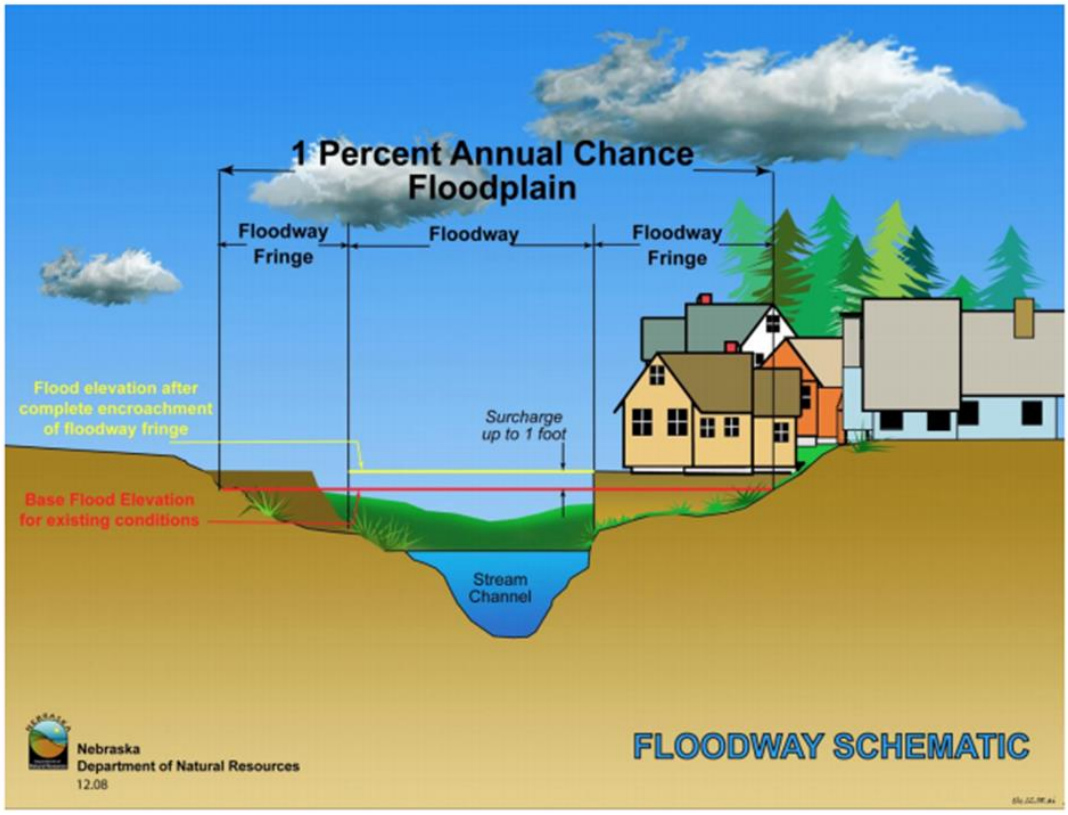


Figure 2-8: Schematic of 100-year Floodplain. The Special Flood Hazard Area (SFHA) extends to the end of the floodway fringe.
(Source: Nebraska Department of Natural Resources)

A SFHA is the land area covered by the floodwaters of the base flood (red line in *Figure 2-8*), 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 bumped before it has time to completely dry. The longer these materials are saturated, the more moisture, sediment, and pollutants they absorb.

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

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

Repetitive Loss Properties

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

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

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

a. It is covered under a contract for flood insurance made available under the NFIP; and
b. It has incurred flood related damage –
    1) For which four or more separate claims payments have been made under flood insurance coverage with the amount of each claim exceeding $5,000 and with the cumulative amount of such 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 Natchitoches Parish are provided in the table below:

Table 2-19: Repetitive Loss Structures for Natchitoches Parish.

Jurisdiction	Number of Structures	Residential	Commercial	Government	Total Claims	Total Claims Paid	Average Claim Paid
Natchitoches Parish (Unincorporated)	50	48	2	0	169	$3,570,087	$21,125
Ashland	0	0	0	0	0	$0	$0
Campti	0	0	0	0	0	$0	$0
Clarence	5	5	0	0	24	$263,158	$10,965
Goldonna	0	0	0	0	0	$0	$0
Natchez	2	1	1	0	5	$48,219	$9,644
Natchitoches	4	3	1	0	10	$272,364	$27,236
Powhatan	0	0	0	0	0	$0	$0
Provencal	0	0	0	0	0	$0	$0
Robeline	0	0	0	0	0	$0	$0
Total	**61**	**57**	**4**	**0**	**208**	**$4,153,828**	**$19,970**

All 61 repetitive loss structures were geocoded in order to provide an overview of where the repetitive loss structures are located throughout the parish. *Figure 2-9* shows the approximate location of the structures, while *Figure 2-10* 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 area of Natchitoches.

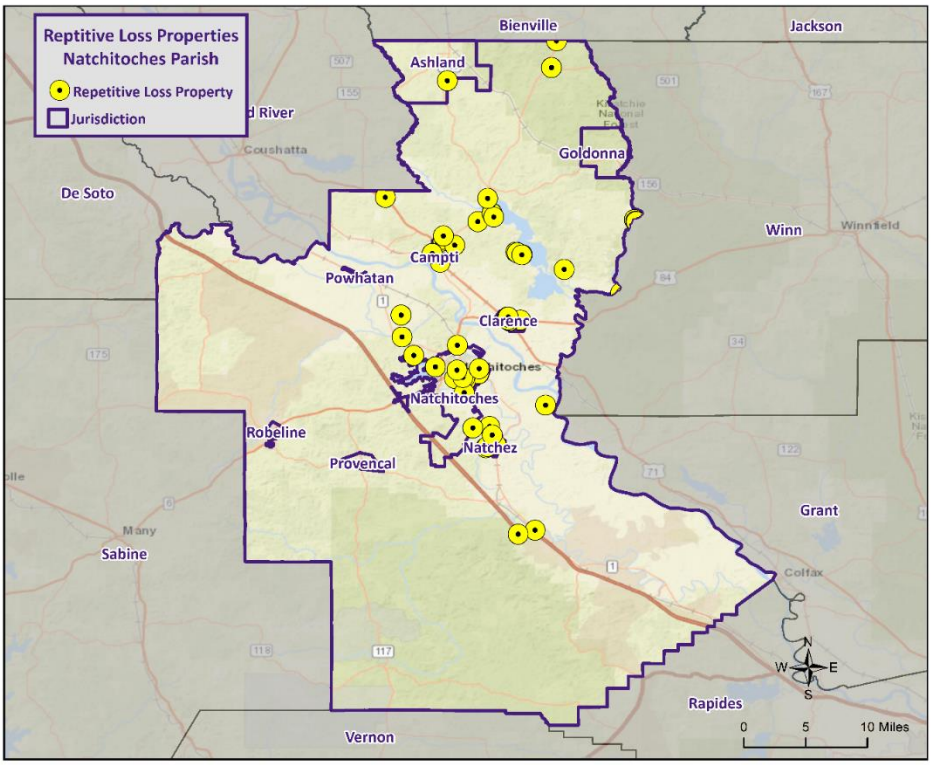


Figure 2-9: Repetitive Loss Properties in Natchitoches Parish.

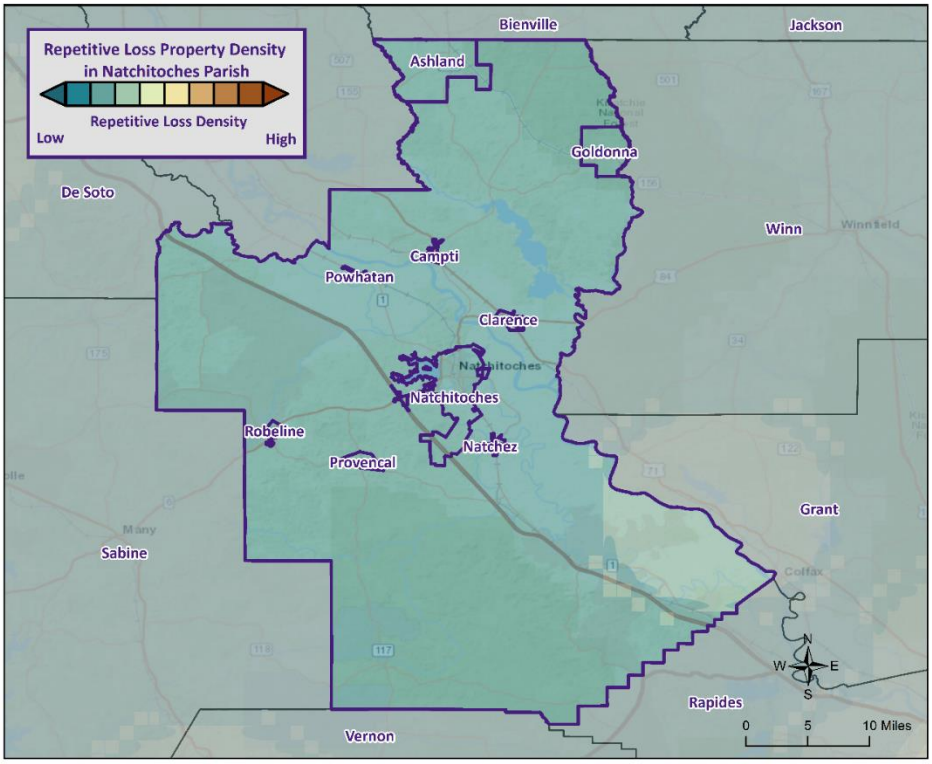


Figure 2-10: Repetitive Loss Property Densities in Natchitoches Parish.

National Flood Insurance Program

Flood insurance statistics indicate that Natchitoches Parish has 492 flood insurance policies with the NFIP, with total annual premiums of $337,419. Natchitoches Parish and the jurisdictions of Ashland, Campti, Clarence, Goldonna, Natchez, Natchitoches, Provencal, and Robeline are all participants in the NFIP. The incorporated area of Powhatan does not participate in the NFIP. This particular jurisdiction is very limited when it comes to personnel, funding, and resources needed to administer the NFIP program. The jurisdiction has determined that participation in the NFIP has little or no benefit or impact on the residents or the economies of the jurisdiction. Natchitoches 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 Natchitoches Parish and its jurisdictions is provided in the tables to follow.

Table 2-20: Summary of NFIP Policies for Natchitoches Parish.

Location	No. of Insured Structures	Total Insurance Coverage Value	Annual Premiums Paid	No. of Insurance Claims Filed Since 1978	Total Loss Payments
Natchitoches Parish	326	$71,818,800	$211,063	404	$8,198,213
Ashland	2	$319,000	$1,942	0	$0
Campti	1	$280,000	$438	1	$3,320
Clarence	40	$2,924,000	$27,078	41	$330,938
Goldonna	1	$34,000	$608	0	$0
Natchez	10	$1,136,700	$4,635	11	$131,903
Natchitoches	112	$35,710,900	$91,655	53	$958,009
Powhatan	0	$0	$0	0	$0
Provencal	0	$0	$0	0	$0
Robeline	0	$0	$0	0	$0
Total	**492**	**$112,223,400**	**$337,419**	**510**	**$9,622,383**

Table 2-21: Summary of Community Flood Maps for Natchitoches Parish.

CID	Community Name	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Date Joined the NFIP	Tribal
220263A	Ashland	3/7/1978	9/18/1987	7/6/15 (M)	8/24/2016	No
220401A	Campti	3/7/1978	9/18/1987	7/6/15 (M)	7/3/2003	No
220130A	Clarence	3/1/1974	9/18/1987	7/6/2015	9/18/1987	No
220290A	Goldonna	9/19/1975	6/29/1982	7/16/15 (M)	6/29/1982	No
220370A	Natchez	6/19/1979	9/18/1987	7/6/2015	9/18/1987	No
220129A	Natchitoches Parish	3/7/1978	9/18/1987	7/6/2015	9/18/1987	No
220131A	Natchitoches	7/19/1974	9/18/1987	7/6/2015	9/18/1987	No
220132A	Provencal	5/24/1974	11/1/1992	7/16/15 (M)	11/1/1992	No
220133A	Robeline	4/12/1974	8/5/1985	7/6/2015	8/5/1985	No

According to the Community Rating System (CRS) list of eligible communities dated October 1, 2022, neither Natchitoches Parish nor the jurisdictions of Ashland, Campti, Clarence, Goldonna, Natchez, Natchitoches, Provencal, and Robeline 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 Natchitoches 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 Natchitoches 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 crests at flood stage levels, causing extensive flooding in low-lying areas.

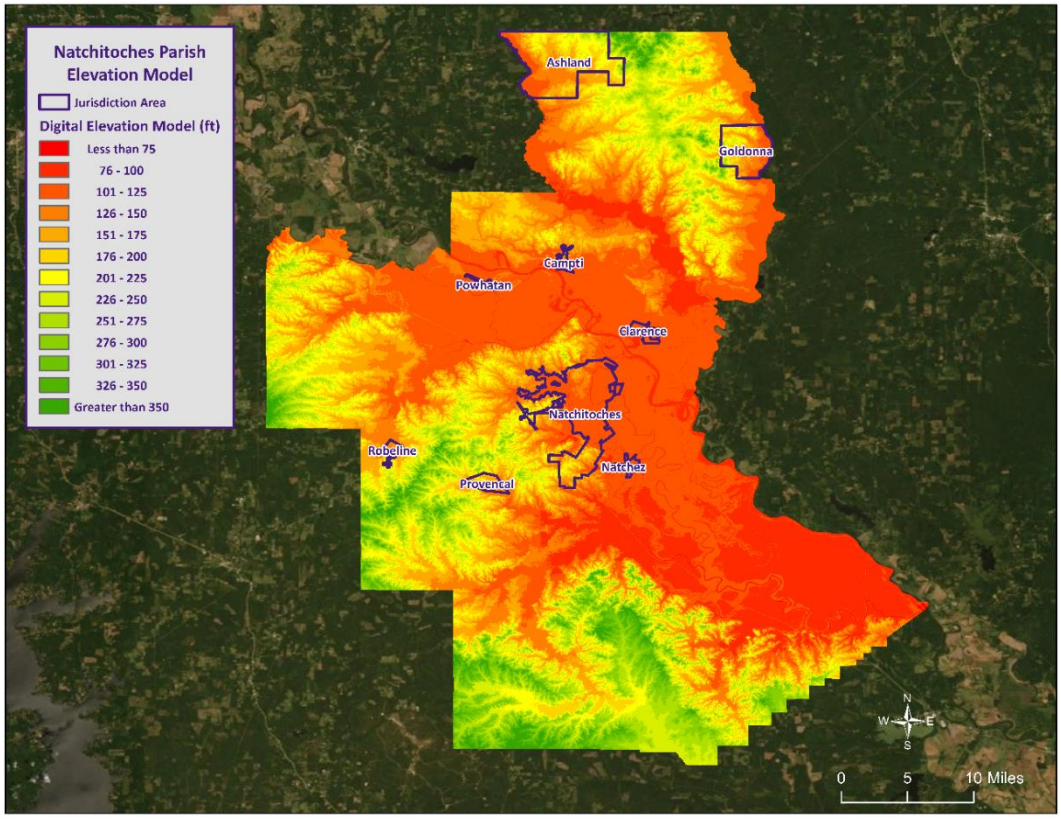


Figure 2-11: Elevation throughout Natchitoches Parish.

The digital elevation model (DEM) for Natchitoches Parish is instructive in visualizing where the low-lying and high-risk areas are for the parish. Elevations in the parish range from less than 75 feet (NAVD88) to over 350 feet (NAVD88). The highest elevations in the parish are approximately 350 feet (NAVD88), located in the unincorporated area of the parish. The incorporated areas range in elevation from 105 to 226 feet (NAVD88), with Natchez averaging 105 feet (NAVD88), Clarence averaging 115 feet (NAVD88), Natchitoches averaging 118 feet (NAVD88), Powhatan averaging 121 feet (NAVD88), Campti averaging 128 feet (NAVD88), Goldonna averaging 144 feet (NAVD88), Robeline averaging 169 feet (NAVD88), Provencal averaging 171 feet (NAVD88), and Ashland averaging 226 feet (NAVD88).

Location

Natchitoches Parish has experienced significant flooding in its history and can expect more in the future. The parish is located almost entirely within the Red River Basin. The topography consists of hills in the western portion and the broad alluvial valley of the Red River in the eastern portion. The flooding that does occur in the parish is primarily experienced in the alluvial valley, where drainage is poor and where most of the population is centered.

There are two main drainage outlets for Natchitoches Parish. Bayou Pierre drains the northern part of the parish, and the lower Cane River drains the southern part of the Parish. Flooding problems in Natchitoches Parish most often occur when the Red River is at flood stage and can back up into the Cane River. However, large amounts of local rain in a short period of time can cause isolated flooding, regardless of the stage of the Red River.

Based on previous flood events, the worst-case scenarios are based on several different types of flooding events. Stormwater excesses and riverine flooding primarily affect the low-lying areas of the parish, and flood depths of up to eight feet can be expected in the unincorporated areas of the parish. The incorporated areas of Natchitoches, Natchez, and Campti can expect flood depths from four to six feet, while the incorporated areas of Ashland, Clarence, Goldonna, Powhatan, Provencal, and Robeline can expect flooding levels of approximately two to four feet.

The following are flood zone maps displaying 100- and 500-year flood zones for Natchitoches Parish and the incorporated jurisdictions:

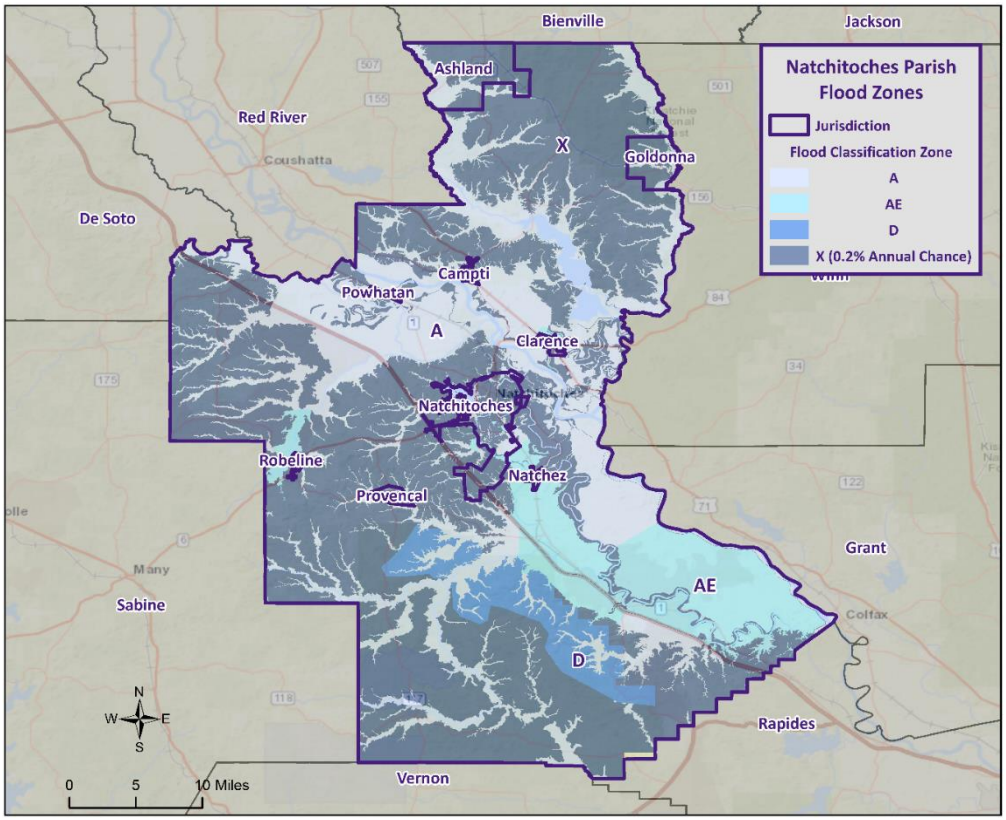


Figure 2-12: Natchitoches Parish Areas within the Flood Zones.

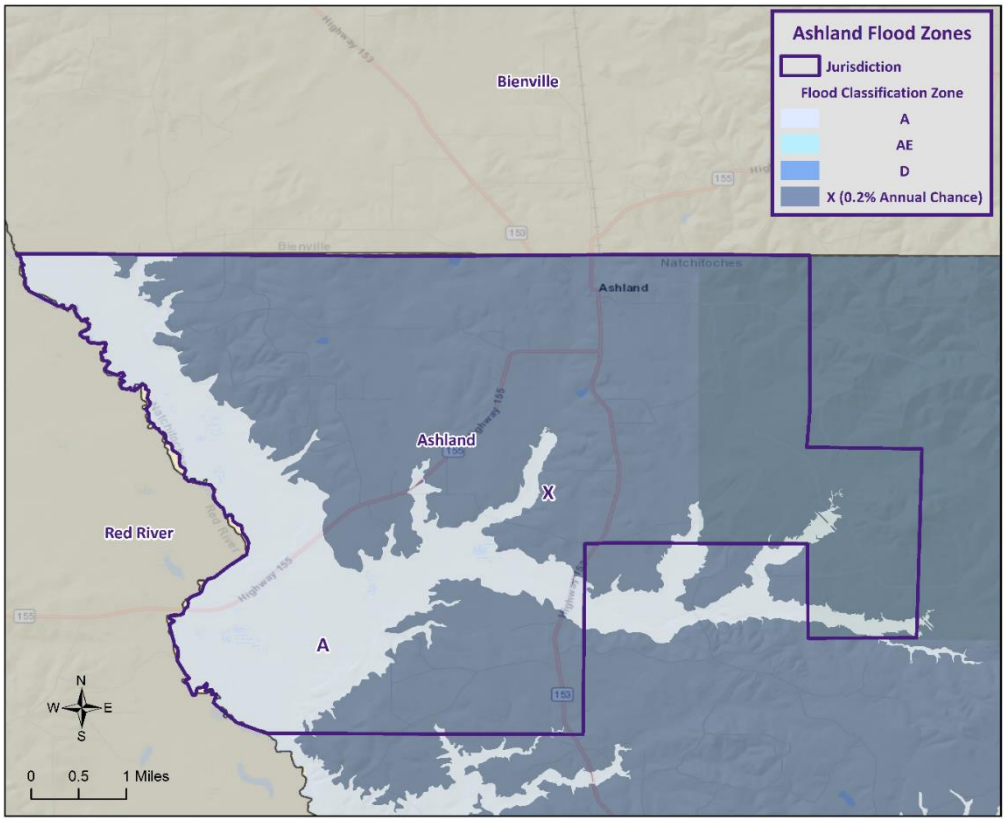


Figure 2-13: Ashland Areas within the Flood Zones.

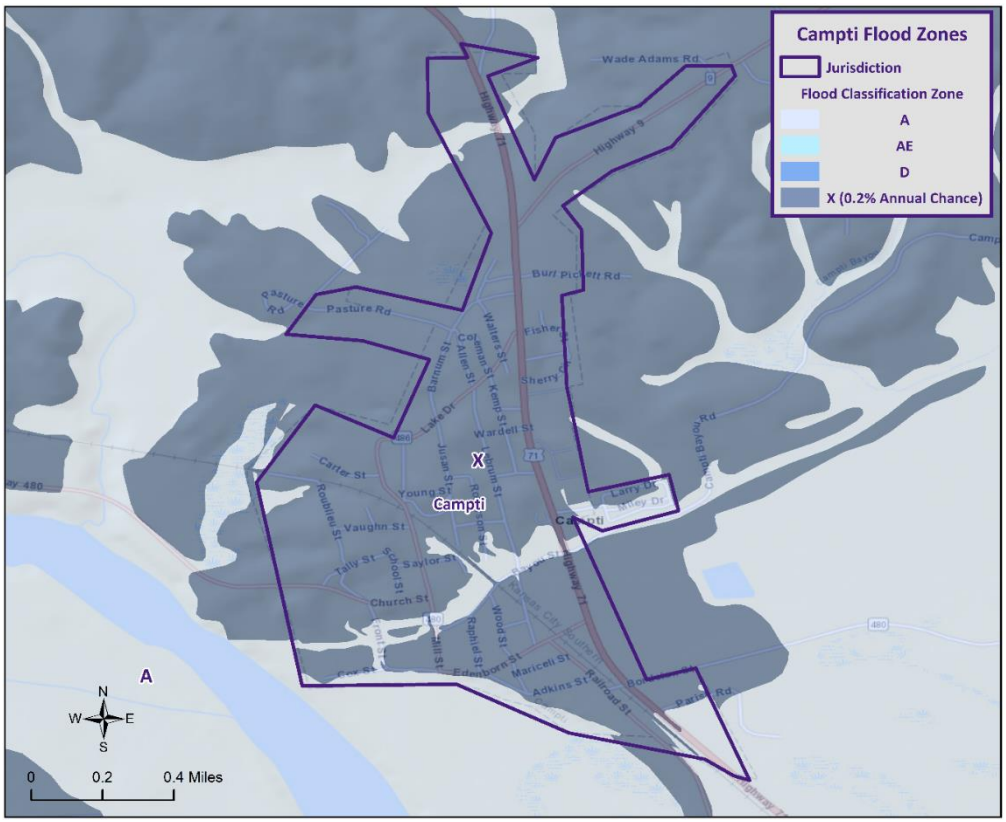


Figure 2-14: Campti Areas within the Flood Zones.

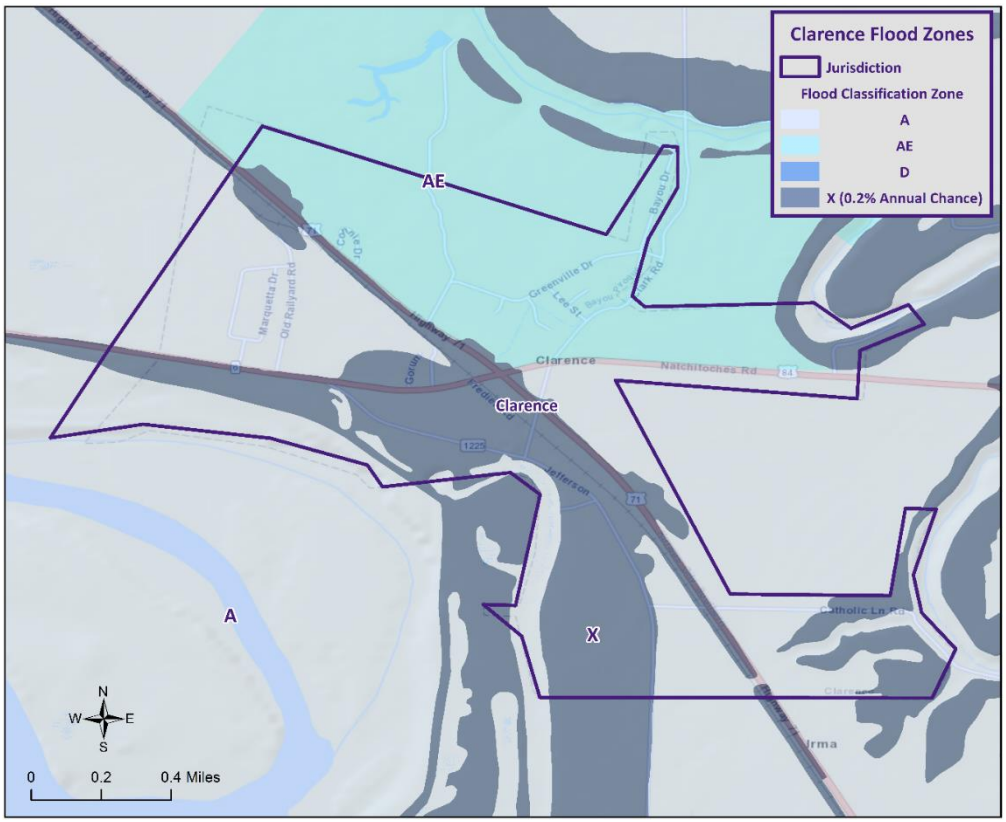


Figure 2-15: Clarence Areas within the Flood Zones.

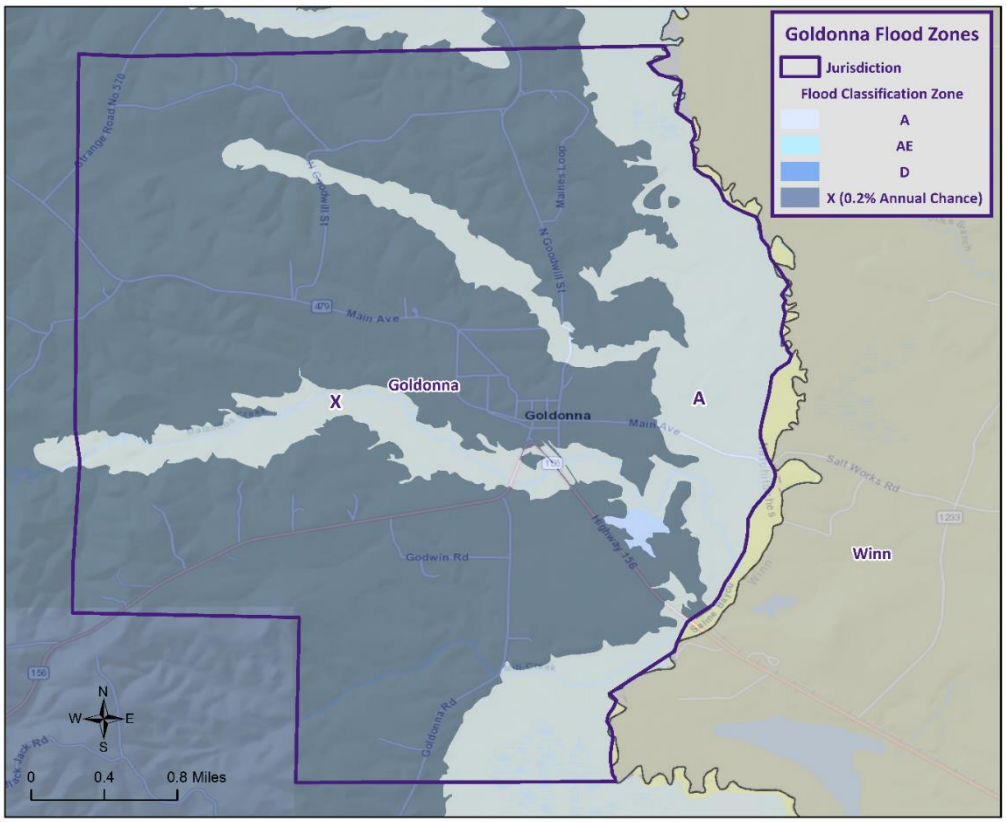


Figure 2-16: Goldonna Areas within the Flood Zones.

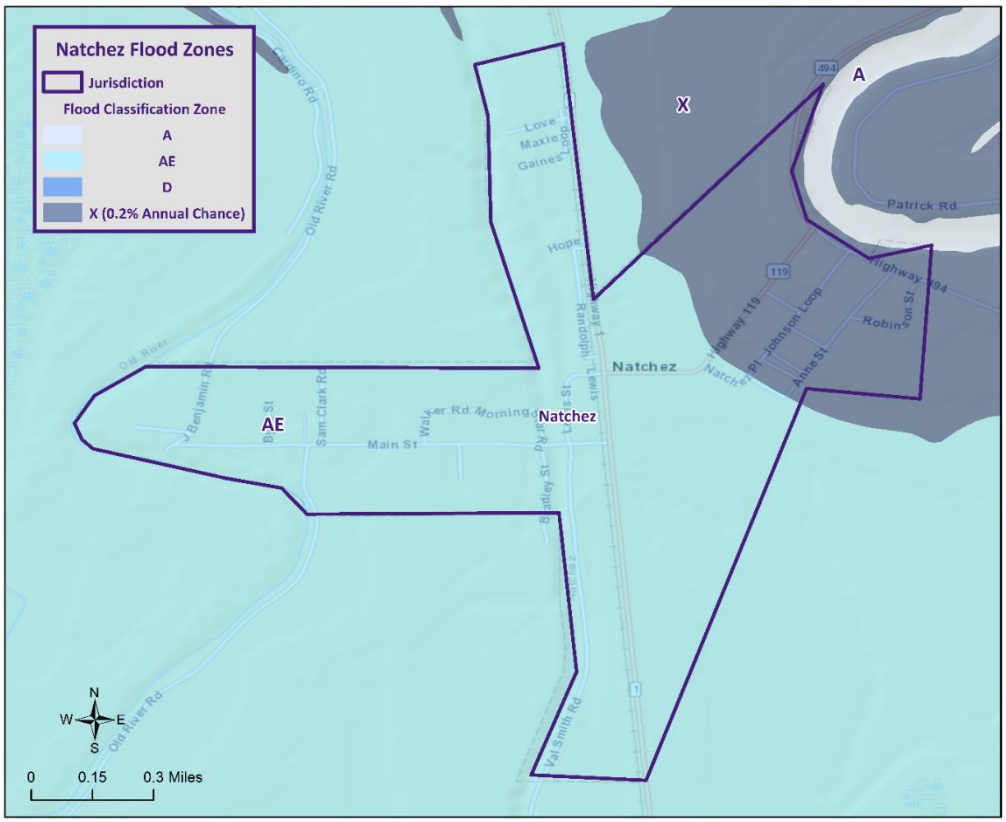


Figure 2-17: Natchez Areas within the Flood Zones.

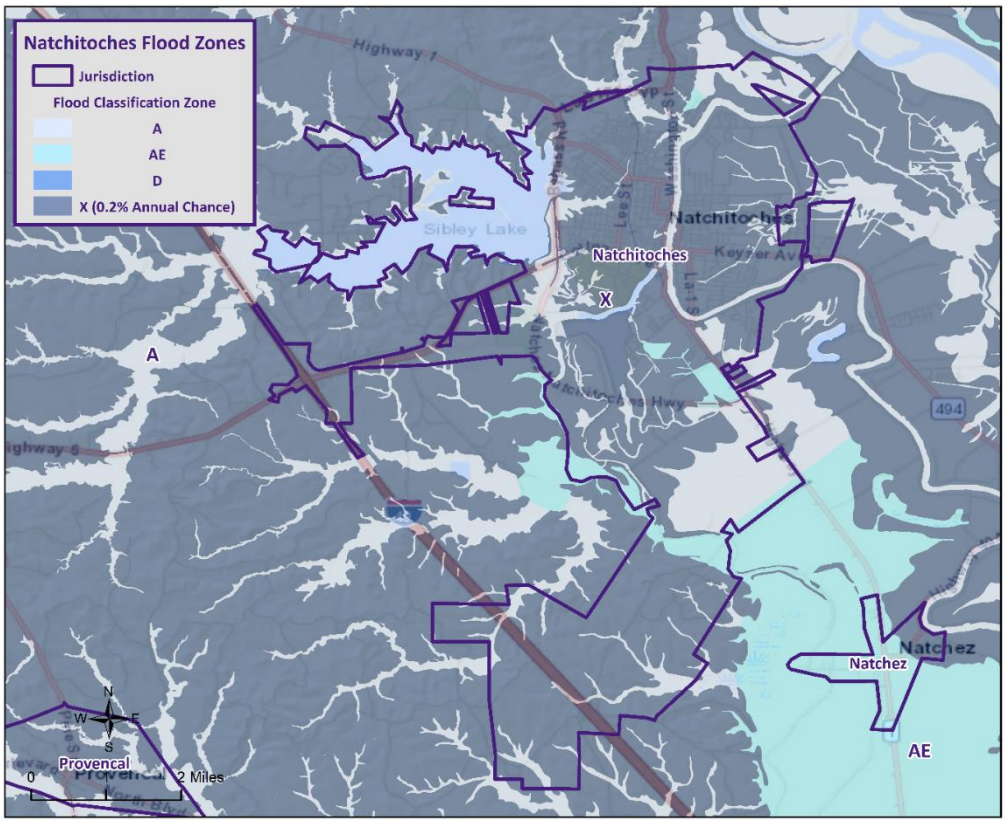


Figure 2-18: Natchitoches Areas within the Flood Zones.

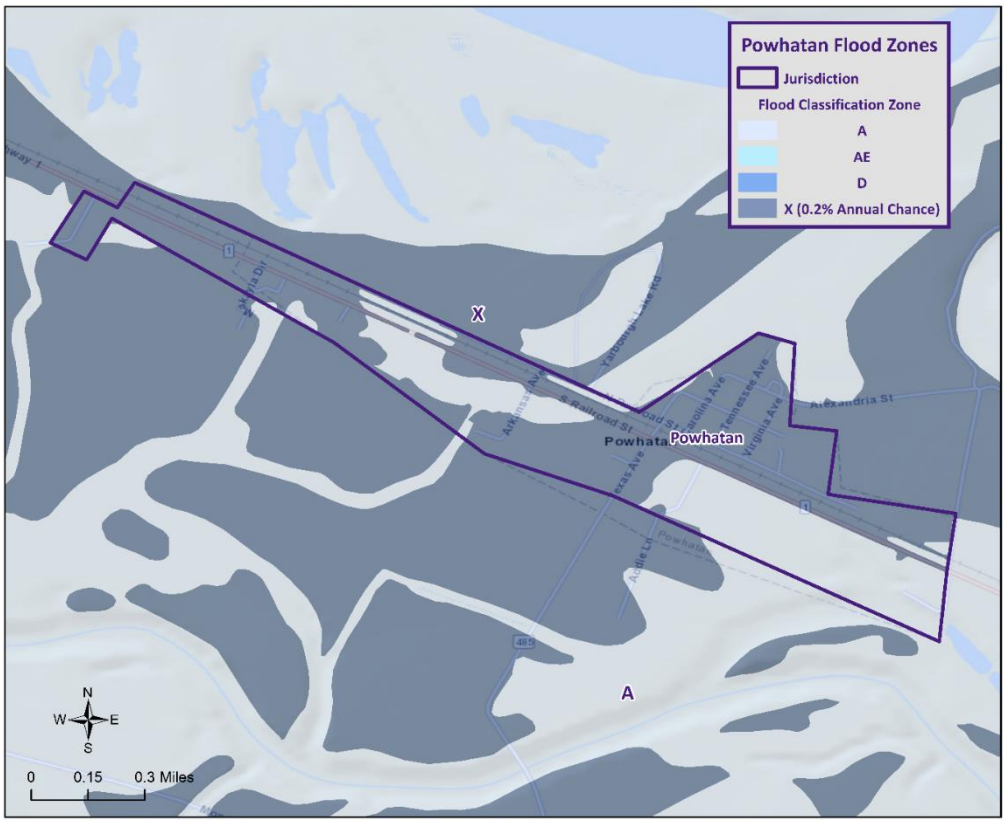


Figure 2-19: Powhatan Areas within the Flood Zones.

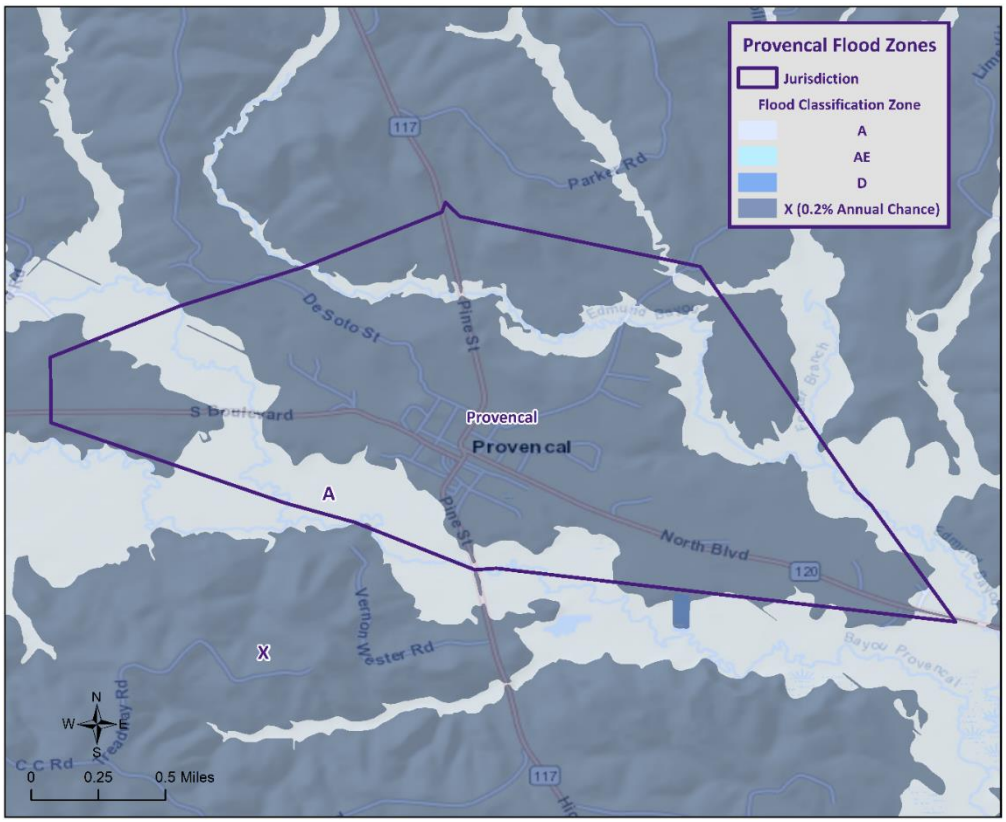


Figure 2-20: Provencal Areas within the Flood Zones.

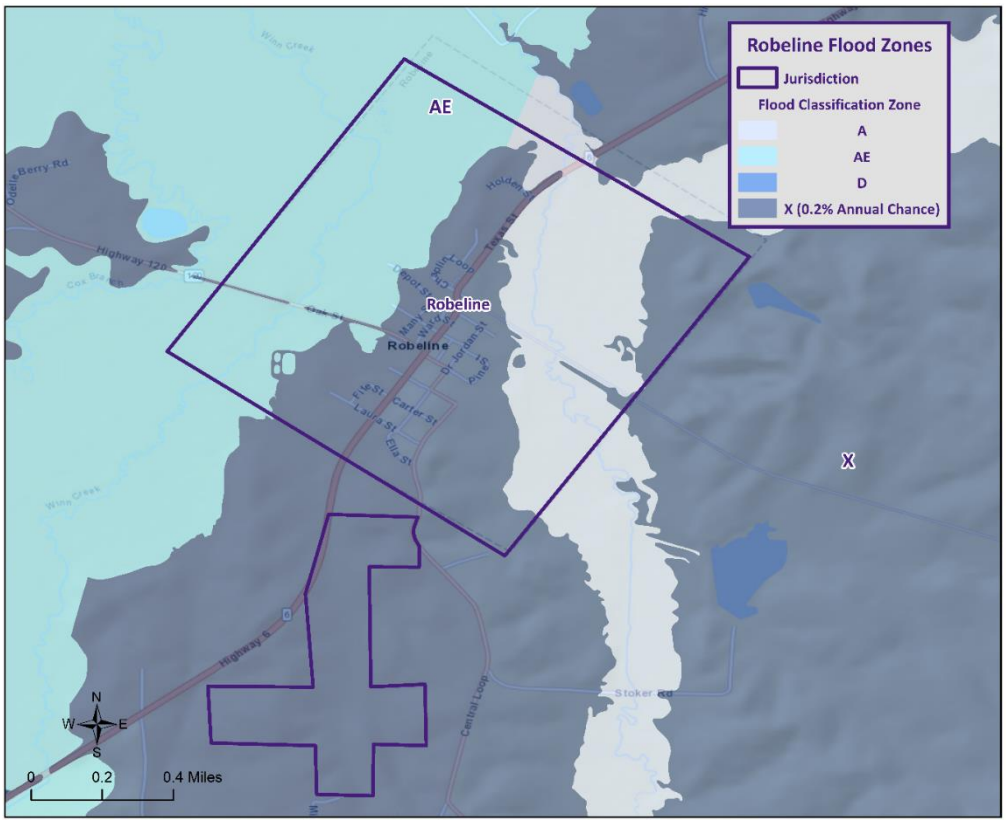


Figure 2-21: Robeline Areas within the Flood Zones.

Previous Occurrences / Extents

Historically, there have been 66 flooding events that have caused significant flooding in Natchitoches Parish and its jurisdictions between 1990 and 2021. Below is a brief synopsis of the flooding events which occurred since the last Natchitoches Parish HMP Update in 2016.

Table 2-22: Historical Floods in Natchitoches Parish with Locations since the 2016 Natchitoches Parish HMP Update.

Date	Extents	Type of Flooding	Estimated Damages	Location
June 23, 2017	Several roads were closed in the Campti community from excessive heavy rainfall.	Flash Flood	$0	CAMPTI
August 30, 2017	Highway 153 near Red Nelson Road south of Ashland was closed due to flooding.	Flash Flood	$0	SKIDDER
February 21, 2018	Several roads throughout Natchitoches Parish were covered in high water.	Flash Flood	$0	PROVENCAL
February 22, 2018	High water covered portions of Highway 491 northeast of Cloutierville.	Flash Flood	$0	CLOUTIERVILLE
March 28, 2018	Highway 126 southeast of the Saline community was closed due to flooding.	Flash Flood	$0	REIDHEIMER
January 3, 2019	LA 478 just south of LA 120 near the Flora community was closed due to high water.	Flash Flood	$0	FLORA
January 3, 2019	High water covered Highway 119 between I-49 and the Kisatchie National Forest.	Flash Flood	$0	GORUM
January 4, 2019	LA 120 just west of Interstate 49 was closed due to flooding well after the rains had ended during the afternoon of January 3rd.	Flood	$0	FLORA
May 9, 2019	Multiple parish and state roads were flooded and closed throughout much of Natchitoches Parish.	Flash Flood	$0	CLARENCE
May 19, 2019	Flash flooding was reported along Texas Street near the Railroad Underpass. A few other additional streets throughout the city of Natchitoches was flooded as well.	Flash Flood	$0	NATCHITOCHES
April 22, 2020	Highway 480 near Campti was covered in high water.	Flash Flood	$0	CAMPTI
May 20, 2020	Highway 487 was flooded near Marthaville.	Flash Flood	$0	MARTHAVILLE
August 27, 2020	Widespread flooding across much of Natchitoches Parish, with many roads flooded and closed.	Flash Flood	$0	KING HILL
October 10, 2020	Numerous roads were flooded in and around Natchez. Highway 119 was completely flooded in Natchez.	Flash Flood	$0	NATCHEZ

Frequency / Probability

The NCEI Storm Events Database identified 66 flooding events within the Natchitoches Parish planning area since 1990. The table below shows the probability and return frequency for each jurisdiction.

Table 2-23: Annual Flood Probabilities for Natchitoches Parish.

Jurisdiction	Annual Probability	Return Frequency
Natchitoches Parish (Unincorporated)	94%	1 event every 1 to 2 years
Ashland	6%	1 event every 15 to 16 years
Campti	23%	1 event every 4 to 5 years
Clarence	3%	1 event every 31 years
Goldonna	3%	1 event every 31 years
Natchez	10%	1 event every 10 to 11 years
Natchitoches	81%	1 event every 1 to 2 years
Powhatan	3%	1 event every 31 years
Provencal	6%	1 event every 15 to 16 years
Robeline	3%	1 event every 31 years

Based on historical record, the overall flooding probability for the entire Natchitoches Parish Planning area is 100% with 46 events occurring over a 31-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 2-24* shows the total economic losses that would result from this occurrence.

Table 2-24: Estimated Losses in Natchitoches Parish from a 100-year Flood Event. (Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Flood Event
Natchitoches Parish (Unincorporated Area)	$63,978,000
Ashland	$184,000
Campti	$0
Clarence	$0
Goldonna	$297,000
Natchez	$0
Natchitoches	$14,881,000
Powhatan	$0
Provencal	$1,484,000
Robeline	$1,305,000
Total	**$82,129,000**

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

Table 2-25: Estimated 100-year Flood Losses for Natchitoches Parish by Sector. (Source: Hazus)

Natchitoches Parish (Unincorporated)	Estimated Total Losses from 100-Year Flood Event
Agricultural	$1,063,000
Commercial	$12,607,000
Government	$7,096,000
Industrial	$835,000
Religious / Non-Profit	$7,134,000
Residential	$35,065,000
Schools	$178,000
Total	**$63,978,000**

Table 2-26: Estimated 100-year Flood Losses for Ashland Parish by Sector. (Source: Hazus)

Ashland	Estimated Total Losses from 100-Year Flood Event
Agricultural	$0
Commercial	$37,000
Government	$46,000
Industrial	$0
Religious / Non-Profit	$0
Residential	$101,000
Schools	$0
Total	**$184,000**

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

Goldonna	Estimated Total Losses from 100-Year Flood Event
Agricultural	$0
Commercial	$0
Government	$0
Industrial	$0
Religious / Non-Profit	$61,000
Residential	$236,000
Schools	$0
Total	**$297,000**

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

Natchitoches	Estimated Total Losses from 100-Year Flood Event
Agricultural	$707,000
Commercial	$1,585,000
Government	$335,000
Industrial	$215,000
Religious / Non-Profit	$96,000
Residential	$11,363,000
Schools	$580,000
Total	**$14,881,000**

Table 2-29: Estimated 100-year Flood Losses for Provencal by Sector. (Source: Hazus)

Provencal	Estimated Total Losses from 100-Year Flood Event
Agricultural	$0
Commercial	$0
Government	$0
Industrial	$0
Religious / Non-Profit	$0
Residential	$1,484,000
Schools	$0
Total	**$1,484,000**

Table 2-30: Estimated 100-year Flood Losses for Robeline by Sector. (Source: Hazus)

Robeline	Estimated Total Losses from 100-Year Flood Event
Agricultural	$0
Commercial	$84,000
Government	$307,000
Industrial	$0
Religious / Non-Profit	$560,000
Residential	$354,000
Schools	$0
Total	**$1,305,000**

Threat to People

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

Table 2-31: 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**
Natchitoches Parish (Unincorporated)	16,406	3,101	18.9%
Ashland	194	8	4.1%
Campti	887	0	0.0%
Clarence	326	0	0.0%
Goldonna	428	12	2.8%
Natchez	489	190	38.9%
Natchitoches	18,039	1,384	7.7%
Powhatan	101	0	0.0%
Provencal	528	46	8.7%
Robeline	117	18	15.4%
Total	**37,515**	**4,759**	**12.7%**

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

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

Natchitoches Parish (Unincorporated)		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	3,101	18.9%
Persons Under 5 Years	198	6.4%
Persons Under 18 Years	723	23.3%
Persons 65 Years and Over	518	16.7%
White	1,600	51.6%
Minority	1,501	48.4%

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

Ashland		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	8	4.1%
Persons Under 5 Years	0	2.5%
Persons Under 18 Years	3	32.7%
Persons 65 Years and Over	1	13.6%
White	7	85.6%
Minority	1	14.4%

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

Goldonna		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	12	2.8%
Persons Under 5 Years	0	2.8%
Persons Under 18 Years	4	35.3%
Persons 65 Years and Over	3	28.5%
White	11	95.8%
Minority	1	4.2%

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

Natchez		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	190	38.9%
Persons Under 5 Years	8	4.0%
Persons Under 18 Years	28	14.8%
Persons 65 Years and Over	45	23.6%
White	7	3.5%
Minority	183	96.5%

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

Natchitoches		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	1,384	7.7%
Persons Under 5 Years	90	6.5%
Persons Under 18 Years	303	21.9%
Persons 65 Years and Over	159	11.5%
White	513	37.1%
Minority	871	62.9%

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

Provencal		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	46	8.7%
Persons Under 5 Years	6	12.1%
Persons Under 18 Years	8	17.0%
Persons 65 Years and Over	14	30.2%
White	42	90.7%
Minority	4	9.3%

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

Robeline		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	18	15.4%
Persons Under 5 Years	3	15.1%
Persons Under 18 Years	4	24.6%
Persons 65 Years and Over	4	19.8%
White	15	82.9%
Minority	3	17.1%

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 2-39: 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 2-40: 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 2-41*.

Table 2-41: 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 hilly 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 2-42 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 2-42: 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 2-43: 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 Natchitoches Parish and its jurisdictions are equally at risk for hailstorms. The worst-case scenario for hailstorms is hail up to a 2.5” diameter.

Previous Occurrences / Extents

Historically, there have been 188 hail incidents in Natchitoches Parish. Hailstorm diameters have ranged from 0.75 inches to 2.5 inches per the National Climatic Data Center since 1990. The most frequently recorded hail sizes have been 0.75-inch in diameter. The table on the next page contains a brief synopsis of significant hailstorm events that have occurred in Natchitoches Parish since the 2016 Natchitoches Parish HMP update.

Table 2-44: 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
January 21, 2017	1	$0	$0
March 18, 2018	1	$0	$0
April 6, 2019	1	$0	$0
April 6, 2019	1	$0	$0
April 13, 2019	1.75	$0	$0
June 2, 2019	1	$0	$0
February 5, 2020	1	$0	$0
April 22, 2020	1.25	$0	$0
April 22, 2020	1.25	$0	$0
April 22, 2020	1.75	$0	$0
April 22, 2020	1	$0	$0
April 22, 2020	1	$0	$0
April 22, 2020	1	$0	$0
April 22, 2020	1	$0	$0
April 24, 2020	1	$0	$0
April 16, 2021	1	$0	$0
August 12, 2021	0.88	$0	$0

Frequency

Hailstorms occur frequently within Natchitoches Parish with an annual chance of occurrence calculated at 100% based on the records for the past 31 years (1990 - 2021). *Figure 2-22* displays the density of hailstorm events in Natchitoches Parish, while *Figure 2-23* provides an overview of hailstorm size based on location.

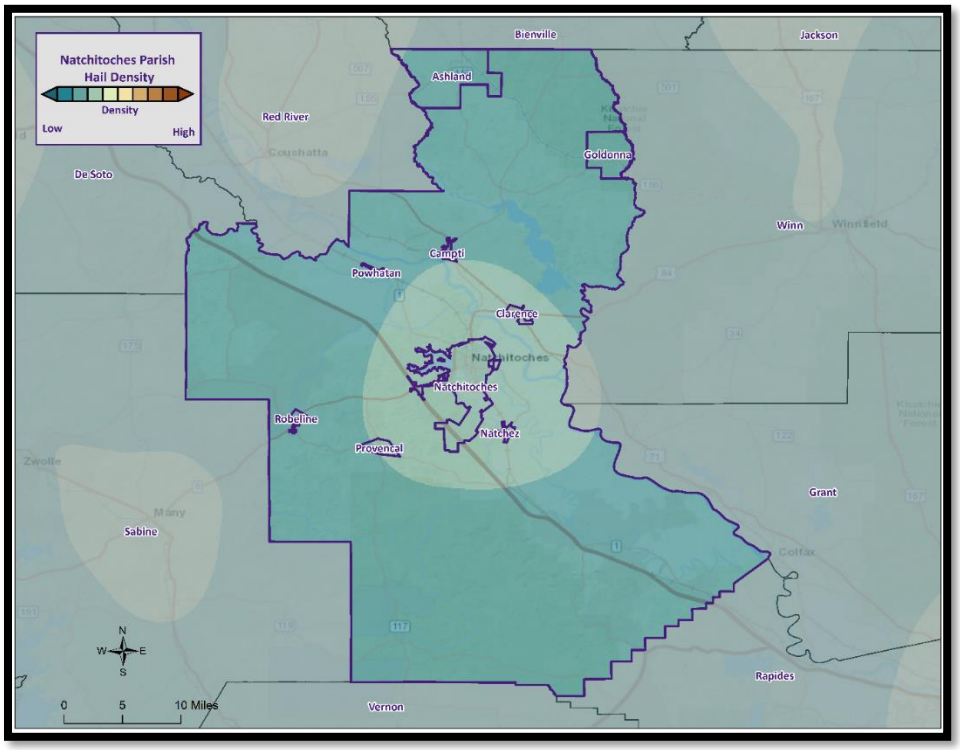


Figure 2-22: Density of Hailstorms by Diameter from 1950-2022.

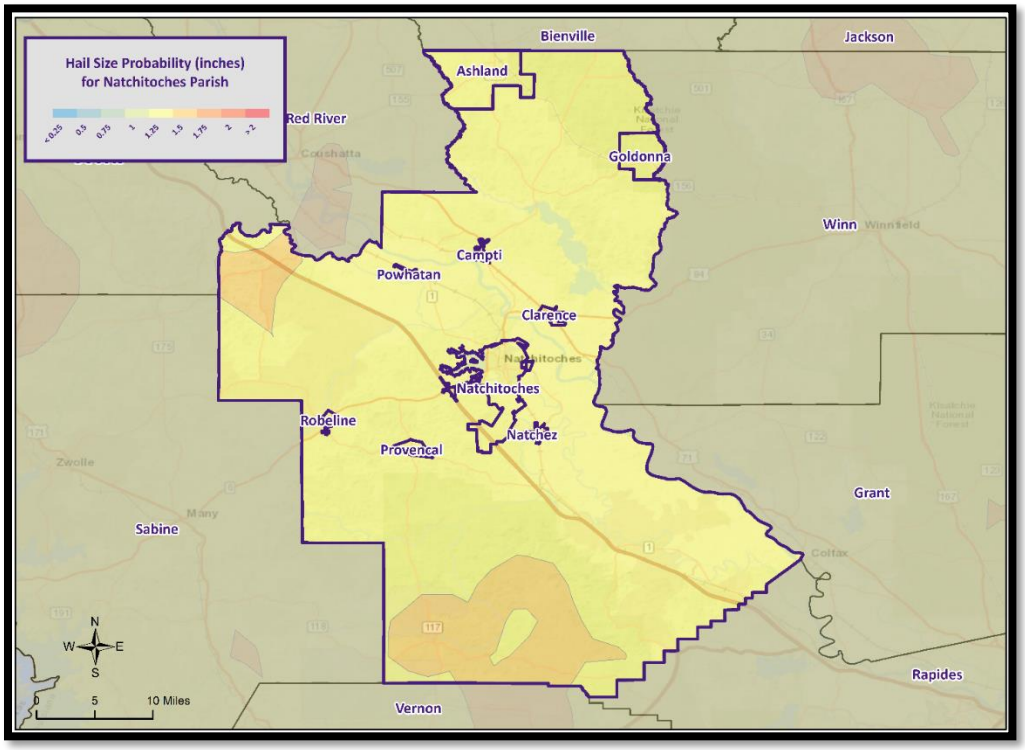


Figure 2-23: Hail Size Probability in Inches for Natchitoches Parish.

Estimated Potential Losses

Since 1990, there have been 188 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 $64,500. To estimate the potential losses of a hailstorm event on an annual basis, the total damages recorded for hailstorm events was divided by the total number of years of available hail data in the NCEI Storm Events Database (1990 - 2021). This provides an annual estimated potential loss of $2,081 and $343 per event. The following tables provide an estimate of potential property losses for Natchitoches Parish:

Table 2-45: Estimated Annual Losses Natchitoches Parish and its Jurisdictions Resulting from Hailstorms.

Estimated Potential Annual Losses from Hailstorms				
Unincorporated Area	**Ashland**	**Campti**	**Clarence**	**Goldonna**
$910	$11	$49	$18	$24

Table 2-46: Estimated Annual Losses Natchitoches Parish and its Jurisdictions Resulting from Hailstorms.

Estimated Potential Annual Losses from Hailstorms				
Natchez	**Natchitoches**	**Powhatan**	**Provencal**	**Robeline**
$27	$1,000	$6	$29	$6

There have been no reported injuries or fatalities as a result of a hail events over the 31-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 Natchitoches Parish is equally at risk from high winds. The worst-case scenario for thunderstorm high wind is wind speeds of approximately 110 mph.

Previous Occurrences / Extents

Historically, there have been 224 thunderstorm high wind events in Natchitoches Parish. Per the National Climatic Data Center, since 1990, the high wind events have ranged in windspeeds from 59 mph to 110 mph. Below is a brief synopsis of the events which have impacted Natchitoches Parish Planning area since the 2016 Natchitoches Parish HMP update.

Table 2-47: 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
January 2, 2017	64	$0	$0
March 29, 2017	60	$0	$0
March 29, 2017	69	$0	$0
April 2, 2017	70	$0	$0
April 29, 2017	70	$0	$0
April 29, 2017	70	$0	$0
April 29, 2017	70	$0	$0
April 29, 2017	81	$0	$0
April 29, 2017	64	$0	$0
April 29, 2017	81	$0	$0
April 30, 2017	70	$0	$0
April 30, 2017	75	$0	$0
May 28, 2017	75	$0	$0
May 28, 2017	81	$0	$0
May 28, 2017	60	$0	$0
May 28, 2017	81	$0	$0
June 23, 2017	60	$0	$0
June 23, 2017	61	$0	$0
June 23, 2017	60	$0	$0
December 20, 2017	90	$0	$0
December 20, 2017	100	$0	$0
April 6, 2018	64	$0	$0
July 29, 2018	64	$0	$0
July 29, 2018	64	$0	$0
December 27, 2018	60	$0	$0
April 18, 2019	64	$0	$0
April 25, 2019	70	$0	$0
May 8, 2019	75	$0	$0
May 8, 2019	96	$0	$0

May 19, 2019	70	$0	$0
June 2, 2019	60	$0	$0
June 24, 2019	75	$0	$0
December 16, 2019	70	$0	$0
January 11, 2020	64	$0	$0
April 19, 2020	60	$0	$0
April 19, 2020	85	$0	$0
April 19, 2020	81	$0	$0
April 19, 2020	60	$0	$0
April 29, 2020	60	$0	$0
May 20, 2020	60	$0	$0
May 4, 2021	64	$0	$0
May 4, 2021	70	$0	$0
May 4, 2021	64	$0	$0
May 9, 2021	64	$0	$0
May 9, 2021	60	$0	$0

Frequency

High winds are a fairly common occurrence within Natchitoches Parish and its jurisdictions with an annual chance of occurrence calculated at 100% based on the records for the past 31 years (1990 - 2021). Below, *Figure 2-24* displays the thunderstorm wind speed probability for Natchitoches Parish and its jurisdictions.

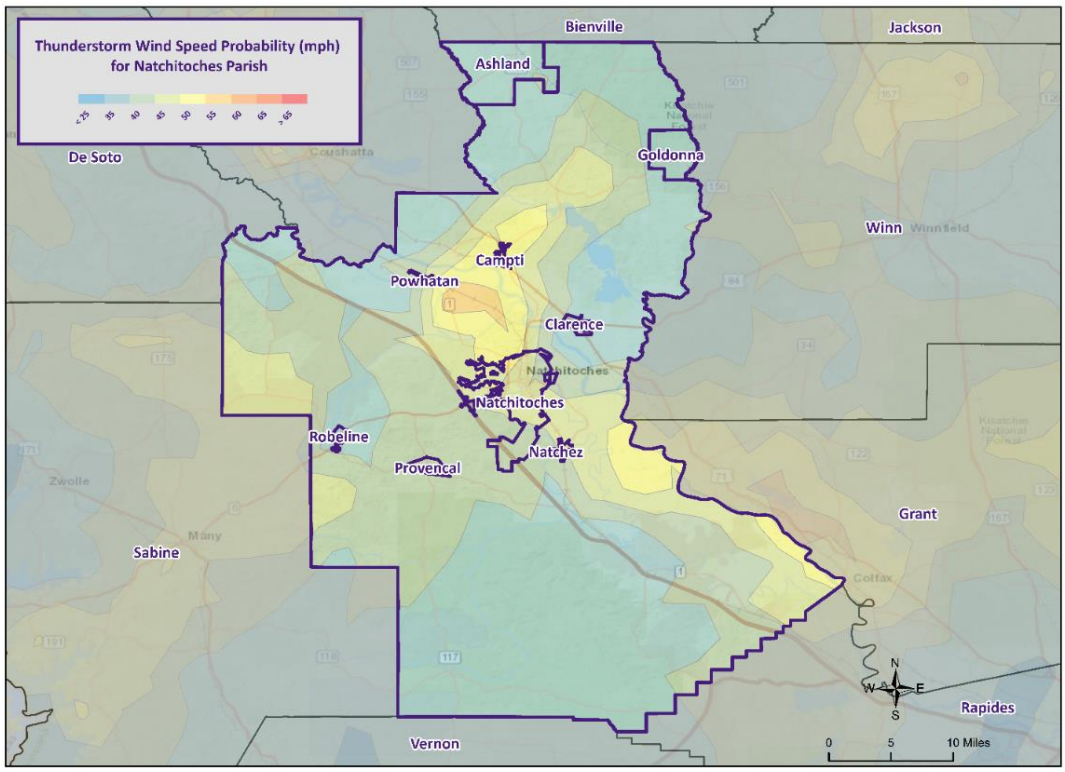


Figure 2-24: Thunderstorm High Wind Speed Probability in Miles Per Hour for Natchitoches Parish.

Estimated Potential Losses

Since 1990, there has been 224 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 $11,908,000. 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 - 2021). This provides an annual estimated potential loss of $384,129 and $53,161 per event. The following tables provide an estimate of potential property losses for Natchitoches Parish:

Table 2-48: Estimated Annual Property Losses in Natchitoches Parish resulting from Wind Damage.

Estimated Potential Annual Losses from High Winds				
Unincorporated Area	**Ashland**	**Campti**	**Clarence**	**Goldonna**
$167,987	$1,986	$9,082	$3,338	$4,382

Table 2-49: Estimated Annual Losses in Natchitoches Parish and its Jurisdictions Resulting from Wind Damage.

Estimated Potential Annual Losses from High Winds				
Natchez	**Natchitoches**	**Powhatan**	**Provencal**	**Robeline**
$5,007	$184,708	$1,034	$5,406	$1,198

There have been no fatalities and six injuries as a result of a thunderstorm high wind event over the 31-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 Natchitoches 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 have been six significant lightning events in Natchitoches Parish and its jurisdictions between the years 1990 and 2021. Since the 2016 Natchitoches Parish HMP update, there have been no significant lightning events to impact Natchitoches Parish and its jurisdictions.

Frequency

Lightning can strike anywhere and is produced by every thunderstorm, so the chance of lightning occurring in Natchitoches 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. Natchitoches Parish experienced six significant lightning events between the years 1990 and 2021, resulting in a less than 19% annual chance of occurrence.

Estimated Potential Losses

Since 1990, there have been six significant lightning events that have resulted in property damages according to NCEI Storm Events Database. The total property damage associated with this storm totaled approximately $263,000. 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 - 2021). This provides an annual estimated potential loss of $8,484 and $43,833 per event. The following tables provide an estimate of potential property losses for Natchitoches Parish:

Table 2-50: Estimated Annual Property Losses in Natchitoches Parish resulting from Lightning Damage.

Estimated Potential Annual Losses from Lightning				
Unincorporated Area	**Ashland**	**Campti**	**Clarence**	**Goldonna**
$167,987	$1,986	$9,082	$3,338	$4,382

Table 2-51: Estimated Annual Property Losses in Natchitoches Parish resulting from Lightning Damage.

Estimated Potential Annual Losses from Lightning				
Natchez	**Natchitoches**	**Powhatan**	**Provencal**	**Robeline**
$5,007	$184,708	$1,034	$5,406	$1,198

There have been no reported injuries or fatalities as a result of a lightning event over the 31-year record.

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 2-52* 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 2-52: Comparison of the Enhanced Fujita (EF) Scale to the Fujita (F) Scale.

	Enhanced Fujita Scale					
	EF0	**EF1**	**EF2**	**EF3**	**EF4**	**EF5**
Wind Speed (mph)	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 2-53: Fujita and Enhanced Fujita Tornado Damage Scale.

Scale	Typical Damage
F0/EF0	Light damage. Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged.
F1/EF1	Moderate damage. Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads.
F2/EF2	Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars overturned; light-object missiles generated; cars lifted off ground.
F3/EF3	Severe damage. Roofs and some walls torn of well-constructed houses; trains overturned; most trees in 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 Natchitoches Parish with actual locations, tornadoes in general are a climatological based hazard and have the same approximate probability of occurring in Natchitoches Parish as all of its jurisdictions. Because a tornado has a similar probability of striking anywhere within the planning area for Natchitoches Parish, all areas in the parish are equally at risk for tornadoes.

Previous Occurrences / Extent

The NCEI Storm Events Database reports a total of 42 tornadoes or waterspouts occurring within the boundaries of Natchitoches Parish since 1990 ranging in extent from F0 to F3 under the Fujita Scale and EF0 to EF2 on the Enhanced Fujita Scale. Natchitoches Parish can expect future tornadoes up to an EF4 under the Enhanced Fujita Scale as a worst-case scenario.

The most destructive tornado to impact Natchitoches Parish was an F1 tornado which occurred on April 25, 2019. The F1 tornado was responsible for over $2 million in damage, 27 injuries, and one direct fatality. Since the 2016 HMP Update, 11 tornadoes have occurred within the boundaries of Natchitoches Parish. Below is a list and brief description of the impact for each event.

Table 2-54: Historical Tornadoes in Natchitoches Parish with Locations since the 2016 Update.

Date	Impacts	Property Damage	Location	Magnitude
January 21, 2017	2.04 mile path with a width of 300 yards. An EF-2 tornado with maximum estimated winds near 125 mph touched down near Natchez near Highway 404 where it tore the roof off of a home and destroyed a few outdoor storage buildings. The tornado was strongest as it crossed the Cane River and heavily damaged a brick home on Patrick Road, where 3 brick walls collapsed and much of the back portion of the roof was torn off. A man living in this home suffered an arm injury, but was later determined that it was not broken.	$500,000	NATCHEZ	EF2
March 24, 2017	8.51 mile path with a width of 2,464 yards. An EF-1 tornado with maximum estimated winds of 100-110 mph touched down on the southwest side of Hagewood, just west of Highway 117. Although the primary damage was snapped trees, two businesses at the intersection of Highway 117 and Highway 6 sustained some damage.	$70,000	HAGEWOOD	EF1
April 29, 2017	1.96 mile path with a width of 290 yards. An EF-1 tornado with maximum estimated winds between 100-110 mph touched down along the northern fringes of Sibley Lake along Wilkerson Road, downing large tree branches. The tornado crossed the northern fingers of the lake along Shoreline Road, Lakeside Drive, and Peninsula Drive, where numerous trees were snapped and uprooted. One home on Lakeside Drive suffered roof damage, while another home had several windows blown out and siding lost.	$200,000	NATCHITOCHES MUNI	EF1
March 28, 2018	4.26 mile path with a width of 1,200 yards. An EF-1 tornado with estimated maximum winds near 100 mph touched down along Highway 71 south of Clarence, where large branches were blown down and the tops of several trees were twisted off. The tornado continued east northeast where it paralleled Highway 84 and uprooted numerous trees, before crossing over into Winn Parish.	$500	IRMA	EF1
April 6, 2018	0.72 mile path with a width of 50 yards. An EF-1 tornado with estimated maximum winds between 90-100 mph touched down along Highway 484 near the Jerry Jones House (also called the Jones-Roque House) in the Isle Brevelle community of Melrose. Some minor roof damage with the loss of shingles occurred to a home and some of the metal roof of the Jerry Jones House was uplifted and removed.	$6,000	MELROSE	EF1
November 5, 2018	1.74 mile path with a width of 200 yards. This EF-1 tornado, with maximum estimated winds around 107 mph, first touched down on Highway 1 where it snapped several trees. It then moved northeast across	$50,000	NATCHEZ	EF1

Date	Impacts	Property Damage	Location	Magnitude
	Lee Lake and the Cane River where it damaged outbuildings and additional trees. As it moved across the Cane River, it destroyed one boathouse and damaged two others.			
November 5, 2018	3.61 mile path with a width of 475 yards. Over 100 trees were snapped or uprooted along Boline Road as the tornado crossed over into Natchitoches Parish, with the tornado tracking northeast across the 1100 block of Highway 1221. Here, a carport was destroyed and a roof was partially ripped off of a house leaving the walls of the structure standing, indicative of the low-end EF-2 damage.	$125,000	MARTHAVILLE	EF2
November 5, 2018	13.22 mile path with a width of 400 yards. The storm which produced a tornado in Northeast Sabine/Western Natchitoches Parishes continued to exhibit rotation as it crossed Interstate 49, with a new tornado touching down from the same storm as it crossed the Red River. This EF-2 tornado, with maximum estimated winds around 115 mph, touched down along the Red River just west of Highway 486 (Campti Cutoff Road), and tracked east northeast as it crossed Highway 486, Highway 71, and Maricelli Road	$150,000	GRAND ECORE	EF2
May 8, 2019	2.98 mile path with a width of 250 yards. An EF-1 tornado with maximum estimated winds near 105 mph touched down in the Kisatchie National Forest just before crossing Government Road. There, it snapped and uprooted several trees. The tornado continued northeast snapping/uprooting more trees on Calvin Tyler and Briarwood-Preserve Roads before lifting.	$0	READHEIMER	EF1
May 8, 2019	0.81 mile path with a width of 250 yards. An aerial survey from the U.S. Forest Service indicated that an EF-1 tornado with maximum estimated winds near 100 mph touched down in the Kisatchie National Forest just northeast of the Readhimer community, where it snapped, uprooted, and twisted numerous trees along its track before crossing into extreme Northwest Winn Parish.	$0	REIDHEIMER	EF1
May 19, 2019	1.19 mile path with a width of 80 yards. An EF-0 tornado with maximum estimated winds near 70 mph touched down along Kisatchie-Mora Road, about three miles west of the Mora community, where it snapped a few large tree branches. The tornado continued northeast as it paralleled Wilma Cedars Road snapping several more large branches.	$0	GORUM	EF0

Frequency / Probability

Tornadoes occur frequently within Natchitoches Parish and its jurisdictions with an annual chance of occurrence calculated at 100% based on the records for the past 31 years (1990 - 2021). *Figure 2-25* displays the density of tornado touchdowns in Natchitoches Parish and neighboring parishes.

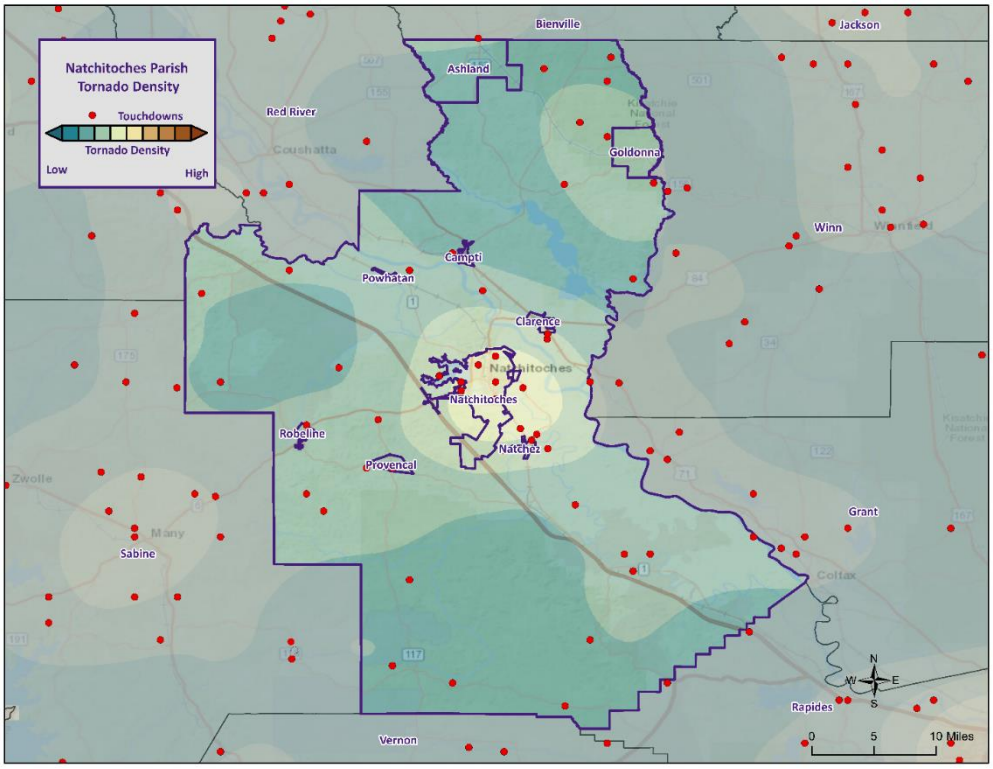


Figure 2-25: Location and Density of Tornadoes to Touchdown in Natchitoches Parish. (Source: NOAA/SPC Severe Weather Database)

Estimated Potential Loses

According to the NCEI Storm Events Database, there have been 42 tornadoes that have caused some level of property damage. The total damage from the actual claims for property is approximately $7,524,000 with an average cost of $179,381 per tornado event. When annualizing the total cost over the 31-year record, total annual loses based on tornadoes are estimated to be $243,032. The following tables provide an annual estimate of potential losses for Natchitoches Parish.

Table 2-55: Estimated Annual Losses for Tornadoes in Natchitoches Parish.

Estimated Annual Losses for Tornadoes				
Unincorporated Area	**Ashland**	**Campti**	**Clarence**	**Goldonna**
$106,282	$1,257	$5,746	$2,112	$2,773

Table 2-56: Estimated Annual Losses for Tornadoes in Natchitoches Parish.

Estimated Annual Losses for Tornadoes				
Natchez	**Natchitoches**	**Powhatan**	**Provencal**	**Robeline**
$3,168	$116,861	$654	$3,421	$758

Table 2-57 presents an analysis of building exposure that are susceptible to tornadoes by general occupancy type for Natchitoches Parish along with the percentage of building stock that are mobile homes.

Table 2-57: Building Exposure by General Occupancy Type for Tornadoes in Natchitoches Parish. (Source: Hazus)

Building Exposure by General Occupancy Type for Tornadoes ($1,000)							
Residential	Commercial	Industrial	Agricultural	Religion	Government	Education	Mobile Homes (%)
4,041,410	954,815	139,937	42,436	242,768	63,451	152,826	22.8%

The Parish has suffered through a total of 42 events in which tornadoes or waterspouts have accounted for six injuries and no fatalities during this 31-year period.

In accessing the overall risk to population, the most vulnerable population throughout the parish are those residing in manufacturing housing. Approximately 22.8% of all housing in Natchitoches Parish consists of manufactured housing. The location and density of manufactured houses can be seen in *Figure 2-26*.

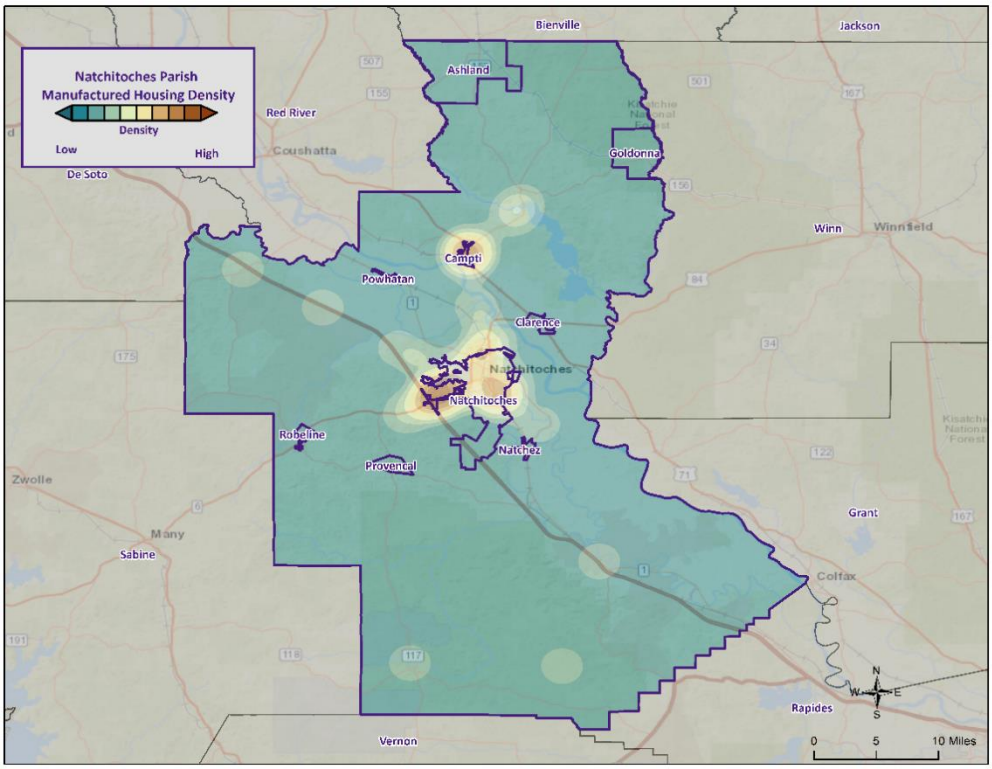


Figure 2-26: Location and Approximate Number of Units in Manufactured Housing Locations throughout Natchitoches Parish.

Vulnerability

See *Appendix C: Critical Facilities* for parish and municipality building exposure to tornadoes.

Tropical Cyclones

Tropical cyclones are among the worst hazards Louisiana faces. 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 2-58: 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 the state of 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 Natchitoches Parish planning area. The worst-case scenario for a tropical cyclone event in Natchitoches Parish is a Category 1 Hurricane.

Previous Occurrences / Extents

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

Table 2-59: Historical Tropical Cyclone Events in Natchitoches Parish from 2002 – 2021.

Date	Name	Storm Type at Time of Impact
2005	Rita	Hurricane
2008	Gustav	Tropical Storm
2008	Ike	Tropical Storm
2020	Laura	Hurricane
2020	Delta	Tropical Storm

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

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.

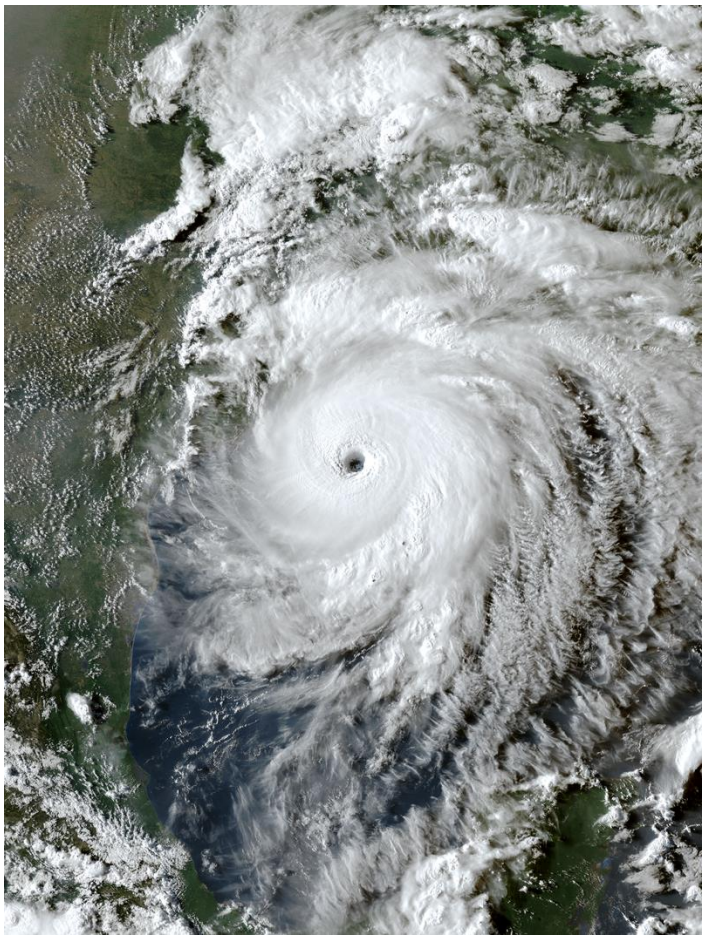


Figure 2-27: Hurricane Laura in the Gulf Coast Area. (Source: NOAA)

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 Natchitoches Parish during the cleanup process, and eight others died in Beauregard Parish, Grant Parish, Natchitoches Parish, and Vernon Parish due to heat-related illnesses following the loss of electricity.

In Natchitoches Parish, widespread tree damage was observed throughout the parish, particularly across the southern and eastern portions of the parish. Cloutierville and Natchez received the blunt of the damage from the storm as several trees were snapped or uprooted around several homes. Peak sustained winds ranged from 70 to 80 mph with gusts in the 80 to 90 mph range.

Tropical Storm Delta (2020)

Hurricane Delta was the record-tying fourth named storm of 2020 to strike Louisiana, as well as the record-breaking tenth named storm to strike the United States in that year. The twenty-sixty tropical cyclone, twenty-fifth named storm, ninth hurricane, and third major hurricane of the record breaking 2020 Atlantic hurricane season, Delta formed from a tropical wave which was first monitored by the National Hurricane Center on October 1. As it tracked across the western Caribbean, it rapidly intensified into a Category 4 hurricane. In fact, intensifying from tropical depression to Category strength in 40 hours is the fastest rate of intensification of any storm on record in the Atlantic Basin and accomplished by Delta. Delta quickly weakened to a category 1 hurricane after making its first landfall on the Yucatan Peninsula. It gradually recurved north towards the Louisiana coastline, fluctuating in intensity between category 2 and 3.

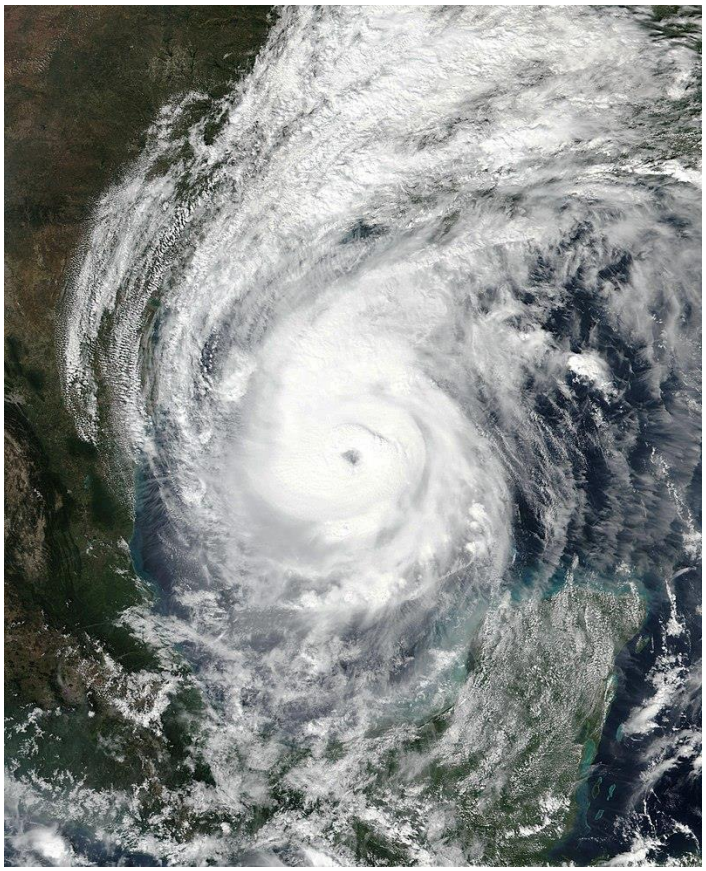


Figure 2-28: Hurricane Delta in the Gulf Coast Area. (Source: NOAA)

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

In Natchitoches Parish, scattered trees and power lines were downed throughout the parish. Over 50 percent of parish residents were without power and several roads near Natchez and Robeline were flooded.

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

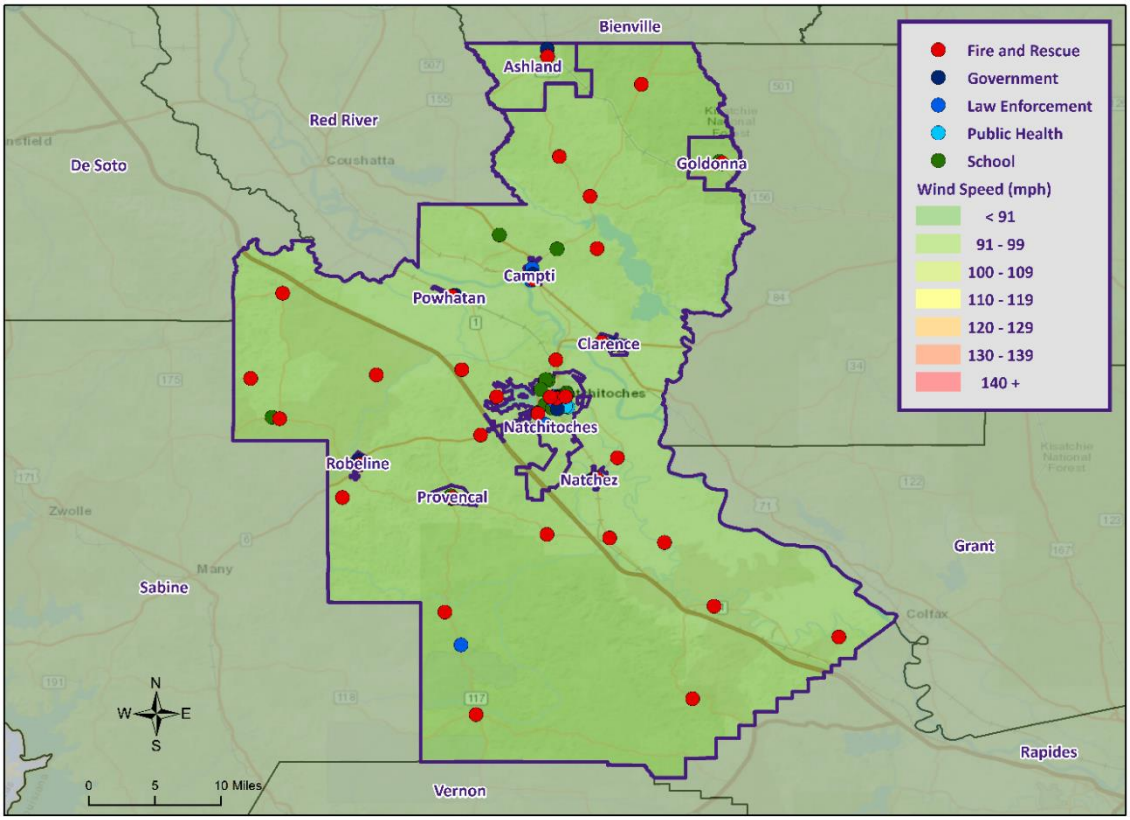


Figure 2-29: Winds Zones for Natchitoches Parish in Relation to Critical Facilities

Frequency / Probability

Tropical cyclones are large natural hazard events that regularly impact Natchitoches Parish. The annual chance of occurrence for a tropical cyclone is estimated at 26% for Natchitoches Parish with four events occurring within 19 years (2002 to 2021). 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 Natchitoches 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 2-60: Total Estimated Losses for a 100-Year Hurricane Event (Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event
Natchitoches Parish (Unincorporated)	$1,783,763
Ashland	$1,781,001
Campti	$96,092
Clarence	$35,132
Goldonna	$46,501
Natchez	$52,659
Natchitoches	$1,961,313
Powhatan	$10,914
Provencal	$57,407
Robeline	$12,684
Total	**$5,837,466**

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

Table 2-61: Ratio of Total Losses to Total Estimated Value of Assets for Natchitoches Parish (Source: Hazus)

Jurisdiction	Estimated Total Losses from 100-Year Hurricane Event	Total Estimated Value of Assets	Ratio of Estimated Losses to Total Value
Natchitoches Parish (Unincorporated)	$1,783,763	$2,792,936,000	0.1%
Ashland	$1,781,001	$20,979,000	8.5%
Campti	$96,092	$89,020,000	0.1%
Clarence	$35,132	$17,767,000	0.2%
Goldonna	$46,501	$32,954,000	0.1%
Natchez	$52,659	$28,130,000	0.2%
Natchitoches	$1,961,313	$2,601,500,000	0.1%
Powhatan	$10,914	$5,678,000	0.2%
Provencal	$57,407	$32,370,000	0.2%
Robeline	$12,684	$16,309,000	0.1%

Based on the Hazus Hurricane Model, estimated total losses for Natchitoches Parish and its jurisdictions ranged from 0.1% to 8.5% 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 Natchitoches Parish by sector are listed in the table below.

Table 2-62: Estimated Losses in Unincorporated Natchitoches Parish for a 100-Year Hurricane Event (Source: Hazus)

Natchitoches Parish (Unincorporated)	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$0
Commercial	$35,999
Government	$2,005
Industrial	$0
Religious / Non-Profit	$6,544
Residential	$1,730,717
Schools	$5,736
Total	**$1,781,001**

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

Ashland	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$15
Commercial	$426
Government	$22
Industrial	$32
Religious / Non-Profit	$72
Residential	$20,466
Schools	$61
Total	**$21,093**

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

Campti	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$0
Commercial	$1,946
Government	$100
Industrial	$146
Religious / Non-Profit	$327
Residential	$93,572
Schools	$0
Total	**$96,092**

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

Clarence	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$26
Commercial	$715
Government	$0
Industrial	$0
Religious / Non-Profit	$0
Residential	$34,391
Schools	$0
Total	**$35,132**

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

Goldonna	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$0
Commercial	$939
Government	$48
Industrial	$71
Religious / Non-Profit	$158
Residential	$45,151
Schools	$134
Total	**$46,501**

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

Natchez	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$0
Commercial	$1,073
Government	$0
Industrial	$0
Religious / Non-Profit	$0
Residential	$51,586
Schools	$0
Total	**$52,659**

Table 2-68: Estimated Losses in Natchitoches for a 100-Year Hurricane Event (Source: Hazus)

Natchitoches	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$1,441
Commercial	$39,582
Government	$2,026
Industrial	$2,979
Religious / Non-Profit	$6,651
Residential	$1,902,987
Schools	$5,647
Total	**$1,961,313**

Table 2-69: Estimated Losses in Powhatan for a 100-Year Hurricane Event (Source: Hazus)

Powhatan	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$0
Commercial	$222
Government	$0
Industrial	$0
Religious / Non-Profit	$37
Residential	$10,655
Schools	$0
Total	**$10,914**

Table 2-70: Estimated Losses in Provencal for a 100-Year Hurricane Event (Source: Hazus)

Provencal	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$0
Commercial	$1,159
Government	$0
Industrial	$0
Religious / Non-Profit	$0
Residential	$55,700
Schools	$165
Total	**$57,024**

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

Robeline	Estimated Total Losses from 100-Year Hurricane Event
Agricultural	$9
Commercial	$257
Government	$13
Industrial	$19
Religious / Non-Profit	$43
Residential	$12,343
Schools	$0
Total	**$12,684**

Threat to People

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

Table 2-72: Number of People Susceptible to a 100-Year Hurricane Event in Natchitoches Parish (Source: Hazus)

Number of People Exposed to Hurricane Hazards			
Location	**# in Community**	**# in Hazard Area**	**% in Hazard Area**
Natchitoches Parish (Unincorporated)	16,406	16,406	100%
Ashland	194	194	100%
Campti	887	887	100%
Clarence	326	326	100%
Goldonna	428	428	100%
Natchez	489	489	100%
Natchitoches	18,039	18,039	100%
Powhatan	101	101	100%
Provencal	528	528	100%
Robeline	117	117	100%
Total	**37,515**	**37,515**	**100%**

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

Table 2-73: Vulnerable Populations in Unincorporated Natchitoches Parish for a 100-Year Hurricane Event
(Source: Hazus)

Natchitoches Parish (Unincorporated)		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	17,472	106.5%
Persons Under 5 Years	1,118	6.4%
Persons Under 18 Years	4,071	23.3%
Persons 65 Years and Over	2,918	16.7%
White	9,017	51.6%
Minority	8,455	48.4%

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

Ashland		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	269	138.7%
Persons Under 5 Years	7	2.5%
Persons Under 18 Years	88	32.7%
Persons 65 Years and Over	37	13.6%
White	230	85.6%
Minority	39	14.4%

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

Campti		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	1,056	119.1%
Persons Under 5 Years	94	8.9%
Persons Under 18 Years	303	28.7%
Persons 65 Years and Over	145	13.7%
White	189	17.9%
Minority	867	82.1%

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

Clarence		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	499	153.1%
Persons Under 5 Years	114	22.8%
Persons Under 18 Years	170	34.0%
Persons 65 Years and Over	165	33.1%
White	106	21.2%
Minority	393	78.8%

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

Goldonna		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	430	100.5%
Persons Under 5 Years	12	2.8%
Persons Under 18 Years	152	35.3%
Persons 65 Years and Over	123	28.5%
White	412	95.8%
Minority	18	4.2%

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

Natchez		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	597	122.1%
Persons Under 5 Years	24	4.0%
Persons Under 18 Years	88	14.8%
Persons 65 Years and Over	141	23.6%
White	21	3.5%
Minority	576	96.5%

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

Natchitoches		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	18,323	101.6%
Persons Under 5 Years	1,191	6.5%
Persons Under 18 Years	4,013	21.9%
Persons 65 Years and Over	2,107	11.5%
White	6,795	37.1%
Minority	11,528	62.9%

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

Powhatan		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	135	133.7%
Persons Under 5 Years	7	5.1%
Persons Under 18 Years	66	48.7%
Persons 65 Years and Over	10	7.6%
White	31	22.8%
Minority	104	77.2%

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

Provencal		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	611	115.7%
Persons Under 5 Years	74	12.1%
Persons Under 18 Years	104	17.0%
Persons 65 Years and Over	185	30.2%
White	554	90.7%
Minority	57	9.3%

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

Robeline		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	174	148.7%
Persons Under 5 Years	26	15.1%
Persons Under 18 Years	43	24.6%
Persons 65 Years and Over	34	19.8%
White	144	82.9%
Minority	30	17.1%

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 2-83: 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 Natchitoches Parish and the incorporated area of Robeline is a level 5; Natchitoches a level 3.5; Ashland, Campti, and Provencal a level 3; Goldonna a level 2; and Clarence and Powhatan a level 1. The following figure displays the areas of wildland-urban interface and intermix in Natchitoches Parish and its jurisdictions.

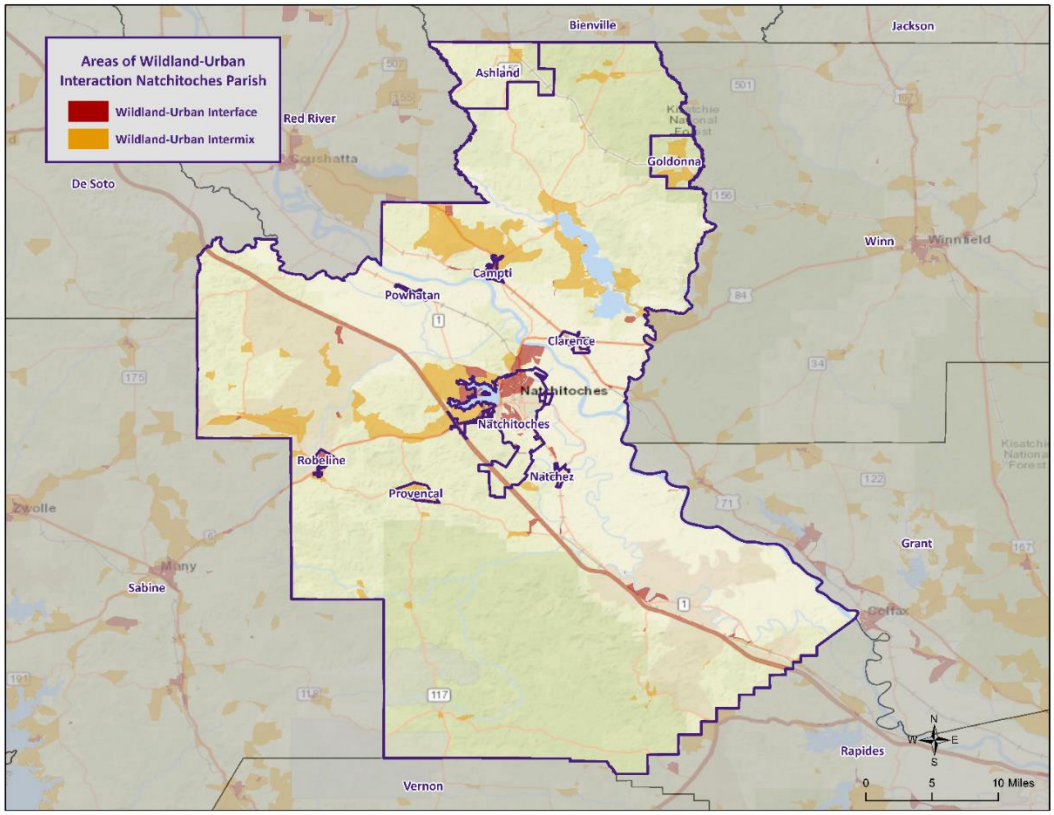


Figure 2-30: Wildland-Urban Interaction in Natchitoches Parish.

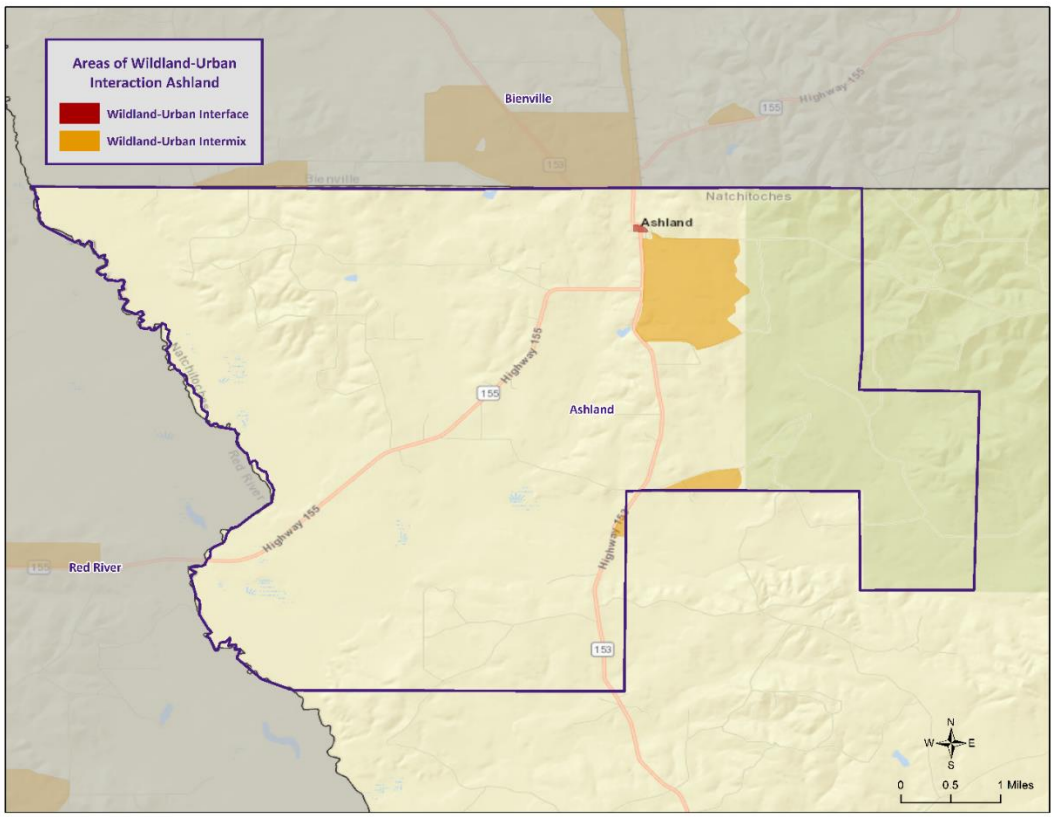


Figure 2-31: Wildland-Urban Interaction in Ashland.

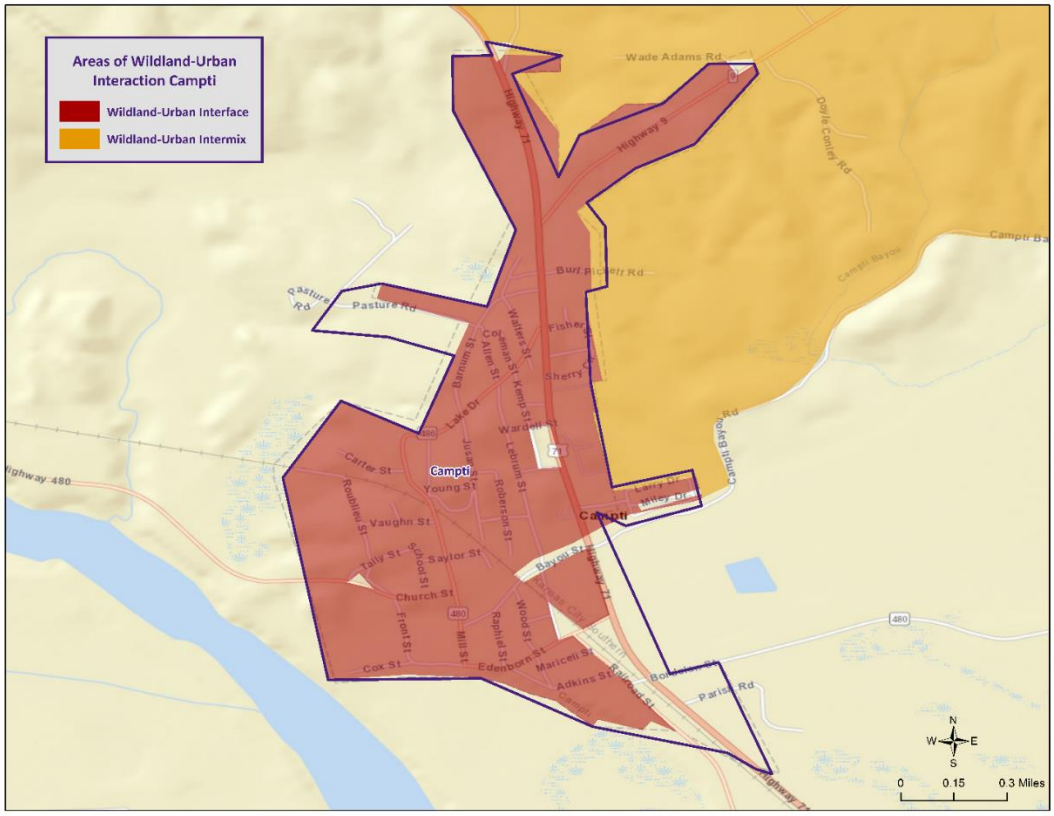


Figure 2-32: Wildland-Urban Interaction in Campti.

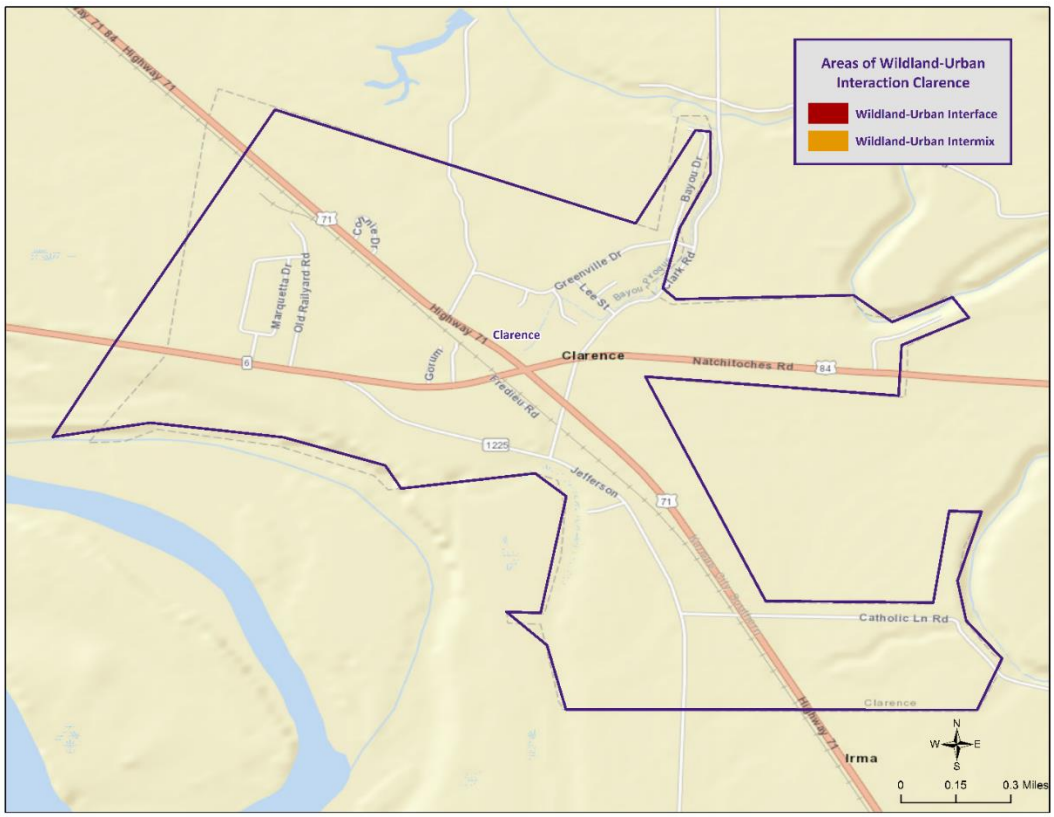


Figure 2-33: Wildland-Urban Interaction in Clarence.

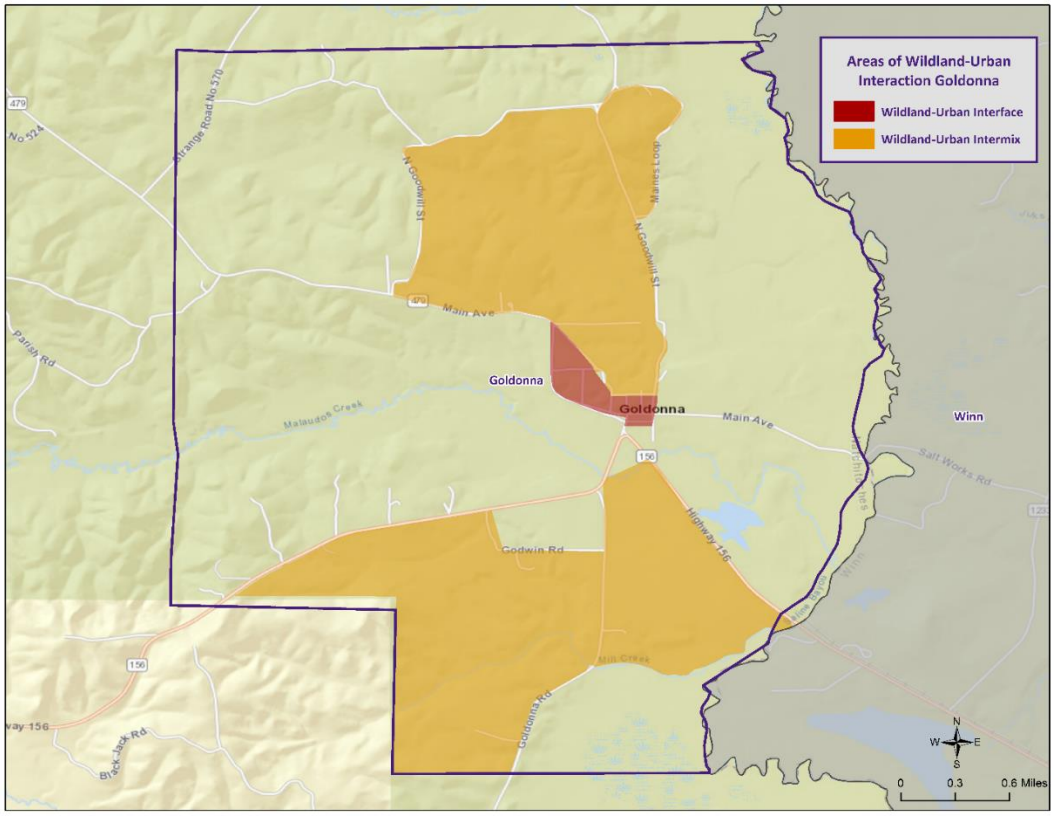


Figure 2-34: Wildland-Urban Interaction in Goldonna.

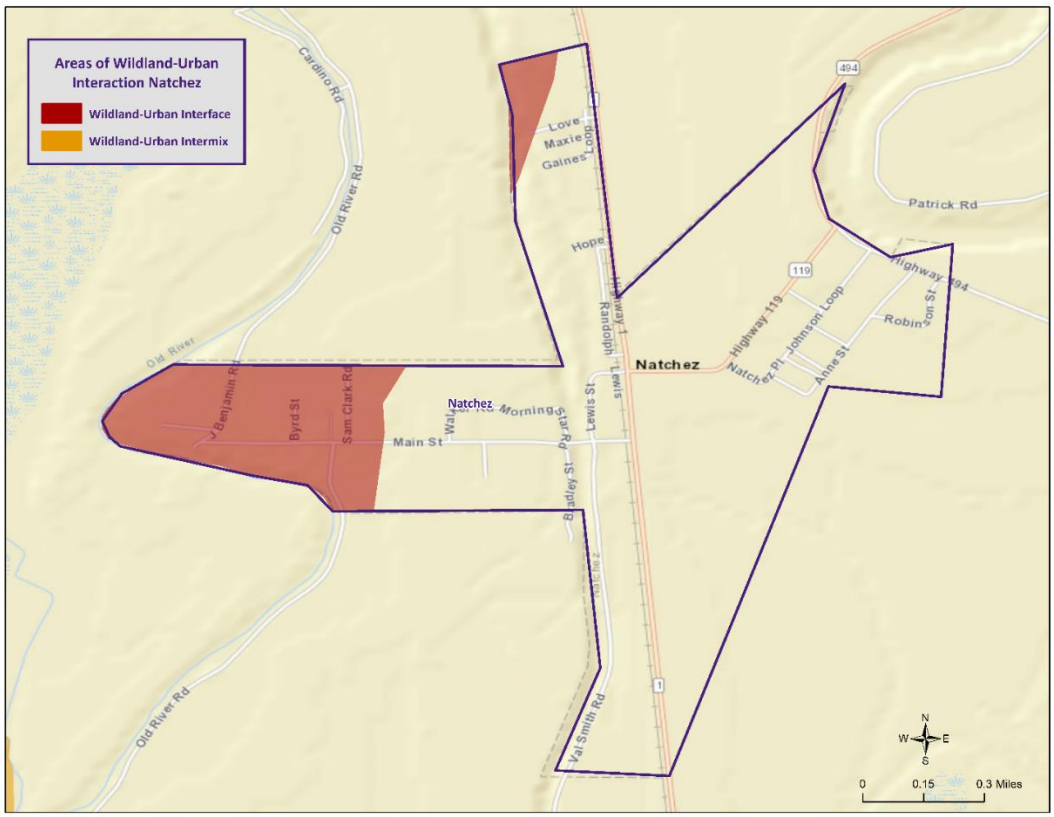


Figure 2-35: Wildland-Urban Interaction in Natchez.

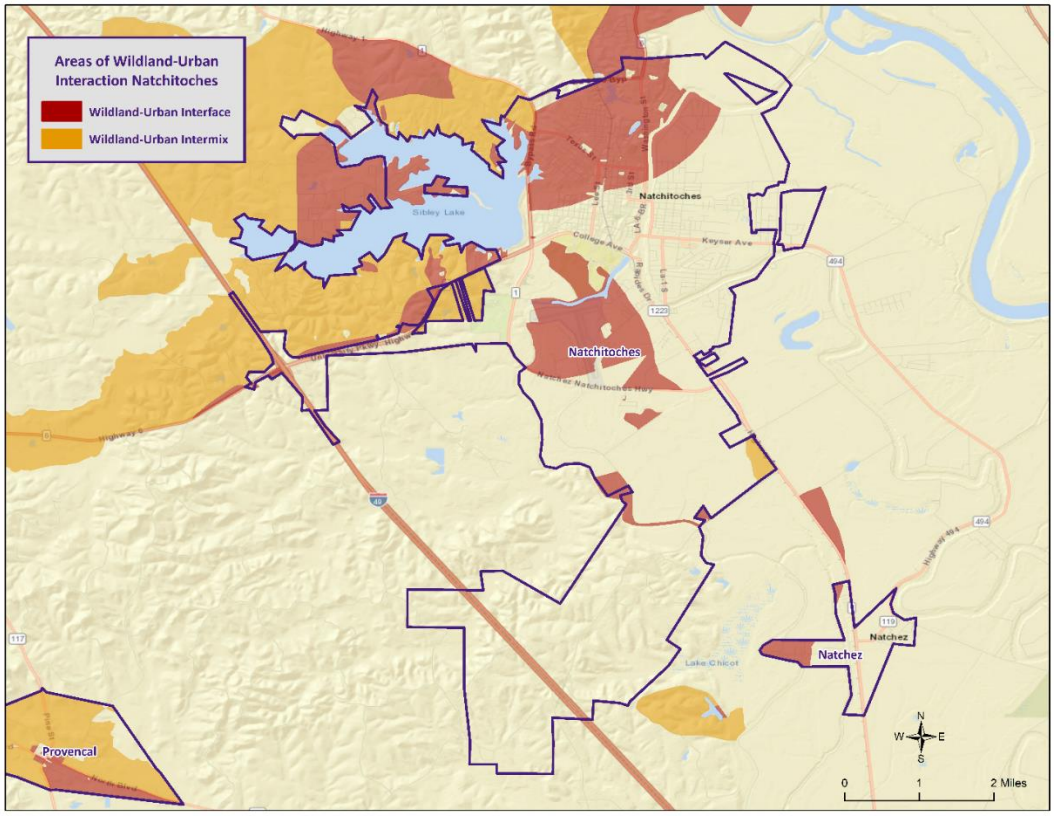


Figure 2-36: Wildland-Urban Interaction in Natchitoches.

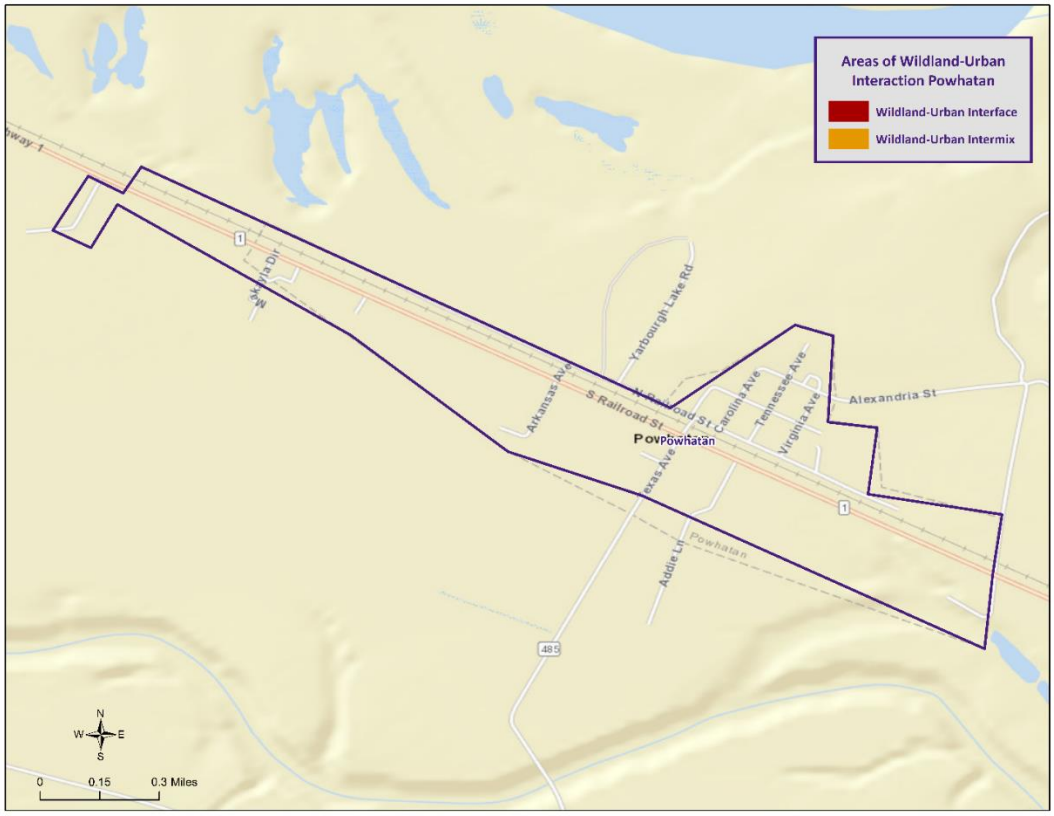


Figure 2-37: Wildland-Urban Interaction in Powhatan.

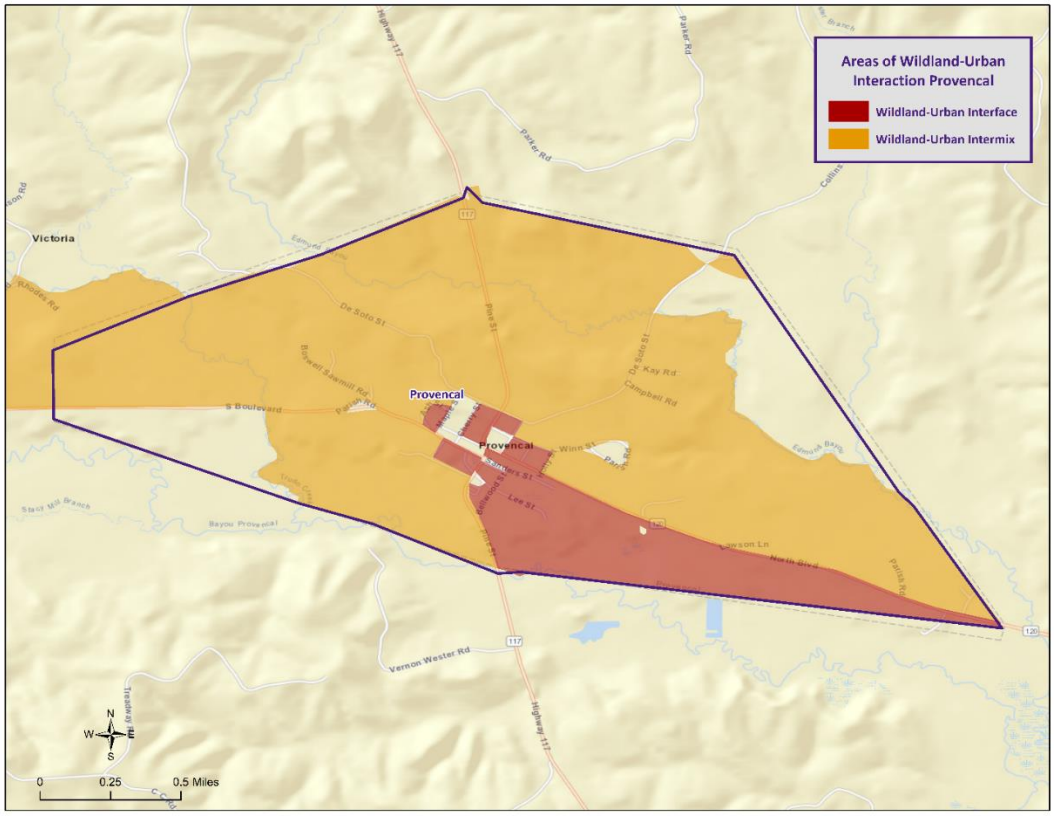


Figure 2-38: Wildland-Urban Interaction in Provencal.

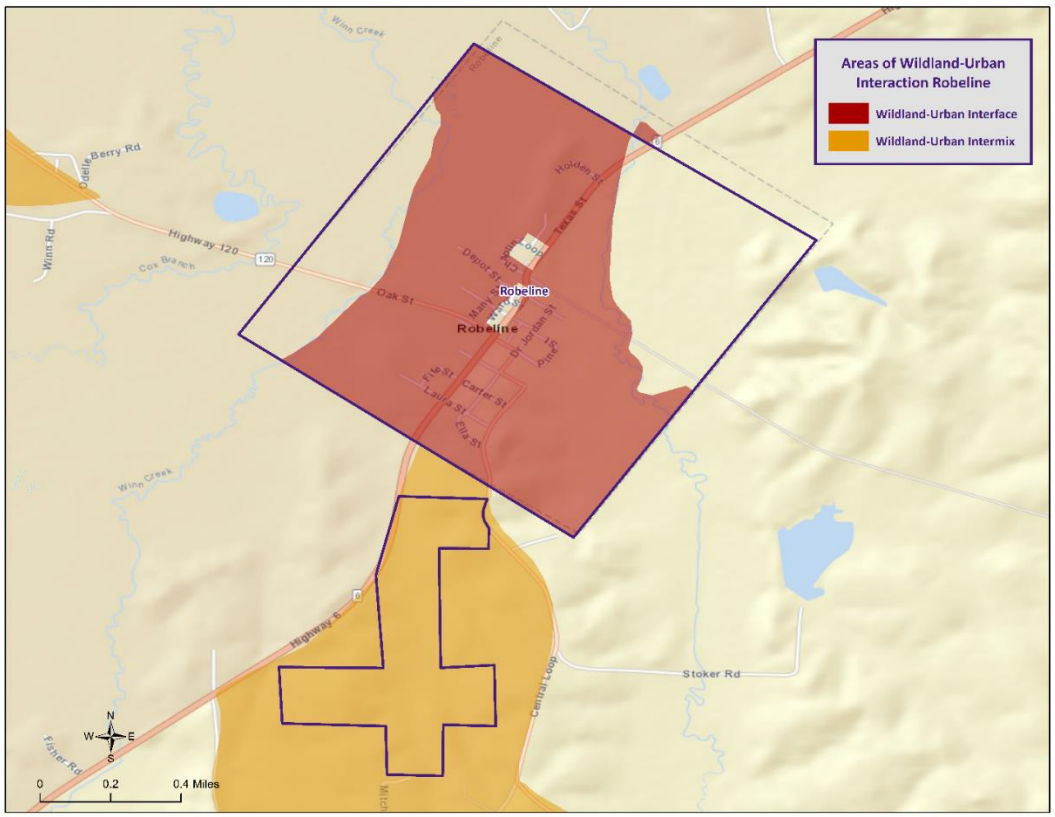


Figure 2-39: Wildland-Urban Interaction in Robeline.

Previous Occurrences / Extents

The NCEI Storm Events reports four wildfire events having occurred within the boundaries of Natchitoches Parish between the years 1990 and 2021. Since the 2016 Natchitoches Parish Hazard Mitigation Plan Update, there have been wildfire events.

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

Table 2-84: Potential Wildfire Intensity Levels for Natchitoches Parish.
(Source: Southern Wildfire Assessment Portal)

Fire Intensity	
Natchitoches Parish (Unincorporated)	High Intensity Level 5
Ashland	Moderate Intensity Level 3
Campti	Moderate Intensity Level 3
Clarence	Lowest Intensity Level 1
Goldonna	Low Intensity Level 2
Natchez	Moderate Intensity Level 3
Natchitoches	Moderate to High Intensity Level 3.5
Powhatan	Lowest Intensity Level 1
Provencal	Moderate Intensity Level 3
Robeline	Highest Intensity Level 5

Frequency / Probability

Based on historical records, there have been four significant wildfire events within the boundaries of Natchitoches Parish and its jurisdictions; therefore, the annual chance of occurrence for wildfires is estimated at less than 13%.

Estimated Potential Loses

According to the NCEI Storm Events database, there have been four wildfire events which have caused property damage, crop damage, injuries, or fatalities in Natchitoches 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 2-85: Total Building Exposure by Wildland-Urban Interaction Areas. (Source: Hazus)

Jurisdiction	Estimated Total Building Exposure
Natchitoches Parish (Unincorporated)	$1,439,163,976
Ashland	$10,554,000
Campti	$142,131,000
Clarence	$0
Goldonna	$37,873,000
Natchez	$16,183,024
Natchitoches	$1,146,533,000
Powhatan	$0
Provencal	$71,122,000
Robeline	$32,927,000
Total	**$2,896,487,000**

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 tables on the following pages. These sectors are comprised of privately owned structures/facilities, as well as locally, state, and federally owned structures/facilities.

Table 2-86: Estimated Exposure for Unincorporated Natchitoches Parish by Sector. (Source: Hazus)

Natchitoches Parish (Unincorporated)	Estimated Total Building Exposure by Sector
Agricultural	$11,598,000
Commercial	$118,679,976
Government	$4,010,000
Industrial	$24,779,000
Religious / Non-Profit	$57,326,000
Residential	$1,203,796,000
Schools	$18,975,000
Total	**$1,439,163,976**

Table 2-87: Estimated Exposure for Ashland by Sector. (Source: Hazus)

Ashland	Estimated Total Building Exposure by Sector
Agricultural	$0
Commercial	$1,636,000
Government	$0
Industrial	$0
Religious / Non-Profit	$0
Residential	$7,334,000
Schools	$1,584,000
Total	**$10,554,000**

Table 2-88: Estimated Exposure in Campti by Sector. (Source: Hazus)

Campti	Estimated Total Building Exposure by Sector
Agricultural	$188,000
Commercial	$12,022,000
Government	$7,174,000
Industrial	$2,193,000
Religious / Non-Profit	$10,358,000
Residential	$109,894,000
Schools	$302,000
Total	**$142,131,000**

Table 2-89: Estimated Exposure in Goldonna by Sector.
(Source: Hazus)

Goldonna	Estimated Total Building Exposure by Sector
Agricultural	$0
Commercial	$1,220,000
Government	$338,000
Industrial	$340,000
Religious / Non-Profit	$152,000
Residential	$33,471,000
Schools	$2,352,000
Total	**$37,873,000**

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

Natchez	Estimated Total Building Exposure by Sector
Agricultural	$0
Commercial	$1,024
Government	$0
Industrial	$0
Religious / Non-Profit	$0
Residential	$16,182,000
Schools	$0
Total	**$16,183,024**

Table 2-91: Estimated Exposure in Natchitoches by Sector.
(Source: Hazus)

Natchitoches	Estimated Total Building Exposure by Sector
Agricultural	$4,852,000
Commercial	$184,103,000
Government	$9,032,000
Industrial	$18,091,000
Religious / Non-Profit	$53,776,000
Residential	$845,534,000
Schools	$31,145,000
Total	**$1,146,533,000**

Table 2-92: Estimated Exposure in Provencal by Sector.
(Source: Hazus)

Provencal	Estimated Total Building Exposure by Sector
Agricultural	$0
Commercial	$202,000
Government	$0
Industrial	$0
Religious / Non-Profit	$1,382,000
Residential	$68,704,000
Schools	$834,000
Total	**$71,122,000**

Table 2-93: Estimated Exposure in Robeline by Sector.
(Source: Hazus)

Robeline	Estimated Total Building Exposure by Sector
Agricultural	$272,000
Commercial	$3,922,000
Government	$1,758,000
Industrial	$660,000
Religious / Non-Profit	$5,856,000
Residential	$20,459,000
Schools	$0
Total	**$32,927,000**

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 2-94: 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**
Natchitoches Parish (Unincorporated)	16,406	1,955	11.9%
Ashland	194	45	23.2%
Campti	887	776	87.5%
Clarence	326	0	0.0%
Goldonna	428	41	9.6%
Natchez	489	70	14.3%
Natchitoches	18,039	7,686	42.6%
Powhatan	101	0	0.0%
Provencal	528	101	19.1%
Robeline	117	132	100%
Total	**37,515**	**10,806**	**28.8%**

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

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

Natchitoches Parish (Unincorporated)		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	1,970	12.0%
Persons Under 5 Years	126	6.4%
Persons Under 18 Years	459	23.3%
Persons 65 Years and Over	329	16.7%
White	1,017	51.6%
Minority	953	48.4%

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

Ashland		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	45	23.2%
Persons Under 5 Years	1	2.5%
Persons Under 18 Years	15	32.7%
Persons 65 Years and Over	6	13.6%
White	39	85.6%
Minority	6	14.4%

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

Campti		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	776	87.5%
Persons Under 5 Years	69	8.9%
Persons Under 18 Years	223	28.7%
Persons 65 Years and Over	106	13.7%
White	139	17.9%
Minority	637	82.1%

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

Goldonna		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	41	9.6%
Persons Under 5 Years	1	2.8%
Persons Under 18 Years	14	35.3%
Persons 65 Years and Over	12	28.5%
White	39	95.8%
Minority	2	4.2%

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

Natchez		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	70	14.3%
Persons Under 5 Years	3	4.0%
Persons Under 18 Years	10	14.8%
Persons 65 Years and Over	17	23.6%
White	2	3.5%
Minority	68	96.5%

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

Natchitoches		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	7,686	42.6%
Persons Under 5 Years	500	6.5%
Persons Under 18 Years	1,683	21.9%
Persons 65 Years and Over	884	11.5%
White	2,850	37.1%
Minority	4,836	62.9%

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

Provencal		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	101	19.1%
Persons Under 5 Years	12	12.1%
Persons Under 18 Years	17	17.0%
Persons 65 Years and Over	31	30.2%
White	92	90.7%
Minority	9	9.3%

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

Robeline		
Category	**Total Numbers**	**Percentage of People in Hazard Area**
Number in Hazard Area	117	100.0%
Persons Under 5 Years	18	15.1%
Persons Under 18 Years	29	24.6%
Persons 65 Years and Over	23	19.8%
White	97	82.9%
Minority	20	17.1%

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 following table shows the Sperry-Piltz Ice Accumulation Index which is utilized to predict the potential damage to overhead utility systems from freezing rain and ice storms.

Table 2-103: 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 Natchitoches Parish as all of the adjacent parishes, the entire planning area for Natchitoches Parish is equally at risk for winter storms. The worst-case scenario for Natchitoches Parish and all of its jurisdictions is a level 3 on the Sperry-Piltz Ice Accumulation Index.

Previous Occurrences / Extents

The NCEI Storm Events Database reports 17 winter weather events occurring within the boundaries of Natchitoches Parish between the years 1990 and 2021. Below is a brief synopsis of the winter weather events which occurred since the last Natchitoches Parish HMP Update in 2016.

Table 2-104: Previous Occurrences for Winter Storm Events

Date	Synopsis	Property Damage	Crop Damage
January 6, 2017	Artic mass resulted in the development of icing on bridges and overpasses across the parish resulting in hazardous travel conditions.	$0	$0
December 8, 2017	Provencal record 0.5 inches of snow and Natchitoches recorded 0.1 inches.	$0	$0
January 16, 2018	In Natchitoches Parish, downtown Natchitoches recorded 1.0 inches of snow, Melrose 1.0 inches, Ashland 1.0 inches, Grand Ecore 1.0 inches, and 3 miles southwest of Marthaville 1.0 inches.	$0	$0
February 8, 2019	Ice accumulations occurred along and south of the Interstate 20 corridor resulting in the closure of Interstate 49.	$0	$0

January 10, 2021	Six inches of snow fell in Provencal, 4.5 inches in Goldonna, 4 inches in Clarence, 3 inches in Natchitoches, 3 inches in Robeline, and 1.5 inches in Campti.	$0	$0
February 14, 2021	Four inches of snow fell in Robeline and 2.3 inches in Natchitoches.	$0	$0
February 16, 2021	The parish received approximately 0.25 inches of snow.	$0	$0

Frequency / Probability

Based on historical records, there have been four significant winter weather events within the boundaries of Natchitoches Parish and its jurisdictions; therefore, the annual chance of occurrence for winter weather is estimated at 55%.

Estimated Potential Loses

Since 1990, there have been 17 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 $10,000. 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 - 2021). This provides an annual estimated potential loss of $400 and $588 per event. The following tables provide an estimate of potential property losses for Natchitoches Parish:

Table 2-105: Estimated Annual Losses Natchitoches Parish and its Jurisdictions Resulting from Winter Weather.

Estimated Annual Potential Losses from Winter Weather				
Unincorporated Area	**Ashland**	**Campti**	**Clarence**	**Goldonna**
$175	$2	$9	$3	$5

Table 2-106: Estimated Annual Losses Natchitoches Parish and its Jurisdictions Resulting from Winter Weather.

Estimated Annual Potential Losses from Winter Weather				
Natchez	**Natchitoches**	**Powhatan**	**Provencal**	**Robeline**
$5	$192	$1	$6	$1

There have been no reported injuries or fatalities as a result of winter weather over the 31-year record.

Vulnerability

See *Appendix C: Critical Facilities* for parish and municipality building exposure to winter weather.

This Page Left Intentionally Blank

3. Capability Assessment

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

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

Policies, Plans and Programs

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

Table 3-1: Planning and Regulatory Capabilities

Planning and Regulatory											
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.											
	Unincorporated Natchitoches Parish	Village of Ashland	Town of Campti	Village of Clarence	Village of Goldonna	Village of Natchez	City of Natchitoches	Village of Powhatan	Village of Provencal	Village of Robeline	Comments
Plans	**Yes / No**										
Comprehensive / Master Plan	No	Yes	No	No	Yes	No	Yes	No	No	No	
Capital Improvements Plan	No	No	No	No	Yes	No	Yes	No	No	No	
Economic Development Plan	Yes	No	No	No	Yes	No	Yes	No	No	No	
Local Emergency Operations Plan	Yes	Yes	No	No	Yes	No	Yes	No	No	No	
Continuity of Operations Plan	Yes	No	No	No	Yes	No	Yes	No	No	No	
Transportation Plan	No	No	No	No	No	No	Yes	No	No	No	
Stormwater Management Plan	No	Yes	No	No	No	No	Yes	No	No	No	
Community Wildfire Protection Plan	Yes	Yes	No	No	No	No	Yes	No	No	No	
Other plans (redevelopment, recovery, coastal zone management)	No	No	No	No	No	No	No	No	No	No	
Building Code, Permitting and Inspections	**Yes / No**										
Building Code	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	
Fire Department ISO/PIAL rating	Yes	Yes	5	6	8	4	2	10	5	6	
Site plan review requirements	No	Yes	Yes	No	No	Yes	Yes	No	No	No	
Land Use Planning and Ordinances	**Yes / No**										
Zoning Ordinance	Yes	No	Yes	No	No	Yes	Yes	No	No	No	
Subdivision Ordinance	Yes	No	No	No	No	No	Yes	No	No	No	
Floodplain Ordinance	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	No	No	No	No	Yes	Yes	No	No	No	
Flood Insurance Rate Maps	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	
Acquisition of land for open space and public recreation uses	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	
Other	No	No	No	No	No				No	No	

All jurisdictions within the Natchitoches 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

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

As of the 2023 update, Natchitoches 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 Natchitoches Parish Government is also responsible for enforcing the parish ordinances related to health and safety, property maintenance standards, and condemnation of unsafe structures.

The Natchitoches Parish Government meets regularly to consider any proposed ordinance changes, and to take final actions on proposed changes.

While local capabilities for mitigation can vary from community to community, the jurisdictions within the Natchitoches 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 Natchitoches 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.											
	Unincorporated Natchitoches Parish	Village of Ashland	Town of Campti	Village of Clarence	Village of Goldonna	Village of Natchez	City of Natchitoches	Village of Powhatan	Village of Provencal	Village of Robeline	Comments
Administration	**Yes / No**										
Planning Commission	Yes	No	No	No	No	Yes	Yes	No	No	No	
Mitigation Planning Committee	Yes	Yes	Yes	No	No	No	Yes	No	No	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	No	Yes	No	No	Yes	Yes	No	No	Yes	
Staff	**Yes / No**										
Chief Building Official	Yes	Yes	No	No	No	No	Yes	No	No	No	
Floodplain Administrator	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
Emergency Manager	Yes	Yes	No	No	No	No	Yes	No	No	No	
Community Planner	Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	
Civil Engineer	Yes	No	No	No	No	Yes	Yes	No	No	No	
GIS Coordinator	Yes	No	No	No	No	Yes	Yes	No	No	No	
Grant Writer	No	No	No	Yes	No	Yes	Yes	No	No	No	
Other	No					No		No	No	No	
Technical	**Yes / No**										
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Hazard Data & Information		No	No	No	No	No	Yes	No	No	No	
Grant Writing	No	No	Yes	No	No	No	Yes	No	No	No	
Hazus Analysis	No	No	No	No	No	No	No	No	No	No	
Other	No	No	No		No	Np		No	No	No	

Financial capabilities are the resources that Natchitoches 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 Natchitoches 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.											
	Unincorporated Natchitoches Parish	Village of Ashland	Town of Campti	Village of Clarence	Village of Goldonna	Village of Natchez	City of Natchitoches	Village of Powhatan	Village of Provencal	Village of Robeline	Comments
Funding Resource	**Yes / No**										
Capital Improvements project funding	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	
Authority to levy taxes for specific purposes	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	
Fees for water, sewer, gas, or electric services	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes (Sewer)	
Impact fees for new development	Yes	No	Yes	No	No	Yes	No	No	No	No	
Stormwater Utility Fee	No	No	No	Yes	No	No	No	No	No	No	
Community Development Block Grant (CDBG)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Other Funding Programs	No	Yes	CWEP	No	Yes-Grants	No	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 Natchitoches Parish planning area have existing education and outreach programs to implement mitigation activities, as well as communicate risk and hazard related information to its communities. Specifically, focusing on advising repetitive loss property owners of ways they can reduce their exposure to damage by repetitive flooding remains a priority for the entire parish. The existing programs are as follows:

Table 3-4: Education and Outreach Capabilities

Education and Outreach											
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.											
Program / Organization	Unincorporated Natchitoches Parish	Village of Ashland	Town of Campti	Village of Clarence	Village of Goldonna	Village of Natchez	City of Natchitoches	Village of Powhatan	Village of Provencal	Village of Robeline	Comments
	Yes / No										
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	No	No	Yes	No	Yes	No	No	No	No	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	
Natural Disaster or safety related school program	Yes	No	Yes	No	Yes	Yes	no	No	No	No	
Storm Ready certification	No	No	No	No	No	No	no	No	No	No	
Firewise Communities certification		No	No	No	No	No	no	No	No	No	
Public/Private partnership initiatives addressing disaster-related issues	No	No	No	No	No	Yes	Yes	No	No	No	
Other	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 Natchitoches Parish planning area remain committed to expanding and improving on the existing capabilities within the parish. Communities will work together along with Natchitoches Parish toward increased participation in funding opportunities and available mitigation programs. Should funding become available, the hiring of additional personnel to dedicate to hazard mitigation initiatives and programs, as well as increasing ordinances within the parish, will enhance and expand overall risk reduction for the entirety of Natchitoches 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 October 1, 2022, neither Natchitoches Parish nor any of its incorporated jurisdictions participate in the CRS program

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 October 2022, 352 communities in the State of Louisiana participate in the Federal Emergency Management Agency's National Flood Insurance Program (NFIP). Of these communities, 47 (or 13%) participate in the Community Rating System (CRS). Jefferson Parish leads the state with a rating of Class 5, followed by four cities with a rating of Class 6: the Cities of Gretna and Kenner in Jefferson Parish and the Cities of Mandeville and Slidell in St. Tammany Parish. Of the top fifty Louisiana communities, in terms of total flood insurance policies held by residents, 29 participate in the CRS. The remaining 21 communities present an outreach opportunity for encouraging participation in the CRS.

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

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

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

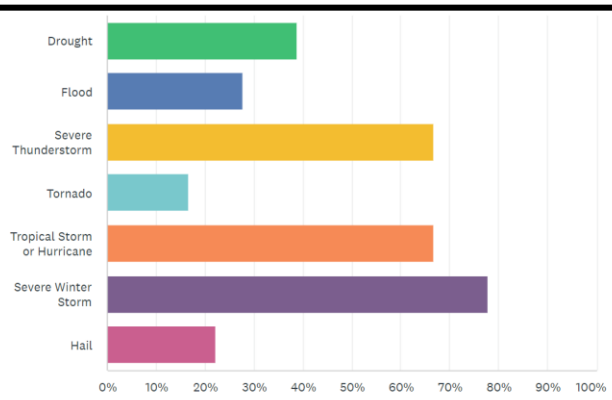
The Hazard Mitigation Strategy for Natchitoches Parish and its incorporated communities have a common guiding principle and is the demonstration of the parish's commitment to reduce risks from hazards. The strategy also serves as a guide for parish and local decision makers as they commit resources to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

Officials from all jurisdictions within the planning area confirmed the goals, objectives, actions and projects over the period of the hazard mitigation plan update process. The mitigation actions and projects in this 2023 HMP update are a product of analysis and review of the Natchitoches Parish Hazard Mitigation Plan Planning Committee under the coordination of the Natchitoches 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 October 2022 – January 2023.

An online public opinion survey of Natchitoches Parish residents was conducted between October 2022 and January 2023. The survey was designed to capture public perceptions and opinions regarding natural hazards in the Natchitoches Parish planning area. In addition, the survey attempted to collect 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. Severe Winter Storms
2. Severe Thunderstorms
3. Tropical Storms or Hurricanes



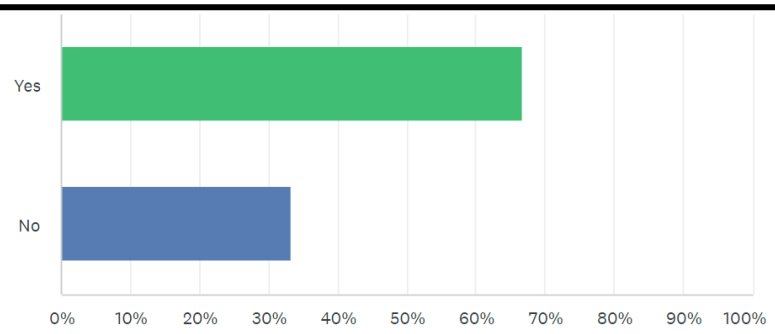
ANSWER CHOICES	RESPONSES	
Drought	38.89%	7
Flood	27.78%	5
Severe Thunderstorm	66.67%	12
Tornado	16.67%	3
Tropical Storm or Hurricane	66.67%	12
Severe Winter Storm	77.78%	14
Hail	22.22%	4
Total Respondents: 18		

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

1. Tornadoes
2. Severe Winter Storms
3. Tropical Storms or Hurricanes

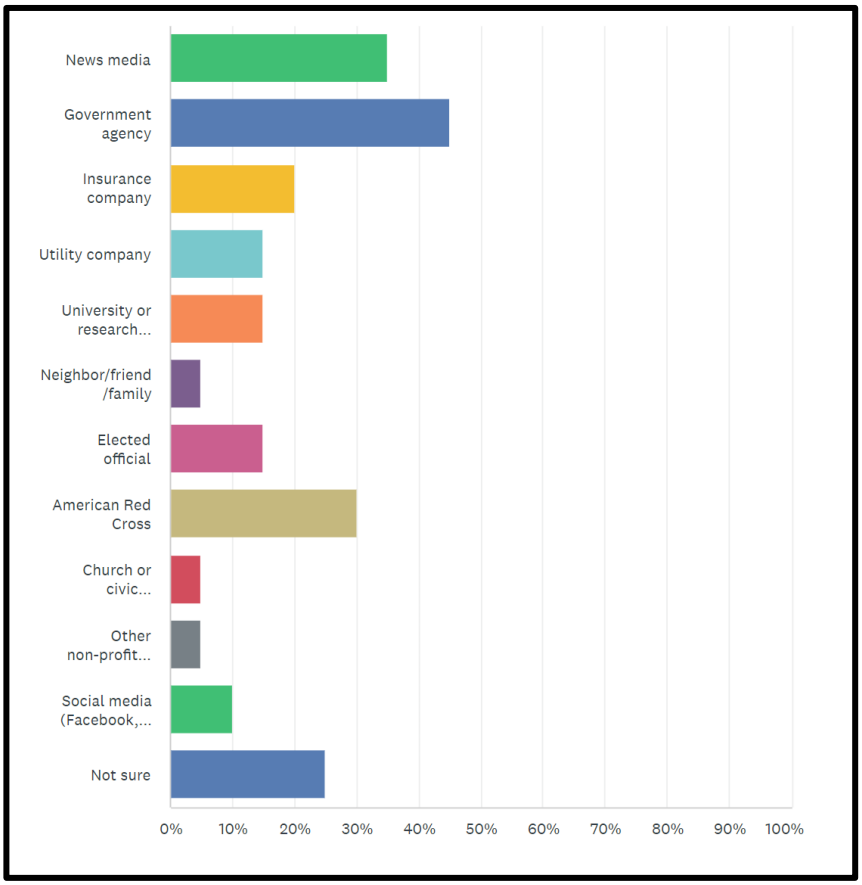
	NOT CONCERNED	NOT VERY CONCERNED	NEUTRAL	SOMEWHAT CONCERNED	VERY CONCERNED	TOTAL	WEIGHTED AVERAGE
Tornado	0.00% 0	4.76% 1	0.00% 0	38.10% 8	57.14% 12	21	4.48
Severe Winter Storm	0.00% 0	4.76% 1	19.05% 4	23.81% 5	52.38% 11	21	4.24
Tropical Storm or Hurricane	0.00% 0	4.76% 1	14.29% 3	42.86% 9	38.10% 8	21	4.14
Severe Thunderstorm	0.00% 0	9.52% 2	14.29% 3	42.86% 9	33.33% 7	21	4.00
Flood	5.00% 1	0.00% 0	20.00% 4	45.00% 9	30.00% 6	20	3.95
Hail	0.00% 0	14.29% 3	19.05% 4	28.57% 6	38.10% 8	21	3.90
Drought	4.76% 1	4.76% 1	23.81% 5	52.38% 11	14.29% 3	21	3.67

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



ANSWER CHOICES	RESPONSES	
Yes	66.67%	14
No	33.33%	7
TOTAL		21

Always important to decision makers is how citizens best receive emergency information. According to the survey, the citizens within the Natchitoches 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 Natchitoches Parish Hazard Mitigation Plan Planning Committee are representative of the outlook of the community at large. Full survey results can be found here:

https://www.surveymonkey.com/results/SM-iyp6FH6yiAdYxEa0kfBChg_3D_3D/

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

The goals are as follows:

1. 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 and municipalities
4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards

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

Prior to the adoption of the 2016 Natchitoches Parish Hazard Mitigation Plan, large portions of Louisiana were impacted by several flooding events whose ramifications are still being felt by the population. Because of this event, Natchitoches Parish and its jurisdictions prioritized its efforts and became much more aggressive in seeking funding for flood mitigation efforts, particularly related to drainage. Pressure was placed on political leaders throughout the parish and jurisdictions to ensure that money and resources were sought and made available to mitigate against such events in the future.

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

2023 Mitigation Actions and Update on Previous Plan Actions

The Natchitoches Parish Hazard Mitigation Plan Planning Committee identified new actions that would reduce and/or prevent future damage within the Natchitoches 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 Natchitoches

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.

Natchitoches Parish Mitigation Actions

Previous Action Update

Unincorporated Natchitoches Parish Mitigation Action Update							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
N1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started – Carried Over (See Unincorporated Natchitoches Parish Mitigation Action 1)
N2: Drainage Improvement	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	In Progress
N3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	In Progress

N4: Safe Room Projects	Construction of a safe room for first responders located in Natchitoches Parish. Other locations will be identified based on funding availability.	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Unincorporated Natchitoches Parish Mitigation Action 2)
N5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	In Progress
N6: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	Not Started – Carried Over (See Unincorporated Natchitoches Parish Mitigation Action 3)
N7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Thunderstorms	1	Not Started – Carried Over (See Unincorporated Natchitoches Parish Mitigation Action 4)
N8: Warning Systems	Update/upgrade public warning system components throughout Natchitoches Parish as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Unincorporated Natchitoches Parish Mitigation Action 5)

N9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Unincorporated Natchitoches Parish Mitigation Action 6)
N10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HMGP, Local	1-5 years	Natchitoches Parish Government, Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,2,3,4	Ongoing

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED NATCHITOCHES PARISH	
	DESCRIPTION
UNINCORPORATED NATCHITOCHES PARISH MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Natchitoches Parish Government
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED NATCHITOCHES PARISH	
	DESCRIPTION
UNINCORPORATED NATCHITOCHES PARISH MITGATION ACTION 2	Safe Room Projects
LEAD AGENCY	Natchitoches Parish Government
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED NATCHITOCHES PARISH	
	DESCRIPTION
UNINCORPORATED NATCHITOCHES PARISH MITGATION ACTION 3	Generators for Continuity of Operations and Government
LEAD AGENCY	Natchitoches Parish Government
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Adding back up generators to critical facilities will ensure that essential practices remain operational during extreme hazardous events.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED NATCHITOCHES PARISH	
	DESCRIPTION
UNINCORPORATED NATCHITOCHES PARISH MITGATION ACTION 4	Lightning Mitigation
LEAD AGENCY	Natchitoches Parish Government
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED NATCHITOCHES PARISH	
	DESCRIPTION
UNINCORPORATED NATCHITOCHES PARISH MITGATION ACTION 5	Warning Systems
LEAD AGENCY	Natchitoches Parish Government
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Update/upgrade public warning system components throughout Natchitoches as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED NATCHITOCHES PARISH	
	DESCRIPTION
UNINCORPORATED NATCHITOCHES PARISH MITGATION ACTION 6	Potable Water
LEAD AGENCY	Natchitoches Parish Government
SUPPORTING AGENCIES	Natchitoches Parish Public Works
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS UNINCORPORATED NATCHITOCHES PARISH	
	DESCRIPTION
UNINCORPORATED NATCHITOCHES PARISH MITGATION ACTION 7	Water Conservation Measures
LEAD AGENCY	Natchitoches Parish Government
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Village of Ashland Mitigation Actions

Previous Action Update

Village of Ashland							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
A1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage from high winds, and helps assure that the public buildings can be used, occupied and operable during or after storms.	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1, 2, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 1)
A2: Drainage Improvements	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1, 3, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 2)
A3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties. .	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1, 3, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 3)
A4: Safe Room Projects	Construction of a safe room for first responders located in Ashland. Other locations will be identified based on funding availability.	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1, 2	Not Started - Carried Over (See Village of Ashland Mitigation Action 4)

A5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1, 2, 3, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 5)
A6: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	Not Started - Carried Over (See Village of Ashland Mitigation Action 6)
A7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Thunderstorms	1	Not Started - Carried Over (See Village of Ashland Mitigation Action 7)
A8: Warning Systems	Update/upgrade public warning system components throughout Ashland as necessary. Install audible and/or reverse 911 warning system(s)	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started - Carried Over (See Village of Ashland Mitigation Action 8)
A9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1, 2	Not Started - Carried Over (See Village of Ashland Mitigation Action 9)
A10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HGMP, Local	1-5 years	Village of Ashland Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1, 2, 3, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 10)

A11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Village Budget, Grant Funding	1-5 years	Village Engineer	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones	1, 3, 4	Delete - Duplicate A2
A12: Power Supply and Generators	Support the parish to add back up power supply/generators at the critical facilities in Ashland.	Parish and Village Budgets	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones	1	Delete - Duplicate A6
A13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Village Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes	1, 3, 4	Delete - Duplicate A1
A14: Disaster Warning System	Install a disaster warning system in the Village that will allow early warning of hazard events. Implement a public notification system, such as sirens or a call down system with a backup communication system.	Parish Budget	1-5 years	Parish Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1, 2	Delete - Duplicate A8
A15: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time / Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 11)
A16: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time / HMGP	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 12)
A17: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, Winter Weathers, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Village Budgets, Business and Industry	1-5 years	Mayor and Village Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1, 2	Delete - Duplicate A5

A18: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1, 3	Delete - Duplicate A2, A3
A19: Parish wide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1, 3, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 13)
A20: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1, 2, 3, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 14)
A21: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Town Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1, 2, 3, 4	Not Started - Carried Over (See Village of Ashland Mitigation Action 15)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	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:
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	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.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Adding back up generators to critical facilities will ensure that essential practices remain operational during extreme hazardous events.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 8	Warning Systems
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Update/upgrade public warning system components throughout Natchitoches as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 9	Potable Water
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	An increased emphasis on the purchase of flood insurance will help to reduce the number of uninsured structures impacted by flooding events, reducing the strain on the NFIP program
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 11	Day to Day Operations
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, Local Funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Continue day-to-day operations in the event of a hazard or disaster.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Preventing the disruption of day to day operations is essential for allowing essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 12	New Initiatives
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 13	Parish-wide Drainage Plan
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Participate and facilitate the creations of a parish-wide drainage plan.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creation of a Parish-wide Drainage Plan will allow for a holistic view of the current drainage system and identify systemwide improvements to be pursued in the future
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 14	Additional Development Guidelines
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 15	Underground Utilities
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ASHLAND	
	DESCRIPTION
VILLAGE OF ASHLAND MITGATION ACTION 16	Water Conservation Measures
LEAD AGENCY	Village of Ashland Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Town of Campti Mitigation Actions

Previous Action Update

Town of Campti							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
C1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started – Carried Over (See Town of Campti Mitigation Action 1)
C2: Drainage Improvements	Will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, while also keeping open roadways during periods of high precipitation. Benefits: Relieves Parish or local government and property owners of the continual flooding problems, with closed roadways (loss of function). Saves public funds for road repairs, drainage ditch repairs, sandbagging and blocking of roadways during storm periods.	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	In Progress
C3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Town of Campti Mitigation Action 2)
C4: Safe Room Projects	Construction of a safe room for first responders located in Campti. Other locations will be identified based on funding availability.	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Town of Campti Mitigation Action 3)

C5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Ongoing
C6: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	Ongoing
C7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Thunderstorms	1	Ongoing
C8: Warning Systems	Update/upgrade public warning system components throughout Campti as necessary. Install audible and/or reverse 911 warning system(s)	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Ongoing
C9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Town of Campti Mitigation Action 4)
C10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood	HGMP, Local	1-5 years	Town of Campti Mayor's Office/ Natchitoches	Flooding, Tropical Cyclones	1,2,3,4	Not Started – Carried Over (See Town of Campti

	insurance through the National Flood Insurance Program (NFIP).			Parish OHSEP			Mitigation Action 5)
C11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Town Budget, HMGP	1-5 years	Town Engineer	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate C2
C12: Power Supply and Generators	Support the parish to add back up power supply/generators at the critical facilities in Campti.	Parish and Town Budgets, HMGP	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1	Delete - Duplicate C6
C13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Town Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate C1
C14: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time/ Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Ongoing
C15: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time, HGMP	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See Town of Campti Mitigation Action 6)
C16: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Town Budgets, Business and Industry	1-5 years	Mayor and Town Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Delete - Duplicate C5

C17: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Tropical Cyclones	1,3	Delete - Duplicate C2. C3
C18: Parishwide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Town Budgets	1-5 years	Mayor	Flooding, Tropical Cyclones	1,3,4	Ongoing
C19: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and Town Budgets	1-5 years	Mayor, Town Planning Director and Floodplain Manager	Flooding, Tropical Cyclones	1,2,3,4	Not Started – Carried Over (See Town of Campti Mitigation Action 7)
C20: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Town Budgets	1-5 years	Mayor, Town Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Town of Campti Mitigation Action 8)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 2	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 3	Safe Room Projects
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 4	Potable Water
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 5	Promote Flood Insurance
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	An increased emphasis on the purchase of flood insurance will help to reduce the number of uninsured structures impacted by flooding events, reducing the strain on the NFIP program
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 6	New Initiatives
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 7	Additional Development Guidelines
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 8	Underground Utilities
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS TOWN OF CAMPTI	
	DESCRIPTION
TOWN OF CAMPTI MITGATION ACTION 9	Water Conservation Measures
LEAD AGENCY	Town of Campti Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Village of Clarence Mitigation Actions

Previous Action Update

Village of Clarence							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
C1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started – Carried Over (See Village of Clarence Mitigation Action 1)
C2: Drainage Improvements	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, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	In Progress
C3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties. .	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Clarence Mitigation Action 2)
C4: Safe Room Projects	Construction of a safe room for first responders located in Clarence. Other locations will be identified based on funding availability.	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Clarence Mitigation Action 3)

C5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Ongoing
C6: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	In Progress
C7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Thunderstorms	1	Not Started – Carried Over (See Village of Clarence Mitigation Action 4)
C8: Warning Systems	Update/upgrade public warning system components throughout Clarence as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	In Progress
C9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/ installation of backflow preventers at appropriate critical locations.	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Clarence Mitigation Action 5)

C10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HMGP, Local	1-5 years	Village of Clarence Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,2,3,4	Ongoing
C11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Village Budget, HMGP	1-5 years	Village Engineer	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate C2
C12: Power Supply and Generators	Support the parish to add back up power supply/generators at the critical facilities in Clarence	Parish and Village Budgets, HMGP	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1	Delete - Duplicate C6
C13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Village Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate C1
C14: Disaster Warning System	Install a disaster warning system in the Village that will allow early warning of hazard events. Implement a public notification system, such as sirens or a call down system with a backup communication system.	Parish Budget	1-5 years	Parish Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,2	Delete - Duplicate C8
C15: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time, Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Ongoing

C16: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time, HMGP	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See Village of Clarence Mitigation Action 6)
C17: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Village Budgets, Business and Industry	1-5 years	Mayor and Village Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Delete - Duplicate C5
C18: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Tropical Cyclones	1,3	Delete - Duplicate C2, C3
C19: Parishwide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Village Budgets	1-5 years	Mayor	Flooding, Tropical Cyclones	1,3,4	In Progress
C20: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Tropical Cyclones	1,2,3,4	Not Started – Carried Over (See Village of Clarence Mitigation Action 7)
C21: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Town Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Clarence Mitigation Action 8)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 2	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 3	Safe Room Projects
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 4	Lightning Mitigation
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 5	Potable Water
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 6	New Initiatives
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 7	Additional Development Guidelines
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 8	Underground Utilities
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF CLARENCE	
	DESCRIPTION
VILLAGE OF CLARENCE MITGATION ACTION 9	Water Conservation Measures
LEAD AGENCY	Village of Clarence Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Village of Goldonna Mitigation Actions

Previous Action Update

Village of Goldonna							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
G1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 1)
G2: Drainage Improvements	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.	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 2)
G3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 3)
G4: Safe Room Projects	Construction of a safe room for first responders located in Goldonna. Other locations will be identified based on funding availability.	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Goldonna Mitigation Action 4)

G5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 5)
G6: 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	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	Not Started – Carried Over (See Village of Goldonna Mitigation Action 6)
G7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Thunderstorms	1	Not Started – Carried Over (See Village of Goldonna Mitigation Action 7)
G8: Warning Systems	Update/upgrade public warning system components throughout Goldonna as necessary. Install audible and/or reverse 911 warning system(s)	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Goldonna Mitigation Action 8)
G9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Goldonna Mitigation Action 9)

G10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA, Local	1-5 years	Village of Goldonna Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,2,3,4	Ongoing
G11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Village Budget, Grant Funding	1-5 years	Village Engineer	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate G2
G12: Power Supply and Generators	Support the parish to add back up power supply/generators at the critical facilities in Goldonna	Parish and Village Budgets	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1	Delete - Duplicate G6
G13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Village Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate G1
G14: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time / Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Ongoing
G15: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time / Grant Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 10)

G16: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Village Budgets, Business and Industry	1-5 years	Mayor and Village Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Delete - Duplicate G5
G17: Flooding Structural Solutions	Pursue elevation/ acquisition/ floodproofing/ reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Tropical Cyclones	1,3	Delete - Duplicate G2, G3
G18: Parishwide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Village Budgets	1-5 years	Mayor	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 11)
G19: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Tropical Cyclones	1,2,3,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 12)
G20: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Town Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Goldonna Mitigation Action 13)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	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:
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	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.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Adding back up generators to critical facilities will ensure that essential practices remain operational during extreme hazardous events.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 8	Warning Systems
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Update/upgrade public warning system components throughout Natchitoches as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 9	Potable Water
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 10	New Initiatives
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 11	Parish-wide Drainage Plan
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Participate and facilitate the creations of a parish-wide drainage plan.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creation of a Parish-wide Drainage Plan will allow for a holistic view of the current drainage system and identify systemwide improvements to be pursued in the future
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 12	Additional Development Guidelines
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 13	Underground Utilities
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 14	Water Conservation Measures
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF GOLDONNA	
	DESCRIPTION
VILLAGE OF GOLDONNA MITGATION ACTION 15	Road Elevation
LEAD AGENCY	Village of Goldonna Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government; Natchitoches Parish Public Works
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Low
Action Description	Elevate roads in vulnerable locations prone to flooding and drainage problems.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Elevating roads would allow emergency vehicles to travel freely within the parish during a flood event and allow for late evacuations during flooding.
Current Status of Action	New
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

Village of Natchez Mitigation Actions

Previous Action Update

Village of Natchez							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
N1: 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.	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 1)
N2: Drainage Improvements	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.	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	In Progress
N3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 2)
N4: Safe Room Projects	Construction of a safe room for first responders located in Natchez. Other locations will be identified based on funding availability.	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	In Progress

N5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 3)
N6: 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	Village of Natchez/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	Not Started - Carried Over (See Village of Natchez Mitigation Action 4)
N7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Thunderstorms	1	Not Started - Carried Over (See Village of Natchez Mitigation Action 5)
N8: Warning Systems	Update/upgrade public warning system components throughout Natchez as necessary. Install audible and/or reverse 911 warning system(s)	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	In Progress
N9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started - Carried Over (See Village of Natchez Mitigation Action 6)
N10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	FEMA, Local	1-5 years	Village of Natchez/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,2,3,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 7)

N11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Village Budget, Grant Funding	1-5 years	Village Engineer	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate N2
N12: Power Supply and Generators	Support the parish to add back up power supply/ generators at the critical facilities in Natchez.	Parish and Village Budgets	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1	Delete - Duplicate N6
N13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Village Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate N1
N14: Disaster Warning System	Install a disaster warning system in the Village that will allow early warning of hazard events. Implement a public notification system, such as sirens or a call down system with a backup communication system.	Parish Budget	1-5 years	Parish Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,2	Delete - Duplicate N8
N15: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time / Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 8)
N16: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time / Grant Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 9)

N17: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Village Budgets, Business and Industry	1-5 years	Mayor and Village Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Delete - Duplicate N5
N18: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Tropical Cyclones	1,3	Delete - Duplicate N2, N3
N19: Parish wide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Village Budgets	1-5 years	Mayor	Flooding, Tropical Cyclones	1,3,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 10)
N20: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Tropical Cyclones	1,2,3,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 11)
N21: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe storms.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started - Carried Over (See Village of Natchez Mitigation Action 12)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 2	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 3	Education and Outreach
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 4	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Adding back up generators to critical facilities will ensure that essential practices remain operational during extreme hazardous events.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 5	Lightning Mitigation
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 6	Potable Water
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 7	Promote Flood Insurance
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	An increased emphasis on the purchase of flood insurance will help to reduce the number of uninsured structures impacted by flooding events, reducing the strain on the NFIP program
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 8	Day to Day Operations
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, Local Funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Continue day-to-day operations in the event of a hazard or disaster.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Preventing the disruption of day to day operations is essential for allowing essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 9	New Initiatives
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 10	Parish-wide Drainage Plan
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Participate and facilitate the creations of a parish-wide drainage plan.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creation of a Parish-wide Drainage Plan will allow for a holistic view of the current drainage system and identify systemwide improvements to be pursued in the future
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 11	Additional Development Guidelines
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 12	Underground Utilities
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF NATCHEZ	
	DESCRIPTION
VILLAGE OF NATCHEZ MITGATION ACTION 13	Water Conservation Measures
LEAD AGENCY	Village of Natchez Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

City of Natchitoches Mitigation Actions

Previous Action Update

City of Natchitoches							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
N1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started – Carried Over (See City of Natchitoches Mitigation Action 1)
N2: Drainage Improvements	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, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	In Progress
N3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See City of Natchitoches Mitigation Action 2)
N4: Safe Room Projects	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See City of Natchitoches Mitigation Action 3)

N5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	In Progress
N6: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	In Progress
N7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Thunderstorms	1	Not Started – Carried Over (See City of Natchitoches Mitigation Action 4)
N8: Warning Systems	Update/upgrade public warning system components throughout Natchitoches as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See City of Natchitoches Mitigation Action 5)
N9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See City of Natchitoches Mitigation Action 6)

N10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HMGP, Local	1-5 years	City of Natchitoches Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,2,3,4	Ongoing
N11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	City Budget, HMGP	1-5 years	City Engineer	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate N2
N12: Power Supply and Generators	Support the parish to add back up power supply/generators at the critical facilities in the City Natchitoches.	Parish and City Budgets	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1	Delete - Duplicate N6
N13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and City Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate N1
N14: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time, Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Ongoing
N15: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time, HMGP	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See City of Natchitoches Mitigation Action 7)

N16: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and City Budgets, Business and Industry	1-5 years	Mayor and City Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Delete - Duplicate N5
N17: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Tropical Cyclones	1,3	Delete - Duplicate N2, N3
N18: Parishwide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and City Budgets	1-5 years	Mayor	Flooding, Tropical Cyclones	1,3,4	Ongoing
N19: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and City Budgets	1-5 years	Mayor, City Planning Director and Floodplain Manager	Flooding, Tropical Cyclones	1,2,3,4	In Progress
N20: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Town Budgets	1-5 years	Mayor, City Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See City of Natchitoches Mitigation Action 8)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 2	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 3	Safe Room Projects
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 4	Lightning Mitigation
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 5	Warning Systems
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Update/upgrade public warning system components throughout Natchitoches as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 6	Potable Water
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 7	New Initiatives
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 8	Underground Utilities
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS CITY OF NATCHITOCHES	
	DESCRIPTION
CITY OF NATCHITOCHES MITGATION ACTION 9	Water Conservation Measures
LEAD AGENCY	City of Natchitoches Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Village of Powhatan Mitigation Actions

Previous Action Update

Village of Powhatan							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
P1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 1)
P2: Drainage Improvements	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, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 2)
P3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 3)
P4: Safe Room Projects	Construction of a safe room for first responders located in Powhatan. Other locations will be identified based on funding availability.	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Powhatan Mitigation Action 4)

P5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 5)
P6: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	Not Started – Carried Over (See Village of Powhatan Mitigation Action 6)
P7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Thunderstorms	1	Not Started – Carried Over (See Village of Powhatan Mitigation Action 7)
P8: Warning Systems	Update/ upgrade public warning system components throughout Powhatan as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Powhatan Mitigation Action 8)
P9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.	HMGP, Local	1-5 years	Village of Powhatan Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Powhatan Mitigation Action 9)
P10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability,	HMGP, Local	1-5 years	Village of Powhatan Mayor's	Flooding, Tropical Cyclones	1,2,3,4	Not Started– Carried Over (See Village

	cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).			Office/ Natchitoches Parish OHSEP			of Powhatan Mitigation Action 10)
P11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Village Budget, HMGP	1-5 years	Village Engineer	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate P2
P12: Power Supply and Generators	Pursue funding to add back up power supply / generators in critical locations.	Parish and Village Budgets	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1	Delete - Duplicate P6
P13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Village Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate P1
P14: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time, Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 11)
P15: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time, Grant Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 12)

P16: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Village Budgets, Business and Industry	1-5 years	Mayor and Village Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Delete - Duplicate P5
P17: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Tropical Cyclones	1,3	Delete - Dupicate P2, P3
P18: Parishwide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Village Budgets	1-5 years	Mayor	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 13)
P19: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Tropical Cyclones	1,2,3,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 14)
P20: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Town Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Powhatan Mitigation Action 15)
P21: Tree Trimming	Educate the public on importance of keeping trees trimmed.	Parish and Village Budgets	1-5 years	Public Works Director	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,2	Not Started – Carried Over (See Village of Powhatan Mitigation Action 16)

P22: Highway Drainage	Maintain and clean out drainage ways along highways.	Parish and Village Budgets	1-5 years	Parish Public Works Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	3	Not Started – Carried Over (See Village of Powhatan Mitigation Action 17)
P23: Regulatory Standards	Continue to consider higher regulatory standards and adopt/enforce those that are beneficial to the community.	Parish and Village Budgets	1-5 years	Parish Floodplain Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1	Not Started – Carried Over (See Village of Powhatan Mitigation Action 18)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	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:
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	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.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Adding back up generators to critical facilities will ensure that essential practices remain operational during extreme hazardous events.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 8	Warning Systems
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Update/upgrade public warning system components throughout Natchitoches as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 9	Potable Water
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 10	Promote Flood Insurance
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	An increased emphasis on the purchase of flood insurance will help to reduce the number of uninsured structures impacted by flooding events, reducing the strain on the NFIP program
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 11	Day to Day Operations
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, Local Funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Continue day-to-day operations in the event of a hazard or disaster.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Preventing the disruption of day to day operations is essential for allowing essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 12	New Initiatives
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 13	Parish-wide Drainage Plan
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Participate and facilitate the creations of a parish-wide drainage plan.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creation of a Parish-wide Drainage Plan will allow for a holistic view of the current drainage system and identify systemwide improvements to be pursued in the future
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 14	Additional Development Guidelines
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 15	Underground Utilities
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 16	Tree Trimming
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government, Natchitoches Parish Public Works
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Low
Action Description	Educate the public on importance of keeping trees trimmed.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing the public on the benefits of keep trees properly trimmed with help to reduce impacts stemming from high wind and ice events
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 17	Highway Drainage
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government, Natchitoches Parish Public Works
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Low
Action Description	Maintain and clean out drainage ways along highways.
Type of Mitigation Action	Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Keeping drainage ways clear along local highways and other roads will help reduce flooding related road closures
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 18	Regulatory Standards
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government, Natchitoches Parish Public Works
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Low
Action Description	Consider higher regulatory standards and adopt/enforce those that are beneficial to the community.
Type of Mitigation Action	Local Plans and Regulations
How Action Aligns with Risk Reduction	Adoption and enforcement of appropriate higher regulatory standards will reduce losses and improve resiliency throughout Powhatan
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF POWHATAN	
	DESCRIPTION
VILLAGE OF POWHATAN MITGATION ACTION 19	Water Conservation Measures
LEAD AGENCY	Village of Powhatan Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Village of Provencal Mitigation Actions

Previous Action Update

Village of Provencal							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
P1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 1)
P2: Drainage Improvements	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, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 2)
P3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 3)
P4: Safe Room Projects	Construction of a safe room for first responders located in Provencal. Other locations will be identified based on funding availability.	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Not Started – Carried Over (See Village of Provencal Mitigation Action 4)

P5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 5)
P6: Generators for Continuity of Operations and Government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1	Not Started – Carried Over (See Village of Provencal Mitigation Action 6)
P7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Thunderstorms	1	Ongoing
P8: Warning Systems	Update/upgrade public warning system components throughout Provencal as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Ongoing
P9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/ installation of backflow preventers at appropriate critical locations.	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Ongoing

P10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HMGP, Local	1-5 years	Village of Provencal Mayor's Office/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,2,3,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 7)
P11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Village Budget, HMGP	1-5 years	Village Engineer	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate P2
P12: Power Supply and Generators	Support the parish to add back up power supply/generators at the critical facilities in Provencal.	Parish and Village Budgets	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tropical Cyclones, Winter Weather	1	Delete - Duplicate P6
P13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Village Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	1,3,4	Delete - Duplicate P1
P14: Disaster Warning System	Install a disaster warning system in the Village that will allow early warning of hazard events. Implement a public notification system, such as sirens or a call down system with a backup communication system.	Parish Budget	1-5 years	Parish Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,2	Delete - Duplicate P8
P15: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time, Local Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 8)

P16: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time, Grant Funding	1-5 years	Parish Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 9)
P17: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Village Budgets, Business and Industry	1-5 years	Mayor and Village Emergency Manager	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2	Delete - Duplicate P5
P18: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Tropical Cyclones	1,3	Delete - Duplicate P2, P3
P19: Parishwide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Village Budgets	1-5 years	Mayor	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 10)
P20: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Tropical Cyclones	1,2,3,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 11)

P21: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Town Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Provencal Mitigation Action 12)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	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:
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	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.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Adding back up generators to critical facilities will ensure that essential practices remain operational during extreme hazardous events.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 7	Promote Flood Insurance
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	An increased emphasis on the purchase of flood insurance will help to reduce the number of uninsured structures impacted by flooding events, reducing the strain on the NFIP program
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 8	Day to Day Operations
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, Local Funding
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Continue day-to-day operations in the event of a hazard or disaster.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Preventing the disruption of day to day operations is essential for allowing essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 9	New Initiatives
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 10	Parish-wide Drainage Plan
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Participate and facilitate the creations of a parish-wide drainage plan.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creation of a Parish-wide Drainage Plan will allow for a holistic view of the current drainage system and identify systemwide improvements to be pursued in the future
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 11	Additional Development Guidelines
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 12	Underground Utilities
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF PROVENCAL	
	DESCRIPTION
VILLAGE OF PROVENCAL MITGATION ACTION 13	Water Conservation Measures
LEAD AGENCY	Village of Provencal Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Village of Robeline Mitigation Actions

Previous Action Update

Village of Robeline							
Jurisdiction-Specific Action	**Action Description**	**Funding Source**	**Target Completion Date**	**Responsible Party, Agency, or Department**	**Hazard**	**Goal**	**Status**
R1: Building Retrofits	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damages and helps assure that the public buildings can be used, occupied and operable during or after storms.	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Thunderstorms, Tropical Cyclones, Tornadoes	1,2,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 1)
R2: Drainage Improvements	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, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Flooding, Thunderstorms, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 2)
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties. .	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 3)
R4: Safe Room Projects	Construction of a safe room for first responders located in Robeline. Other locations will be identified based on funding availability.	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Tornadoes, Thunderstorms, Tropical Cyclones, Wildfires	1,2	Not Started – Carried Over (See Village of Robeline Mitigation Action 4)

R5: Education and Outreach	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas. Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Flooding, Tropical Cyclones, Tornadoes, Wildfires, Thunderstorms, Winter Weather, Drought	1,2,3,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 5)
R6: Generators for continuity of operations and government	Procurement and Installation of generators at public facilities to ensure continued operations during and after events.	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Tornadoes, Winter Weather, Tropical Cyclones, Thunderstorms	1	Not Started – Carried Over (See Village of Robeline Mitigation Action 6)
R7: Lightning Mitigation	Procurement and Installation of Lightning rods and surge protectors for public buildings to preserve life and property	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Thunderstorms	1	Not Started – Carried Over (See Village of Robeline Mitigation Action 7)
R8: Warning Systems	Update/upgrade public warning system components throughout Robeline as necessary. Install audible and/or reverse 911 warning system(s)	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Winter Weather, Wildfires, Tornadoes, Tropical Cyclones	1,2	Not Started – Carried Over (See Village of Robeline Mitigation Action 8)
R9: Potable Water	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/ installation of backflow preventers at appropriate critical locations.	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Tropical Cyclones, Thunderstorms, Tornadoes, Drought	1,2	Not Started – Carried Over (See Village of Robeline Mitigation Action 9)

R10: Promote Flood Insurance	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the National Flood Insurance Program (NFIP).	HMGP, Local	1-5 years	Village of Robeline/ Natchitoches Parish OHSEP	Tropical Cyclones, Flooding	1,2,3,4	Ongoing
R11: Drainage Improvement	Improve drainage ways, including, but not limited to keeping the ditches and culverts cleaned out and free of any obstructions, keep the vegetation cut, and replacing any broken culverts or drainage pipes where necessary.	Village Budget, Grant Funding	1-5 years	Village Engineer	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones	1,3,4	Delete - Duplicate R2
R12: Power Supply and Generators	Support the parish to add back up power supply/generators at the critical facilities in Robeline.	Parish and Village Budgets	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones	1,4	Delete - Duplicate R6
R13: Critical Facility Hardening	Harden critical facilities including, but not limited to, utilizing applicable floodproofing techniques, adding roof tie-downs and additional storm protecting features such as storm shutters or impact resistant glass.	Parish and Village Budgets and HMGP Grants	1-5 years	OHLS / EP Director	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes	1,2,4	Delete - Duplicate R1
R14: Disaster Warning System	Install a disaster warning system in the Village that will allow early warning of hazard events. Implement a public notification system, such as sirens or a call down system with a backup communication system.	Parish Budget	1-5 years	Parish Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,2	Delete - Duplicate R8
R15: Day to Day Operations	Continue day-to-day operations in the event of a hazard or disaster.	Staff Time, Local Funding	1-5 years	Parish Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,4	Ongoing

R16: New Initiatives	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.	Staff Time, Grant Funding	1-5 years	Parish Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 10)
R17: Multi-Hazard Awareness Activities	Participate with the parish sponsoring "Multi-Hazard Awareness Activities", to educate the public on flooding, severe storms, winter storms, hurricanes, tornadoes, and drought (evacuation, emergency preparedness, retrofitting, emergency preparedness and flood insurance).	Parish and Village Budgets, Business and Industry	1-5 years	Mayor and Village Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,2	Delete - Duplicate R5
R18: Flooding Structural Solutions	Pursue elevation / acquisition / floodproofing / reconstruction projects and structural solutions to flooding.	PDM, FMA Project Funds, HMGP Funds, Existing Parish Budget	1-5 years	Mayor, Building Permit Director, Emergency Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes	1,3	Delete - Duplicate R2, R3
R19: Parish wide Drainage Plan	As a community be prepared to participate and facilitate the parish-wide drainage plan.	Parish and Village Budgets	1-5 years	Mayor	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones	1,3,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 11)
R20: Additional Development Guidelines	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas. Encourage new developments to install underground utilities, which would	Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Winter Weather, Tropical Cyclones, Tornadoes, Drought	1,2,3,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 12)

	help reduce the chances of power outages during high winds and other severe storms.						
R21: Underground Utilities	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.	HMGP, Parish and Village Budgets	1-5 years	Mayor, Village Planning Director and Floodplain Manager	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather	1,2,3,4	Not Started – Carried Over (See Village of Robeline Mitigation Action 13)

New Mitigation Actions

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 1	Building Retrofits
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Retrofit public buildings exterior shell to maintain use during and after storm events. Benefits: Reduces damage and helps assure that the public buildings can be used, occupied and operable during or after storms.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations and reduced risk for critical facilities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 2	Drainage Improvements
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	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:
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	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.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 3	Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Elevation, acquisition-demolition, acquisition-relocations, and reconstruction of repetitive loss or flooding or other hazard prone properties.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Natural System Protection
How Action Aligns with Risk Reduction	Eliminates flooding risk of repetitive and severe repetitive loss structures.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 4	Safe Room Projects
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Construction of a safe room for first responders located in Natchitoches. Other locations will be identified based on funding availability.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Allows for continued operations of essential personal to actively respond during a natural hazard event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 5	Education and Outreach
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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 and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Enhance the public outreach programs for the parish and all communities by increasing awareness of risks and safety for Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, and Winter Weather hazards as well as providing information on high risk areas.
Type of Mitigation Action	Education and Awareness Programs
How Action Aligns with Risk Reduction	Informing communities, business and citizens on proper mitigation efforts and activities will create resiliency within the parish and its communities.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 6	Generators for Continuity of Operations and Government
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of generators at public facilities to ensure continued operations during and after events.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Adding back up generators to critical facilities will ensure that essential practices remain operational during extreme hazardous events.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 7	Lightning Mitigation
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards
PRIORITY	Medium
Action Description	Procurement and installation of lightning rods and surge protectors for public buildings to preserve life and property
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The installation of lightning rods and surge protectors in public buildings and critical infrastructure will reduce losses due to lightning strikes and surges in electricity.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Thunderstorms

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 8	Warning Systems
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Update/upgrade public warning system components throughout Natchitoches as necessary. Install audible and/or reverse 911 warning system(s).
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	An upgraded public warning system will increase the likelihood of public notification immediately prior to an event
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 9	Potable Water
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, Local
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	Create redundancy of potable water supply to critical facilities, especially hospitals, and provide protection of potable water supply by acquisition/installation of backflow preventers at appropriate critical locations.
Type of Mitigation Action	Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creating a redundancy of potable water for critical facilities will reduce downtime and allow for the continuity of essential operations during and after an event.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 10	New Initiatives
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Staff Time, HMGP
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Implement new initiatives including, but not limited to, the Pilot Planning Grant Program (PPGP), Pilot Reconstruction, and Repetitive Flood Claims, developed by the State and FEMA.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects, Education and Awareness Programs
How Action Aligns with Risk Reduction	Pursuing new initiatives and programs will reduce losses and increase resiliency within the community
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Drought, Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 11	Parish-wide Drainage Plan
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 3. Reduce repetitive flood losses in the Parish and municipalities 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Participate and facilitate the creations of a parish-wide drainage plan.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	Creation of a Parish-wide Drainage Plan will allow for a holistic view of the current drainage system and identify systemwide improvements to be pursued in the future
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 12	Additional Development Guidelines
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Develop additional development guidelines that would help reduce flooding, such as requiring proper drainage with adequate sloping; stormwater retention ponds; dikes; levees and floodwalls if appropriate, and requiring freeboard above the Base Flood Elevation (BFE) in flood prone areas.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The development and passing of ordinances regulating new development will allow for the community to increase its resilience to natural hazards, thus reducing potential losses.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Tropical Cyclones

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 13	Underground Utilities
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish OHSEP
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	HMGP, BRIC, Parish/City Budgets
ASSOCIATED GOALS	1. Identify and pursue preventative measures that will reduce future damages from hazards 4. Facilitate sound development in the Parish and municipalities so as to reduce or eliminate the potential impact of hazards
PRIORITY	Medium
Action Description	Incentivize new developments to install underground utilities, which would help reduce the chances of power outages during high winds and other severe events.
Type of Mitigation Action	Local Plans and Regulations, Structure and Infrastructure Projects
How Action Aligns with Risk Reduction	The burying of utilities will help to reduce or eliminate the interruption to critical facilities caused by a disaster.
Current Status of Action	Not Started – Carried Over from 2016 Plan
Hazard Addressed	Flooding, Thunderstorms, Tornadoes, Tropical Cyclones, Wildfires, Winter Weather

Additional Supporting Information:

IMPLEMENTATION KEY FOR POTENTIAL HAZARD MITIGATION ACTIONS VILLAGE OF ROBELINE	
	DESCRIPTION
VILLAGE OF ROBELINE MITGATION ACTION 14	Water Conservation Measures
LEAD AGENCY	Village of Robeline Mayor's Office
SUPPORTING AGENCIES	Natchitoches Parish Government
TIMELINE	1-5 years
COST ESTIMATE	Unknown
POSSIBLE FUNDING SOURCE(S)	Parish Budget
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	Low
Action Description	Adopt ordinance requiring water-saving measures in time of drought.
Type of Mitigation Action	Local Planning and Regulation, Structure and Infrastructure Projects, Natural Systems Protection
How Action Aligns with Risk Reduction	Increases local capabilities and reduces impacts to infrastructure and public during times of drought
Current Status of Action	New
Hazard Addressed	Drought

Additional Supporting Information:

Action Prioritization

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

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

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

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

Appendix A: Planning Process

Purpose

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

The Natchitoches Parish Hazard Mitigation Plan Update

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

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

Date	Meeting or Outreach	Location	Public Invited	Purpose
5/17/2022	Kick Off Meeting	LEMC Lake Charles, LA	No	Discuss with the Parish OHSEP Director expectations and requirements of the project. Discuss meeting schedules, committee make up, and next steps.
10/11/2022	Initial Planning Committee Meeting	Natchitoches, LA	No	Discuss with Natchitoches Parish Hazard Mitigation Planning Committee the process and expectations of plan participants. Discuss timeline and action items for parish and each jurisdiction.
12/15/2022	Mitigation Action Workshop	Natchitoches, LA	No	Discussion with Natchitoches Parish Hazard Mitigation Planning Committee of the outstanding data required for plan update, as well as discussion of mitigation actions (old and new) for plan update.
1/24/2023	Planning Committee Risk Assessment Review	Natchitoches, LA	Yes	Presentation of Risk Assessment and profiled hazards to Planning Committee.
1/24/2023	Public Meeting	Natchitoches, LA	Yes	Presentation of Risk Assessment s and profiled hazards to public. Presentation also includes current mitigation project highlights within communities and public survey discussion.
5/2022 – 1/2023	Public Opinion Survey	Online	Yes	This survey asked participants about public perceptions and opinions regarding natural hazards in Natchitoches 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-iyp6FH6yiAdYxEa0kfBChg_3D_3D/

Planning

The plan update process consisted of several phases:

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

Coordination

The Natchitoches Parish Office of Homeland Security and Emergency Preparedness (OHSEP) oversaw the coordination of the 2023 Hazard Mitigation Plan Update Planning Committee during the update process. The parish OHSEP was responsible for identifying members for the committee.

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

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

Neighboring Community, Local and Regional Planning Process Involvement

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

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

- Participation in Hazard Mitigation planning meetings at the local and parish level
- Sharing local data and information with jurisdictions
- Incorporation of other planning documents, studies and efforts
- Action item development and action progress from 2016 update
- Risk Assessment review
- Plan document draft review
- Formal adoption of the Hazard Mitigation Plan

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

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

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

Natchitoches Parish Hazard Mitigation Planning Committee			
Name	**Title**	**Agency**	**Email**
Mary Jones	Assistant Director OEP	Natchitoches Parish Sheriff's Office	mjones@npsheriff.net
Lamarr McGaskey	Deputy Assistant OEP	Natchitoches Parish Sheriff's Office	lamarr@npsherifrf.net
Stuart Wright	Sheriff/OEP Director	Natchitoches Parish Sheriff's Office	swright@npsheriff.net
John Richmond	Parish President	Natchitoches Parish Government	jrichmond@npgov.org
Nick Verret	Parish/City Engineer	Natchitoches Parish Government	nverret@npgov.org
Edd Lee	Director	City of Natchitoches	elee@natchitochela.gov
Ronnie Williams	Mayor	City of Natchitoches	rwilliamsjr@natchitochesla.gov
Donna Horn	Mayor	Village of Ashland	donnah@thepricecompanies.com
Laron Winslow	Mayor	Town of Campti	laron_winslow@yahoo.com
Jennifer Smith	Mayor	Village of Goldonna	mayorsmith2019@yahoo.com
Leslie Oglesby	Mayor	Village of Clarence	loglesby@villageofclarence.org
Randy Dupree	Mayor	Village of Provencal	dupreetammy45@yahoo.com
Bobby Behan	Mayor	Village of Robeline	bbhean@45@att.net
Jamike Neal	Mayor	Village of Powhatan	mayorneal2022@gmail.com
Patsy Ward Hoover	Mayor	Village of Natchez	patsywardhooverpcd2@gmail.com
Monique Sarpy	Aldermen	Village of Natchez	monique.hamilton@pilgrims.com
Reed Franklin	Alderman	Village of Goldonna	reedfranklin@yahoo.com

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 Natchitoches Parish programs and planning.

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

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

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

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

Meeting Documentation and Public Outreach Activities

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

Meeting #1: Hazard Mitigation Plan Update Kick-Off

Date: May 17, 2022

Location: Louisiana Emergency Management Conference, Lake Charles, LA

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

Public Invitation: No

Meeting Invitees:

Lafayette Parish Hazard Mitigation Planning Committee		
Name	**Title**	**Agency**
Mary Jones	Assistant Director OEP	Natchitoches Parish Sheriff's Office
Chris Rippetoe	Program Manager	LSU-SDMI
Ashleigh Dozier	Emergency Management Specialist	LSU-SDMI

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

Date: October 11, 2022

Location: Natchitoches, LA

Purpose: Discuss the expectations and requirements of the hazard mitigation plan update process and establish an initial project timeline with the Parish's Hazard Mitigation Plan Planning Committee. Assign each individual tasks related to the parish data collection for the plan update.

Public Invitation: No

Meeting Invitees:

Natchitoches Parish Hazard Mitigation Planning Committee			
Name	**Title**	**Agency**	**Email**
Mary Jones	Assistant Director OEP	Natchitoches Parish Sheriff's Office	mjones@npsheriff.net
Lamarr McGaskey	Deputy Assistant OEP	Natchitoches Parish Sheriff's Office	lamarr@npsherifrf.net
Stuart Wright	Sheriff/OEP Director	Natchitoches Parish Sheriff's Office	swright@npsheriff.net
John Richmond	Parish President	Natchitoches Parish Government	jrichmond@npgov.org
Nick Verret	Parish/City Engineer	Natchitoches Parish Government	nverret@npgov.org
Edd Lee	Director	City of Natchitoches	elee@natchitochela.gov
Ronnie Williams	Mayor	City of Natchitoches	rwilliamsjr@natchitochesla.gov
Donna Horn	Mayor	Village of Ashland	donnah@thepricecompanies.com
Laron Winslow	Mayor	Town of Campti	laron_winslow@yahoo.com
Jennifer Smith	Mayor	Village of Goldonna	mayorsmith2019@yahoo.com
Leslie Oglesby	Mayor	Village of Clarence	loglesby@villageofclarence.org
Randy Dupree	Mayor	Village of Provencal	dupreetammy45@yahoo.com
Bobby Behan	Mayor	Village of Robeline	bbhean@45@att.net
Jamike Neal	Mayor	Village of Powhatan	mayorneal2022@gmail.com
Patsy Ward Hoover	Mayor	Village of Natchez	patsywardhooverpcd2@gmail.com
Monique Sarpy	Aldermen	Village of Natchez	monique.hamilton@pilgrims.com
Reed Franklin	Alderman	Village of Goldonna	reedfranklin@yahoo.com

Meeting #3: Hazard Mitigation Plan Update Mitigation Action Workshop

Date: December 15, 2022

Location: Natchitoches, LA

Purpose: Discussion with Natchitoches Parish Hazard Mitigation Planning 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:

Natchitoches Parish Hazard Mitigation Planning Committee			
Name	**Title**	**Agency**	**Email**
Mary Jones	Assistant Director OEP	Natchitoches Parish Sheriff's Office	mjones@npsheriff.net
Lamarr McGaskey	Deputy Assistant OEP	Natchitoches Parish Sheriff's Office	lamarr@npsherifrf.net
Stuart Wright	Sheriff/OEP Director	Natchitoches Parish Sheriff's Office	swright@npsheriff.net
John Richmond	Parish President	Natchitoches Parish Government	jrichmond@npgov.org
Nick Verret	Parish/City Engineer	Natchitoches Parish Government	nverret@npgov.org
Edd Lee	Director	City of Natchitoches	elee@natchitochela.gov
Ronnie Williams	Mayor	City of Natchitoches	rwilliamsjr@natchitochesla.gov
Donna Horn	Mayor	Village of Ashland	donnah@thepricecompanies.com
Laron Winslow	Mayor	Town of Campti	laron_winslow@yahoo.com
Jennifer Smith	Mayor	Village of Goldonna	mayorsmith2019@yahoo.com
Leslie Oglesby	Mayor	Village of Clarence	loglesby@villageofclarence.org
Randy Dupree	Mayor	Village of Provencal	dupreetammy45@yahoo.com
Bobby Behan	Mayor	Village of Robeline	bbhean@45@att.net
Jamike Neal	Mayor	Village of Powhatan	mayorneal2022@gmail.com
Patsy Ward Hoover	Mayor	Village of Natchez	patsywardhooverpcd2@gmail.com
Monique Sarpy	Aldermen	Village of Natchez	monique.hamilton@pilgrims.com
Reed Franklin	Alderman	Village of Goldonna	reedfranklin@yahoo.com

Meeting #4: Hazard Mitigation Plan Update Planning Committee Risk Assessment Review

Date: January 24, 2023
Location: Natchitoches, LA
Purpose: Presentation of Risk Assessment hazards and maps to Planning Committee.
Public Invitation: No
Meeting Invitees:

Natchitoches Parish Hazard Mitigation Planning Committee			
Name	**Title**	**Agency**	**Email**
Mary Jones	Assistant Director OEP	Natchitoches Parish Sheriff's Office	mjones@npsheriff.net
Lamarr McGaskey	Deputy Assistant OEP	Natchitoches Parish Sheriff's Office	lamarr@npsherifrf.net
Stuart Wright	Sheriff/OEP Director	Natchitoches Parish Sheriff's Office	swright@npsheriff.net
John Richmond	Parish President	Natchitoches Parish Government	jrichmond@npgov.org
Nick Verret	Parish/City Engineer	Natchitoches Parish Government	nverret@npgov.org
Edd Lee	Director	City of Natchitoches	elee@natchitochela.gov
Ronnie Williams	Mayor	City of Natchitoches	rwilliamsjr@natchitochesla.gov
Donna Horn	Mayor	Village of Ashland	donnah@thepricecompanies.com
Laron Winslow	Mayor	Town of Campti	laron_winslow@yahoo.com
Jennifer Smith	Mayor	Village of Goldonna	mayorsmith2019@yahoo.com
Leslie Oglesby	Mayor	Village of Clarence	loglesby@villageofclarence.org
Randy Dupree	Mayor	Village of Provencal	dupreetammy45@yahoo.com
Bobby Behan	Mayor	Village of Robeline	bbhean@45@att.net
Jamike Neal	Mayor	Village of Powhatan	mayorneal2022@gmail.com
Patsy Ward Hoover	Mayor	Village of Natchez	patsywardhooverpcd2@gmail.com
Monique Sarpy	Aldermen	Village of Natchez	monique.hamilton@pilgrims.com
Reed Franklin	Alderman	Village of Goldonna	reedfranklin@yahoo.com

Meeting #5: Hazard Mitigation Plan Update Public Meeting

Date: January 24, 2023

Location: Natchitoches, LA

Purpose: The Public Meeting allowed the public and community stakeholders to participate and provide input into the hazard mitigation planning process. Presentation also included highlights of current mitigation projects highlights, as well as public survey discussion.

Public Invitation: Yes

Meeting Invitees:

Natchitoches Parish Hazard Mitigation Planning Committee			
Name	**Title**	**Agency**	**Email**
Mary Jones	Assistant Director OEP	Natchitoches Parish Sheriff's Office	mjones@npsheriff.net
Lamarr McGaskey	Deputy Assistant OEP	Natchitoches Parish Sheriff's Office	lamarr@npsherifrf.net
Stuart Wright	Sheriff/OEP Director	Natchitoches Parish Sheriff's Office	swright@npsheriff.net
John Richmond	Parish President	Natchitoches Parish Government	jrichmond@npgov.org
Nick Verret	Parish/City Engineer	Natchitoches Parish Government	nverret@npgov.org
Edd Lee	Director	City of Natchitoches	elee@natchitochela.gov
Ronnie Williams	Mayor	City of Natchitoches	rwilliamsjr@natchitochesla.gov
Donna Horn	Mayor	Village of Ashland	donnah@thepricecompanies.com
Laron Winslow	Mayor	Town of Campti	laron_winslow@yahoo.com
Jennifer Smith	Mayor	Village of Goldonna	mayorsmith2019@yahoo.com
Leslie Oglesby	Mayor	Village of Clarence	loglesby@villageofclarence.org
Randy Dupree	Mayor	Village of Provencal	dupreetammy45@yahoo.com
Bobby Behan	Mayor	Village of Robeline	bbhean@45@att.net
Jamike Neal	Mayor	Village of Powhatan	mayorneal2022@gmail.com
Patsy Ward Hoover	Mayor	Village of Natchez	patsywardhooverpcd2@gmail.com
Monique Sarpy	Aldermen	Village of Natchez	monique.hamilton@pilgrims.com
Reed Franklin	Alderman	Village of Goldonna	reedfranklin@yahoo.com

Meeting Announcement:

NATCHITOCHES PARISH OFFICE OF HOMELAND SECURITY & EMERGENCY PREPAREDNESS

PUBLIC MEETING ANNOUNCEMENT

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

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

Are you passionate about building a more resilient future for your parish? Do you have questions about the natural hazards your community is at risk to? Please join us on Tuesday January 24th, for a public meeting at 11:00am to learn more about the plan and share your input on the risks and vulnerabilities that most impact you and your community.

Meeting Location:
Natchitoches Communication District
911 Public Safety Blvd.
Natchitoches, LA 71457

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

https://www.surveymonkey.com/r/NatchitochesHM2022

The Parish appreciates your input.

If you have questions, please contact the Natchitoches Parish OHSEP Office

Outreach Activity #1: Public Opinion Survey

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

As referenced in the *Mitigation Strategy* section of this document, an online public opinion survey of Natchitoches Parish residents was conducted between October 2022 and January 2023. The survey was designed to capture public perceptions and opinions regarding natural hazards in Natchitoches 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 January 24, 2023, there have been zero responses to the Natchitoches Parish Hazard Mitigation Public Opinion Survey. Full survey results can be found at the following link:

https://www.surveymonkey.com/results/SM-iyp6FH6yiAdYxEa0kfBChg_3D_3D/

Outreach Activity #2: Public Meeting Activity - Incident Questionnaire

Date: January 24, 2023
Location: Public Meeting
Public Invitation: Yes

An incident/issue questionnaire was provided at the public meeting in an effort to collect additional information from residents of Natchitoches Parish regarding hazard events and their localized impacts. While the information collected via the questionnaire was to be integrated into this planning document, there were no forms completed by the public during the public meeting. A copy of the incident questionnaire can be found on the next page.

Outreach Activity #3: 2023 Natchitoches Parish Hazard Mitigation Plan Public Review

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

After an initial review by the Natchitoches Parish Planning Committee was completed, the 2023 Natchitoches Parish Hazard Mitigation Plan was made available for public review and comment. The plan was hosted on SDMI's Hazard Mitigation website:

http://hmplans.sdmi.lsu.edu/Home/Parish/natchitoches

NATCHITOCHES PARISH PUBLIC MEETING

PUBLIC ACTIVITY: INCIDENT/ ISSUE QUESTIONNAIRE

1. HAZARD TYPE(S):

A. DROUGHT
B. FLOODING
C. THUNDERSTORMS
D. TORNADOES
E. TROPICAL CYCLONES
F. WILDFIRES
G. 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/DIDTHE 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?

This Page Left Intentionally Blank

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 Natchitoches Parish Hazard Mitigation Planning 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 HM 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

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

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

Methods for Monitoring and Evaluating the Plan and Plan Evaluation Criteria

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

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

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

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

2) What were the results of the implemented action

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

4) Did the results achieve the stated goals and objectives

5) Was the action cost-effective

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

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

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

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

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

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

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

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

The HMP will be updated every five years to remain eligible for continued HMGP funding. The planning committee will be responsible for updating the HMP. The 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 Natchitoches 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 planning committee and input from the public will determine whether a plan update is needed prior to the required five-year update.

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

2023 Plan Version Plan Method and Schedule Evaluation

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

Incorporation into Existing Planning Programs

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

- Ordinances, Resolutions, Regulations
- Floodplain Ordinances
- Comprehensive/Master Plans
- Capital Improvement Plans
- Economic Development Plans
- Emergency Operations Plans
- Continuity of Operations Plans
- Transportation Plan
- Stormwater Management Plan
- 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 Natchitoches Parish Hazard Mitigation Planning Committee and through the five-year review process described herein. The primary means for integrating mitigation strategies into other local planning mechanisms will be through the revision, update and implementation of each jurisdiction's individual plans that require specific planning and administrative tasks (e.g. risk assessment, plan amendments, ordinance revisions, capital improvement projects, etc.). While there have been no instances of the mitigation strategy being incorporated into other planning

documents since the adoption of the 2016 Natchitoches Hazard Mitigation Plan, the committee members recognize the importance of a holistic approach across all planning efforts and will use their standing to integrate the mitigation strategy outlined in the 2023 Natchitoches Hazard Mitigation Plan into other planning documents when appropriate.

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

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

On behalf of the Village of Ashland, Town of Campti, Village of Clarence, Village of Goldonna, Village of Natchez, City of Natchitoches, Village of Powhatan, Village of Provencal, and Village of Robeline, Natchitoches 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 planning committee member and jurisdiction representation throughout the planning process as described above:

Natchitoches Parish			
Economic Development Plan	Updated as needed	North Louisiana Economic Partnership	✓
Local Emergency Operations Plan	Updated as needed	Natchitoches Parish OHSEP	✓
Continuity of Operations Plan	Updated as needed	Natchitoches Parish OHSEP	✓
Community Wildfire Protection Plan	Updated as needed	Natchitoches Parish Fire & Natchitoches Parish OHSEP	✓

Village of Ashland			
Comprehensive/Master Plan	Updated as needed	Village of Ashland Mayor's Office	✓
Local Emergency Operations Plan	Updated as needed	Village of Ashland Mayor's Office & Natchitoches Parish OHSEP	✓
Stormwater Management Plan	Updated as needed	Village of Ashland Mayor's Office	✓
Community Wildfire Protection Plan	Updated as needed	Village of Ashland Mayor's Office & Natchitoches Parish OHSEP	✓

Town of Campti

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

Village of Clarence

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

Village of Goldonna

Comprehensive/Master Plan	Updated as needed	Village of Goldonna Mayor's Office	✓
Capital Improvements Plan	Updated as needed	Village of Goldonna Mayor's Office	✓
Economic Development Plan	Updated as needed	Village of Goldonna Mayor's Office	✓
Local Emergency Operations Plan	Updated as needed	Village of Goldonna Mayor's Office & Natchitoches Parish OHSEP	✓
Continuity of Operations Plan	Updated as needed	Village of Goldonna Mayor's Office & Natchitoches Parish OHSEP	✓

Village of Natchez

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

City of Natchitoches

Comprehensive/Master Plan	Updated as needed	City of Natchitoches Mayor's Office	✓
Capital Improvement Plan	Updated as needed	City of Natchitoches Mayor's Office	✓
Economic Development Plan	Updated as needed	Natchitoches Economic Development Commission	✓
Local Emergency Operations Plan	Updated as needed	City of Natchitoches Mayor's Office & Natchitoches Parish OHSEP	✓
Continuity of Operations Plan	Updated as needed	City of Natchitoches Mayor's Office & Natchitoches Parish OHSEP	✓
Transportation Plan	Updated as needed	City of Natchitoches Mayor's Office	✓
Stormwater Management Plan	Updated as needed	City of Natchitoches Mayor's Office	✓
Community Wildfire Protection Plan	Updated as needed	City of Natchitoches Fire & Natchitoches Parish OHSEP	✓

Village of Powhatan

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

Village of Provencal

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

Village of Robeline

**There are no local plans to incorporate in the Village of Robeline **

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 Natchitoches Parish Planning Area

Natchitoches Parish Planning Area Critical Facilities								
Type	Name	Drought	Flooding	Thunderstorms	Tornadoes	Tropical Cyclones	Wildfires	Winter Weather
Government Facilities	Natchitoches Parish Courthouse			X	X	X		X
	Ashland Village Hall			X	X	X		X
	Campti Town Hall			X	X	X		X
	Clarence Village Hall		X	X	X	X		X
	Goldonna Village Hall			X	X	X		X
	Natchez Village Hall		X	X	X	X		X
	Natchitoches City Hall			X	X	X		X
	Natchitoches Public Works Department			X	X	X		X
	Powhatan Village Hall			X	X	X		X
	Provencal Village Hall			X	X	X		X
	Robeline Municipal Building			X	X	X		X
	Natchitoches Parish Landfill		X	X	X	X	X	X
Fire & SAR	Natchitoches Parish Fire District Station 5			X	X	X		X
	Natchitoches Parish Fire District 1 Station 5			X	X	X		X
	Natchitoches Parish Fire District 7 Station			X	X	X		X
	Natchitoches Parish Fire District 7 Station 4			X	X	X	X	X
	Natchitoches Parish Fire District 7 Station 5			X	X	X		X
	Natchitoches Parish Fire District 2			X	X	X	X	X
	Natchitoches Parish Fire District 1 Station 4		X	X	X	X		X
	Natchitoches Parish Fire District 1		X	X	X	X		X
	Natchitoches Parish Fire District 1		X	X	X	X		X
	Natchitoches Parish Fire District 1 Station 5			X	X	X		X
	Natchitoches Parish Fire District 1			X	X	X		X
	Natchitoches Parish Fire District 5 Volunteer Fire Department		X	X	X	X		X

	Natchitoches Parish Fire District 8			X	X	X	X	X
	Natchitoches Parish Fire District 9 Station			X	X	X		X
	Natchitoches Parish Fire District 9 Station			X	X	X		X
	Natchitoches Parish Fire District 2			X	X	X		X
	Natchitoches Parish Fire District 8			X	X	X		X
	Natchitoches Parish Fire Department 6 Station 3			X	X	X	X	X
	Natchitoches Parish Fire District 6 Station 2			X	X	X	X	X
	Natchitoches Parish Fire District 6 Station 1			X	X	X	X	X
	Natchitoches Parish Fire District 6 Station 5			X	X	X	X	X
	Natchitoches Parish Fire District 2			X	X	X		X
	Natchez Fire Station		X	X	X	X		X
	Volunteer Fire Department			X	X	X	X	X
	City of Natchitoches Central Fire Station			X	X	X		X
	City of Natchitoches Fire Station 2			X	X	X		X
	City of Natchitoches Fire Station 3			X	X	X		X
	Natchitoches Parish District 6 Fire & Rescue Station 4			X	X	X	X	X
	Natchitoches Parish Fire District 3 Station		X	X	X	X		X
	Natchitoches Parish Fire District 10 Station			X	X	X		X
	Fire Training Center			X	X	X		X
	Natchitoches Parish Fire District 4 (Bellwood) Station 4			X	X	X		X
	Natchitoches Parish Fire District 7 Station 1			X	X	X	X	X
	Natchitoches Parish Fire District 4 Station 6			X	X	X		X
	Natchitoches Fire District 4 Station 1			X	X	X	X	X
	Natchitoches Parish Fire District 7 Station 3			X	X	X		X
Law Enforcement	Natchitoches Parish Sheriff's Office North Substation			X	X	X		X
	Natchitoches Parish Sheriff's Office CID			X	X	X		X
	Natchitoches Parish Sheriff's Office Corrections Division			X	X	X		X
	Kisatchie Ranger Station			X	X	X		X

	Ashland Police Department			X	X	X		X
	Campti Police Department			X	X	X		X
	Clarence Police Department		X	X	X	X		X
	Goldonna Police Department			X	X	X		X
	Natchez Police Department		X	X	X	X		X
	Natchitoches Police Department			X	X	X		X
	Powhatan Police Department			X	X	X		X
	Provencal Police Department			X	X	X		X
	Robeline Police Department			X	X	X		X
Public Health	Natchitoches Parish Health Unit			X	X	X		X
	Natchitoches Regional Medical Center			X	X	X		X
Education	East Natchitoches Elementary			X	X	X		X
	Fairview Alpha Elementary			X	X	X	X	X
	Goldonna Elementary/Jr. High			X	X	X	X	X
	L.P. Vaughn Elementary			X	X	X	X	X
	Lakeview High			X	X	X	X	X
	Louisiana School for Math, Science, and the Arts			X	X	X		X
	Marthaville Elementary/Jr. High			X	X	X		X
	M.R. Weaver Elementary			X	X	X		X
	Natchitoches Central High		X	X	X	X		X
	Natchitoches Jr. High - Frankie Ray Jackson			X	X	X	X	X
	Natchitoches Magnet			X	X	X		X
	Natchitoches Parish School Board			X	X	X	X	X
	NSU Lab School			X	X	X		X
	Provencal Elementary/Jr. High			X	X	X		X

This Page Left Intentionally Blank

Appendix D: Plan Adoption

Natchitoches Parish

NATCHITOCHES PARISH GOVERNMENT

LOUISIANA

RESOLUTION NO. 011-2023

A RESOLUTION OF THE NATCHITOCHES PARISH GOVERNMENT

2023 Natchitoches Parish Multi-jurisdiction Hazard Mitigation Plan

WHEREAS the Natchitoches Parish Council recognizes the threat that natural hazards pose to people and property within Parish of Natchitoches; and

WHEREAS the Parish of Natchitoches has prepared a multi-hazard mitigation plan, hereby known as 2023 Natchitoches Parish Multi-Jurisdiction Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS 2023 Natchitoches Parish Multi-Jurisdiction Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Parish of Natchitoches from the impacts of future hazards and disasters; and

WHEREAS adoption by the Natchitoches Parish Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2023 Natchitoches Parish Multi-Jurisdiction Hazard Mitigation Plan .

NOW THEREFORE, BE IT RESOLVED BY THE Natchitoches Parish Council, LOUISIANA, THAT:

Section 1. In accordance with Natchitoches Parish Home Rule Charter, THE Natchitoches Parish Council adopts the 2023 Natchitoches Parish Multi-Jurisdiction Hazard Mitigation Plan.

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, this 20th day of March, 2023.

By: Sheryl Frederick

(print name)

ATTEST:

By: William T. Allen

(print name)

APPROVED AS TO FORM:

By: John Richmond

(print name)

Village of Ashland

VILLAGE OF ASHLAND

RESOLUTION #323

A RESOLUTION ADOPTING THE
NATCHITOCHES PARISH HAZARD MITIGATION PLAN

WHEREAS, the Village of Ashland Mayor and City Council recognize the threat that natural hazards pose to people and property with the Village of Ashland; and

WHERE, as Natchitoches Parish Government has prepared a multi-hazard mitigation plan, hereby known as Natchitoches Parish Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, Natchitoches Parish Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Natchitoches from the impact of future hazards and disasters; and

WHEREAS adoption of the Village of Ashland City Council demonstrates their commitment to the hazard mitigation and achieving the goals outlines in the Natchitoches Parish Hazard Mitigation Plan.

WHEREAS Natchitoches 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 Ashland City Council does hereby adopt the Natchitoches Parish Hazard Mitigation Plan Update.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, on this the ___4th day of April, 2023.

ATTEST:

Misty Quick

Misty Quick, Clerk

Town of Campti

RESOLUTION #4 OF 2023

A RESOLUTION ADOPTING THE NATCHITOCHES PARISH HAZARD MITIGATION PLAN 2023

WHEREAS, the Town of Campti Mayor and Town Council recognize the threat the natural hazard poses to people and property with the Town of Campti; and

WHEREAS, Natchitoches Parish government has prepared a multi-hazard mitigation plan, hereby know as Natchitoches Parish Hazard Mitigation plan 2023 in accordance with the Disaster mitigation Act of 2000:and

WHEREAS, Natchitoches Parish Hazard Mitigation Plan 2023 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Natchitoches from the impact of future hazards and disasters; and

WHEREAS, adoption of the Town of Campti, Town Council demonstrates their commitment to the hazard mitigation and achieving the goals outlines in the Natchitoches Parish Hazard Mitigation Plan 2023

WHEREAS, Natchitoches Parish and local Town representatives and governments have participated in the mitigation planning planning process;

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 Campti, Town Council does hereby adopt the Natchitoches Parish Hazard Mitigation Plan update 2023

ADOPTED by a vote of 5 in favor and 0 against, and 0 abstaining, and 0 absent on this the 14th day of March, 2023.

Katrina Evans

Katrina Evans, Mayor

Pamela Harvey

Pamela Harvey, Town Clerk

Village of Clarence

Village of Clarence
6004 Highway 71
P.O. Box 309
Clarence, La 71414
Phone: (318) 357-0440
Fax: (318) 356-9700

RESOLUTION NO. 113

TITLE: A RESOLUTION AUTHORIZING THE MAYOR TO ADOPTED THE NATCHITOCHES PARISH HAZARD MITIGATION PLAN 2023 DATED JANUARY 18, 2023.

WHEREAS the Village of Clarence recognizes the threat that natural hazards pose to people and property within the Village of Clarence; and

WHEREAS the Natchitoches Parish Government has prepared a multi-hazard mitigation plan, hereby known as Natchitoches Parish Hazard Mitigation Plan 2023 dated January 18, 2023, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS Natchitoches hazard mitigation plan 2023 dated January 18, 2023, identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Village of Clarence from the impacts of future hazards and disasters; and

WHEREAS adoption by the Village of Clarence City Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Natchitoches Parish Hazard Mitigation Plan 2023.

NOW THEREFORE, BE IT RESOLVED BY THE Village of Clarence, LOUISIANA, hereby adopt the Natchitoches Parish Mitigation Plan 2023.

This Resolution was duly adopted on the 9th day of March 2023 by the following vote:

Yeas: 2 Nays: 0 Absent: 1

ATTEST:

Ruth Smith, Village Clerk

STATE OF LOUISIANA
PARISH OF NATCHITOCHES

I, the undersigned Clerk of the Village of Clarence, Parish of Natchitoches, State of Louisiana do hereby certify the foregoing Resolution No. 113 of 2023 to be a true copy of the Resolution as the same appears filed in this office.

This, 9th day of March 2023.

Ruth Smith, Village Clerk

Leslie Oglesby, Mayor

The Village of Clarence is an Equal Opportunity Provider

Village of Goldonna

Village of GOLDONNA
P.O. Box 216
GOLDONNA, La 71031
Phone: (318) 727-4444

RESOLUTION NO. 2 of 2023

TITLE: A RESOLUTION AUTHORIZING THE MAYOR TO ADOPT THE NATCHITOCHES PARISH HAZARD MITIGATION PLAN 2023 DATED MARCH 13, 2023.

WHEREAS the Village of GOLDONNA recognizes the threat that natural hazards pose to people and property within the Village of GOLDONNA; and

WHEREAS the Natchitoches Parish Government has prepared a multi-hazard mitigation plan, hereby known as Natchitoches Parish Hazard Mitigation Plan 2023 dated March 13, 2023, in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS Natchitoches hazard mitigation plan dated March 13, 2023, identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Village of GOLDONNA from the impacts of future hazards and disasters.

WHEREAS adoption by the Village of GOLDONNA City Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Natchitoches Parish Hazard Mitigation Plan 2023.

NOW THEREFORE, BE IT RESOLVED BY THE Village of GOLDONNA, LOUISIANA, hereby adopt the Natchitoches Parish Mitigation Plan 2023.

This Resolution was duly adopted on the 13th day of March, 2023 by the following vote:

Yeas: ____3_____ Nays: ___0_____ Absent: __0_____

ATTEST:

Candace Paul Smith, Village Clerk

STATE OF LOUISIANA
PARISH OF NATCHITOCHES

I, the undersigned Clerk of the Village of GOLDONNA, Parish of Natchitoches, State of Louisiana do hereby certify the foregoing Resolution No. __2___ of 2023 to be a true copy of the Resolution as the same appears filed in this office.

This, 13th day of March 2023.

Candace Paul Smith, Village Clerk

Gayle Cloud, Mayor

Village of Natchez

MAYOR
Patsy Hoover

ALDERMAN

Monique Sarpy

Sheila Johnson

McKinley Hoover

Village of Natchez
P.O. Box 229/181 Main Street
Natchez, LA 71456

Phone: 318-352-1414

Fax: 318-352-6266

Chief of Police
Michael Gillie

Secretary

RESOLUTION 2023

ADOPTING THE 2023Natchitoches Parish Multi-jurisdiction Hazard Mitigation Plan

2023Natchitoches Parish Multi-jurisdiction Hazard Mitigation Plan

WHEREAS the Village of Natchez Council recognizes the threat that natural hazards pose to people and property within The Village of Natchez; and

WHEREAS The Village of Natchez has prepared a multi-hazard mitigation plan, hereby known as 2023 Natchitoches Parish Multi-jurisdiction Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS 2023 Natchitoches Parish Multi-jurisdiction Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Parish of Natchitoches from the impacts of future hazards and disasters; and

WHEREAS adoption by the Village of Natchez Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the 2023 Natchitoches Parish Multi-jurisdiction Hazard Mitigation Plan.

NOW THEREFORE, BE IT RESOLVED BY THE Village of Natchez Council, LOUISIANA, THAT:

Section 1. In accordance with The Village of Natchez Council adopts the 2023 Natchitoches Parish Multi-jurisdiction Hazard Mitigation Plan.

ADOPTED by a vote of __3____ in favor and ___0___ against, and __0____ abstaining, this__14TH_____ day of _March_____, 2023___.

By: Patsy Hoover Mayor
PATSY HOOVER Mayor
(print name)

ATTEST:

By: _____

(print name)

APPROVED AS TO FORM:

By: Patsy Hoover Mayor

(print name)

City of Natchitoches

The following Resolution was introduced by Mrs. Elie and Seconded by Mrs. Smith as follows, to – wit:

RESOLUTION NO. 019 OF 2023

A RESOLUTION ADOPTING
THE NATCHITOCHES PARISH HAZARD MITIGATION PLAN 2023

WHEREAS, the City of Natchitoches recognizes the threat that natural hazards pose to people and property within the Parish of Natchitoches; and

WHEREAS, the Parish of Natchitoches has prepared a multi-hazard mitigation plan, hereby known as the **Natchitoches Parish Hazard Mitigation Plan 2023** in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the **Natchitoches Parish Hazard Mitigation Plan 2023** identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the Parish of Natchitoches from the impacts of future hazards and disasters; and

WHEREAS adoption by the City of Natchitoches demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the **Natchitoches Parish Hazard Mitigation Plan 2023.**

NOW THEREFORE, BE IT RESOLVED BY THE CITY OF NATCHITOCHES, LOUISIANA, THAT:

Section 1. In accordance with the City Council of the City of Natchitoches, in due, regular and legal session convened approves the **Natchitoches Parish Hazard Mitigation Plan 2023**

This Resolution was then presented for a vote, and the vote was recorded as follows:

AYES:	**Elie, Nielsen, Smith, Harrington, Petite**
NAYS:	**None**
ABSENT:	**None**
ABSTAIN:	**None**

THEREUPON, Mayor Ronnie Williams, Jr., declared the Resolution passed by a vote of 5 Ayes to 0 Nays on this 13th day of March, 2023.

Ronnie Williams Jr.

RONNIE WILLIAMS, JR., MAYOR

Village of Powhatan

Village Of Powhatan
P. O. Box 126
Powhatan, Louisiana 71066

RESOLUTION NO. 003 of 2023

A RESOLUTION OF THE Village Of Powhatan

Natchitoches Parish Hazard Mitigation Plan 2023

WHEREAS the Mayor and Board of Aldermen recognizes the threat that natural hazards pose to people and property within Village Of Powhatan; and

WHEREAS the Village Of Powhatan has prepared a multi-hazard mitigation plan, hereby known as Natchitoches Parish Hazard Mitigation Plan 2023 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS Natchitoches Parish Hazard Mitigation Plan 2023 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Village of Powhatan from the impacts of future hazards and disasters; and

WHEREAS adoption by the Mayor and Board Of Aldermen demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Natchitoches Parish Hazard Mitigation Plan 2023

NOW THEREFORE, BE IT RESOLVED BY The Mayor and Board Of Aldermen of The Village Of Powhatan, LOUISIANA, that The Village Of Powhatan does hereby adopt the Natchitoches Parish Hazard Mitigation Plan 2023

ADOPTED by a vote of 2 in favor and 0 against, and 0 abstaining, this 27th day of February, 20 23.

By: Jamika Neal

Jamika Neal, Mayor

ATTEST:

By: Eddie Jackson

Eddie Jackson, Clerk

Village of Provencal

A RESOLUTION ADOPTING THE HOMERULED CHARTER OF NATCHITOCHES

PARISH HAZARD MITIGATION PLAN 2023

WHERAS the Home Ruled charter of Natchitoches Parish has prepared a multi- hazard mitigation plan hereby known as the Natchitoches Parish Hazard Plan 2023 in accordance with the Disaster Mitigation Act 2000; and

WHERAS the Municipality of Provencal has participated in the process to prepare a DMA compliant Hazard Mitigation Plan based in the FEMA guidance available in the How to Guides;

WHERAS the Municipality of Provencal is participating in the Hazard Mitigation Plan prepared by the Natchitoches Parish Governing Authority under the oversight of a Steering Committee comprised of Parish-Wide representatives;

WHERAS the Home Ruled Charter of Natchitoches Parish and local city representatives and governments have participated in the mitigation planning process;

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

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

WHERAS 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 Municipal of the Village of Provencal does hereby adopt the Natchitoches Parish Hazard Mitigation Plan Update 2023.

The Resolution being submitted to a vote, the vote theron was as follows:

YEAS: 3
NAYS: 0
ABSENT AND NOT VOTING: 0

And the Resolution was declared and adopted on this 13th day of March 2023.

ATTEST:

VILLAGE CLERK

Village of Provencal

HONORABLE DANIEL GONGRE, MAYOR

3184728670 01:20:26 p.m. 03-14-2023 1 /1

Village of Robeline

VILLAGE OF ROBELINE

LOUISIANA

A RESOLUTION OF THE VILLAGE OF ROBELINE.

NATCHITOCHES PARISH HAZARD MITIGATION PLAN 2023

WHEREAS the Village of Robeline Mayor and City Council recognizes the threat that natural hazards pose to people and property within the Village of Robeline; and

WHEREAS the Natchitoches Parish Government has prepared a multi-hazard mitigation plan, hereby known as Natchitoches Parish Hazard Mitigation Plan 2023 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS Natchitoches Parish Hazard Mitigation Plan 2023 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Natchitoches from the impacts of future hazards and disasters; and

WHEREAS adoption by the Village of Robeline City Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the Natchitoches Parish Hazard Mitigation Plan 2023.

NOW THEREFORE, BE IT RESOLVED BY THE VILLAGE OF ROBELINE, LOUISIANA, THAT:

THE VILLAGE OF ROBELINE, LOUISIANA adopts the NATCHITOCHS PARISH HAZARD MITIGATION PLAN 2023.

ADOPTED by a vote of 3 in favor and 0 against, and 0 abstaining, this 16 day of March, 20 23.

By: Celeste. O'Con, Clerk

(print name)

ATTEST:

By: Gordon O'Con, Mayor

(print name)

APPROVED AS TO FORM:

By: Gordon O'Con, MAYOR

(print name)

Appendix E: State Required Worksheets

During the planning process (*Appendix A: Planning Process*), the Hazard Mitigation Plan Update Planning Committee was provided state-required plan update process worksheets to be filled out. The worksheets were presented at the Initial Planning Meeting by SDMI as tools for assisting in the update of the Hazard Mitigation Plan, but also as a state requirement for the update. The plan update worksheets allowed for collection of information such as planning team members, community capabilities, community infrastructure, vulnerable populations and NFIP information. The following pages contain documentation of the state required worksheets.

Mitigation Planning Team

Natchitoches Parish Hazard Mitigation Planning Committee			
Name	**Title**	**Agency**	**Email**
Mary Jones	Assistant Director OEP	Natchitoches Parish Sheriff's Office	mjones@npsheriff.net
Lamarr McGaskey	Deputy Assistant OEP	Natchitoches Parish Sheriff's Office	lamarr@npsherifrf.net
Stuart Wright	Sheriff/OEP Director	Natchitoches Parish Sheriff's Office	swright@npsheriff.net
John Richmond	Parish President	Natchitoches Parish Government	jrichmond@npgov.org
Nick Verret	Parish/City Engineer	Natchitoches Parish Government	nverret@npgov.org
Edd Lee	Director	City of Natchitoches	elee@natchitochela.gov
Ronnie Williams	Mayor	City of Natchitoches	rwilliamsjr@natchitochesla.gov
Donna Horn	Mayor	Village of Ashland	donnah@thepricecompanies.com
Laron Winslow	Mayor	Town of Campti	laron_winslow@yahoo.com
Jennifer Smith	Mayor	Village of Goldonna	mayorsmith2019@yahoo.com
Leslie Oglesby	Mayor	Village of Clarence	loglesby@villageofclarence.org
Randy Dupree	Mayor	Village of Provencal	dupreetammy45@yahoo.com
Bobby Behan	Mayor	Village of Robeline	bbhean@45@att.net
Jamike Neal	Mayor	Village of Powhatan	mayorneal2022@gmail.com
Patsy Ward Hoover	Mayor	Village of Natchez	patsywardhooverpcd2@gmail.com
Monique Sarpy	Aldermen	Village of Natchez	monique.hamilton@pilgrims.com
Reed Franklin	Alderman	Village of Goldonna	reedfranklin@yahoo.com

Capability Assessment

Unincorporated Natchitoches Parish

Capability Assessment Worksheet - Natchitoches Parish		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	**Yes/No**	**Comments**
Comprehensive / Master Plan	No	
Capital Improvements Plan	No	
Economic Development Plan	Yes	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	Yes	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	**Yes/No**	**Comments**
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	No	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	No	
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	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	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	Yes	
Civil Engineer	Yes	
GIS Coordinator	Yes	
Grant Writer	No	
Other	No	
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
Hazard Data & Information		
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	Yes	
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.	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	No	
Firewise Communities certification		
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Village of Ashland

Capability Assessment Worksheet - Ashland		
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	No	
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	No	
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	
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	
Fire Department ISO/PIAL rating	Yes	
Site plan review requirements	Yes	
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	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	No	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	No	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	Yes	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
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	No	
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	L.G.A.P.

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

Town of Campti

Capability Assessment Worksheet - Campti		
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	Yes	
Fire Department ISO/PIAL rating	5	
Site plan review requirements	Yes	
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	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	No	
Mitigation Planning Committee	Yes	
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		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
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	No	
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	CWEP	

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	Yes	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	No	
Other	No	

Village of Clarence

Capability Assessment Worksheet - Clarence		
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	No	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	6	
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	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	No	
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	No	
Community Planner	Yes	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	Yes	
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
Hazard Data & Information	No	
Grant Writing	No	
Hazus Analysis	No	
Other		

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	**Yes/No**	**Comments**
Capital Improvements project funding	Yes	
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric services	Yes	
Impact fees for new development	No	
Stormwater Utility Fee	Yes	
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.	Yes	
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 Goldonna

Capability Assessment Worksheet - Goldonna		
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	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	8	
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	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	No	
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	No	
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
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-Grants	

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

Village of Natchez

Capability Assessment Worksheet - Natchez		
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	Yes	
Fire Department ISO/PIAL rating	4	
Site plan review requirements	Yes	
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)	Yes	
Flood Insurance Rate Maps	Yes	
Acquisition of land for open space and public recreation uses	Yes	
Other		

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	**Yes/No**	**Comments**
Planning Commission	Yes	
Mitigation Planning Committee	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	Yes	
Civil Engineer	Yes	
GIS Coordinator	Yes	
Grant Writer	Yes	
Other	No	
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
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	Yes	
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.	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	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	Yes	
Other	No	

City of Natchitoches

Capability Assessment Worksheet - Natchitoches		
Local mitigation capabilities are existing authorities, polices and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.		
Planning and Regulatory		
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.		
Plans	**Yes/No**	**Comments**
Comprehensive / Master Plan	Yes	
Capital Improvements Plan	Yes	
Economic Development Plan	Yes	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	Yes	
Transportation Plan	Yes	
Stormwater Management Plan	Yes	
Community Wildfire Protection Plan	Yes	
Other plans (redevelopment, recovery, coastal zone management)	No	
Building Code, Permitting and Inspections	**Yes/No**	**Comments**
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Score	Yes	
Fire Department ISO/PIAL rating	2	
Site plan review requirements	Yes	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	Yes	
Subdivision Ordinance	Yes	
Floodplain Ordinance	Yes	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	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	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	
Staff	**Yes/No**	**Comments**
Chief Building Official	Yes	
Floodplain Administrator	Yes	
Emergency Manager	Yes	
Community Planner	Yes	
Civil Engineer	Yes	
GIS Coordinator	Yes	
Grant Writer	Yes	
Other		
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
Hazard Data & Information	Yes	
Grant Writing	Yes	
Hazus Analysis	No	
Other	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	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	
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	
Other	No	

Village of Powhatan

Capability Assessment Worksheet - Powhatan		
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	No	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	10	
Site plan review requirements	No	
Land Use Planning and Ordinances	**Yes/No**	**Comments**
Zoning Ordinance	No	
Subdivision Ordinance	No	
Floodplain Ordinance	No	
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	

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)	No	
Staff	**Yes/No**	**Comments**
Chief Building Official	No	
Floodplain Administrator	No	
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)	Yes	
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	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 Provencal

Capability Assessment Worksheet - Provencal		
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	5	
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	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	No	
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	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)	Yes	
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	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 Robeline

Capability Assessment Worksheet - Robeline		
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	No	
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire Department ISO/PIAL rating	6	
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	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	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	
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	**Yes/No**	**Comments**
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	
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	No	
Fees for water, sewer, gas, or electric services	Yes (Sewer)	
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	

Building Inventory

Natchitoches Parish and Jurisdiction Owned Building Information								
Unincorporated Natchitoches Parish								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Marthaville Elementary & Junior High School	Education	10800 Louisiana 120	Marthaville	31.74004662	-93.39883027	6,694,188	1945	Concrete
Natchitoches Parish Fire District Station 5	Fire Search and Rescue	1809 Hwy 118 Par Road 64	Kisatchie	31.41561238	-93.1760643	75,000	2015	Metal
Natchitoches Parish Fire District 1 Station No. 5	Fire Search and Rescue	Janie-Groum Rd	Lena	31.50011737	-92.77966953	100,000	2002	Metal
Natchitoches Parish Fire District 7 Station	Fire Search and Rescue	Nearby: 10605 Louisiana 120	Marthaville	31.73843349	-93.3906251	175,000	2005	Metal
Natchitoches Parish Fire District 7 Station 4	Fire Search and Rescue	Nearby: 368 Louisiana 1221	Marthaville	31.78227248	-93.42222667	150,000	1987	Metal
Natchitoches Parish Fire District 7 Station 5	Fire Search and Rescue	Nearby: 100-158 Louisiana 487	Marthaville	31.87532057	-93.38721898	150,000	2006	Concrete
Natchitoches Parish Fire District 2	Fire Search and Rescue	Near Kisatchie National Forest	Readhimer	32.10330226	-92.99545638	10,000	1987	Metal
Natchitoches Parish Fire District 1 Station 4	Fire Search and Rescue	Hwy 119	Melrose	31.60333714	-92.97012098	85,000	1988	Metal
Natchitoches Parish Fire District 1	Fire Search and Rescue	159 Emmanuel Rd	Cloutierville	31.53383243	-92.91604075	75,000	1974	Metal
Natchitoches Parish Fire District 1	Fire Search and Rescue	153 Melle St	Natchitoches	31.69575913	-93.02160973	50,000	1976	Metal
Natchitoches Parish Fire District 1 Station 5	Fire Search and Rescue	Hwy 490	Marco	31.50018987	-92.77964727	50,000	1992	Metal
Natchitoches Parish Fire District 1	Fire Search and Rescue	Hwy 119	Gorum	31.43280375	-92.93944257	50,000	1982	Metal
Natchitoches Parish Fire District 5 Volunteer Fire Department	Fire Search and Rescue	11372 Hwy 1	Cypress	31.608314	-93.03012905	80,000	1995	Metal
Parish Trash Dump	Civil Government	Nearby: 1074-1268 Louisiana 153	Ashland	32.11872022	-93.09655322	20,000	2006	Metal
Natchitoches Parish Dumpsite	Civil Government	Nearby: 189 Many Marthaville Road	Marthaville	31.73914822	-93.39778242	20,000	2007	Metal
Natchitoches Parish Fire District 8	Fire Search and Rescue	Nearby: Louisiana 155/153	Ashland	32.13369454	-93.0978156	2,500	1995	Metal
Lakeview High School	Education	7305 Louisiana 9	Campti	31.92355116	-93.0876374	18,873,577	1998	Concrete

Fairview Alpha Elementary	Education	1439 Hwy 71	Campti	31.93897253	-93.15047501	18,699,673	2013	Concrete
Natchitoches Parish Fire District 9 Station	Fire Search and Rescue	2233 Campti Bayou Road	Campti	31.92396162	-93.0438068	6,000	1984	Metal
Natchitoches Parish Fire District 9 Station	Fire Search and Rescue	1016 Hwy 71/84	Campti	31.89070324	-93.11345461	6,000	1984	Metal
Natchitoches Parish Fire District 2	Fire Search and Rescue	1017 U.S. 71	Campti	31.98109587	-93.05156864	50,000	1985	Metal
Natchitoches Parish Fire District 8	Fire Search and Rescue	4400 Hwy 153	Saline	32.02447023	-93.08498251	75,000	1995	Metal
Natchitoches Parish Sheriff's Office North Substation	Law Enforcement	Nearby: 132-178 Lake Street	Campti	31.90229435	-93.11456544	63,000	1987	Concrete
Parish Trash Dump	Civil Government	Nearby: 570-718 Par Road 317	Campti	31.92935577	-93.04606377	40,000	2006	Metal
Natchitoches Parish Library	Education	3129 U.S. Highway 71	Campti			7,808,280	2016	Metal
Natchitoches Parish Fire Department 6 Station 3	Fire Search and Rescue	353 Louisiana 6	Natchitoches	31.76225221	-93.15347249	85,000	2000	Metal
Natchitoches Parish Fire District 6 Station 2	Fire Search and Rescue	164 Larid Fletcher	Natchitoches	31.79195128	-93.19156348	100,000	2008	Metal
Natchitoches Parish Fire District 6 Station 1	Fire Search and Rescue	743 Hwy 504	Natchitoches	31.80269955	-93.08879386	200,000	2015	Metal
Natchitoches Parish Fire District 6 Station 5	Fire Search and Rescue	St. Luke Rd	Natchitoches	31.7919487	-93.19160727	40,000	1995	Metal
Goldonna Elementary/Jr. High	Education	248 Ash St.	Goldonna	32.019146	-92.91001803	6,299,996	1960	Concrete
Natchitoches Parish Fire District 2	Fire Search and Rescue	Nearby: Kisatchie National Forest	Goldonna	32.01737408	-92.90725271	10,000	1987	Metal
Natchez Fire Station	Fire Search and Rescue	181 Main Street	Natchez	31.67307014	-93.04435142	50,000	1950	Concrete
Volunteer Fire Department	Fire Search and Rescue	3343 Hwy 478	Provencal	31.61213617	-93.09858028	200,000	2009	Metal
Natchitoches Junior High-Frankie Ray Jackson	Education	1621 Welch St.	Natchitoches	31.78095383	-93.09997965	13,619,013	1970	Concrete
Natchitoches Magnet School	Education	3707 University Parkway	Natchitoches	31.7536618	-93.10041612	5,482,541	1950	Concrete
Louisiana School for Math, Science, and the Arts	Education	715 University Parkway	Natchitoches	31.75264954	-93.09590763	20,500,00	1950	Concrete
M.R. Weaver Elementary	Education	520 St. Maurice Ln.	Natchitoches	31.76480445	-93.07696832	9,112,751	1945	Concrete
East Natchitoches Elementary	Education	1001 E 5th St	Natchitoches	31.76703585	-93.07727058	8,338,696	1940	Concrete
Natchitoches Central High School	Education	6513 Hwy 1 S Bypass	Natchitoches	31.74534924	-93.10831804	31,982,665	1975	Concrete
L.P. Vaughn Elementary	Education	1500 Gold Street	Natchitoches	31.7804797	-93.0972878	15,168,114	1954	Concrete

Provencal Elementary/Jr. High School	Education	132 Cherry Street	Provencal	31.65426377	-93.20361429	6,055,955	UNK	Concrete
NSU Lab School	Education	100 Tarlton Dr. Tec Bldg Pod A	Natchitoches	31.74981403	-93.09260463			
Ambulance Service	Emergency Medical Services	Nearby: 281-499 Old Louisiana 6	Natchitoches	31.72099008	-93.17065906	45,000	2010	Metal
Natchitoches Parish District 6 Fire & Rescue Station 4	Fire Search and Rescue	356 Old Hwy 6	Natchitoches	31.72067155	-93.17102824	65,000	2005	Metal
Natchitoches Parish Fire District 3 Station	Fire Search and Rescue	330 Hwy 6	Natchitoches	31.82165925	-93.03900009	n/a		
Natchitoches Parish Fire District 10 Station	Fire Search and Rescue	140 Hwy 485	Powhattan	31.87194111	-93.20239434	75,000	1998	Metal
Fire Training Center	Fire Search and Rescue	6587 Hwy 1 Bypass	Natchitoches	31.74419895	-93.10830829	250,000	1198	Metal
Natchitoches Parish Sheriff's Office CID	Law Enforcement	Nearby: 331 Lafayette Street	Natchitoches	31.76332949	-93.0898679	250,000	1970	Concrete
Natchitoches Parish Sheriff's Office Corrections Division	Prisons and Correctional Facilities	299 Edwina Dr	Natchitoches	31.73224339	-93.10079723	5,200,000	1995	Concrete
Natchitoches Parish Dumpsite	Civil Government	Nearby: 6710 Louisiana 6	Natchitoches	31.71584654	-93.21608038	50,000	2006	Metal
Natchitoches Parish Dumpsite	Civil Government	Nearby: 161-199 8 Mile Loop	Natchitoches	31.76759866	-93.15606493	50,000	2006	Metal
Natchitoches Parish Compactor Station	Civil Government	Nearby: 4521-4847 Louisiana 1	Natchitoches	31.79397575	-93.14495542	100,000	2007	Metal
Natchitoches Recycling Center	Civil Government	1427 Texas Street	Natchitoches	31.74707171	-93.08728895	N/a	n/a	
Natchitoches Housing Authority	Civil Government	536 Culbertson Lane	Natchitoches	31.76081351	-93.09012455	2,250,000	1969	Concrete
Natchitoches Parish City Works	Civil Government	110 Mill Street	Natchitoches	31.77074908	-93.09497252	4,000,00.00	1943	Metal
Natchitoches Housing Authority	Civil Government	536 Culbertson Lane	Natchitoches	31.75684359	-93.07753707	2,500,000	1969	Concrete
Natchitoches Tax Commission	Civil Government	220 East 5th Street	Natchitoches	31.75455929	-93.07945109	1,500,000	1975	Concrete
Natchitoches School Board	Civil Government	310 Royal Street	Natchitoches	31.74240022	-93.08228821	2,512,493	1970	Concrete
Natchitoches School Board-Media Center	Civil Government	310 Royal Street	Natchitoches	31.74874278	-93.08095493	2,500,000	1978	Concrete
Natchitoches Chamber of Commerce	Civil Government	780 Front Street #101	Natchitoches	31.76307532	-93.08605869	100,000	2014	Concrete
Natchitoches Parish Courthouse	Civil Government	200 Church Street # 104	Natchitoches	31.76128569	-93.08849359	10,000,000	1938	Concrete

Natchitoches Parish Department of Social Services - Office of Family Support	Civil Government	106 Charlene Street	Natchitoches	31.77890569	-93.10522858	2,500,000	2011	Concrete
Natchitoches Parish Department of Social Services - Office of Support Enforcement Services	Civil Government	1774 Texas Street	Natchitoches	31.77495814	-93.10685668	2,500,000	1,988	Concrete
Natchitoches Parish Council on Aging	Civil Government	1016 Keyser Avenue	Natchitoches	31.75287908	-93.06138985	1,175,443	2016	Concrete
Natchitoches Parish Fire District 4 (Bellwood) Station 4	Fire Search and Rescue	135 Bellwood Church Rd.	Robeline	31.52737436	-93.21004865	35,000	2016	Metal
Natchitoches Parish Fire District 7 Station 1	Fire Search and Rescue	201 Pine Street	Robeline	31.6887519	-93.30248483	250,000	1960	Metal
Natchitoches Parish Fire District 4 Station 6	Fire Search and Rescue	Central Loop	Robeline	31.65240216	-93.32196507	50,000	2014	Metal
Natchitoches Parish Fire District 4 Station 1	Fire Search and Rescue	1933 Hwy 117	Provencal	31.65232054	-93.20181988	75,000	2009	Metal
Natchitoches Parish Fire District 7 Station 3	Fire Search and Rescue	Nearby: 4301-4311 Louisiana 485	Robeline	31.78613436	-93.2850108	150,000	1985	Metal
Natchitoches Parish Health Unit	Public Health	625 Bienville Circle	Natchitoches	31.75131484	-93.0758154			
Red River Waterway Commission Headquarters	Civil Government	5941 Hwy 1 Bypass	Natchitoches	31.76647932	-93.10808242	816,400	1994	Concrete
Natchitoches Regional Medical Center	Public Health		Natchitoches	31.75216595	-93.07806538			
District Attorney's Office	Civil Government	200 Church Street # 207	Natchitoches	31.76147529	-93.08797061			

Village of Ashland								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Ashland Village Hall	Civil Government	521 Highway LA 153	Ashland	32.14159417	-93.09834815		1976	Concrete
Ashland Police Department	Law Enforcement	521 Highway LA 153	Ashland	32.14159417	-93.09834815		1976	Concrete
Town Pavillion	Community Events	719 Highway 153	Ashland			20,000	2014	Metal

Town of Campti								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Unknown Volunteer Fire Department	Fire Search and Rescue	Nearby: 1027 U.S. 71	Campti	31.95213775	-93.1618769			
Campti Police Department	Law Enforcement	218 Edenborne St.	Campti	31.88935096	-93.11587924	150,000	1972	Concrete
Campti Town Hall	Civil Government	3060 Hwy 71	Campti	31.89587763	-93.11364126	150,000	1985	Concrete
Town of Campti Administrative Office	Civil Government	197 Edenborne St	Campti	31.88938473	-93.11493377			
Campti Municipal Building	Civil Government	218 Edenborne St	Campti	31.88935096	-93.11587924	150,000	1857	Concrete

Village of Clarence								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Clarence Village Hall	Civil Government	6004 US Hwy 71	Clarence	31.81944848	-93.02672119	$60,000	1973	Concrete
Clarence Police Department	Law Enforcement	6004 US Hwy 71	Clarence	31.81944848	-93.02672119	$60,000	1973	Concrete

Village of Goldonna								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Goldonna Village Hall	Civil Government	3159 Main St	Goldonna	32.01685433	-92.90700499	$100,00	1975	Concrete
Goldonna Police Department	Law Enforcement	3159 Main St	Goldonna	32.01685433	-92.90700499	$100,00	1975	Concrete

Village of Natchez								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Natchez Village Hall	Civil Government	181 Main Street	Natchez	31.67231576	-93.04839305	$100,000	1950	Concrete
Natchez Police Department	Law Enforcement	181 Main Street	Natchez	31.67231576	-93.04839305	$100,000	1950	Concrete

City of Natchitoches								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Natchitoches Police West Substation	Law Enforcement	Nearby: 1219 Dean Street	Natchitoches	31.76660828	-93.10235591	n/a	n/a	
Community Oriented Police Station	Law Enforcement	Nearby: 416 Shady Lane	Natchitoches	31.75720065	-93.07755282	500,000	1970	Concrete
Natchitoches Police Department	Law Enforcement	Nearby: 400 Amulet Street	Natchitoches	31.75840304	-93.09151383	836,000	1985	Concrete
Natchitoches City Marshal's Office	Law Enforcement	Nearby: 373 2nd Street	Natchitoches	31.75760457	-93.08890833	150,000	1960	Concrete
Office of Community Services	Civil Government	400 University Parkway	Natchitoches	31.76044482	-93.09142843	n/a	n/a	
City of Natchitoches Purchasing Department	Civil Government	1400 Sabine Street	Natchitoches	31.77198212	-93.0969917	1,100,000	1992	Metal
City of Natchitoches Garage & Maintenance	Civil Government	684 Louisiana 3191	Natchitoches	31.7716919	-93.09658631	300,000	1992	Metal
City of Natchitoches Public Works Department	Civil Government	110 Mill Street	Natchitoches	31.74880768	-93.08709705	4,000,000	1940	Metal
Natchitoches City Hall	Civil Government	Nearby: 200-240 Saint Denis Street	Natchitoches	31.76194941	-93.08802251	600,000	1982	Concrete
Natchitoches Regional Airport	Commercial or Private Airport	Nearby: Natchitoches Regional Airport (IER)	Natchitoches	31.73550271	-93.09825907	2,800,000	1990	Metal
Natchitoches Parish Library	Education	450 2nd Street	Natchitoches	31.75931234	-93.08865313	4,570,757	1970	Concrete
City of Natchitoches Central Fire Station	Fire Search and Rescue	578 2nd Street	Natchitoches	31.76084728	-93.08810877	800,000	1951	Concrete
City of Natchitoches Fire Station 2	Fire Search and Rescue	629 East 5th St.	Natchitoches	31.76244698	-93.07807085	400,000	1960	Concrete
City of Natchitoches Fire Station 3	Fire Search and Rescue	615 Martin L. King, Jr. Dr	Natchitoches	31.76196513	-93.0950398	258,000	1960	Concrete
Department of Public Safety	Civil Government	10 Bienville Street	Natchitoches	31.76664568	-93.0892407			

Village of Powhatan								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Powhatan Town Hall	Civil Government	Louisiana 480	Powhatan	31.87316136	-93.19907742		1960	Concrete
Powhatan Police Department	Law Enforcement	Louisiana 480	Powhatan	31.87316136	-93.19907742		1960	Concrete

Village of Provencal								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Provencal Village Hall	Civil Government	1968 Louisiana 117	Provencal	31.65160016	-93.20290056	$200,000	1940	Concrete
Provencal Police Department	Law Enforcement	1968 Louisiana 117	Provencal	31.65154083	-93.20296766	$200,000	1940	Concrete
Provencal Community Center	Community Usage		Provencal					

Village of Robeline								
Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Construction Type
Robeline Police Department	Law Enforcement	9069 Texas St	Robeline	31.6909979	-93.30364587		1920	Concrete
Robeline Municipal Building and City Hall	Civil Government	122 Depot St	Robeline	31.69218461	-93.30407345		1947	Concrete
Robeline Municipal Annex	Civil Government	9063 Texas St	Robeline	31.69104172	-93.30358362		1920	Concrete

Vulnerable Populations

Vulnerable Populations Worksheet					
Natchitoches Parish and Jurisdictions					
All Hospitals (Private or Public)	**Street**	**City**	**Zip Code**	**Latitude**	**Longitude**
Wheat Medical Center	138 East 5th Street	Natchitoches	71457	31.74890401	-93.0799536
Outpatient Medical Centers	1640 Breazeale Springs Street	Natchitoches	71457	31.78096912	-93.10319152
North Natchitoches Medical Center Walk-in Clinic	3194 US Highway 71	Campti	71411	31.89240724	-93.11241092
Natchitoches Regional Medical Center	501 Keyser Avenue	Natchitoches	71457	31.75216069	-93.07789546
Nursing Homes (Private or Public)	**Street**	**City**	**Zip Code**	**Latitude**	**Longitude**
Natchitoches Assisted Living Home	1907 South Drive	Natchitoches	71457	31.72862598	-93.07100587
Natchitoches Rehabilitation and Nursing Center	720 Keyser Avenue	Natchitoches	71457	31.75398957	-93.07020232
Natchitoches Community Care Center	720 Keyser Avenue	Natchitoches	71457	31.7537697	-93.07360096
Courtyard of Natchitoches (NRMC)	708 Keyser Avenue	Natchitoches	71457	31.75386933	-93.07458792
Mobile Home Parks	**Street**	**City**	**Zip Code**	**Latitude**	**Longitude**
Unknown Trailer Park	Nearby: 3204 U.S. 71	Campti	71411	31.89346353	-93.11286262
Unknown Trailer Park	Nearby: Fisher Street	Campti	71411	31.90240195	-93.11203302
Unknown Trailer Park	Nearby: 349 U.S. 84	Campti	71411	31.89819762	-93.11253332
Unknown Trailer Park	Nearby: Louisiana 9	Campti	71411	31.91074117	-93.10982832
Christel Park	152 Jim Bell Road	Campti	71070	31.9413136	-93.06167782
Country Heaven RV Resort	5780 Louisiana 9	Campti	71070	31.96055418	-93.0480082
Unknown	Nearby: 13605 Louisiana 1	Derry	71416	31.54273905	-92.95917877
Country Livin' RV Park	1115 Louisiana 174	Marthaville	71450	31.88228449	-93.37390134
Travis' RV Park	399 Mac D Craft Road	Mink	71468	31.42439944	-93.17950613
Unknown	115-117 Fred Bolton Road	Mora	71416	31.42081264	-93.00236587
Nakatosh RV Park	5428 Louisiana 6	Natchitoches	71457	31.72730288	-93.16341831
Magnolia Hills RV Park	143 R.H. Bills Road	Natchitoches	71457	31.71297922	-93.18652852
Unknown Trailer Park	Nearby: 504-564 Louisiana 504	Natchitoches	71457	31.76929599	-93.15516042
St. Luke RV Park	181 Saint Luke Church Road	Natchitoches	71457	31.79028412	-93.19216996
Dogwood Ridge RV Park	5060 Louisiana 3278	Natchitoches	71457	31.73422856	-93.14995274
Briarwood Mobile Home Park	Nearby: 118 Evangeline Drive	Natchitoches	71457	31.73446049	-93.14454274
Unknown Mobile Home Park	Nearby: Evangeline Drive	Natchitoches	71457	31.73534508	-93.14268727

Hwy 6 Trailer Park	Nearby: 4431 Louisiana 3278	Natchitoches	71457	31.74262219	-93.12923058
Bayou Vista Mobile Home Park	515 Fairgrounds Road # 4	Natchitoches	71457	31.73278391	-93.09306097
Bayou Blue Mobile Home Park	Nearby: Lebleu Drive	Natchitoches	71457	31.7359641	-93.08936657
Bayou Gin Mobile Home Park	440 Fairgrounds Road	Natchitoches	71457	31.73760611	-93.09118678
Unknown Mobile Home Park	Nearby: Glass Street	Natchitoches	71457	31.73196917	-93.07453412
Unknown Mobile Home Park	Nearby: 1019 Clarence Drive	Natchitoches	71457	31.73345059	-93.07233664
Unknown Trailer Park	Nearby: 1887-1909 Natchitoches-Winnfield Rd	Natchitoches	71457	31.80419998	-93.08722157
Morgan's RV Park	1058 Par Road 429	Natchitoches	71457	31.83949693	-93.10304102
Bayou Blue Mobile Home Community	Nearby: Tjoe Street	Natchitoches	71457	31.73746377	-93.08806934
Bayou Gin Mobile Home Community	440 Fairgrounds Road	Natchitoches	71457	31.73773782	-93.09134357
Trailer Park	1815 South Drive #1332	Natchitoches	71457	31.70211664	-93.02925003
Trailer Park	1815 South Drive #1332	Natchitoches	71457	31.75497188	-93.06093677
Nakatosh Campgrounds	5428 Louisiana 6	Natchitoches	71457	31.76789446	-93.10946631
Mayberry Trailer Park	Nearby: 1641 Sabine Street	Natchitoches	71457	31.77772427	-93.1047099
Winterhaven Trailer Park	Nearby: 2318 Louisiana 6	Natchitoches	71457	31.78878209	-93.0865537
Natchez Place Apartments	Hwy 119	Natchez	71456		
Victoria Trailer Park	Robeline/Provencal Rd	Provencal	71468		

National Flood Insurance Program (NFIP)

National Flood Insurance Program (NFIP)										
	Unincorporated Natchitoches Parish	Village of Ashland	Town of Campti	Village of Clarence	Village of Goldonna	Village of Natchez	City of Natchitoches	Village of Powhatan	Village of Provencal	Village of Robeline
Insurance Summary										
How many NFIP polices are in the community? What is the total premium and coverage?	# of Policies: 333; Total Premiums: $197,323; Total Coverage: $73,150,800	# of Policies: 2; Total Premiums: $1,842; Total Coverage: $319,000	# of Policies: 1; Total Premiums: $413; Total Coverage: $280,000	# of Policies: 41; Total Premiums: $25,537; Total Coverage: $3,134,000	# of Policies: 1; Total Premiums: $561; Total Coverage: $34,000	# of Policies: 10; Total Premiums: $3,591; Total Coverage: $1,136,700	# of Policies: 122; Total Premiums: $84,160; Total Coverage: $35,479,700	Not Participating in NFIP	# of Policies: -0-; Total Premiums: $ -0-; Total Coverage: $ -0-	# of Policies: 2; Total Premiums: $1,587; Total Coverage: $455,000
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?	# of Paid Claims: 429; Total Amount of Paid Claims: $8,342,885; # of SD: 76	# of Paid Claims: -0-; Total Amount of Paid Claims: -0-; # of SD: -0-	# of Paid Claims: 1; Total Amount of Paid Claims: $3,320; # of SD: -0-	# of Paid Claims: 51; Total Amount of Paid Claims: $367,433; # of SD: 6	# of Paid Claims: -0-; Total Amount of Paid Claims: -0-; # of SD: -0-	# of Paid Claims: 11; Total Amount of Paid Claims: $131,903; # of SD: 1	# of Paid Claims: 62; Total Amount of Paid Claims: $1,001,524; # of SD: 4	Not Participating in NFIP	# of Paid Claims: -0-; Total Amount of Paid Claims: $ -0-; # of SD: -0-	# of Paid Claims: 5; Total Amount of Paid Claims: $52,393; # of SD: -0-
How many structures are exposed to flood risk within the community?	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Not Participating in NFIP	Unknown	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	None	None	None	None	None	None	None	Not Participating in NFIP	None	None
Staff Resources										
Is the Community FPA or NFIP Coordinator certified?	No	No	No	No	No	No	No	No	No	No
Is flood plain management an auxiliary function?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)										

What are the barriers to running an effective NFIP program in the community, if any?	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in	Cost; Staffing; Community Buy-in
Compliance History										
Is the community in good standing with the NFIP?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Are there any outstanding compliance issues (i.e., current violations)?	No	No	No	No	No	No	No	N/A	No	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV: 11/07/2014; CAC: 5/15/2007	CAV: N/A; CAC: N/A	CAV: 3/5/2003; CAC: 5/13/2009	CAV: 5/13/2009; CAC: 5/16/2007	CAV: 11/16/2004; CAC: 8/5/2004	CAV: 10/15/2015; CAC: 10/15/2015	CAV: 3/13/2014; CAC: 5/10/2004	N/A	CAV: 3/13/2003; CAC: 10/15/2015	CAV: 6/28/2005; CAC: 2/12/2004
Is a CAV or CAC scheduled or needed? If so when?	No	No	No	No	No	No	No	N/A	No	No
Regulation										
When did the community enter the NFIP?	Emergency: 5/10/1973; Regular: 9/18/1987	Emergency: N/A; Regular: 8/24/2016	Emergency: 8/28/1992; Regular 7/3/2003	Emergency 3/8/1976; Regular 9/18/1987	Emergency: 4/2/1981; Regular: 6/29/1982	Emergency: 9/29/1975; Regular: 9/18/1987	Emergency: 4/17/1974; Regular: 9/18/1987	N/A	Emergency: 6/27/1975; Regular: 11/1/1992	Emergency: 8/11/1975; Regular: 8/5/1985
Are the FIRMs digital or paper?	Digital	Digital	Digital	Digital	Digital	Digital	Digital	N/A	Digital	Digital
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes
Community Rating System (CRS)										
Does the community participate in CRS?	No	No	No	No	No	No	No	N/A	No	No
What is the community's CRS Class Ranking?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Does the plan include CRS planning requirements?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A